

Concise Explanatory Statement

Group 2 Washington State Energy Code, Residential Provisions

WAC 51-11-R

The final adopted rule can be found at:

https://sbcc.wa.gov/sites/default/files/2023-01/2021_WSEC-R_CR103_combined.pdf

Differences between the Proposed Rule and the Adopted Rule:

WAC 51-11R-20218: The definition of **RESIDENTIAL BUILDING** was modified to include amended language for Group R-2 that was erroneously left out of the initial draft.

WAC 51-11R-40211: Table R402.1.2 **Insulation and Fenestration Requirements by Component** was modified to retain the 0.30 U-Factor from the previous code.

WAC 51-11R-40213: Table R402.1.3 **Equivalent U-Factors** was modified to retain the 0.30 U-Factor from the previous code.

WAC 51-11R-40240: Section R402.4.1.3.1 **Dwelling unit leakage rate** was modified to change from the proposed 3.0 air changes per hour to 4.0 air changes per hour. The previously adopted rate was 5 ACH.

WAC 51-11R-40320: Section R403.3.4.1 **Sealed air handler** was modified to remove the changes pertaining to requiring the air handler to be installed in conditioned space.

WAC 51-11R-40551: Table R405.4.2(1) **Specifications for the Standard Reference and Proposed Designs**, under Air exchange rate, the standard reference design was changed to 4.0 air changes per hour to correlate with the change in WAC 51-11R-40240.

WAC 51-11R-40610: Option 2 was selected as the path moving forward for Section R406, Additional energy efficiency requirements.

Table R406.2 Fuel Normalization Credits was modified to correct the credit numbers, as the original filing had the rows switched around. The heading of the table was also edited for clarity, and section references were corrected.

Table R406.3 was modified to provide the missing credit numbers for Option 3.9, some clarifying language was added to the heading for the High Efficiency HVAC Equipment Options and associated footnote c. Footnote e was also added to this section to clarify the intent of “primary living areas.”

Public Comments Received and Responses

From	Comment/Subject	Response
Minority Report	<p>Specific Proposals Summarized within Minority Reports Include...</p> <ul style="list-style-type: none"> • 21-GP2-052 – “Emissions Factors for Electricity” • 21-GP2-065 – “Heat Pump Space Heater” • 21-GP2-066 – “Heat Pump Water Heater” • 21-GP2-073 – “Modifications to Section R406” (Credits Table) • 21-GP2-080 – “Water Heater Install Location” <p>We strongly encourage SBCC members to review the content of these proposals prior to the final voting meeting scheduled in October. For SBCC members that were not present in these TAG meetings, the content of these Minority Reports contains valuable insight to the decision-making process within those meetings not documented in the meeting minutes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. The Council received comments indicating that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <ul style="list-style-type: none"> • 21-GP2-052: The Council reviewed the carbon emission factors in the proposal, including the electricity metric, and determined that retention of the proposed values in the adopted emissions table was the best alternative at this time. The metric for electricity is consistent with the commercial energy code value and in alignment with the Clean Energy Transformation Act, Clean Buildings law and the Office of Financial Management’s cost tool.

From	Comment/Subject	Response
		<ul style="list-style-type: none"> • 21-GP2-065: This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards achieving the goal of reducing annual net energy consumption for residential construction by 70 percent in 2031 as mandated under RCW 19.27A.160. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than impacting the electrical grid all at once. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources. • 21-GP2-066: This proposal does not eliminate gas as a source of hot water. While gas is prohibited, for the most part, as the primary source of water heating it is allowed as a supplemental source. It is also allowed in smaller dwellings 1,000 square feet or less of conditioned space. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will

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		<p>allow ample opportunity for utilities to manage their resources.</p> <ul style="list-style-type: none"> • 21-GP2-073: The Council moved forward with the adoption of Option 2 for the Fuel Normalization table and the credit options table. This version of the table does not provide credit for the code baseline heat pump space heating system. Option 1 contained that credit because that version of the table had gas heat at the baseline. Option 2 of R406 also requires fewer credits to be achieved than in Option 1, since it takes into account all of the other gains made in the prescriptive portion of the code. • 21-GP2-080: The Council adopted the requirements for water heater installation, with no additional modifications made to the language. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.
Affordable Housing Advocates	<p>We, the undersigned affordable housing advocates, service providers and developers write to urge you to adopt the proposed residential building code updates. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

From	Comment/Subject	Response
<p>Donna Albert October 14 Public Hearing</p>	<p>Please implement the proposed code updates that require highest efficiency heat pumps for space and water heating, and greatly improved ventilation for kitchens that use fossil gas (also known as natural gas).</p> <p>Support WSEC-R: Heat Pump proposals</p> <p>Please adopt the updates. All electric homes are safer for the climate and healthier for occupants. There are other harmful chemicals in gas leaks that can asphyxiate, poison, catch fire or explode. Electrification is an important part of an effective greenhouse gas reduction strategy that also has health and safety benefits.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Steve Albrecht October 14 Public Hearing</p>	<p>Support WSEC-R: Electrification and Heat Pump Proposals</p> <p>Much of the comments today has addressed how important it is to adopt these updates. No free lunches—we cannot burn fossil fuel without paying a price. Penny-wise and pound foolish, quality costs ten percent less, and it's less work if you do it right the first time. We've made a mess of our environment and our climate, and it is time to clean it up.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders.</p>

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Ryan Albrecht October 14 Public Hearing	Oppose WSEC Looking at an energy strategy to meet a guideline that is out of reach. Taking away too many options. Consumers need opportunities to make choices about energy. Supply issues around windows. Go back to 5 ACH. Bring back deeply buried duct option.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, with some important changes. The heat pump requirements were adopted as proposed. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. The adoption also included moving forward with Option 2 for Section R406. This reduces the overall number of credits required to be achieved. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. No additional credit options were included, however.
Alliance for Community Engagement	ACE strongly urges the SBCC to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.

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<p>Ray Allshouse City of Shoreline</p> <p>October 14 Public Hearing</p>	<p>Support WSEC-R</p> <p>Speaking on behalf of the City Council of Shoreline. We're 100% behind this. The Legislature is depending on your actions to further progress on their energy savings goal. Due to the mini-maxi restrictions on the residential energy code, we look to the council to adopt more stringent requirements that we can't pass locally.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>America is All In Coalition</p>	<p>We, members of the America is All In coalition and citizens of Washington state's broader community, urge you to adopt the full package of proposed residential building code updates put forth for public comment. We strongly support the requirements for heat pump systems in new homes and stricter ventilation for new homes with gas stoves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Coleen Anderson</p>	<p>Support Heat Pump Proposals (065, 066)</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were</p>

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September 29 Public Hearing	In support of heat pumps. Concerned for her grandchildren's health and safety with fossil fuel air pollution. We are seeing more people injured or dying from the effects of the climate crisis. Homes with gas stoves have 50-400 percent higher nitrogen dioxide levels and pose a 42 percent increased risk of asthma. Retrofits are more expensive.	<p>made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Neal Anderson September 29 Public Hearing	<p>Support Heat Pump proposals (065, 066)</p> <p>The gas industry has argued against heat pumps, but hasn't offered details on how they will deliver cleaner, less carbon intensive gas. They're relying on green hydrogen, which is still less efficient than heat pumps, and takes more energy to produce.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed.</p>
Larry Andrews	I would ask not to approve or move forward with 066 heat pump mandates for water heating here are 11 reasons why not to approve.	The Council moved forward with the adoption of the requirement for heat pump water heating. This proposal does not eliminate gas as a source of hot water. While gas is prohibited, for the most part, as the primary source of water heating it is allowed as a supplemental source. It is also allowed in smaller dwellings 1,000 square feet or less of conditioned space. The Council did not feel this adoption was a violation of their statute. As to the impact on the electrical

From	Comment/Subject	Response
		<p>grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
<p>Larry Andrews And September 29 Public Hearing</p>	<p>I would ask not to approve or move forward with 064 and 065 heat pump mandates here are 11 reasons why not to approve.</p>	<p>Proposal 064 was recommended for disapproval by the Technical Advisory Group and was not included in the proposed rule.</p> <p>The Council moved forward with the adoption of the requirement for heat pump space heating. This proposal does not eliminate gas as a heating source for space or water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. The Council did not feel this adoption was a violation of their statute. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The lifecycle cost analysis included the cost for replacement equipment. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products.</p>

From	Comment/Subject	Response
<p>Iris Antman October 14 Public Hearing</p>	<p>People for Climate Action Seattle is writing today to strongly urge the State Building Code Council (SBCC) to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health.</p> <p>Support WSEC-R: Heat Pump proposals</p> <p>I'm urging the council to adopt the updates. The time to end fossil fuel use is now. The consequences of global warming will only get worse. We're reaching the tipping point.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Heidi Antonie</p>	<p>I am writing in regard to a proposal to limit use of Natural Gas in our state. Please do not do this! There is nothing in place to replace it's use for many people. It is an efficient, and in times of power outages especially in winter, a very much needed alternative to electricity. Many rely on this for heating and safety. It is shortsighted to want to eliminate or reduce this choice for citizens who are doing everything they can these days to stay solvent as well as safe. An unelected body or entity should not be allowed to dictate to people what source off energy they use in our communities. It is an abundant and clean energy source! Please do actual research on what we Washingtonians know to be a</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements.</p> <p>This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat, it is allowed as a supplemental heat source, and gas heat pumps are allowed. The requirement is only for new construction and requires retrofit only when the entire heating system is replaced. Individual components may be replaced like for like. The Council felt this was the best path forward towards the mandated 70 percent reduction of energy with the least cost for consumers.</p>

From	Comment/Subject	Response
	<p>necessary safe, clean and efficient spruce of energy, especially with winter coming! What happens if the grid goes down and we have extended periods of power outages like the last few year? Please DO NOT eliminate or reduce the use od Natural Gas!</p>	
Jeff Aslan	<ul style="list-style-type: none"> • Air Leakage Rate: I support the more stringent 3 ACH50 standard as prescribed by the national code. • Building Volume: I support removing this simple volume formula and basing the building volume on the actual volume of the building referred to as the “Infiltration Volume” per the RESNET standard. • Testing Agency Certification: I support third party testing as there is a conflict of interest for a builder or subcontractor to test their own work and there is potential for cheating on the test. Air leakage testing is technical in nature and the person performing the training should have training and be certified. For single family dwellings and townhouses, consider requiring the testing be done by a third-party certified HERS rater or BPI professional. These two certifications are the most widely recognized and used in our industry. 	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, One of the changes made in the final adoption is that the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The adjustment to the actual volume of the tested building was retained, however, as were the requirements that the testers undergo training and be certified by an ANSI-certified training body. Please note that this does not require third party testing, just certification.</p>
Tim Attebery	<p>AGC has grave concerns with regards to adoption of any proposal that seeks to completely replace natural gas with electricity in new construction, thus increasing demand, pushing up costs and increasing the risk of electricity</p>	<p>This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source for both space and water heating, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency</p>

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	<p>shortages especially during peak demand hours. Creating a monopoly is always bad and providing choice for consumers is always good. The AGC representative on the State Building Code Council (SBCC) and AGC staff have listened to many, many hours of pro and con comments with regards to the natural gas ban. Some of the most compelling comments came from the International Brotherhood of Electrical Workers (IBEW). The IBEW stated several times that the electrical grid in the Northwest cannot handle an increased load. Additional large-scale transmission line development and the substation construction needed to handle a heavy increase in capacity will take many years to permit and install.</p>	<p>of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources</p>
Jean Avery	<p>Now is the time to incorporate all-electric technology in our buildings. The opportunity to update and improve our building energy codes happens only once every three years. With climate change and air pollution continuing to increase, we can't wait until 2025. Please act now to move to cleaner buildings -- away from fossil fuels and toward healthier surroundings.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

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		<p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Simon Bakke September 29 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals (065, 066)</p> <p>The time to prepare for a fossil free future is today. Having more homes built with fossil fuel furnaces isn't going to solve the housing affordability crisis. Years of building with gas has not prevented affordability problems. I would love to be able to rent a place with a heat pump so I can cool my home in the summer. More funding is available for clean appliances and energy.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Simon Bakke</p>	<p>Please see the attached 300 community members who added their names to a comment in support of the energy code, heat pump and ventilation proposals. I've attached both a spreadsheet and a PDF for your convenience. Specifically they said: I'm writing to urge you to approve the proposed updates to the</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy</p>

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	Washington State residential energy code to require that new homes be built with high efficiency heat pumps to heat and cool our spaces and water, and with increased ventilation for kitchens that burn polluting gas.	savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Kevin Bannon	The obvious conclusion is it is madness to even consider restricting natural gas as an energy resource. Madness. Give the people at least one small measure of relief from the miseries of our time by rejecting this proposal.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. While gas is prohibited, for the most part, as the primary source of space and water heating it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy and zero emissions with the least cost for consumers.
Deborah Barbee	<p>I oppose 21-GP2-065 and 21-GP2-066. Let each homeowner make their own choice.</p> <p>I oppose 21-GP2-089. Let each homeowner make their own choice.</p> <p>I oppose 21-GP2-032. Let each homeowner make their own choice.</p> <p>I oppose 21-GP2-080. Let each homeowner make their own choice.</p>	<p>21-GP2-065 and 21-GP2-066: The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. While gas is prohibited, for the most part, as the primary source of space and water heating it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy and zero emissions with the least cost for consumers.</p> <p>21-GP2-089: The Council adopted a modification to the air leakage requirements in WAC 51-11R-40240. It was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that</p>

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		<p>achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>21-GP2-032: The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance.</p> <p>21-GP2-080: The Council adopted the requirements for water heater installation, with no additional modifications made to the language. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p>
Katarzyna Barcewicz	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Christie Barchenger	<p>I urge you to adopt the proposed energy codes because this is a change we must make so that children, my daughter included, have a chance at a liveable world.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was</p>

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		<p>modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Randy Bareither	<p>I strongly entreat you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code. People that live and work in WA value Energy Choice. Natural gas is a safe energy source that will keep construction affordable, improve the reliability of our electric grid, ensure I can boil water in a reasonable amount of time, and preserve the lifestyles we all enjoy.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. While gas is prohibited, for the most part, as the primary source of space and water heating it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy and zero emissions with the least cost for consumers.</p>
Mark Barton	<p>I am writing to urge the State Building Codes Council to reconsider moving forward with the proposed changes to the residential building code. As a builder with over 20 years of experience in the field, I fear that these changes are rushed, and our state is not prepared for the potential impacts they present.</p> <p>Specifically, my concerns are:</p> <ul style="list-style-type: none"> • Mandating heat pumps and a de facto switch to full electrification. • Heat pumps are costly, both up front and to regularly maintain or repair. • We do not have adequate infrastructure in the areas that will be affected the most. • Heat pumps don't work properly in extreme weather conditions. 	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This proposal does not eliminate gas as a heating source for space or water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. The newer cold climate inverter-driven heat pumps were specifically developed to work in a wider temperature range.</p>

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	<ul style="list-style-type: none"> • Lowering our air leakage rates at this time suggests a lack of awareness about the current economy. • Required product is extremely difficult to get and will cause delays and boarded up windows on new homes. • It is far more practical to improve the insulation in a home and more cost effective. • The SBCC is going above and beyond the authority given by the Legislature. 	<p>As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>The air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>The Council's position is that it has clear statutory authority to adopt these provisions. RCW 19.27A.020 provides that the Council must adopt rules to be known as the Washington State Energy Code as part of the state building code, and that these rules must be designed to help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031. RCW 19.27A.045 authorizes the Council to amend any provisions of the Washington state energy code by rule to increase the energy efficiency of newly constructed residential buildings. And RCW 19.27A.160 explicitly requires the Council to adopt state energy codes from 2013 through 2031 that incrementally move towards achieving seventy percent reduction in annual net energy consumption, using the adopted 2006 Washington state energy code as a baseline.</p>
Marth Baskin	Clean energy solutions have been adopted in many sectors in the state, including for building codes in Seattle, Tacoma and Shoreline, but they've not yet been adopted statewide. Since commercial buildings are one of the largest and most rapidly growing	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not

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	sources of climate pollution. For that reason I strongly urge the State Building Code Council to recognize the urgency of the moment, the urgency of the crisis, and take immediate action by developing the most climate smart building energy codes in the nation. In a climate crisis, there is no place for any fossil fuels - coal, oil, gas – if we want a livable planet.	adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
David Baylon	I have been a part of the energy TAG this year and was a coauthor of the proposed changes option table and normalization table (R406.3 and R406.2, 21-GP-2-073)... The SBCC has proposed two options for dealing with the proposals as passed by the TAG... After studying both options, I believe that the Option 2 is the superior approach. It reduces the complexity of the code and preserves the structure of section R406... The proposed credits for Option 2 in Section R406.2 should be raised 1.5 credit for all categories, except the additions. This will in effect improve the overall performance of homes built under the 2021 code and make it equivalent to Option 1. It would also make the level of improvement developed in the TAG a result of both options.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including Option 2 for Section R406. The Council did not elect, however, to increase the required number of credits in each category. The Council felt the reduced number of credits was an appropriate tradeoff for the requirement for heat pumps and still keeps the code on track for the 70 percent reduction required in RCW 19.27A.160.
Lance Beck Greater Spokane Valley Chamber of Commerce	We are writing to respectfully request the Code Council to support Option 1 in the new Residential Energy Code (21-GP2-073: R406 Table 1), which preserves the ability of consumers to choose which energy source best fits	The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as

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	<p>their need for their homes. We are opposed to Option 2 which would amount to a de facto ban on the use of natural gas in our state and would increase both the cost of new housing and the energy that consumer would pay to heat their homes... this proposal will directly raise the costs of new homes by \$23,000... We are also concerned about the impact this change will have on power reliability... Finally, commissioners are voting on these code proposals without a complete picture of the costs. There was no cost benefit analysis or small business impact statement completed for these proposals.</p>	<p>the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products.</p> <p>As part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTIS%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, and reflects the changes made during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council's rulemaking page: https://sbcc.wa.gov/2021-code-adoption-cycle.</p>
<p>Kurt Betchel</p>	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

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BIAW Signatures	We, the undersigned, hereby urge the Washington State Building Code Council to remove proposals 21-GP2-032, 21-GP2-058, 21-GP2-059, 21-GP2-060, 21-GP2-062, 21-GP2-063, 21-GP2-065, 21-GP2-066, 21-GP2-079, 21-GP2-080, 21-GP2-089, and 21-GP2-091 from the final Group 2 building code package.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.
Jerry Bird	I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0

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		<p>ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Madeline Bishop	<p>I urge you to adopt the proposed energy code updates requiring heat pumps in new residential buildings and a phase out of gas stoves and furnaces in new homes and apartments. Moving away from methane gas in our buildings is important for lower carbon emissions and addressing the climate crisis. Gas is also a major contributor to poor indoor air quality and health including asthma symptoms in young people.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Dan Blankenship Adams County Commissioner	<p>I write today to express to you our concern regarding your current thinking regarding heating sources for new residential construction. We believe limiting the heating source for new construction to electrically driven heat pumps is short sighted, expensive, and</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary</p>

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	<p>unsafe...We believe that your Technical Advisory Group's conclusions that electric heat saves money over other sources are flawed...We ask that you refrain from adding this requirement to the Washington Building Code. The added costs and the artificially introduced demand on a soon to be overburdened electrical grid, in our opinion outweigh any advantages envisioned by this change, particularly in Eastern Washington.</p>	<p>source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources</p>
<p>David Boleneus</p>	<p>A wise decision would be that the Building Code Council not mandate any sort of all-electric system that cannot be met because it denies fossil fuels for any reason, or cannot be built or cannot occur for a simple reason: it is simply impossible as required raw materials are available, ANYWHERE IN THIS WORLD.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Kellen Bond</p>	<p>I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance</p>

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		<p>for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Pat Braddock October 14 Public Hearing</p>	<p>Oppose WSEC-R Member of the NW Hearth, Patio and Barbecue Association and owner of Kirkland Fireplace. Consumers want options. They want the ability to heat their homes when there is no power. Gas is less expensive to install and operate than propane or wood products. What will be the effect on small businesses selling or servicing gas appliances?</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406.</p> <p>This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. The proposal did not prohibit the use of decorative gas appliances or fireplaces.</p>
<p>David Bradley</p>	<p>I am writing to express my strong support for the proposed changes to the residential energy code. Specifically, I urge the State Building Code Council to adopt the following two proposals:</p> <ul style="list-style-type: none"> • Proposal 21-GP2-065. Heat pump space heating. 	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items.</p>

From	Comment/Subject	Response
	<ul style="list-style-type: none"> • Proposal 21-GP2-066. Heat pump water heating. 	<p>Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Michael Bradley	<p>I am writing to express my full support for the proposed energy code updates that the State Building Code Council is considering. These proposals, which would move our communities away from reliance on fossil fuels and toward a clean energy future, are smart, necessary improvements to our residential building codes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Jo-Ann Brant	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>

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		Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.
Robin Briggs	The 43rd Legislative District Democrats Environmental Caucus is writing today to strongly urge the State Building Code Council (SBCC) to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Robin Briggs October 14 Public Hearing	Support WSEC-R: Heat Pump Proposals Heat pumps are a better solution. They're better for the residents, will provide cleaner air, and will providing cooling in the summer. We need to pay heed to what's going on around us. This is a small step towards a better future.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.

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Mike Brown IBEW 77September 29 Public Hearing	Oppose WSEC-R Should look at the impact on the grid and the workforce. The grid is already taxed and this will necessitate additional infrastructure during a time of labor shortage and supply chain difficulties. You also need to look at the siting of new lines and acquiring real estate. It takes 15-20 years to build new lines.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. 066: This proposal does not eliminate gas as a source of hot water. While gas is prohibited, for the most part, as the primary source of heating it is allowed as a supplemental source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.
Elizabeth Burton	I urge you to approve all of the proposed amendments to the state residential building code. The climate crisis is accelerating and causing death and destruction all over the world. I live in Seattle, and have just experienced weeks of unhealthy, smoke-filled air from wild fires which are more frequent and more intense due to climate change.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Mark Bush	I am a 28 year home builder here in Clark County, Wash. I think buyers should have a choice in which energy	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and

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	<p>conserving features there home has, with a minimum building standard of 3 ACH per hour overall package. The cost to improve the homes energy use does not pay for itself beyond this level by the time the equipment is worn out. So it doesn't make any sense to spend money on something that costs more to install then it saves in energy over its lifespan. I've attended many classes showing that natural gas is the cleanest and most efficient fuel for homes. Just like buying a vehicle, homes and cars should be available in many levels of efficiency with the minimum of 2016 standards.</p>	<p>066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source. The menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p>
James Byron	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Larry Calvin	<p>On behalf of Sage Homes Northwest, LLC, I am writing to express concerns over the Group 2 code package</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and</p>

From	Comment/Subject	Response
	<p>currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065. 066, 079, 080, 089, and 091 from the Group 2 building code package. Further, I would urge adoption of Option 1 of the R406 Table (073) that preserves the ability to choose natural gas for space and water heating.</p>	<p>066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of space and water heating it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
David Camp October 14 Public Hearing	<p>Support WSEC-R: Heat Pump Proposals</p> <p>This is the cheapest way to meet our state goal of reducing emissions. HP are more cost effective than gas, often</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor</p>

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	cutting heating bills in half, and provide cooling. Federal tax cuts make it even better. Owners and renters love HP savings, but builders don't see these long term benefits. Heat pumps are installed in 48% of new homes. They are the most cost effective solution we have.	remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Carol Campbell	Leave the Damns and the natural gas alone or we will have to move our business to a state that will.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. The Council felt this was the best path forward towards the 70 percent reduction of energy mandated by the Legislature in RCW 19.27A.160 and the reduction in fossil fuel greenhouse gas emission per RCW 19.27A.020.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source. The menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p>
Maureen Canny	I urge you to adopt the proposed energy code updates requiring heat pumps in	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions,

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	<p>new residential buildings and a phase out of gas stoves and furnaces in new homes and apartments. Moving away from methane gas in our buildings is important for lower carbon emissions and addressing the climate crisis. Gas is also a major contributor to poor indoor air quality and health including asthma symptoms in young people.</p>	<p>including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Hugh Caton	<p>I urge you to adopt the proposed energy code updates requiring heat pumps in new residential buildings and a phase out of gas stoves and furnaces in new homes and apartments.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Karen Caton	<p>I urge you to adopt the proposed energy code updates requiring heat pumps in new residential buildings and a phase out of gas stoves and furnaces in new homes and apartments.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor</p>

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Marisa Caughlan	<p>I urge you to adopt the proposed energy code updates, because moving away from methane gas in our homes is important for addressing the climate crisis not only for others but for our own families. An estimated 4,200 home structure fires per year started with the ignition of natural gas. We need to pass these energy codes not just for our safety but for the safety of our families and homes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Tracy Ceravolo September 29 Public Hearing	<p>We need to stop building homes that are reliant on fossil fuels. Heat pumps have a tremendously high Coefficient of Performance. . . And new technologies are emerging to make heat pumps more efficient in cold weather. . . I encourage you to adopt the proposed energy code updates.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy</p>

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	<p>We need to move away from fossil fuels. Heat pumps have a high coefficient of performance and can also cool homes and filter the air. I'm a convert to induction stoves, which perform like gas without toxic fumes but are easier to clean and safer to operate. Keeping fracked gas out of homes is the right decision, morally and financially. The costs of the climate crisis are high.</p>	<p>savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Chris Chapman</p>	<p>I support the building code update. Last year's heat dome event was really disturbing for me. I saw hundreds of dead shellfish on the beach and the high levels of bacteria found at Burfoot park was downright scary. We can not continue ignoring climate change. Updating the building code makes sense. We have a heat pump and love it. This is really important!</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Charles Chesney September 29 Public Hearing</p>	<p>Support WSEC-R Heat Pump Proposals (065, 066) Please pass the proposed changes. There is an urgent need to incentivize heat pumps. They provide better indoor air quality and provide heating and cooling in the same unit.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items.</p>

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Cathryn Chudy	<p>I urge you to adopt the proposed energy code updates, because moving away from methane gas to using clean and efficient electricity in our homes is a necessary step to address our climate crisis while at the same time protect our community public health.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Cathryn Chudy October 14 Public Hearing</p>	<p>Support Heat Pumps The gas company is providing deceptive, misleading information on renewable natural gas and ignoring the growing evidence of the harms of burning gas. Urge adoption; moving away from methane is a necessary step to address climate crisis and protect our community public health.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

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Clallam Co Housing Solutions Committee	<p>We are writing today on behalf of Clallam County Housing Solutions Committee to voice concerns over changes in the code package currently up for consideration. This formal county advisory board is comprised of members from local government, housing providers, non-profits, builders, and real estate brokers. We urge the SBCC to reconsider the 2021 code proposals for the reasons listed below.</p> <ul style="list-style-type: none"> • Washington has low emission rates. • This will be the most stringent code in the nation and will increase the cost of new housing. • Workforce issues. • Supply chain issues. • Housing crisis. 	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>

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Drew Clausen	<p>This Residential energy code, though I'm sure well intended, will do more harm than good in an already worsening housing crisis by increasing the cost of new homes. Support Option 1 as it makes the most sense for everyone. Thank you</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby</p>

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Elly Claus-McGahan	<p>Please move the building code forward to require all new residential construction to be all electric. At this point even gas stoves should be eliminated in new construction for indoor air quality and the cost savings of no gas pipelines or gas connection fees for owners.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

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Jim Clay	SBCC Committee Member, I urge you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources
Climate Solutions	Climate Solutions strongly urges the State Building Code Council (SBCC) to adopt the full package of proposals; specifically, we are writing in strong support of the requirements for heat pumps for space and water heating, and stricter ventilation requirements for gas stoves.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was

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<p>Pam Clough October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>We urge you to approve the update. In 2019 the state established a goal to transition the grid to 100% clean energy by 2045. In doing so, we also have the opportunity to decarbonize for our health and to reduce emissions. We're creating healthy homes and honoring the climate commitment.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Heidi Cody September 29 Public Hearing</p>	<p>Support WSEC-R Heat Pump proposals (065, 066)</p> <p>Vancouver WA is poised to adopt an ambitious climate action plan. There is no way to achieve this goal without getting gas out of buildings. Electrification is the fastest way to get gas out of buildings. We need to transition away from fossil fuels immediately.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments</p>

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Commerce - Liz Reichart and Luke Howard	<p>The Department of Commerce (Commerce) writes in support of the package of proposals voted forward by the Technical Advisory Group (TAG) to include in the 2021 Washington State Energy Code for residential structures. These proposals reflect necessary changes for the 2021 residential energy code to make forward progress in meeting the requirements of RCW 19.27A.160 and put the state on the path towards meeting our greenhouse emissions limits. These proposals align with the recommendations of the 2021 State Energy Strategy¹ for the building sector, published by Commerce in 2021, as required by law</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Richard Cory	<p>I Oppose any Restrictions on my energy/ power sources. The destruction of 8% of economy must stop...I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary</p>

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		<p>source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Chris Covert-Bowlds September 29 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals (065, 066)</p> <p>Urge you to adopt the code and move away from methane in buildings. This is really important for addressing health impact of fossil fuels. Homes are the largest source of carbon and climate pollution, and that pollution can exacerbate breathing issues and lead to lung damage.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Bob Cox September 29 Public Hearing</p>	<p>Support WSEC-R electrification (065, 066)</p> <p>Urge adoption of the updates. The oil and gas industry has known for decades that oil and gas pollutes and compromises both air and water quality but chose to ignore the issue. We need skilled engineers and others to help solve the issue of shifting to clean and sustainable energy.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

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		<p>time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Katherine Cox	<p>I write this email in support of the Thurston County Climate Action's urgent plea to adopt the proposed energy code updates, because moving away from methane gas in our buildings is important for addressing the climate crisis / health / equity / and many other issues that concern our community. As a born and raised Olympian, I care very much about making this positive impact.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Dorothy Craig	<p>I urge you to approve all the proposed amendments to the state residential building code. The climate crisis is accelerating and causing death and destruction worldwide. Here in Western Washington, we have been experiencing weeks of unhealthy, smoke-filled air from wildfires which are more frequent and more intense due to climate change... The best way to fight climate change is to stop burning fossil</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

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	fuels. Requiring new homes to use heat pumps rather than gas for space and water heating is a crucial, common-sense, and overdue step in the right direction.	5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Craig	SBCC Committee Member, I urge you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products.
Steve Crapson	<p>Here is just list of some of my issues</p> <ul style="list-style-type: none"> - The electrical grid can't support a full ban on natural gas. Natural gas supplies 15% of the electricity consumed in Washington. - There is no coherent plan to replace the natural gas energy that total electrification will remove without risking blackouts and price hikes to businesses and ratepayers - At present, electricity is affordable in Washington. But adding new generating capacity is expensive and will drive power rates higher. Amid inflationary pressures, Washingtonians cannot 	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact

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	<p>afford higher utility costs. This should be put up to a vote of the citizens of Washington State.</p>	<p>on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact and does not replace the systems in homes currently served by natural gas. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources</p>
<p>Tom Crawford October 14 Public Hearing</p>	<p>I am writing in support of the Technical Advisory Group's proposed amendments to the statewide energy code. TCAT [Thurston Climate Action Team] is working with the four largest jurisdictions in our county to drastically reduce our community-wide greenhouse gas emissions, with 2030 and 2050 targets all four jurisdictions have adopted. The proposed heat pump requirements will be a big help to our communities in achieving our targets. They will also save our residents money. I urge the Council to approve these proposed changes.</p> <p>Support WSEC-R: Heat Pump proposals Expanding the use of heat pumps and reducing gas will help save residents money on utility bills, improve health and improve home safety with air conditioning on hot days. Pay special attention to tribal voices.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Alejandra Cunningham NRDC October 14 Public Hearing</p>	<p>Support WSEC-R Heat Pump Proposals Fossil fuel burning damages our environment and health. The requirements before you will make it</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor</p>

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	easier for homes and buildings to be built all electric from the start, making them more efficient and affordable.	<p>remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Thad Curtz	Providing for the electrification that we need while residences are being built isn't just cheaper than retrofitting them later. It's also much simpler and more pleasant for homeowners. I certainly hope you'll move forward with the proposed changes.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating,</p>

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Harold Czlapinsky	<p>I am against restrictions on natural gas in new construction.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Diane Dakin	<p>I am a mostly retired family doc. I am supporting increased code recommendations for electrification and disincentivizing new gas hook ups... As someone interested in health from a prevention point of view, I also look at the long term advantages in terms of health and cost as we try to decrease our carbon footprints. There may be more upfront costs but these can be mitigated with State assistance if needed but will cost much less over the next 10-30 years in terms of ongoing heating/cooling costs, medication cost and hospitalizations as well as hopefully keeping weather related costs down. It is always easier and cheaper to plan ahead than to react later.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating,</p>

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Cheryl Davis	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Debra Davis	<p>I am writing to comment on and oppose the recently proposed mandate that would require the use of heat pumps and electrical cooktops in all new SF residential construction. It is obvious to anyone who reads the newspaper that the Seattle-King County area has a chronic shortage of affordable homes. By mandating the use of heat pumps to heat/cool any newly constructed SFR homes will increase the purchase price by an estimated \$8000.00 according to the Master Builders Association. That price increase will impact first-time homebuyers immediately and to their detriment. Additionally, the decree of only installing electric cooktops is detrimental to those of us who enjoy</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

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	cooking as a past-time and want the control and range of heat levels that can only be achieved via a gas cooktop.	
Dennis Davis	<p>My greatest concerns about the 2021 energy code (to go into effect 7/1/2023):</p> <ol style="list-style-type: none"> 1. The energy credits, which are like mandates for all electric, increase the cost of housing. 2. Discouraging natural gas into subdivisions means relying on electricity and after-market wood stoves or after-market propane heaters, or worse yet kerosene heaters all of which are more problematic than natural gas... 3. Reaching HSPF 11 is weak at this time as an energy credit because of the lack of equipment availability... 4. The heat pump water heaters are a great and energy efficient idea. But again a relatively expensive idea. 	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products.</p>
Dennis Davis WAACCA September 29 Public Hearing	<p>Oppose WSEC-R: Furnaces / Heat Pumps (065, 066)</p> <p>As an HVAC contractor in Walla Walla, sold hundreds of heat pumps in the 70's and 80's. The code is a continuation in the ideals of saving energy, but there is more to life than ideals. I am concerned with the increased price adding up to tens of thousands for new homes. Coupled with the increase in mortgage rates, we're pricing too many out of the market. There needs to be a delay in the heat pump mandate. The code needs to deal with the HSPF2 change, and if you will be able to reach these efficiency ratings.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. Today's heat pumps are more efficient and operate</p>

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		<p>over a wider range of temperatures over those of 10 or 20 years ago, and the technology is still evolving.</p> <p>The Council has recently released an Opinion that provides a conversion table for SEER2 and HSFP2 efficiencies. We are working on incorporating these ratings into the codes during the off-cycle of code development. That Opinion can be found at https://sbcc.wa.gov/sites/default/files/2022-10/22_02_wsecRC.pdf</p>
<p>Joe Deets Mayor for City of Bainbridge Island (but speaking for himself) September 29 Public Hearing</p>	<p>Support WSEC-R Heat Pump Proposals (065, 066)</p> <p>Bainbridge Island has passed an ambitious climate action plan to reduce greenhouse gas emissions but needs help from state agencies to make progress. Asks the Council to adopt the updates for the residential energy code.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Brian DeHart September 29 Public Hearing</p>	<p>Support WSEC-R</p> <p>Urges the adoption of energy code updates to ensure new homes are built without methane emitting natural gas. Heat pumps are two to three times more efficient than gas heaters. Methane leaks as it is transported. Using heat pumps means cleaner, healthier air and be able to meet the statewide emission targets while using less electricity. Operating costs for heat</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

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	pumps are lower than gas and provides for air conditioning.	<p>5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Bob Delastrada	My family and I support TCAT's emphasis for Clean Codes and Healthy Homes. I wish we could be at the meeting to support the initiative, but we are unable to attend. Please note and consider our supporting their proposals. As an aside, we have a heat pump system and are thrilled with it's comfort and efficiency.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Keith Dimeler	SBCC Committee Member, I urge you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code... Let's be wise in our approach to meeting GHG goals and utilize energy efficient products and design. Please support energy choice and remove code	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of</p>

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	proposals 21-GP2-065 and 21-GP2-066.	heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.
Bob Disney October 14 Public Hearing	<p>Oppose WSEC-R: Heat Pump Proposals</p> <p>Currently in Kitsap County I have the least expensive starter homes—the cost is around \$246/ft2. We’ve priced them with no profit to allow some first time home buyers a chance to buy a home. We don’t have any buyers. Only 15% of the people in Washington can afford to buy a home. This would take even more buyers out of the pool. The cost for the refrigerant used in heat pumps has gone up \$195 in the last year, and China is the sole provider. We should probably mandatorily adopt heat pumps, but should spread it out over time to keep the costs down.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. Since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source. The menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p>
Annemarie Dooley September 29 Public Hearing	<p>Support WSEC-R Heat Pump Proposals (065, 066)</p> <p>Burning gas increases the risk of asthma in children and contributes to</p>	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC

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	global warming. Wildfire smoke exposure increases ER visits for breathing problems. Please adopt the energy code updates.	<p>51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
WM Douglas	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Kevin Duell NW Natural October 14 Public Hearing	Oppose WSEC-R 080 Specific to the requirement for water heaters to be installed within the thermal envelope. Gas heat pumps are	The Council adopted the requirements for water heater installation, with no additional modifications made to the language. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste

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	<p>allowed for both space and water heating. Gas HP WH are designed to be outdoors and have virtually no standby losses. A cost benefit analysis of 080 would fail if these were taken into consideration. Suggest you add an exception for gas HP WH with a UEF of 1.5 or greater to prevent a potential statute violation.</p>	<p>heat within the thermal envelope and did not feel an amendment was warranted at this time.</p>
<p>Rep. Davina Duerr October 14 Public Hearing</p>	<p>Support WSEC-R I support a residential energy code that requires electric heat, pump technology for water and space, heating as the fossil fuel Counterparts of these appliances account for the majority of emissions in the building sector. As a legislator, I'm committed to solve climate change by lowering Washington's greenhouse gas emissions, helping my constituents in our State be healthier and more resilient. The Legislative Directive is clear, and the council can meet that legislative intent by establishing a pathway to a clean electrification of our homes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Aaron Dumas</p>	<p>I urge you to adopt the proposed energy code updates. Washington State needs to remove fossil fuels from the residential building stock, and accelerate the transition to all-electric</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor</p>

From	Comment/Subject	Response
	buildings in order to meet the state's emissions reduction goals set forth in the 2021 State Energy Strategy. This move is important for addressing the climate crisis, occupant health and safety, and an equitable transition to clean energy.	remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
David Eagle	I have just conducted an analysis of the impact of Heat-Pump Hot Water Heaters (HPWH's) on the global-warming footprint of houses. Previous analyses have been over simplistic and thus have exaggerated the reduction on this footprint. My analysis takes into account the energy impacts of other systems in the house, in particular, the heating and A/C systems.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.
Earth Justice Please see the attached document from 718 community members on behalf of Earthjustice.	I'm writing to urge you to approve the proposed updates to the Washington State residential energy code to require that new homes be built with high efficiency heat pumps to heat and cool our spaces and water , and with increased ventilation for kitchens that burn polluting gas.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing

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		time for education on building and sealing to achieve lower leakage rates.
Earth Ministry WAIP	The undersigned members of numerous faith communities across Washington State urge the State Building Code Council (SBCC) to continue your good work toward building electrification by passing the full package of proposed residential code amendments . As people of many faiths, we want to see all of Washington's future homes exemplify care for our common home and align with our values of justice and sustainability.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Cory Eckert October 14 Public Hearing	Support WSEC-R: Heat Pump Proposals I've specialized in installing ductless heat pumps for 10 years. Many of those went to Habitat for Humanity homes in Thurston, Pierce and Kitsap counties. When analyzing affordability, you need to look at the cost to build and the cost to live in the home. A study by Tacoma Power concluded that cost for ductless heat pumps was fully recovered in less than 5 years.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.

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<p>Kristin Edmark</p> <p>September 29 Public Hearing</p>	<p>We need the proposed change now. Waiting would allow methane in the thousands of new units being proposed now, during this building expansion.</p> <p>*Cities and counties trying to transition to clean energy like Vancouver and Bainbridge Island would find state support a great help. Working together we can meet our CETA goals.</p> <p>*I do not believe those who testified that heat pumps would increase building costs.</p> <p>*In the Vancouver area, NW Natural is doing a lot of misleading advertising especially on TV. There is a lot of misinformation and a lot of money devoted to misinformation.</p> <p>*The proposed update is necessary because attitudes are slow to change especially when there are strong forces and money trying to stop the change.</p> <p>Please support the upgrades to the code. Electricity is better than methane or oil in terms of cost, health, efficiency and emissions. People who rent should not be forced to live in buildings that are unhealthy.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Brian Emanuels</p>	<p>Therefore, I strongly urge the SBCC to adopt the WSEC-R proposal to require heat pumps, and increased ventilation for gas stoves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was</p>

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		<p>modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Brian Emanuels October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>Thank you for listening to so many members of our community—elected officials, health professionals, builders, architects, faith leaders, affordable housing advocates, etc. both in person and submitted in writing. To meet the legislative mandate, it is imperative to require heat pumps. We have to stop building with gas and piping it into our homes. The cost analysis shows that HP will reduce utility bills.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Nick Engelfried October 14 Public Hearing</p>	<p>Support WSEC-R</p> <p>Climate change is here. Water levels are falling, affecting salmon. This is a crisis. We need to curb carbon emissions for a healthy environment. These code updates are a big step in the right direction.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments</p>

		that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Environmental and Racial Justice Advocates	<p>We, the undersigned environmental and racial justice advocates, stand in solidarity to urge you to move the full package of residential energy code proposals forward to public comment. This package of proposals takes steps to address both the efficiency and the use of fossil fuels in our newest homes. Requiring clean heat pump technologies addresses indoor and outdoor air pollution and will ensure that we are building healthy, resilient, and affordable homes that increase quality of life for impacted and overburdened communities.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Environment WA	<p>I'm writing to urge you to approve the proposed updates to the Washington State residential energy code to require that new homes be built with high-efficiency heat pumps to heat and cool our spaces and water, and with increased ventilation for kitchens that burn polluting gas. This request is reinforced by the 252 Environment Washington supporters that signed onto this letter of our support for this request, which you can find attached.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

Karol Erickson	<p>I support the proposed energy code updates that strengthen clean energy codes and require heat pumps in new residential buildings. I feel we are on the precipice of disaster, based on the latest UN report, and we need to do everything we can to reduce burning of fossil fuels. This is an important step. Washington's 2021 State Energy Strategy found that electrifying homes and buildings will be the lowest-cost pathway to meeting the state's climate goals of reducing emissions 95% from 1990 levels by 2050. We are fortunate here in WA state to have a lot of clean hydro-electric power.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Phyllis Farrell	<p>Greetings, I am writing to urge the adoption of 2022 Residential Energy Code Amendments In Washington State emissions from homes and buildings are growing faster than any other source of carbon pollution, mostly from methane gas in homes and buildings...Please approve the proposed 2022 Residential Energy Code Amendments to transition to all electric systems in new buildings.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		<p>time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Phyllis Farrell</p> <p>October 14 Public Hearing</p>	<p>Support WSEC-R</p> <p>The transition to all electric systems in new buildings is an important component to meet the state's goals in reducing carbon emissions and addressing climate change. The proposed codes will have long term benefits; transitioning to all electric is achievable, affordable, safe and creates a more resilient energy system.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Alex Fay</p>	<p>While I'm unable to attend the SBCC meetings to testify, I wanted to send an email and submit my comments in favor of updating the residential code... Requiring heat pumps and improved ventilation in residential buildings would mean improved health and wellness for</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not</p>

	<p>myself, my family, and the communities I work with. Updating these codes will not only have great benefits for our environment, especially since Washington's building sector is the fastest growing source of carbon emission, but would also benefit the health and wellness of our communities by improving air quality indoors and decreasing exposure to fine particulate matter released from gas stoves. Thank you again for the opportunity to submit comments, and I urge you to update the residential code.</p>	<p>adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Peter Fels	<p>I support the proposed residential building code changes and encourage you to adopt them as written.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Kane Fenner	<p>I am writing today on behalf of Zaxium to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320</p>

	091 from the Group 2 building code package.	<p>(proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Chad Fisher	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Lynn Fitz-Hugh	I urge you to adopt the proposed energy code updates – I would be proud to belong to the state with the strongest energy codes.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be</p>

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John & Kris Flory	<p>We urge you to adopt the proposed energy code updates requiring heat pumps in new residential buildings and a phase out of gas stoves and furnaces in new homes and apartments.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Roberta Foland	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option</p>

	effect of banning natural gas in new homes, taking away Energy Choice.	<p>eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Sue Forde	<p>I strongly oppose the codes you are currently proposing due to the fact that it will increase housing costs at a time when so many families are already priced out of the housing market. This will increase the number by thousands. The people of our state should have the freedom to choose what type of energy to use that is the least expensive and best suits their needs. To require "all electric" steals that choice. There are many other requirements that will cost the people of our state in terms of higher prices, fees; with the cost of living already skyrocketing, I urge you to place this code on hold until it is widely publicized and the people of the state have a voice in the matter.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source and does not mandate "all electric." While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The Legislature granted statutory authority to the Council to adopt requirements related to building and energy codes. RCW 19.27A authorizes the Council to amend the provisions of the Washington State Energy Code to increase the energy efficiency of newly constructed residential buildings and directs the Council to adopt updates that help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031. And RCW 19.27A.160 explicitly requires the Council to adopt state energy codes from 2013 through 2031 that incrementally move towards achieving seventy percent reduction in annual net energy consumption.</p>
John Frankel NW Natural October 14 Public Hearing	<p>Oppose WSEC-R Heat Pump Proposals</p> <p>You should be informed by data, not dogma. We don't have the cost analysis</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a water or space</p>

	<p>to show that heat pumps are cost effective and that there are no negative impacts on housing affordability or commerce. These changes would save only a small amount of carbon emissions. The Climate Commitment Act mandates that gas utilities decarbonize as well, and we filed detailed plans with regulators on how we will comply. If you don't believe there is a data-informed reason to restrict fuel choices, you shouldn't approve the changes.</p>	<p>heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTIS%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, showing comments and analyses received during the process and reflecting the changes made to the proposed rule during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council's rulemaking page: https://sbcc.wa.gov/2021-code-adoption-cycle.</p>
<p>Casey French</p>	<p>I am writing today on behalf of Clark Construction Inc to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to</p>

		<p>be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Robin Friend	<p>I urge you to adopt the proposed energy code updates requiring heat pumps in new residential buildings and a phase out of gas stoves and furnaces in new homes and apartments. Moving away from methane gas in our buildings is important for lower carbon emissions and addressing the climate crisis. Gas is also a major contributor to poor indoor air quality and health including asthma symptoms in young people.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Chris Fuess</p> <p>October 14 Public Hearing</p>	<p>Support WSEC-R Heat Pump Proposals</p> <p>Heat pumps are more efficient and cost about the same. Right now we're seeing the effects of depending on a single fuel source in the EU and the Russian control on natural gas. This is the most important issue of our time. The long term effects of climate change are nearly irreversible. This proposal is a step in the right direction for future generations.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

<p>Kai Fyrst</p> <p>And October 14 Public Hearing</p>	<p>We shouldn't be creating a more exclusive market in the middle of a housing crisis. We shouldn't be weighing the right of everyone to have a roof over their heads against our desire to be the first state in the country to go completely green. I urge the council to reconsider the changes before them and take more seriously the most immediate crisis facing our state. And that is the housing crisis.</p> <p>Oppose All Codes</p> <p>Been in the construction industry for 23 years. My employees and neighbors are being priced out. Don't want to sacrifice quality, but that means competing for materials.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>
<p>Tony Galling</p>	<p>I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required</p>

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<p>Kaylee Galloway Whatcom County Council</p> <p>October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump proposals</p> <p>Whatcom County sent in a letter of support. Support a residential energy code that will help our communities decarbonize while addressing the climate change, air pollution, sustainability, equity and health. Whatcom Co. has experienced the effects of climate change, with heat waves, drought, wildfires, flooding and other severe weather events.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

Hilary Garber	<p>We need and WANT natural gas to heat our homes and work with our appliances. I am firmly against the banning of natural gas.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
Chris Garrett	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Martin Gibbons League of Women Voters of Washington September 29 Public Hearing</p>	<p>On behalf of the 2200 members of League of Women Voters of Washington, I urge the Council to affirm the Residential Code proposals 21-GP2-065 and 1-GP2-066 requiring new residential construction to supply space heating and water heating with electric heat pump systems. I base this comments on League of Women Voters positions that reflect careful study of issues covering health care, justice, energy, and climate change. These code proposals align with our positions.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

Jeff Glaspy	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Anthony Gomez	Global Security has 30 WA Employees! We have some builder clients. Additional rules on home building don't pay! It costs too much for too little benefit. It makes houses more expensive, and inflationary! Please delay any additional rules!	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
Paul Good	SBCC Committee Member, I urge you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
Gregory Gosch	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062,	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions,</p>

	<p>21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Alice Grendon</p>	<p>I urge you to adopt all of the proposed energy code updates for residential homes, because moving away from methane gas in our buildings is important for addressing the climate crisis, and public health. I am a 26 year old, lifelong resident of Washington State, and I am extremely concerned for my future on this planet given the climate crisis.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Cody Gubler</p>	<p>I do not believe restricting homeowners rights and choice to efficient, reliable, energy is the right choice. The guise that switching to electric appliances is</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source.</p>

	<p>more environmentally sound, more efficient, or the right choice for homeowners and developers, can be offset by the fact that it will be compensated by burning natural gas in a less efficient manner.</p>	<p>While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
<p>South Puget Sound Habitat for Humanity</p>	<p>South Puget Sound Habitat for Humanity urges you to adopt the proposed energy code updates, because moving away from methane gas in our buildings is important for addressing the climate crisis as well as creating equity in housing for low-income households... If we don't help create opportunities for low-income households to move off fossil fuels now, they will be left holding the bill for any stranded infrastructure down the line after wealthier residents have chosen to move off the gas system</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Jim Haguewood</p>	<p>I strong urge the Council to STOP any new changes to the Washington State building energy codes. A pause in the implementaiton of the proposed changes is the most prudent and responsible coarse of action.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends</p>

		and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.
Joseph Hammontree	I am against Washington forcing codes preventing home building and owners from using natural gas. This is an outrage and violation of our constitutional rights and freedom as a whole. The Government is over-reaching and this MUST BE STOPPED at all costs.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.
Deborah Hannig October 14 Public Hearing	Oppose WSEC-R The real cost is for families at risk. You are creating an environment where consumers have no safe backup heating to protect their lives. Free standing gas stoves and fireplaces are a low cost non-electric option that has worked for decades. The code needs to allow for new gas lines to new homes.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.
Henry Harbert	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary

		<p>source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Amy Harding	<p>As we are considering how to protect our environment, we must consider the equity of our "solutions." If we create restrictions and regulations that drastically increase the cost of construction, we will make housing less affordable in a market where many already struggle to afford housing. Unintentional consequences of well intentioned policies MUST be considered. These disproportionately impact marginalized populations and people of color. I would like to see more measured change that does not put housing out of reach for many.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>

<p>Erina Harikura</p>	<p>I urge you to adopt the new building codes for residential buildings and multi-family homes three stories and below. I am a medical student at the Washington State University and a resident of Washington State since I was 13. I have not always been aware of how climate change is impacting our lives but especially with recent heat waves and wildfires, along with scholarly research endeavors on how climate change impacts health, I am determined to do what I can to speak up against climate change.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Scot Hattenburg NUCA of Eastern Washington October 14 Public Hearing</p>	<p>Oppose WSEC 401.2 The future is hydrogen, which will be transported via gas lines. This proposal will remove that potential. The electrical grid is overgrown. You need to look at the duck curve. Example of an employee that installed a HP in a shed and had \$600 monthly bill compared to a gas boiler that ran \$70 per month.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California</p>

		<p>requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p>
Christopher Hawes	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Patrick Hayes	<p>I am asking the SBCC to not move the whole package forward, so that it can be re-done, with a Repopulated TAG, where the voting members are selected by the whole council, via their resumes, and their expertise in Energy Codes Working for a Lobby Group does not make a person and expert.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

		<p>The TAG was appointed based on the applications the Council received for the various stakeholder positions established by the Council as having an interest in the development of rules. All who applied were appointed to either primary or alternate positions on the TAG. The function of a TAG is to serve as technical subject matter experts who make recommendations to the Council on code change proposals and other technical issues. They are not a regulatory or decision-making body. The allegations for potential conflict of interest for TAG members were discussed with the Washington State Executive Ethics Board Executive Director, and further with the Council members. This will be taken into consideration when the Council selects the TAG seats and appoints the TAG members for the 2024 code adoption cycle.</p>
<p>Janet Hedgepath October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump proposals We need to stop debating on whether various proposals are too radical or too soon and take action on climate change and carbon emissions.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Mark Hedin</p>	<p>I am writing today on behalf of H & S Quality Construction Inc. to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-</p>

	<p>032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Gary Heikkinen, TAG Minority Reports and October 14 Public Hearing</p>	<p>PROPOSAL - 052 "Carbon Emissions Factor for Electricity": Disapprove this proposal from inclusion in the 2021 code and use a more realistic factor of 0.8 lbs/kwh which is fairly representative of a gas combustion turbine. As coal is retired, gas combustion turbines will become the dominant marginal resource in the NWPP for the reasonably foreseeable future. Or Eliminate carbon emissions as a metric in the code and revert to using energy use which is not controversial.</p> <p>PROPOSAL - 065 "Heat Pump Space Heater": Disapprove this proposal from</p>	<p>052: The Council reviewed the carbon emission factors in the proposal, including the electricity metric, and determined that retention of the proposed values in the adopted emissions table was the best alternative at this time. The metric for electricity is consistent with the commercial energy code value and in alignment with the Clean Energy Transformation Act, Clean Buildings law and the Office of Financial Management's cost tool.</p> <p>065: This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are</p>

	<p>inclusion in 2021 code. The existing options table in Section R406 has adequate options for a home builder or owner to choose high efficiency heat pumps. There is no need to mandate their use and eliminate legitimate, efficient, and cost-effective gas space heating options.</p> <p>PROPOSAL - 066 “Heat Pump Water Heater”: Disapprove this proposal from inclusion in the code. The existing options table in Section R406 has adequate options for a home builder or owner to choose high efficiency heat pump water heating systems. There is no need to mandate their use and eliminate legitimate, efficient, and cost-effective gas water heating options.</p> <p>PROPOSAL - 073 “Modifications to Section R406”: Strike the “Fuel Normalization Table” in its entirety. This will encourage builders to select more measures that will reduce energy consumption and in turn reduce carbon emissions from both electric and gas consumption in the dwelling. Proposal 051, which proposed to strike the Fuel Normalization Table, was considered by the TAG on 5/27/22 and was disapproved by a vote of (11-8).</p> <p>PROPOSAL - 080 “Water Heater Install Location”: Disapprove this proposal from inclusion in 2021 code. or Allow an exception for gas heat pump water heaters with an efficiency of not less than 1.15 COP.</p>	<p>supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>066: This proposal does not eliminate gas as a source of hot water. While gas is prohibited, for the most part, as the primary source of water heating it is allowed as a supplemental source. It is also allowed in smaller dwellings 1,000 square feet or less of conditioned space. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>073: The Council moved forward with the adoption of Option 2 for the Fuel Normalization table and the credit options table. This version of the table does not provide credit for the code baseline heat pump space heating system. Option 1 contained that credit because that version of the table had gas heat at the baseline. Option 2 of R406 also requires fewer credits to be achieved than in Option 1, since it takes into account all of the other gains made in the prescriptive portion of the code.</p> <p>080: The Council adopted the requirements for water heater installation, with no additional modifications made to the language. The Council felt this was a good change to the</p>
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		code, to reduce standby losses and to capture any waste heat within the thermal envelope.
Nancy Helget	<p>My comment is similar to the comment I submitted in support of the commercial code changes. The comment is equally relevant to the proposed residential energy code because the residential code changes are an essential complement to the commercial and large multifamily apartment building provisions. Both are necessary to address climate issues... The proposed residential building code changes are necessary. The changes are warranted in light of current science. And the changes make economic sense. Washington's 2021 State Energy Strategy found that electrifying buildings is the lowest-cost pathway to meeting the state's climate goal of reducing emissions 95% from 1990 levels by 2050. It seems like a no brainer.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Aaron Helmes, Building Industry Association of Clark County	<p>I am writing today on behalf of the Building Industry Association of Clark County to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package. Further, I would urge adoption of Option 1 of the R406 table (073) that preserves the ability to choose natural gas for space and water heating.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between</p>

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Sue-Ann Heutink	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Margo Hill October 14 Public Hearing	Support WSEC-R Emissions from buildings are the fastest growing source of greenhouse gas emissions. We are now dealing with extreme environmental issues as a result of climate change—the	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be</p>

	acidification of oceans, wildfires, air quality, increased pressure on water systems. This can go a long way to helping with emissions and climate change.	located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Jan Himebaugh	The Building Industry Association of Washington (BIAW) gives a voice to 8,000 members that represent builders, remodelers, skilled trades professionals and their associates who help Washington families enjoy the American dream of owning a home. We are writing today to discuss concerns with the noted efficiency standards in the 2018 – and soon-to-be-adopted 2021 version – of the Washington State Residential Energy Code...To address this problem, we would like you to support the proposed crosswalk submitted by WSU's Energy Program. This crosswalk is supported by many industry stakeholders and as such, we believe this will be a helpful tool in maintaining compliance with the energy code as the HSPF standard changes to HSPF2.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the</p>

		<p>2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>The Council has recently released an Opinion that provides a conversion table for SEER2 and HSFP2 efficiencies. We are working on incorporating these ratings into the codes during the off-cycle of code development. That Opinion can be found at https://sbcc.wa.gov/sites/default/files/2022-10/22_02_wsecRC.pdf</p>
Joe Hiss	<p>Since retiring from the USFWS in Lacey 14 years ago, my main vocation has been advocating for climate adaptation. The best you can do right now is to pass all the new building code updates, particularly as they relate to all-electric homes, which have been shown to be the only way to go into the future.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Jani Hitchen October 14 Public Hearing</p>	<p>Support Heat Pump Proposals Think beyond our generation. All electric buildings typically cost less to</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-</p>

	<p>build and less to operate. We must enact requirements that decarbonize our energy and heat sources and provide a way to retrofit older buildings.</p>	<p>11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Andrea Hixson	<p>I urge you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed</p>
<p>Andi Hochleutner CWHBA September 29 Public Hearing</p>	<p>Oppose WSEC-R Here on behalf of 650 members working across six counties. The changes will not help residents achieve home ownership and represent a cost burden. Please listen to those testifying today and those that can't be here and do not adopt. Consider identifying procedural flaws and unnecessary modifications that add to the cost of housing. There are a lot of barriers besides cost for heat pumps such as noise, placement</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-</p>

	<p>and availability. Adopt option 2 of the R406 table.</p>	<p>11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>
<p>Judy Hopkinson October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>We have installed both solar panels and heat pumps. They have more than paid for themselves. It seems as though allowing dwellings to be built without heat pumps and at least the capacity to install solar panels is just another way to increase the wealth gap in this country. It is abundantly clear that the use of gas heating and appliances increases the risk of serious illness. There is always resistance to change, even when necessary. But financial concerns don't outweigh safety and health.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

<p>Luke Howard Commerce October 14 Public Hearing</p>	<p>Support WSEC-R Speaking in support of the package of proposals. They reflect the necessary changes to meet RCW 19.27A.160. They also align with the recommendations of the State Energy Strategy for the building sector. Incremental improvements in the residential code are important to provide broad benefits to all housing types at the least cost to implementing energy efficiency and carbon reduction.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Frederick Howe</p>	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Karen Howe September 29 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals (065, 066) Retired from working in energy efficiency programs and support the proposed energy code updates. Heat pumps are the most energy efficient alternatives to air conditioners and furnaces, with annual heating energy</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy</p>

	<p>savings of up to 50 percent. Heat pump water heaters are two to three times more efficient. Homeowners need help selecting these systems; builders will continue to install lower cost, less efficient systems.</p>	<p>savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Melinda Hughes October 14 Public Hearing</p>	<p>The Thurston Climate Action Team (TCAT) is writing today to strongly urge the State Building Code Council (SBCC) to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health.</p> <p>Help local governments by adopting the changes. Health and pollution dangers of methane. We have a moral duty to fight climate change.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Mark Hummel</p>	<p>I am responding to an article in the Yakima Herald this morning regarding a meeting held by the Washing Building Code Council on the topic of the proposed transition from natural gas heating to electric-powered heat pumps, and from gas to electric-powered water heating. I wish to express my support for this proposal as one of many steps that can be taken to reduce and eventually end the climate crisis in which we find ourselves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

		<p>5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Cary Jackson	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Natasha Jackson NWGA October 14 Public Hearing	<p>Oppose WSEC-R</p> <p>Consumers have the right to choose the type of energy that best suits them. The dependability of the electric grid is in question and this will put consumer lives on the line when the power fails. Equity and small business impact—do a survey before enacting this. This also affects affordable housing. Equity should be at the forefront of this process.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>

[Johnny Jaynes](#)

As a citizen and resident of Spokane WA, I have some questions and points to make regarding the idea of banning natural gas as an energy source. 1 st- Has the board completed a cost benefit analysis or a small business impact study on these code proposals, as required in the RCW? There is no clear proposal to replace the natural gas energy that total electrification will require, leading to more blackouts, brownouts and price hikes to businesses and ratepayers.

The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.

The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.

As part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTIS%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, and reflects the changes made during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council's

		rulemaking page: https://sbcc.wa.gov/2021-code-adoption-cycle .
Ty Jennings Cascade Natural Gas September 29 Public Hearing and October 14 Public Hearing	<p>Regarding 21-GP2-065 and 21-GP2-066, these proposals will eliminate consumer choice for Federally approved gas equipment to be used for the primary space and water heating sources. By depending upon a single energy source for space and water heating, redundancy, resiliency, and reliability will be severely reduced. As voiced within the TAG, these proposals go too far in eliminating fuel choices for builders and will eliminate the already effective energy credits for higher efficiency equipment from Table R406.3...Please remove Proposals 21-GPS-065 and 21-GP2-066 from the proposed 2021 WSEC-R.</p> <p>Oppose WSEC-R Equipment options (065, 066)</p> <p>Expensive measure that goes well above any other state's requirements. Gas has a role to play in carbon emissions reduction and eliminating the option does a disservice to homeowners.</p> <p>Grid can't handle the load, no workers to add infrastructure. Brown outs. Won't accomplish anything if can't afford new homes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>These proposals do not eliminate gas as a heating source for space or water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p>
Tyler Jennings	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met.</p>

		<p>This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Paul Joannet September 29 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals (065, 066)</p> <p>As a former line cook, I can attest gas cooking is not as clean as a lot of people believe. I was lucky to leave that environment and move into the solar industry. I assert we need to take action now. The solar industry is booming, and the grid will compensate. And more people die in producing natural gas than from the cold.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Eric Johnson</p>	<p>This comment is regarding the natural gas ban for all new construction homes. My opinion is that until we have a better solution to generate electricity (i.e. 6th generation nuclear) this code is premature. In Spokane 30% of our energy is generated by a gas plant that burns at 45-55% efficiency versus 95%</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source for space or water. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current</p>

	<p>efficiency of gas furnaces. Mandating electric furnaces will in turn increase green house gases instead of mitigating them. Even Avista admits upgrading homes to higher efficiency furnaces and incentivizing weatherization is a more realistic near term goal of reducing the carbon emissions. I do believe that we need to eventually go away from fossil fuels but this code is focusing only on output versus supply. Once we have the infrastructure it may make more sense but for the time being we need to take a less draconian approach to addressing the issue.</p>	<p>design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Lisa Johnson	<p>The ban on natural gas is not at all thought out, especially considering some of the decisions being made by the state like the possibility of removing dams that provide electricity to the state and making electric cars mandatory in the coming years. The big picture seems to be getting lost in the individual agendas of policy makers and lobbyists. The electric grid is not able to handle the additional load of powering the hundreds of thousands (probably millions) of appliances, furnaces, and water heaters that are currently run on natural gas. Not to mention to cost to the citizens of Washington to convert their homes from running gas appliances, furnaces and water heaters, many of which already incurred the cost of converting to natural gas after being sold on the idea that it was less expensive, better for the environment and the be all end all.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements only affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although stoves installed</p>

		in new construction are required to be vented at a higher rate than electric stoves.
Danielle Jokella October 14 Public Hearing	<p>Support WSEC-R: Heat Pump Proposals</p> <p>We need to move away from fossil fuels. The risks outweigh the benefits. Many people were killed or evacuated due to gas leaks or explosions. We need to future proof our energy use and tackle the housing crisis. It reduces the amount of infrastructure required to be maintained and looked after.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Daniel Kadden October 14 Public Hearing	<p>Support WSEC-R: Heat Pump proposals</p> <p>Deeply involved in affordable housing issues for many years. The immediate impact of homelessness and housing needs are often overwhelming. But we need to look at the long term connections between affordable housing and clean energy. All electric construction will have tangible positive effects on finances, health and safety, especially for the more vulnerable citizens.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating,</p>

		and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.
Rich Kallenberger	Regarding establishing a code requirement for the choice of energy or fuel in building construction I strongly feel that such a code requirement would be detrimental to progress and development of more efficient, safer, and more environmentally friendly building systems. Establishing such requirements would also adversely affect competition and development of energy delivery systems throughout the state. One only has to look back to the recent past to see how efforts to force preference for one form of energy (hydro, nuclear) resulted in systemic failures. "All Electric Homes" did not come to pass, as well as "power too cheap to meter". Because the future cannot be predicted, marketplace forces must be allowed to act on our search for the best source(s) of energy for our homes and industries.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a source for space or water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.
Joe Kear September 29 Public Hearing	Support WSEC-R Heat Pump (065, 066) As a duct tester, I can say ducted systems are not as efficient if the ducts are outside the building envelope. The most efficient system is a ductless system and heat pumps are more efficient than forced air or gas. Supports the proposed code change to move away from fossil fuels.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of

		<p>5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Devon Kellogg	<p>Thank you for listening to my comments today in favor of the heat pump and range ventilation proposals...The code proposals help address these health and cost concerns and are necessary to prevent more harmful warming effects. We can overcome any technological challenges much more easily than we can overcome the increasing health and cost impacts of climate chaos!</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Devon Kellogg October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>My family relies on opening the windows to cool the house during the night. With the warm temperatures and smoke, the house becomes intolerable to toxic. As an asthma sufferer, my hands and feet swell and breathing becomes labored. The cost of the upgrade is nothing when faced with costly upgrades just to protect my and my family's basic health.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments</p>

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JulieAnne Kempf	The 46th LD Democrats is writing today to strongly urge the State Building Code Council (SBCC) to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health...We urge the SBCC to vote in favor of the full package of proposed residential code amendments, including heat pump proposals. There are so many more ways this makes sense and is critical.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Leslie Kenefick October 14 Public Hearing	Support WSEC-R: Heat Pump Proposals Health Equity Circle is a multi-state student lead organization addressing health equity. The impacts of gas disproportionately affect low income communities and those who rent. Fracking directly impacts indigenous communities who may not have a say in those practices.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.

Allen Ketelsen	<p>I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Jeff Kilgor	<p>I am writing in response to the proposed rule changes for new home construction that the Washington State Building Code Council have put forward to be adopted July 1st, 2023. While interested in and committed to being a good steward of our planet, I am of the opinion that the proposed changes being put forth are based more on making climate activists feel good than on sound, rational facts...While well intended, it is clear to me that this type</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

	<p>of mandate is 15-20 years premature, possibly longer. Our electrical grids need to be updated / expanded to handle the additional loads these kinds of changes will impose and we need to perfect the alternate generation sources to prevent drastic power cost increases. In addition, as noted by several construction industry groups, these forced changes will increase both the cost of new homes and the cost to operate them. In our State's current affordable housing shortage, mandating changes that increase costs does not fit.</p>	<p>5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p>
Randall King	<p>I am writing today on behalf of Kitsap Building Association to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was</p>

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Alex Kistler	<p>I encourage the SBCC to adopt new building codes that specify the use of electric heat pumps for heat and hot water. As a retired physician living in Olympia I have become increasingly concerned about the myriad and worsening effects of climate change on our health. Changing the way we heat our new buildings is a relatively painless way to begin weaning off climate changing gases. I would be proud to see Washington State be a leader in this effort and I highly encourage you to adopt these changes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Ray Klein	<p>I am writing today on behalf of Zaxium, a commercial property owner and developer, to voice concerns over the</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and</p>

	<p>Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Karyn Kline	<p>I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was</p>

		<p>difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Annalisa Knight	<p>I'm writing in to request that the Code Council complete a cost benefit analysis and a small business impact study on these code proposals as required. I think the findings after this is done will show that electrical grids cannot support a full ban on natural gas and that would be a huge impact to many involved that cannot even find affordable housing, yet convert to solar panels or electricity which is not equipped to handle the change over. I do believe the environment needs many changes, but it must be done when we are ready to support these changes. We can save far more greenhouse gas emissions through weatherization and upgrading furnaces that we can eliminating new gas hook ups. Until a further cost benefit analysis WHICH IS REQUIRED by the Council is done, no changes should be made. At that point, it should put before the people to analyze and then vote on it.</p>	<p>As part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTIS%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, and reflects the changes made during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council's rulemaking page: https://sbcc.wa.gov/2021-code-adoption-cycle.</p> <p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements only affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State</p>

		<p>Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>The Legislature granted statutory authority to the Council to adopt requirements related to building and energy codes. RCW 19.27A authorizes the Council to amend the provisions of the Washington State Energy Code to increase the energy efficiency of newly constructed residential buildings and directs the Council to adopt updates that help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031. And RCW 19.27A.160 explicitly requires the Council to adopt state energy codes from 2013 through 2031 that incrementally move towards achieving seventy percent reduction in annual net energy consumption.</p>
<p>Paul Knox September 29 Public Hearing</p>	<p>Support WSEC-R heat pumps (065, 066) Speaking as an affordable housing consultant, landlord, small builder and modeler. I have installed ductless heat pumps in both new and older homes and found them to be cost effective and beneficial to the tenants. Eliminating gas is a necessity, and it will cost more in the future.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

<p>Paul Knox, Representing 18 organizations in support</p>	<p>We, the undersigned Washington building industry professionals and suppliers urge you to adopt the full package of proposed residential building code updates put forth for public comment. We especially support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Jonny Kocher RMI, 062 [Assume the reference intended was 073 since 062 amends the IRC]</p>	<p>This comment is a strong recommendation for the SBCC to choose Option 2 of the 21-GP2-062, independent of any other code decisions...Option 2 offers a higher point threshold between an all-electric home and a mixed fuel home. In general, we agree with David Baylon's comment that Option 2 should be chosen and are open to hearing the MVE's thoughts on increasing the point threshold for that option to further increase energy efficiency in this code cycle.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. The Council did not elect, however, to increase the required number of credits in each category. The Council felt the reduced number of credits was an appropriate tradeoff for the requirement for heat pumps and still keeps the code on track for the 70 percent reduction required in RCW 19.27A.160.</p>

<p>Jonathan Kocher, RMI September 29 Public Hearing Jonny Kocher 065, 066</p>	<p>Support WSEC-R Heat Pump Proposals (065, 066) Encourage you to pass all proposals, esp. the heat pump proposals. They are modest and an essential step towards decarbonizing the building sector. Building produce half of all greenhouse gas emissions. All electric homes cost less to build than mixed fuel homes.</p> <p>This comment is in response to the Preliminary Cost Benefit Analysis for the 2021 Washington State Energy Code, Residential Provisions, posted on the SBCC website. Thank you for the opportunity to comment and for the hard work that the staff has done in the last 18 months of rulemaking. In light of the climate and economic benefits of building electrification, the SBCC should pass Heat Pump Proposals 21-GP2-065 and 21-GP2-066.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Rachel Koller</p>	<p>Attached please find a letter of support from Shift Zero for the full package of proposals for the WSEC 2021 residential code. Shift Zero is an alliance of 45 green building, energy efficiency, and climate action businesses, organizations, and certification programs, working together to promote the equitable adoption of zero carbon buildings at scale in Washington State. We appreciate the opportunity to provide input on behalf of our membership.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

		<p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Wendy Krakauer October 14 Public Hearing</p>	<p>Support WSEC-R: Electrification</p> <p>I want WA to remain livable for my grandchildren. I replaced my furnace two years ago and no one told me I could have installed a heat pump instead. No one told me how harmful natural gas is to the environment. Our state's legislative commitment cannot be achieved if we continue to expand fossil fuel infrastructure.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Caitlin Krenn October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump proposals</p> <p>Our 100 year old home has a lot of character, but it takes substantial cost to bring it up to date, including heat pump technology. There is no reason that homes built today should lock future residents into costly retrofits or breathing toxic fumes from gas furnaces and stoves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		<p>time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Esther and Warren Kronenberg	<p>We write to urge you to adopt the proposed energy code updates. We cannot see one good reason why the state should continue using 20th century energy codes that ignore the very real threats of climate change and its catastrophic effects on our lives, our health and the environment.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Michael Laurie October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>I've seen people who made energy efficiency changes and were happy with the results. I've also seen people who are not motivated to address climate</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not</p>

	change, which to me make its important to make this change to transition away from fossil fuels to clean energy. We're running out of time. These are well-proven solutions that are relatively easy to implement.	adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Chris Lavery	I have been reading and hearing a lot about an update to the state energy code that would ban the use of natural gas in new homes for cooking and heating purposes . . . Please take this all into consideration and do not ban the use of natural gas.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a fuel source for space or water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Tom Lawrence	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

<p>Jim Lazar</p> <p>October 14 Public Hearing</p> <p>Jim Lazar</p>	<p>Support WSEC-R: Heat Pump proposals</p> <p>Retired economist who served on the TAG in the past. In 1979, 1986 and 1993, there were giant steps forward in the energy code. All of that is old hat now, and we've saved millions of dollars, and a lot of energy and carbon pollution. These changes are also groundbreaking. Be as courageous as your predecessors in moving the code forward.</p> <p>I spoke orally at today's hearing, but wish to augment that comments with respect to one issue: the adequacy of the electric utility system to support a conversion of new construction to heat pump technology. First and foremost, these code provisions apply to NEW construction....Second, because of the improved thermal efficiency of new homes, the capacity required to serve new homes will be LOWER, not higher, than existing distribution system components.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Breck Lebeque</p> <p>October 14 Public Hearing</p>	<p>Clean electric heat pumps & stoves can keep us warm and safe. Please make the right choice, with the right codes, for our good health indoors.</p> <p>New building codes can help prevent illness from combustion byproducts. Make the right choice for the future and good health indoors.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments</p>

		<p>that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Ali Lee</p> <p>September 29 Public Hearing</p>	<p>Support WSEC-R Heat pump proposals (065, 066)</p> <p>You have the opportunity to improve both indoor and outdoor air quality. BIPOC and poor communities are more heavily impacted by air pollution. Gas appliances created air pollution. Climate change is creating insufferable conditions in the summer months. Heat pumps for heating and cooling can help alleviate the impact.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Mark Leed</p>	<p>I urge the council to adopt the proposed residential energy code updates. Homes and other buildings are the fastest growing source of greenhouse gas emissions in Washington, largely due to the use of natural gas in furnaces and water heaters. The main component of natural gas is methane, a greenhouse gas many more times potent than carbon dioxide.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		time for education on building and sealing to achieve lower leakage rates.
Sue Lepore	I am writing to express my support for the energy code updates, which ensure that our new buildings protect public health and safety. Methane gas has absolutely no place in our homes. I am a grandmother and am very concerned about whether our future generations will have a livable future if we keep depending on fossil fuels. The only responsible thing to do is to start the transition toward clean energy ASAP!	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
John Lesser	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.

		<p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Ashley Lindell	<p>My name is Ashley Lindell, I am a family practice physician and a parent of 2 children. I live and practice in the Seattle area. I urge you to adopt the proposed energy code updates. A rapid transition away from the use of "natural" gas is vitally important to mitigating climate change and protecting human health. As I am sure you are aware, "natural" gas is predominately methane, a potent driver of climate change.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Jan Livingston	<p>I am writing to ask that you please reconsider the proposed ban on natural gas heating in new construction homes in the State of Washington! First of all, heat pumps (electric heating) are not as effective in the cooler portions of the continental U.S. Secondly, our power grids are not capable at present for an onslaught of new electric uses, which could bring unnecessary blackouts to both residential and business customers. Thirdly, I can find no</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This proposal does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present</p>

	<p>cost/benefit type of analyses that have been undertaken for this proposal! Fourthly, a ban on gas heating would add cost to housing that is already unaffordable in the metro areas of the state.</p>	<p>for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>As part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTs%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, and reflects the changes made during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council's rulemaking page: https://sbcc.wa.gov/2021-code-adoption-cycle.</p>
Local Elected Officials	<p>We, the undersigned local elected officials, write to strongly urge the SBCC to build on your excellent work updating the Washington state commercial energy code and now adopt the proposed updates to the residential energy code for new construction, which similarly align with our state and local climate and sustainability goals. Specifically, we strongly support the requirements for heat pump systems and stricter ventilation for gas stoves in new homes, which will reduce indoor and outdoor air pollution and ensure that we are building healthy, resilient, and affordable homes, by eliminating gas</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

	appliances, particularly for space and water heating, which account for the majority of pollution and carbon emissions from our building sector.	time for education on building and sealing to achieve lower leakage rates.
Carolyn Logue Washington Air Conditioning Contractors Association October 14 Public Hearing	<p>Oppose WSEC-R</p> <p>We'd like to express concern over the heat pump mandate. L&I doesn't allow specialty electricians to connect the indoor and outdoor units of ductless mini splits. This needs to change before you mandate HP, or you'll have a workforce problem. Now, you have the technician run the refrigerator lines in the walls and leave it open until the electrician can come out and hook them up. There are also the supply chain disruptions previously discussed.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. The Council deferred the licensing issue to L&I.</p>
Daryl Logue	<p>You will be listening to comments tomorrow regarding proposals to change some Energy and Building codes. My opinions are biased because I'm a part owner of a local fireplace business. But I see the issues that develop for people and their lives when power goes out in this area. Heat pumps are wonderful products, but they start to lose their efficiency when the ambient temperature reaches about 39 degrees. Also, heat pumps need electricity to function. Natural gas fireplaces and freestanding stoves either don't need power to operate or they make their own power. People then have a more efficient heating source in the heating season and a</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. The proposal does not prohibit the use of decorative gas appliances or fireplaces.</p>

	<p>heating source during a power failure. To not allow builders to give people these options and essentially dictate to a homeowner of what product they can have installed seems limiting. There are too many instances in this region where power has gone out for days and folks end up going to hotels or elsewhere because of that. With a natural gas meter, a home can have a cook range, water heater, and fireplace that can all function and allow a family to survive without having to leave their home.</p>	
<p>Tim Lovelass Central Washington Homebuilders September 29 Public Hearing</p>	<p>Oppose WSEC-R</p> <p>We can't keep adding more regulation and expect to have affordable housing. Where we're at, we can't recoup the added costs to these homes. The last code change added almost \$25,000 to the cost of the average house. We also don't have the infrastructure to handle the increased electrical load if we eliminate natural gas. And heat pump water heaters are not as efficient as gas.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This proposal does not eliminate gas as a fuel source for space or water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect</p>

		<p>new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commisison has expressed their opinion that this will allow ample opportunity for utilities to manage their resources. And heat pump water heaters have an energy factor of 1.5 to 2.6 0.5 to 0.8, while gas water heaters range from 0.5 to 0.8 EF, making heat pumps approximately three times as energy efficient.</p>
<p>Sen. Liz Lovelett October 14 Public Hearing</p>	<p>Support WSEC-R</p> <p>We've witnessed unprecedented floods, wildfires, droughts and heat waves that have costs lives and economic disruption across the area. All of these are a result of climate change and the changes in our overall weather pattern. We need to decarbonize our built environment. We need to make sure we are reducing the demand and ensuring folks have the opportunity to have the lowest energy cost possible. I urge you to adopt the updates.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Noelle Lovern, BIA of Clark County October 14 Public Hearing</p>	<p>Oppose WSEC-R</p> <p>160K families will be priced out of the housing market. 85% of Washingtonians cannot afford a home. The current cost of codes, regulations and fees in Clark County is approximately \$135K. Is this the time to add more cost? We are fueling a human tragedy if we don't balance net zero with the basic human need for shelter before moving forward with these updates.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>

Griffin Lowe	<p>Restricting the use of natural gas in new construction will create several major challenges. First, our electrical grid is mostly above ground and is susceptible to failure during extreme weather events. Natural gas lines are all buried and its supply is more reliable during extreme events meaning it can provide life critical heating and cooling when electric powered heat pumps fail. Consumers deserve a choice in the way they choose to heat and cool their home. I am not against installing efficient heat pumps, I myself had a heat pump system installed in my 1978 home to replace a polluting wood stove. An alternative to an outright ban on natural gas would be to continue to provide incentives for businesses and home owners that are willing to switch out natural gas furnaces to electric ones.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The 2018 code incentivized heat pumps through the additional efficiency credit table, and the Council felt it was appropriate that this more energy efficient choice be moved forward to the prescriptive code this cycle. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commisison has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p>
Lorna Luebbe , Puget Sound Energy	<p>PSE appreciates the opportunity to provide comments on the Proposed Residential Energy Code ("Proposed Code"). We support increasing energy efficiency in Washington and the flexibility provided by the technology-neutral approach to heat pumps for space and water heating in the Proposed Code...PSE's proposed pathway to decarbonize our entire energy supply envisions:</p> <ul style="list-style-type: none"> • Decarbonizing our electric supply through the addition of clean energy sources to reach carbon-neutral electricity by 2030 and 100% clean electricity by 2045; • Maximizing energy efficiency both on 	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating and the change to the carbon metric for electricity. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. The hybrid heat pump would be allowed under this scenario. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>

the gas and electric side, which PSE and our customers have decades of experience in;

- Reducing the overall use of natural gas by encouraging customers to use hybrid heating systems in their homes—this technology, known as a dual fuel heat (or “hybrid”) pump, is simply an electric heat pump that takes care of most home heating needs, coupled with a furnace that runs during the coldest weather. We plan to study this and more detail and validate this factor through a pilot targeted electrification project in 2022-2023;
- Decarbonizing the gas supply through the use of clean alternative fuels—including Renewable Natural Gas (“RNG”) today and will likely include other fuels such as hydrogen in the future; and
- Leveraging our existing infrastructure, including the pipeline delivery system; and
- Rigorously studying the economic impacts of decarbonization on residents of Washington State, prioritizing low-income and historically marginalized communities.

Finally, PSE supports reducing the emission factor for electricity from 0.80 lb CO₂e/kWh to 0.44 lb CO₂e/kWh to reflect the future emission reductions that electric utilities will achieve under the Clean Energy Transformation Act. PSE encourages the Council to similarly adjust the emission factor for gas, as gas utilities must reduce the carbon intensity of the gas they deliver under the Climate Commitment Act.

<p>Larry Luton October 14 Public Hearing</p>	<p>Support WSEC-R Heat Pump Proposals</p> <p>Buildings are the fastest growing source of greenhouse gas emission; much of it to heat buildings and water. Please adopt a new energy code requiring electrification.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Cory Luttermoser</p>	<p>I am writing today on behalf of Moser Inc. an HVAC company for 25yrs located in Spokane, WA to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0</p>

		<p>ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Kell Magalsky	<p>I am writing to formally state my opposition to your proposed changes to the residential energy codes to eliminate the choice of natural gas in new residential construction. There are cost and efficiency benefits to natural gas and personal preferences to gas heat and cooking and citizens should be able to make that choice on their own as opposed to this council making the decision for all Washington residents.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. The Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Russell Maier</p> <p>September 29 Public Hearing</p>	<p>Support WSEC-R</p> <p>In support of the updates. We need to reduce methane, a major source of indoor air pollution and contributor to climate change; and remove the toxic gases and particulates from gas stoves. This will help improve the health and quality of life.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments</p>

		<p>that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Mescha Manietta	<p>I am writing today on behalf of Kitsap Building Association to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

<p>Robert Marino October 14 Public Hearing</p>	<p>I strongly encourage the Council to adopt the whole package of WSEC-R code proposals. The gas stove in our home puts my children at over a 40% greater risk of developing symptoms of asthma.</p> <p>Support WSEC-R: Heat Pump Proposals</p> <p>A 9.0 or larger earthquake has a 17% chance of devastating Western Washington in the next 50 years. The leading cause of gas pipeline explosions is falling ice. What will happen when we have falling buildings. We have safer alternatives.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Rick Marshall September 29 Public Hearing</p>	<p>Support WSEC-R Heat Pump proposals (065, 066)</p> <p>Southwest WA builder who has been building all electric for over 30 years and supports the heat pump proposals. The biggest change in the past decade is increase in air conditioning, especially with the wildfires that don't allow for open windows to cool things off at night. Ductless systems work well and are more efficient. Our responsibility as builders is to make sure the homes we build don't have adverse impacts for neighbors or communities.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that this does not require new construction to be all electric. Gas will still be allowed as supplemental heating, and gas heat pumps are specifically allowed. Gas stoves are</p>

		still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.
Dan Marsolec	Banning natural gas seems to be completely the wrong idea. Just in water heating alone they obviously have not taken into the consideration the energy savings of having a high efficiency tankless water heater only running when water is on demand versus an electric that heats continually. This also will create the need for more of the very costly windmills that are being put up all over eastern Washington. I think they need to come to the east side and see how well they work when the wind is not blowing. Also, the need for solar farms that work well at night. Clearly the effort to remove natural gas is strictly political and not logical.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.
Cristina Mateo, WA Build Back Black Alliance September 29 Public Hearing October 14 Public Hearing	Support WSEC-R Housing Energy Codes and Heat Pumps (065, 066) Many members of the BIPOC community are directly affected. Urge adoption of the updates because moving away from methane gas is important. Lower income households have a higher risk of exposure due to small size. Clean energy is imperative, especially for underrepresented families.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.
Michel Maupoux October 14 Public Hearing	Support WSEC-R: Heat Pump Proposals	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were

	<p>Clean electricity, including heat pumps, is better for the planet. It reduces greenhouse gas emissions to slow down climate change. It is better for safety, as it poses no danger in the case of earthquake or power outage. It's better for consumers, as it is cheaper to operate in the long run. The building code should keep pushing on energy efficiency.</p>	<p>made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Jake Mayson	<p>The Spokane business community is opposed to the new codes which would hinder our community's ability to create workforce-accessible housing in the middle of a worsening housing crisis. This code package would increase the up-front cost of a new home by a minimum of \$24,070 and price-out 52,954 families from homeownership. Please vote to remove the costliest proposals (032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091) from the final Group 2 code package. At a time when Washington is already pricing 85% of families, we simply cannot afford to pass these codes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p>

		<p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
James Mayther	<p>I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package or be passed at a later date. Further, I would urge adoption of the R406 table (073) that preserves the ability to choose natural gas for space and water heating.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits</p>

		required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.
Ted McCamnant	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Flora McGill	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Ryan McGowan	I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089 , and 091 from the Group 2 building code package. Further, I would urge adoption of Option 1 of the R406 Table (073) that preserves the	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler

	<p>ability to choose natural gas for space and water heating.</p>	<p>to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>
<p>Jeanette McKague Washington Realtors September 29 Public Hearing</p>	<p>Oppose WSEC-R</p> <p>There are measures within the code we cannot support. The first is the definition change for residential building. It needs further consideration regarding affordability and how the change will impact existing buildings. The second is the heat pump measures with its supply chain issues and impact on the electrical grid.</p> <p>Washington REALTORS® represents thousands of residential and commercial real estate professionals, their clients, and those affiliated with the</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides</p>

	<p>real estate industry. We are committed to the principles of sustainability and energy conservation and work to create economically prosperous and environmentally sustainable communities. That said, we cannot support some of the amendments proposed to the 2021 Residential Energy Code. We ask the State Building Code Council to deny including the following amendments in the 2021 Washington State Residential Energy Code:</p> <ul style="list-style-type: none"> • 21-GP2-084 (R202 Definition and R401.1 Scope) • 21-GP2-065 Heat Pump Space Heating • 21-GP2-066 Heat Pump Water Heating • In addition, we ask the Council to disapprove and/or modify proposals as recommended in the minority report dated September 28, 2022, provided by members of the WSEC-R TAG. [See Gary Heikkinen] 	<p>some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>The final rule also adopts the new definition for “Residential Building” and the scoping under the residential energy code. The Council felt that moving smaller multi-family buildings to the commercial code would provide parity between three- and four-story buildings, and would not increase cost or energy use for these buildings.</p> <p>This proposal does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>See also the response to the Minority Reports in this Concise Explanatory Statement.</p>
Sameth Mell, Spean Raja September 29 Public Hearing	<p>Support WSEC-R Heat pump proposals (065, 066)</p> <p>We have been working with King County on their heat pump program. We know that adopting clean energy codes has positive impacts and benefits future generations. Cleaner energy</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items.</p>

	leads to safer buildings and healthier communities.	Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Ryan Mello, Pierce County Council Member September 29 Public Hearing	Support WSEC-R Heat Pump proposals (065, 066) As a local lawmaker, encourage the Council to adopt the updates and move away from gas for healthier and more affordable homes. Jurisdictions need this support from the Council to achieve their goals. Greenhouse gas production has increased in the last few years, we need to stop going backwards.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Barbara Menne	I urge you to adopt the proposed Energy Code updates and Heat Pump proposals, because moving away from methane gas in our buildings is key for addressing the various health and equity issues as well as my personal values.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments

		<p>that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Tye Menser	<p>Thank you for accepting my written comments regarding the Group 2 Code Proposals. As a Thurston County Commissioner, and vice chair of the Thurston Climate Mitigation Plan Steering Committee, I urge you to support the proposed changes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Karen Messmer	<p>Electrifying our heating for buildings is an important step in reducing our emissions. It can also help reduce costs for constructing new houses by eliminating the cost of gas piping. Heat pumps provide excellent control of the interior environment. For people who need to reduce their risk of heat exposure, the AC that is also available with heat pumps can help them during heat waves. Heat pumps are a win-win for consumers and the environment. Please help move us towards lower</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders.</p>

	GHG emissions by supporting the new heat pump requirements in the code.	<p>Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Charles Michel	<p>I urge SBCC to adopt the proposed energy code updates, because moving away from hydrocarbon gas in our buildings is important for addressing the climate as well as improve indoor air quality. I have already converted my home from natural gas to a heat pump system, and I couldn't be happier with it. To solve the climate crisis, we have to stop burning hydrocarbons. It is vital the residential energy code be changed as soon as possible to reduce greenhouse gas emissions</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Gary Miller	<p>Washington State might lead the nation in progressive/stringent building codes, but it falls proportionally short in providing affordable housing. So for choices, we will be left with ultra expensive homes or reduced to apartment dwelling and manufactured homes. Or at worst old dilapidated RV's! The technology upgrades should be offered but not mandatory, as many builders and buyers will be excluded from participating in what has been till</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

	<p>recently, “the American dream.” But now for many, it will forever be just a dream! Building codes should and have been in place to uniformly address building integrity and occupant safety. It seems the mission has been egregiously changed to include forced compliance toward green energy and building materials at a prohibitive cost and at the worst possible time economically. These mandates will further inflate home prices and drive more people toward homelessness!</p>	<p>5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. By requiring heat pumps as part of the prescriptive code requirements, the benefits of a heat pump, including cooling and lower heating bills, can be extended to those in lower income brackets.</p>
Luke Moerke	<p>Please do not begin pressure new homeowners to go away from using natural gas by effectively banning it through the building codes. Taking away energy points for the use of natural gas appliances and ranges will do this effectively. It doesn't make sense. Natural gas is one of most abundant and clean burning energy choices around. The perceived utopia of all electric everything is not viable. Please keep options on the table.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for</p>

		those supplemental heating appliances—gas, propane and heat pump systems.
Alaina Moon	Thank you for providing this opportunity to submit a written comment. I urge you to adopt the proposed energy code updates. Moving away from gas in our residential buildings is important because doing so helps preserve a healthy future for our children.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Sarah Moore October 14 Public Hearing	Support Heat Pump proposals City Council member from Burien. Urge adoption. Purchased a new stove with a defect. When replaced, realized nighttime headaches were due to the gas stove. Currently have a heat pump and neighbors use their home as a cooling station in the summer.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		<p>time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Jody Morehouse	<p>SBCC Committee Member, I urge you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code.</p> <p>Washingtonians value Energy Choice. Natural gas is a safe energy source that will keep construction affordable, improve the reliability of our electric grid, and preserve the lifestyles Washingtonians enjoy. Let's be wise in our approach to meeting GHG goals and utilize energy efficient products and design. Please support energy choice and remove code proposals 21-GP2-065 and 21-GP2-066.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
James Morgan	<p>This letter is in opposition to several of the code amendments in the Group 2 – 2021 WSEC - Residential code change proposal. Do not regulate the type of energy source available to new residential construction.</p> <p>21-P2-065: Heat Pump Space Heating 21-GP2-066: Heat Pump Water Heating</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
Margaret-Mary Morgan	<p>This is the stupidest idea I have ever heard! Why would you do such a thing. As a home owner having natural gas has saved us a lot of money.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source,</p>

		and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.
Gina Mosey	The electrical grid can't support a full ban on natural gas. Avista believes it would need to double its capacity to absorb a gas ban.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This does not eliminate gas as a fuel source. While gas is prohibited, for the most part, as the primary source of space and water heating it is allowed as a supplemental heat source, and gas heat pumps are allowed. The Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p>
Kit Muehlman	I'm writing to urge you to adopt the proposed energy code updates. I installed a heat pump in 2014, and now my electric bill is 65% of the previous amount per year. In addition, I am warmer in the winter and cooler in the summer! If you have a heat pump, perhaps you've had a similar experience. If we could reduce energy consumption at that rate in new homes and buildings, we could save money as well as the environmental side effects of producing excess energy.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

<p>Chuck Murray</p>	<p>I encourage the adoption of the energy code TAG recommendations. For the requirements specified in section 406, I recommend the adoption of OPTION 2 (Post-TAG modifications) as put forward by the MVE committee...</p> <p>TAG recommendations for changes to the air leakage rate represented in the prescriptive option should also be updated in the performance option.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406.</p> <p>Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The air leakage rate in Table R405.4.2(1) was also changed to 4.0 to correlate with that modification.</p>
<p>Todd Myers Washington Policy Center</p>	<p>After working for more than two decades in environmental policy at state agencies and on state boards, I recognize a few consistent errors in proposals like the one being considered, including relying on out dated and incomplete information, and failing to assess the impact of the regulations in context of other existing laws. This proposal will not achieve the goals it purports to achieve, but will waste resources that could go to effective conservation and CO2-reduction policies.</p> <ol style="list-style-type: none"> 1) This policy will not reduce CO2 emissions. 2) Many environmental activists and 	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>The Legislature has directed the Council through RCW 19.27A.020 to update the Washington State Energy Code, and these rules must be designed to help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031. RCW 19.27A.160 explicitly requires the Council to adopt state energy codes from 2013 through 2031 that incrementally move towards achieving seventy percent reduction in annual net energy consumption, using the adopted 2006 Washington state energy code as a baseline. The Council determined the best way to meet these goals at this time was to adopt requirements for heat pumps in the prescriptive code. As</p>

	<p>others acknowledge the truth of the first point, but argue that these regulations must be put in place because it is the ONLY way to meet the cap or that the regulations would be cheaper than alternatives. This is not accurate on either count.</p> <p>Lastly, far from being the only way to meet our CO2 goals, these regulations have a high cost to reduce each metric ton of CO2 under the state law.</p>	<p>these rules only affect new construction, this will only gradually affect CO2 emissions and energy use.</p>
Natural Resources Defense Council	<p>Please accept this comment from 549 Washington State members and online activists of the Natural Resources Defense Council (NRDC) urging you to support the proposed new requirements which would ensure that all new residential buildings in Washington use ultra-efficient electric heat pump systems, have proper ventilation for gas stoves, and that single and two-family homes and townhomes use electric water heating systems</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Wendy Nearhoff	<p>I am writing today on behalf of Nexus Electric to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance</p>

		<p>for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Debra Newcomb	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Justin Nimick	Vote to remove the costliest proposals (032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091) from the final Group 2 code package. At a time when Washington is already pricing 85% of families, we simply cannot afford to pass these codes.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320</p>

		<p>(proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>
NW Gas Association	<p>NWGA has significant concerns regarding the Proposed Code and urges the Council to amend the codes to increase energy efficiency and greenhouse gas ("GHG") emission reductions in a technology-neutral manner that is more consistent with Washington state policy...Thank you for the opportunity to comment on the Proposed Code. NWGA hopes that the Council will consider the benefits of Washington's technology-neutral decarbonization approach and adequately account for equity and cost concerns, the CCA-mandated GHG emissions reductions in the gas sector,</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The Council also received comments received comments from many low income housing advocates who felt it was in the best interest of the community to provide heat pump systems for equity and sustainability.</p>

	<p>and analytical transparency in revising building code requirements for residential buildings.</p>	<p>The Council reviewed the carbon emission factors in the proposal, including the electricity metric, and determined that retention of the proposed values in the adopted emissions table was the best alternative at this time. The metric for electricity is consistent with the commercial energy code value and in alignment with the Clean Energy Transformation Act, Clean Buildings law and the Office of Financial Management’s cost tool.</p> <p>The final rule also adopts the new definition for “Residential Building” and the scoping under the residential energy code. The Council felt that moving smaller multi-family buildings to the commercial code would provide parity between three- and four-story buildings, and would not increase cost or energy use for these buildings. R406 natural gas options</p> <p>In accordance with RCW 34.05.328, as part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTIS%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, and reflects the changes made during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council’s rulemaking page: https://sbcc.wa.gov/2021-code-adoption-cycle. An energy research institution is currently working on an additional economic analysis of the adopted code.</p>
NW Natural	<p>Proposal 21-GP2-065 – For consistency, add an exemption under R403.13 for gas or propane furnaces or gas or propane boilers from Table 406.3, Energy Credits. This aligns with Table R406.3, Option 1 and 2, which both provide credits for high-efficiency gas furnaces and boilers.</p> <ul style="list-style-type: none"> • Proposal 21-GP2-066 – For consistency, add an exemption under 	<p>065: This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out</p>

	<p>R403.5.7 for gas or propane water heaters from Table 406.3, Energy Credits. This aligns with Table R406.3, Option 1, provides credits for high-efficiency gas water heaters.</p> <ul style="list-style-type: none"> • Proposal 21-GP2-067 – To advance energy efficiency, appliance affordability, and energy reliability, amend Table R406.3 to include energy credits for gas-fired heat pumps. • Proposal 21-GP2-069 – To advance energy efficiency, appliance affordability, and energy reliability, amend Table R406.3 to include energy credits for gas-fired heat pumps. 	<p>of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>066: This proposal does not eliminate gas as a source of hot water. While gas is prohibited, for the most part, as the primary source of water heating it is allowed as a supplemental source. It is also allowed in smaller dwellings 1,000 square feet or less of conditioned space. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The UTC has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>067/069: The Council took the commenter's comments into consideration and discussed the concerns but declined to add an exception for gas heat pumps.</p>
NW Natural 065	<p>Proposed modification/Minority Report - add exception in R403.13:</p> <p>Table R406.3, OPTION 1 and 2 in the CR02 both provide credits for gas high-efficiency furnaces and boilers, yet Proposal 21-GP3-065 does not allow them. This proposal seeks to correct that by adding another exception that resolves this inconsistency.</p> <p>EXEMPTIONS</p> <p>9. Gas or propane furnaces or gas or</p>	<p>The Council took the commenter's comments into consideration and discussed the concerns but declined to make any changes to the heat pump requirements. The credits reflected in Table R406.3 are for the supplemental heating systems already allowed under Section R403.13 and described in Table R406.2.</p>

	propane boilers from Table 406.3, Energy Credits.	
NW Natural 066	<p>Proposed modification/Minority Report - add exception in R403.5.7:</p> <p>Table R406.3, OPTION 1 in the CR02 provides credits for high-efficiency gas water heaters, yet Proposal 21- GP3-066 does not allow them. This proposal seeks to correct that inconsistency by adding another exception.</p> <p>EXCEPTIONS:</p> <p>9. Gas or propane water heaters from Table 406.3, Energy Credits.</p>	<p>The Council took the commenter's comments into consideration and discussed the concerns but declined to make any changes to the heat pump requirements. Option 1 was not adopted in the final rule.</p> <p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source for both gas and water heating, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>
NW Natural 067	<p>Proposed modification/Minority Report - add options to R406.3:</p> <p>The WSEC-R TAG voted this proposal down over concerns about the basis for energy savings, because there is no federal minimum efficiency for gas heat pumps (GHPs) – as of yet. However, there are federal standards for gas water heaters and gas furnaces that do serve as a solid basis for evaluating energy savings. This proposal includes a minimum gas-fired heat pump (GHP) efficiency that would help effectuate the goal of Washington's building codes to encourage efficiency while retaining energy source neutrality. The intent of the original proposal was to provide energy credits for GHP. Proposals 065 and 066 allow the use of GHPs for</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>The Council took the commenter's comments into consideration and discussed the concerns. However, no changes to the initial proposals were made as a result of this comments. It was felt that this would necessitate a new rulemaking and should be submitted for consideration for the 2024 code cycle, when the appropriate values and credit points could be provided and documented.</p>

	<p>space and water heating. This equipment has up to 50% (or more) greater efficiency than federal minimum equipment, therefore it only makes sense that credit should be given. The purpose of this proposed code change is to advance energy efficiency with existing products on the market, to promote advanced gas equipment and to broaden options for builders and owners. The point values would need to be validated by the third party that provided the energy modeling for Table R406.3 in the CR102.</p>	
<p>NW Natural 069</p>	<p>Proposed modification/Minority Report - add options to R406.3:</p> <p>The WSEC-R TAG voted this proposal down over concerns about the basis for energy savings, because there is no federal minimum efficiency for gas heat pumps (GHPs) – as of yet. However, there are federal standards for gas water heaters and gas furnaces that do serve as a solid basis for evaluating energy savings. This proposal includes a minimum gas-fired heat pump (GHP) efficiency that would help effectuate the goal of Washington’s building codes to encourage efficiency while retaining energy source neutrality. The intent of the original proposal was to provide energy credits for GHP. Proposals 065 and 066 allow the use of GHPs for space and water heating. This equipment has up to 50% (or more) greater efficiency than federal minimum equipment, therefore it only makes sense that credit should be given. The purpose of this proposed code change</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>The Council took the commenter’s comments into consideration and discussed the concerns. However, no changes to the initial proposals were made as a result of this comments. It was felt that this would necessitate a new rulemaking and should be submitted for consideration for the 2024 code cycle, when the appropriate values and credit points could be provided and documented.</p>

	<p>is to advance energy efficiency with existing products on the market, to promote advanced gas equipment and to broaden options for builders and owners. The point values would need to be validated by the third party that provided the energy modeling for Table R406.3 in the CR102.</p>	
<p>NW Natural 080</p>	<p>Proposed modification/Minority Report - add exception in R403.5.5:</p> <p>The intent of the original proposal was to keep standby heat losses from electric resistance water heaters within the thermal envelope so that heat would not be lost to outdoors. However, the TAG expanded the scope to include all water heaters, except those with a UEF of 2.0 or greater. Note that Proposals 65 and 66 allow gas heat pumps for both space and water heating. Their language requires “heat pumps”, intentionally allowing both electric and gas technologies.</p> <p>R403.5.5 Water heater installation location. Service hot water systems shall be installed within the building thermal envelope.</p> <p>EXCEPTIONS:</p> <p><u>1.</u> Where the hot water system efficiency is greater than or equal to 2.0 UEF.</p> <p><u>2. Gas heat pumps with an efficiency greater than or equal to 1.15 UEF.</u></p>	<p>The Council adopted the requirements for water heater installation, with no additional modifications made to the language. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p>
<p>Virginia Nugent October 11, 2022</p>	<p>I want you to ban natural gas hook ups on all residential homes and multifamily structures. To combat climate change, the International Governmental Panel on Climate Change report says,</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary</p>

	<p>"Greenhouses gases must peak by 2025 and reduce by 43% by 2030. We must limit global warming to 1.-5 degree Celsius if we are to avert a climate disaster." Right now if we continue on as usual we are heading for a 3- degree Celsius increase. The climate change we are experiencing today will become much much worse. We will see hotter and more frequent extreme heat waves, stronger and more frequent storms, continued drought, forest fires, floods, coastal homes swallowed up by a rising ocean, mass migration of people trying to find a new place to live, dying of the coral reefs, glaciers melting, water shortages, rivers drying up, and many plant and animal species will be facing extinction. Is this the world we want for our children and future generations?</p>	<p>source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Virginia Nugent September 17, 2022</p>	<p>It is time to get rid of natural gas for all new buildings. We must reduce our CO2 emissions and keep our air clean. It is my understanding that there is an enormous amount of methane leaking from coupling/pipes under the gas stoves. Something needs to be done to fix this. I suggest that cities be required to create an inspection program and go to each home with a gas stove and tighten those fixtures if they are loose.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p> <p>Local jurisdictions do not have the legal authority to enter homes for inspection without an open permit on file. This would need to be a matter taken up by the Legislature.</p>

<p>Mike Nykreim MBAKS October 14 Public Hearing</p>	<p>Oppose WSEC-R Captains lead from the front—electrify yourselves before requiring it of others.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p>
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Heather Ocain	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Court Olsen	<p>The People for Climate Action organization is writing today to strongly urge the State Building Code Council (SBCC) to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Wayne Olsen	<p>Thank you for your previous actions of adopting electrification codes for new commercial and multi-family high-rise residential buildings. Those actions are</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source.</p>

	<p>a great step, but we must go much further, faster. I strongly encourage your most aggressive options to adopt building codes to electrify ALL commercial and residential properties, existing as well as new construction.</p>	<p>While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Craig Olson, WA ACCA</p>	<p>I am writing to you on behalf of the Washington Air Conditioning Contractors Association(WA ACCA) to express our concerns with the proposed rule WSR 22-17-149, the proposed 2021 Residential Energy Code. As professionals working with HVAC systems on a regular basis, we are concerned that this code will significantly and unnecessarily increase costs for homeowners/homebuyers in Washington State. In particular, we want to address the requirement to install heat pumps in all new residential construction... We would recommend that the Council allow more variety in the type of electric hot water heater that can be installed in the home so the architect, builder, plumbers, etc... can design the most energy efficient system for that home and that family. In addition, we recommend the code clearly allow all heat pump hot water heaters to be installed in garages.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products.</p> <p>The requirement for water heaters to be installed within the thermal envelopes has an exception for heat pump water heaters.</p> <p>The Council has recently released an Opinion that provides a conversion table for SEER2 and HSFP2 efficiencies. We are working on incorporating these ratings into the codes during the off-cycle of code development. That Opinion can be found at https://sbcc.wa.gov/sites/default/files/2022-10/22_02_wsecRC.pdf.</p> <p>The Council discussed changing the effective date of the codes but in the end no changes to the initial proposals were made. They also considered the licensing issue through L&I, but Council deferred the licensing issue to L&I.</p>
<p>City of Olympia</p>	<p>On behalf of the City of Olympia, I am writing to strongly urge the State Building Code Council (SBCC) to build on your excellent work updating the Washington State commercial energy code, and now adopt proposed updates</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be</p>

	to the residential energy code that are similarly aligned with state and local climate goals. Specifically, we strongly support residential energy code updates that accelerate the transition to clean energy, improve indoor and outdoor air quality, and ensure we are building resilient and affordable homes, by requiring heat pump systems and increased ventilation for gas stoves in new homes.	located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Scott Ongley, NW Hearth Patio and BBQ Association September 29 Public Hearing	Oppose WSEC-R Electrification Here to talk about the electrification of the state. Insufficient or inaccurate data provided without regard to the impact on consumers, housing costs and supplemental heating. Four times as many people die from cold than heat. Fall and winter storms knock out power, and electrical demand goes up in the cold months. Free standing gas fireplaces do not require a blower. They are a popular backup heat source but need the natural gas infrastructure,	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source. There are no prohibitions in place for the source of backup heating. The proposal did not prohibit the use of decorative gas appliances or fireplaces.
Scott Ongley and Edward Hosack	On behalf of the NW Hearth, Patio & Barbecue Association, we are writing to express our organizations deep concerns with the direction the Washington State Building Code Council is taking regarding the ability to have natural gas. While the code does not explicitly prohibit a gas fireplace or back up heating appliance being installed into a home, the credit options table and other changes in the code implicitly will keep gas from being available in new residential and multi-family construction. NWHPBA opposes	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This does not eliminate gas for space or water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target

	<p>this because not only has there been no direction from the Legislature to eliminate natural gas in new construction – either directly or indirectly – our organization is also very concerned about the ability for homeowners to have what they need to safely “shelter in place” during weather events, public health crises or other types of events. We would like to see the residential energy code explicitly allow gas fireplaces or other gas-powered hearth products to be installed in new residential construction without impacting the energy credits for the home</p>	<p>energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems. The rule also does not prohibit the use of decorative gas appliances or fireplaces.</p>
<p>Don Orange October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>Our job is to preserve a decent place for our kids to live. We need to rise to the challenge and be the adults in the room.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Lisa Ornstein October 14 Public Hearing</p>	<p>Support heat pump proposals</p> <p>Olympia resident whose husband died during the heat dome last year. It is critical to address climate change. Heat</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary</p>

	pumps will help keep vulnerable people safe, especially in apartments.	source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.
Susan Paoletta	I urge you to adopt the proposed energy code updates requiring heat pumps and electric space heating in newly constructed homes and buildings.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Lisa Parshley Olympia City Council</p> <p>October 14 Public Hearing</p>	<p>Support IMC/WSEC-R</p> <p>Referenced a letter from the City Council, signed by the Mayor, submitted earlier. Two thirds of our carbon footprint is from the built environment. This is not just about climate change, but a sense of equity. We need to address climate change if we're going to provide for a diverse and equitable society.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
David Perk	We strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health. In the face of the	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor

	<p>climate emergency, it is critical that officials at all levels of government pass the policies needed to reduce emissions, protect our communities from further harm, and foster resilience.</p>	<p>remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Ron Perkerewicz & Adam Perkerewicz</p>	<p>I am writing today on behalf of BIAW, KBA and myself to voice concerns over the ability to choose natural gas for space and water heating. and the proposed section that would require the heat pump water heater and air handler be placed inside the conditioned space.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. Heat pump water heaters are not required to be installed within the thermal envelope. There is an exception to Section R403.5.7 specifically addressing heat pump water heaters.</p>
<p>Charlotte Persons October 14 Public Hearing</p>	<p>Support Heat Pump proposals We have a change to make a big impact on the future by moving away from gas, reducing greenhouse gas emissions, improving health and providing long term heating and air conditioning at a lower cost. The heat pump I installed in the 80's had an 8 year payback. Now the initial cost is less and payback is faster.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

		5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Mike Petersen October 14 Public Hearing	<p>Support WSEC-R: Heat Pump Proposals</p> <p>Heat pumps are 450% efficient versus a gas furnace at 95% efficient. Nearly half the new multifamily buildings in the US have heat pumps, and nearly 40% of single family. As a bonus, heat pumps provide cooling in the summer. They can accommodate the high and low temperatures Spokane has, and can run down to ten below. They cost between \$8-16K, and have rebates up to \$7.5K.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
D Scott Peterson NW Gas Association September 29 Public Hearing	<p>Oppose WSEC-R: 066, 073</p> <p>The options table should go back to the TAG for reevaluation. It is a de facto ban on natural gas and moves into the arena of an energy policy that was defeated at the Legislature. The supply chain issues have not been considered, nor the labor issues. The code is not being enforced, so you're not meeting the efficiency targets. And the legally required cost benefit analysis and small business analysis have not been done. These are your responsibility.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating and Option 2 for Section R406. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of space and water heating, it is allowed as a supplemental heat source. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. This proposal does not eliminate gas as a source of hot water. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward</p>

towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The UTC has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.

The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.

As part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTIS%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, and reflects the changes made during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council's rulemaking page: <https://sbcc.wa.gov/2021-code-adoption-cycle>.

The legislature granted statutory authority to the Council to adopt requirements related to building and energy codes. RCW 19.27A authorizes the Council to amend the provisions of the Washington State Energy Code to increase the energy efficiency of newly constructed residential buildings and directs the Council to adopt updates that help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031. And RCW 19.27A.160 explicitly requires the Council to adopt state

		energy codes from 2013 through 2031 that incrementally move towards achieving seventy percent reduction in annual net energy consumption.
Annie Phillips October 14 Public Hearing	Support WSEC-R: Heat Pump proposals We applaud your updates to the residential energy code. Global warming is not nature—we did this and we need to undo it. This will go far to make our new homes healthy and green for future generations.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Jeff Philipps	Please vote to remove the costliest proposals (032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091) from the final Group 2 code package. At a time when Washington is already pricing 85% of families, we simply cannot afford to pass these codes.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340,</p>

		<p>proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Bobby Piety	<p>Folks, your well-intended building code additions price too many people out of Washington homes. I think it would be MUCH better to offer incentives, so that those that CAN afford them will do so. Please don't FORCE people to reduce energy usage. Instead, make it a win-win through incentives, not mandates. Please.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p>
Dana Pieze	<p>I am writing today on behalf of Dana's Heating, Inc. to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320</p>

	091 from the Group 2 building code package.	<p>(proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Stasie Pike	I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340,</p>

		<p>proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Emily Pitkin	<p>I'm writing to urge you to adopt the proposed energy code updates to new residential construction. These code updates would continue to place Washington state at the forefront of the clean energy revolution needed to decrease greenhouse emissions and protect our climate. The end of natural gas in residential construction will come sooner or later. Making these changes now gives us the best return in terms of reduced greenhouse gas emissions.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This rule does not eliminate gas as a source of space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. The Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Dylan Plumber Sierra Club of Oregon/Washington	<p>Support WSEC-R</p> <p>On behalf of our 32,000 members and over 100,000 supporters, we urge the adoption of the energy code updates. It</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-</p>

<p>September 29 Public Hearing</p>	<p>has a number of benefits for the community—electrification and the transition off fossil fuels, addressing the climate crisis, reducing inequity, and protecting public health. It will not dramatically increase the electric load, but gradually over decades allowing time for expansion and resiliency. The cost benefit analysis found that all electric homes cost less to build than mixed fuel homes. As we experience severe hurricanes, drought and wildfires, its clear that the climate crisis is here now.</p>	<p>11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of space and water heating it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Jon Port</p>	<p>Our company is a developer and builder of affordable new homes in Douglas and Chelan County. I cannot believe these changes are even being considered at this time, but they are! I know you understand the desperate need for affordable homes especially now with the interest rate hikes and more than likely more hikes. Please help stop this madness!</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>

		<p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p>
<p>Eric Pravits Homestead Community Land Trust October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pumps Decarbonizing our newly constructed homes is critical to creating a healthy indoor environment. Better energy efficiency brings down the total cost of home ownership, which helps low income home buyers, who are often the most impacted by climate change. The time to act is now.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of space and water heating it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>

		Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.
Tyler Proszek	I urge you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code. Washingtonians value Energy Choice. Natural gas is a safe energy source that will keep construction affordable, improve the reliability of our electric grid, and preserve the lifestyles Washingtonians enjoy. Let's be wise in our approach to meeting GHG goals and utilize energy efficient products and design.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p>
Jerad Rains	I am writing today on behalf of Rogue Fabricators Inc. to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes

		<p>per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Patrick Reay	<p>The Port of Walla Walla, serving as the Associate Development Organization (ADO) for Walla Walla County and lead economic development organization, is writing to express opposition to the following proposed code changes for the state energy code: 3A Heat pump space heating. 3B Heat pump water heating.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The Council also received comments from many low income housing advocates who felt it was in the best interest of the community to provide heat pump systems for equity and sustainability.</p>
Gary Redman	<p>I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320</p>

		<p>(proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Steven Regener	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Christine Reid IBEW 77 September 29 Public Hearing	Oppose WSEC-R We provide power, generation, transmission, and distribution to 95% of the state. The rush to electrify will put a strain on the system. This shouldn't be	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source,</p>

	<p>rushed and create dangers for workers. Worker safety and readiness should be a priority.</p>	<p>and gas heat pumps are allowed. The Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p>
<p>John Repsold</p>	<p>Words fail me to express how appalled and frustrated I am with your Council's proposed energy code changes that will make housing across the board in our state exponentially more expensive. In a state where housing is already out of reach for 85% of Washingtonians, I cannot fathom what would possess a council such as yours to suggest these changes. Does the Building Code Council really want to make private home ownership a thing of the past while at the same time driving up rental rates in a market that is already leading to unprecedented homelessness and housing insecurity? With nearly half of Washingtonians currently housing-cost burdened (i.e. paying more than 30% of their income to housing), how can you possibly be considering unproven, unnecessary and dramatically more expensive code changes?</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The Council also received comments from many low income housing advocates who felt it was in the best interest of the community to provide heat pump systems for equity and sustainability.</p>

Responsible Energy Codes Alliance	<p>We support the Building Code Council's proposed incorporation of the energy conservation improvements of the 2021 IECC into the 2021 WSEC, and make additional recommendations below to further improve the WSEC.</p> <ol style="list-style-type: none"> 1. Envelope Efficiency Trade-off Backstops 2. Correction to Table R402.1.2 Wall Insulation U-factor 	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>The Council took the commenter's comments into consideration and discussed the concerns. However, no changes to the initial proposals were made as a result of this comments. It was felt that this would necessitate a new rulemaking and should be submitted for consideration for the 2024 code cycle.</p>
<p>Dusty Rhodes October 14 Public Hearing</p>	<p>Support WSEC-R</p> <p>I support the HP proposals as well as anything else we can do to support the environment. Scientists are saying we've spent the last 40 years not facing reality and we need to take steps to save the planet from collapse.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		time for education on building and sealing to achieve lower leakage rates.
<p>Bryan Ricker, Schweitzer Engineering Laboratories</p> <p>September 29 Public Hearing</p> <p>October 14 Public Hearing</p>	<p>Oppose WSEC-R</p> <p>The best way to support innovation is to not mandate a single solution but establish a regulatory framework to support new ideas. These codes are a step in the wrong direction. We need to ensure the grid is ready before pushing more demand. We shouldn't be pushing people to spend more money for less choices in their homes. Please pause action on the energy codes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p>
<p>Tena Risley</p>	<p>For several years and prior to your supporting proposals within the 2018 energy codes, you have heard from hundreds to thousands of industry professionals and organizations. They have provided you evidentiary commentary and statistics that grossly contradict your cost analyses reports, and the operation and limitations of your proposed heat pump equipment. There have been non-debatable testimonies and facts coming directly from the utilities and their worker's organizations. The grid is not ready and cannot be ready for another 10-15 years...Group #2 heat pump proposal and building credits for space heating & water heating These proposals must be REMOVED from the 2021 codes to</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and</p>

	<p>avoid unaffordable housing and life/safety consumer concerns for eliminating their choice on natural gas and forcing upon them heat pump space & water heating when the grid is not ready to provide them continuous comfort and safety.</p>	<p>Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>The Council is following their legislative mandate. RCW 19.27A.020 provides that the Council must adopt rules to achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031. RCW 19.27A.045 authorizes the Council to amend any provisions of the Washington state energy code by rule to increase the energy efficiency of newly constructed residential buildings. And RCW 19.27A.160 explicitly requires the Council to adopt state energy codes from 2013 through 2031 that incrementally move towards achieving seventy percent reduction in annual net energy consumption, using the adopted 2006 Washington state energy code as a baseline. The adopted code provisions provide, in the Council's opinion, the best path forward to meeting those goals at the least cost to consumers.</p>
<p>Sloan Ritchie Cascade Built</p> <p>September 29 Public Hearing</p>	<p>Support WSEC-R Heat Pump Proposals (065, 066)</p> <p>We build very efficient homes and apartments beyond the standards being proposed here and they are economically and technically feasible. We stopped piping methane into homes; it isn't good for occupant health and it's one less utility to bring in. The best time to make these changes is during construction rather than an expensive retrofit.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Wendy Robbins</p>	<p>Please do not pass either of these proposals - 21-GP2-065 or 066. Further limiting our utility resources is moving in</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions,</p>

	<p>the wrong direction. We are already overloading the electrical circuits, and WA State's push to ban abundant resources like natural gas, hydro, and nuclear power will cause huge issues in a short time. Please do not add to the issues by approving local restrictions before the state restricts our options and forces increased costs.</p>	<p>including the heat pump requirements for space and water heating (065 and 066).</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The UTC has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Chris Roberts Shoreline City Council</p> <p>September 29 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals (065, 066)</p> <p>The Shoreline Council declared a climate emergency and is looking to implement carbon emissions reduction strategies including replacing fossil fuel systems with clean renewable energy systems for both new and existing buildings. We don't have the option of strengthening the residential energy code, so we're depending on you to help meet our goals and reduce emissions.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Albert Rooks Passive House Northwest</p>	<p>Support WSEC-R: 065, 066</p> <p>I'm here to express support by the entire membership for the residential</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were</p>

October 14 Public Hearing	code proposals. As the CEO of Small Planet Supply, we've set up a facility to produce heat pumps here in Thurston County. From the economic standpoint of the cost of living in Thurston County, we will bring in an estimated \$20 million annually and provide high tech jobs and skilled manufacturing.	made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Martha Rose	<p>I am a spec home builder, a member of Skagit and Island Counties Builders Association, a member of BIAW, NAHB, and also a member of the NW EcoBuilding Guild and Sustainable Connections in Bellingham. I fully support the proposed requirements to eliminate gas in homes, to require a 50 amp circuit for EV charging, to mandate heat pumps as the preferred primary source for heat and hot water, and to tighten up air leakage allowances. My experience is that these things do not add to the cost of a home when they are considered at the planning phase. Think - "Home as a System".</p> <p>Now, there is one exception to my acceptance to these proposals. Our understanding of proper ways to install heat pump water heaters is still in the formation stage. If the attached garage has an insulated door and walls and roof, it is perfectly acceptable to install a heat pump hot water heater in that space as long as the cold air discharge</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>The requirements for the installation location for water heaters includes an exception for heat pump water heaters, allowing their installation outside the thermal envelope.</p>

	<p>is properly ducted to the exterior. This application works especially well when a supply duct from a heat recovery ventilator is provided for the garage. That way, the ambient temp in the garage is always 55 degrees or higher, even in cold months - Plenty warm to extract heat to make hot water. This method ought to be mandatory on the east side of the Cascades where the outside temps dip so low.</p>	
Jim Rosemary	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>John Rothlin Avista Corp October 14 Public Hearing</p>	<p>Oppose WSEC-R</p> <p>Urge the rejection of the proposals that restrict heating technologies. They warrant further analysis and should be held over to the next cycle. Look at cost, regional climate conditions, training and education. Avista supports thoughtful decarbonization but not the elimination of energy choice or affordability.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>

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Paul Rozenberg	As a result of Suburban Propane's presence in Washington, we write in regard to Residential Energy Code Proposals 21-GP2-065 and 21-GP2-066 (Proposals). Suburban Propane supports the State's overall goal of reducing the carbon footprint of residential buildings. However, pushing all building construction towards one particular energy source, namely electric, is not the most effective way to achieve this goal. Combatting the impacts of climate change will be achieved only if Washington State adopts a technology-neutral approach and uses all available tools at its disposal, including clean, low-carbon energy such as traditional and renewable propane, and innovative new blends of such as Propane+rDME.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems</p>
Cheyenne Rumens	I am writing to encourage you to not push through regulations on natural gas in new construction. I urge you to think back to December 2021 when 246 Texans lost their lives to freezing temperatures and power loss. These people had no source of heat, and thus froze to death in many cases. As Washington winters have become colder and longer, banning the use of natural gas in new construction will subject washington residents to those same devastating losses.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>

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Kurt Rumens	There is not a better solution for supplemental residential heat that works in a power outage than modern gas appliances . A central question in this debate should include opinions of the tens of thousands of Washington State homeowners that have come to love and depend upon their gas fireplaces, inserts , and stoves. I do not believe they have any clue how your proposal may change the future outlook of families having a choice of staying warm and safe with Natural Gas , not if , but when the power fails during the winter months when it is essential. On behalf of tens of thousands of local families I respectfully ask that this irresponsible proposal be abandoned.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The final adoption included Option 2 for Section R406. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p>
Kevin Russell	I am writing today on behalf of Kevin Russell Construction to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on

		<p>building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Patrick Russell	<p>Please don't accept any of the proposed new building code proposals that are being considered. Home ownership will be even more out of reach for the average prospective buyer. Allow each homeowner to choose her/his own form of energy source and work with their builders to provide the best alternative for their particular situation. Please publish these code changes and give the people an opportunity to review them.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the</p>

		<p>2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>
<p>Elsie Sabel October 14 Public Hearing</p>	<p>Support Heat Pumps Proposal High school student in Olympia. Urge adoption. Having grown up with climate change, the dread is now worsening as I realize how little is being done. Emissions have to peak by 2025 to stay below the 1.5°C mark. Waiting another three years to pass this may be too late. Do this for me and every young person in the state.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Bill Sampson September 29 Public Hearing</p>	<p>Support WSEC-R: R403.13 and 403.5.7 Urge adoption of the heat pump changes. They are necessary to meet the carbon reduction targets at both the local and state level to ensure a breathable, healthy future. There need to be improvements to the grid to ensure reliability, both for gas and electric.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Since the requirements affect new construction, these impacts will affect the electrical grid gradually over time rather than a mass impact. The UTC has expressed their</p>

		<p>opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Keith Sanderson October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>As a future healthcare provider, it is absolutely essential that we remove gas from homes. The climate crisis is already wreaking havoc in our communities. Related health events are overloading hospitals and overworking medical professionals and lowering the quality of life for many families. Heat pumps would reduce the reliance on fossil fuels and lead to cooler, more efficient buildings.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Paula Sardinas, WA Build Back Black Alliance October 14 Public Hearing</p>	<p>Support Energy Code and Heat Pumps Coalition of 16 BIPOC CBOs serving WA. In support of the energy code and heat pumps. Marginalized communities experience inequities, with environmental impacts causing harm from where we work, live and play. We have an opportunity to send a message that we don't expect people to choose between bare necessities and basic human health.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		time for education on building and sealing to achieve lower leakage rates
John Saunders October 14 Public Hearing	Support WSEC-R Moving away from methane gas in our buildings is important to address the climate crisis. The state energy strategy found that electrifying homes is the lowest cost way to meeting the state's emission reduction goals. All electric homes are a robust and market ready solution. These updates ensure that the homes we're building now are sustainable and responsible.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Ruth Sawyer September 29 Public Hearing	Support WSEC-R: Heat Pump Proposals (065, 066) Urge the adoption of heat pumps and increased ventilation requirements for gas stoves. These are a clear way to act on commitments to transition away from fossil fuels.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.
Jonathan Scanlon	I support the proposed amendment to state residential energy codes that would move our state away from natural	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions,

	<p>gas and towards electrification. As a homeowner in an older home with natural gas for heating, cooking, and other uses, I worry about the health impact of cooking with natural gas in my home. Homes with gas stoves have 50 percent to over 400 percent higher nitrogen dioxide levels in their indoor air than homes with electric stoves, which can lead to heart failure and asthma. This is a public safety issue that the state should address by amending residential codes.</p>	<p>including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Jana Schultheis</p>	<p>For 30 years I have worked in both the residential and commercial building industry mainly in Washington State...I have seen vast improvements in building safety – which is exactly the intent of the code. But, I have also seen every level of this industry become more complex, less efficient and more costly with each code revision. The appointed code committee members have the unique and weighty opportunity to reset that curve to restore logic to their recommendations to our legislators for WAC's & RCW's and the state's supplementary energy, electrical, mechanical, etc. codes. On the agenda is the proposed change to eliminate natural gas energy and would require new homes to use electric heat pumps for both space and water heating. This would eliminate the ability for home builders to install cost-effective and energy-efficient natural gas heat pumps in new homes, and it would make Washington the first and</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby</p>

	<p>only state to institute a statewide requirement to this effect. Please recall, for the last 20 years the state has incentivized the use of high SEER and ASHRAE rated gas appliances. They were the industry darlings and did, in fact, save on electricity, cost and were highly reliable...Why would this committee choose to remove one very sound method of energy delivery that is only 12.9% of our state's power supply? Why would this committee prescribe homeowners to use a system that has a higher initial cost and will fail when the power is interrupted? Why, when the electrification of all things is in increasing grid demands would you intentionally make the grid more taxed by removing an alternate fuel source that diversifies load? Why would this committee extinguish natural gas when the advancement of Natural Gas Direct-Use technologies are emerging to also improve their GHG emissions?</p>	<p>losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present in Table R406.3 include credit options for those supplemental heating appliances—gas, propane and heat pump systems.</p> <p>This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>
Brian Schultz	<p>urge you to remove code proposals 21-GP2-065 and 21-GP2-066 from the State Residential Energy Code. Washingtonians value Energy Choice. Natural gas is a safe energy source that will keep construction affordable, improve the reliability of our electric grid, and preserve the lifestyles Washingtonians enjoy. Let's be wise in our approach to meeting GHG goals and utilize energy efficient products and design. Please support energy choice and remove code proposals 21-GP2-065 and 21-GP2-066.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p>

		Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.
Ed Schweitzer	<p>Whether it's natural gas, gas-powered cars, building standards beyond basic safety... let We the People decide. Most of the time we'll get it right, sometimes we'll get it wrong. Letting government decide is a huge hidden tax, where more people will suffer a different kind of wrong...in aggregate bigger than the sum of the smaller mistakes of individuals.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The Legislature granted statutory authority to the Council to adopt requirements related to building and energy codes. RCW 19.27A authorizes the Council to amend the provisions of the Washington State Energy Code to increase the energy efficiency of newly constructed residential buildings and directs the Council to adopt updates that help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031. And RCW 19.27A.160 explicitly requires the Council to adopt state energy codes from 2013 through 2031 that incrementally move towards achieving seventy percent reduction in annual net energy consumption</p>
<p>Andrea Scott-Murray October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump proposals</p> <p>The paramount purpose of building codes is to support the health and safety of the occupants. Health and safety have to come first; not just personal health and safety but that of our species on this planet.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was</p>

		<p>modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
City of Seattle	<p>The City of Seattle strongly supports the passage of the 2021 Residential Energy Code proposed updates. We believe that strong building codes are one of the most cost-effective ways of ensuring that the buildings we construct today will support healthy, livable communities in the future.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Senators Letter signed by 21 Senate members	<p>We are writing as Washington State Senators to express our concerns with... the proposal to restrict the use of natural gas for space- and water-heating in new homes conflicts with legislative intent. The Legislature did not authorize the Council to phase out natural gas...Any policy on phasing out natural gas should be based on a specific grant of authority from the Legislature, not a broad and nonspecific goal pursued by the Council...we emphasize that the Legislature did not direct the Council to restrict or phase</p>	<p>The State Building Code Council moved forward with the adoption of the 2021 WSEC -Residential, including the provisions related to heat pump space heating and heat pump water heating. The Council's position is that it has clear statutory authority to adopt these provisions. RCW 19.27A.020 provides that the Council must adopt rules to be known as the Washington State Energy Code as part of the state building code, and these rules must be designed to help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031. RCW 19.27A.045 authorizes the Council to amend any provisions of the Washington state energy code by rule to increase the energy efficiency of newly constructed</p>

	<p>out the use of natural gas for space- or water-heating in new homes. If legislators wanted to direct the Council to adopt this change, we knew how to do it. But we have not authorized the specific natural gas policy the Council seeks to impose...Without a statutory mandate, the Council cannot act.</p>	<p>residential buildings. And RCW 19.27A.160 explicitly requires the Council to adopt state energy codes from 2013 through 2031 that incrementally move towards achieving seventy percent reduction in annual net energy consumption, using the adopted 2006 Washington state energy code as a baseline.</p>
<p>John Seng</p>	<p>I am writing today on behalf of Spark Northwest to express our support for the full package of proposed residential energy code updates, especially the requirement for heat pumps in new homes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates</p>
<p>Warren Sheay October 14 Public Hearing</p>	<p>Support WSEC-R Heat Pump Proposals I strongly urge you to adopt the updates. You've already heard dozens of fact-based reasons to do so. Eliminating methane gas in new homes will reduce climate pollution. I beseech you to make these crucial changes for our kids and grandkids.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments</p>

		that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Naghmana Sherazi September 29 Public Hearing and October 14 Public hearing.	<p>The Lands Council, and our Climate Justice Program are writing today to strongly urge the State Building Code Council (SBCC) to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health.</p> <p>Support WSEC-R Heat Pumps Proposal (065, 066)</p> <p>Most gas used in Washington is provided through fracking. Fracking impacts the environment and contributes to water contamination. Housing is the fastest growing source of greenhouse gas. Indoor air is more polluted than outdoor air. This is the lowest cost pathway forward. Please adopt these changes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Gayla Shoemake	<p>Interfaith Climate Action (ICA) is writing to urge you to approve the proposed updates to the Washington State residential energy code to require that new homes be built with high efficiency heat pumps to heat and cool our spaces and water, and that cooking be done by electric stoves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was</p>

		<p>the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Jeffery Short October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>I strongly urge the council to adopt the proposed energy code updates because we can't afford to wait another three years. Think about everything that has happened since the council last considered potential updates. Think about the last three years of wildfires, droughts, and floods exacerbated by greenhouse gas emissions, including the outdated methods we use to heat our homes. As a teacher at heart, I ask you to consider your role in giving our state's future graduates a world worth investing in.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Sierra Club Petition submitted with 1,441 signatures</p>	<p>On behalf of our membership across the state, we urge you to adopt the proposed code updates to help our state transition off of methane gas in our buildings and address the climate crisis and inequity, and to protect public health and safety in Washington.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		time for education on building and sealing to achieve lower leakage rates.
Jessie Simmons Olympia Master Builders October 14 Public Hearing	Oppose All Codes Pricing families out of homes. Is this the time to pursue the desire to be first in green energy.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the legislatively mandated 70 percent reduction of energy.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as</p>

		the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.
Andrea Smith	<p>21-GP2-065: Heat Pump Space Heating and 21-GP2-066: Heat Pump Water Heating Recommended Technical Modifications: Not applicable, do not pass as-is.</p> <p>21-GP2-073: R406 Table - Option 1: Heat Pumps Not Required vs. Option 2: Heat Pumps Required Recommended Technical Modifications:</p> <ul style="list-style-type: none"> Options 5.1 and 5.2 need to be vetted by the Plumbing TAG before being considered for adoption. These proposals have not been reviewed by this TAG for their expertise and input. Crosswalk schedule for current HSPF and SEER vs. new HSPF2 and SEER2 (to be released in 2023). Include definition for primary living space (currently no definition in the code) Provide an appendix for jurisdictions to utilize a modification plan if a credit can't be achieved as pre-selected at time of the permit application. Require 4 ACH instead of 3 ACH and give credit for meeting 3 ACH in the R406 table. Update dwelling sizes to alleviate the large gap between 1,500 – 4,999 square footage homes. <p>21-GP2-079: U-Factor Replacements Recommended Technical Modifications: Not applicable, do not pass as-is.</p> <p>21-GP2-089: Allowed Leakage Rates Recommended Technical Modifications:</p>	<p>21-GP2-065: The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>21-GP2-073: The Council moved forward with the adoption of Option 2 for the Fuel Normalization table and the credit options table. This version of the table does not provide credit for the code baseline heat pump space heating system. Option 1 contained that credit because that version of the table had gas heat at the baseline. Option 2 of R406 also requires fewer credits to be achieved than in Option 1, since it takes into account all of the other gains made in the prescriptive portion of the code. The Council felt this was a better coordinating option with the adopted heat pump baseline.</p>

	<p>Compromise to 4 ACH and add 3 ACH to R406 options table for credit.</p> <p>21-GP2-032: Sealed Air Handler Recommended Technical Modifications: Allow for placement in semi-conditioned spaces (such as a garage)</p> <p>21-GP2-080: Water Heater Install Location Recommended Technical Modifications: Allow for placement in semi-conditioned spaces (such as a garage)</p>	<ul style="list-style-type: none"> • The Council did not opt to extend the rulemaking process to send the plumbing options in the credit table through further review and hearings. • The Council has recently released an Opinion that provides a conversion table for SEER2 and HSFP2 efficiencies. We are working on incorporating these ratings into the codes during the off-cycle of code development. That Opinion can be found at https://sbcc.wa.gov/sites/default/files/2022-10/22_02_wsecRC.pdf. • In the final adopted version of the code, “Primary Heating Source” was changed to “Space Heating Sources” • The Council did not opt to develop an appendix at this time with alternative approaches if a credit cannot be claimed as intended. This may still be proposed and developed during the off-cycle. • The Council did not choose to add an intermediate size range to the credit table. However, with the selection of R406 Option 2, fewer credits are required for each dwelling category. You are encouraged to submit this as a code change proposal for the 2024 code adoption. • Regarding your comments on the credit options in the table, the Council received comments into consideration and discussed the concerns. However, no changes to the initial proposals were made as a result of this comments. It was felt that this would necessitate a new rulemaking and should be submitted for consideration for the 2024 code cycle. <p>21-GP2-089: The air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. No additional credit options were added to the R406 table, however. It was</p>
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		<p>felt that would need to be submitted as a code change proposal and the appropriate credit value would need to be calculated.</p> <p>21-GP2-079: The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30.</p> <p>21-GP2-032: The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted.</p> <p>21-GP2-080: The Council adopted the requirements for water heater installation, with no additional modifications made to the language. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope. Heat pump water heaters are not required to be installed within the thermal envelope. There is an exception to Section R403.5.7 specifically addressing heat pump water heaters.</p>
<p>Andrea Smith. BIAW</p> <p>September 29 Public Hearing</p> <p>October 14 Public Hearing</p>	<p>Oppose WSEC-R: 084, 079, 065, 066, 089, 080, 073 option 1&2</p> <p>Flawed process—need to perform the third party cost analysis and have the Plumbing TAG review the R406 options pertaining to plumbing. Increases the cost of housing and contributes to housing shortage.</p> <p>Oppose WSEC-R</p> <p>See also Sept. 29 Comments We urge you not to pass the HP proposals. There are issues around the powerlines and the lack of line workers and housing affordability, with this adding up to \$24,000 to the price of homes, and increasing the risk of wildfires from powerlines. Utility bills will increase and cost homeowners more money. On changing the definition of residential building, moving low rise to the</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements (065, 066). Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>The final rule also adopts the new definition for “Residential Building” and the scoping under the residential energy code (084). The Council felt that moving smaller multi-family</p>

	<p>commercial code may open up legal action based on the conflict with the commercial code.</p>	<p>buildings to the commercial code would provide parity between three- and four-story buildings, and would not increase cost or energy use for these buildings. The Council also adopted the requirements for water heater installation (080), with no additional modifications made to the language. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The Council also received comments from many low income housing advocates who felt it was in the best interest of the community to provide heat pump systems for equity and sustainability.</p> <p>The final adoption also included the selection of Option 2 for Section R406 (073). This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.</p> <p>As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>The Council took the commenter’s comments regarding the review of plumbing items in R406 into consideration and discussed the concerns. However, no changes to the initial proposals were made as a result of this comment.</p>
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		<p>The third party economic impact is being developed on the adopted code language, with the changes made during the adoption process. It is scheduled to be published in mid-January 2023.</p>
<p>Dalton Smith October 14 Public Hearing</p>	<p>Oppose WSEC-R Our industry is facing supply chain issues. The code doesn't provide enough flexibility to work around those issues. The state is ranked low for solar power potential and the aging grid causes concerns. Hybrid HP hot water heaters can't provide enough hot water for families unless they're in full electric mode.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Kevin Smith</p>	<p>Please vote to remove the costliest proposals (032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091) from the final Group 2 code package. At a time when Washington is already pricing 85% of families, we simply cannot afford to pass these codes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler</p>

		<p>to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Paul Smith	<p>I've been told this is where I can send comments regarding some new proposed code that would effectively ban the use of natural gas in new homes... We should not rely on a single energy source for our homes, particularly an energy source as prone to outages as electricity.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Julia Sokoloff	<p>I am writing in support of requiring heat pumps in new residential construction...</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions,</p>

	<p>I urge you to move forward with requiring electrical heating in new construction, to spare future homeowners the significant expense and difficulties that we experienced in trying to convert from gas to electricity.</p>	<p>including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The heat pump requirements also include an exception for areas where electrical service is not present.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Matthew Solak	<p>On behalf of the Pacific Propane Gas Association (PPGA), which represents propane marketers, suppliers and equipment manufacturers across Washington State, we appreciate the opportunity to provide feedback on propane in general and explain our opposition to these proposals (21- GP2-065 and 21-GP2-066). Our members provide clean-burning and critical energy to residential, commercial and agricultural customers in the state.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The Council took the commenter's comments into consideration and discussed the concerns. However, no changes to the initial proposals were made as a result of this comments. Based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The Council encourages you to draft a proposal and submit it for consideration during the 2024 rulemaking cycle to consider other methods of carbon emission reduction.</p>

		<p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves. Additionally, proposal 21-GP1-179 was adopted on April 22, 2022.</p>
<p>City of Spokane Council Members Breean Beggs, Karen Stratton, Zack Zappone</p>	<p>However, state policies are not made in a vacuum, and we would like to urge the entire state government- and the entire community- to look at the problems and solutions more broadly in hopes of creating a more equitable and effective transition. We support the SBCC's work in designing the framework for our transition toward reduced emissions and increased energy efficiency, and we ask that your framework also seeks to interrupt the pitfalls of black-and-white thinking. Any new provisions in the building code at the state level should be accompanied by flexibility for workers and funding for education, on-the-job training, subsidies to lower income consumers for complying with the new code provisions and buy-in from the public... How can we help consumers and homeowners make the best choices for their families by understanding the long view and provide public investments to make it more equitable for those who are challenged by these new provisions?</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation</p>

		<p>Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>The Council also received comments from many low income housing advocates who felt it was in the best interest of the community to provide heat pump systems for equity and sustainability</p>
Caleb Stapp	<p>I am deeply concerned about the proposed building code updates that would make it more expensive and difficult for Washingtonians to buy homes. I serve on the city council in Deer Park, WA and have attempted to lower permitting costs and regulations so that more of my neighbors can afford home ownership - and now there's an unelected board prepared to exceed their authority while increasing the heavy burden new homeowners must shoulder.</p> <p>I oppose 21-GP2-065 and 21-GP2-066. Let each homeowner make their own choice.</p> <p>I oppose 21-GP2-089. Let each homeowner make their own choice.</p> <p>I oppose 21-GP2-032. Let each homeowner make their own choice.</p> <p>I oppose 21-GP2-080. Let each homeowner make their own choice.</p>	<p>The Council's position is that it has clear statutory authority to adopt these provisions. RCW 19.27A.020 authorizes the Council to adopt rules designed to produce increasingly energy efficient homes and buildings that help achieve the broader goal of building zero fossil-fuel greenhouse gas emission homes and buildings by 2031. The Council is comprised of industry experts from various sectors in the construction industry, local government officials, and the general public, with representation from both Eastern and Western Washington.</p> <p>21-GP2-065 and 21-GP2-066: The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating. While gas is prohibited, for the most part, as the primary source of space and water heating it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy and zero emissions with the least cost for consumers.</p> <p>21-GP2-089: The Council adopted a modification to the air leakage requirements in WAC 51-11R-40240. It was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

		<p>21-GP2-032: The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance.</p> <p>21-GP2-080: The Council adopted the requirements for water heater installation, with no additional modifications made to the language. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p>
Alona Steinke September 29 Public Hearing	<p>Support WSEC-R Heat pump proposals (065, 066)</p> <p>Gas appliances pollute both indoor and outdoor air and are not regulated. Gas stoves leak constantly in the home, so we need more ventilation. Has used a heat pump for over 40 years. Urge you to adopt one of the strongest building codes in the US.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Stevens County Commissioners	<p>The Stevens County Board of Commissioners is submitting the following comments associated with the proposed Group 2 Code Change Proposals. Stevens County is opposed to Code changes that increase the cost of new home construction...</p> <p>21-GP2-065: Heat Pump Space Heating: Electric Heat pumps are more expensive, require supplemental heating sources during extreme cold and are severely backlogged because of supply chain issues. The</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements from 065 and 066. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH.</p>

	<p>degasification of housing will continue to strain the already overburdened electrical grid.</p> <p>21-GP2-066: Heat Pump Water Heating: Requiring a heat pump water heater increases upfront cost and limits water heating efficiencies at times of extreme cold. They are also bulky and take up valuable living space in a new home.</p> <p>21-GP2-089: Allowed Leakage Rates: Builders are already having a difficult time meeting the 5 ACH standard for compliance while watching costs. Requiring 3 ACH will result in higher costs for home buyers, further reducing the number of families that can afford to buy a house. The proposed change would require more sophisticated and costly ventilation systems</p>	<p>There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>This does not eliminate gas as a fuel source for space or water heating. While gas is prohibited, for the most part, as the primary source of heat, it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>Heat pump water heaters are not required to be installed within the thermal envelope. There is an exception to Section R403.5.7 specifically addressing heat pump water heaters.</p>
<p>Ty Stober City of Vancouver</p> <p>October 14 Public Hearing</p>	<p>Support WSEC-R</p> <p>Asking you to pass the updates. Vancouver has passed an aggressive goal of reducing greenhouse gas emissions by 80% by 2030 and being carbon neutral by 2040. Building stock plays an important role in that.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

		<p>5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
Andrew Stocking	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Terry Sullivan Letter signed by 8 King County local officials	<p>I'd like to submit the attached written comments in support of the proposed 2021 Washington State Residential, Building, and Energy Codes on behalf of the King County and local officials who have signed the letter. The elected officials who are signatories to this letter represent over 2.3 million Washington state residents and urge the Code Council to adopt the proposed code updates, in particular the requirements for heat pumps for space and water heating and increased ventilation for gas stoves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

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Sarah Sutton	<p>I'm writing from Tacoma, WA, where I live in a gas-free home, purchased especially because it was all-electric, included a heat pump, and perfectly positioned for solar panels (added this February)... I strongly encourage the adoption of these smart approaches to upgrading the efficiency of the state's residential stock. As so many more people join us in this beautiful state, we'll need the new housing, and we're responsible for doing it thoughtfully.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Bruce Swiecicki	<p>The National Propane Gas Association asks that you consider the information contained herein to represent its position with respect to the code proposals contained within the Group 2 Proposed Rule Making (CR-102). 065_TM_HP_Space_060722 066_TM_HP_WH_060322 Although it is an improvement to recognize that heat pumps can be powered by other than electricity, the proposed changes are still missing the mark...Modifying the Code to incorporate the straightforward calculations associated with relating the energy efficiency of appliances to the "full fuel cycle" production of CO₂e emissions will widen the selection of energy systems and appliances made available to the citizens of the State of</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>The Council took the commenter's comments into consideration and discussed the concerns. However, no changes to the initial proposals were made as a result of this comments. Based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The Council encourages you to draft a proposal and submit it for consideration during the 2024 rulemaking cycle to consider other methods of carbon emission reduction.</p>

	Washington in a fair and equitable manner.	
Joseph Szwaja October 14 Public Hearing	Support WSEC-R Heat Pump Proposals Sang a song in support of the changes and the need to electrify.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.
Steve Tapio September 29 Public Hearing	Oppose WSEC-R: T R406; Heat pump space/water heating; EV charging Home builder in Vancouver who builds primarily above code homes. Concerned housing availability and affordability. The upgrades from a high efficiency gas furnace and water heater are costly and will price more people out of the market. Product availability is also a concern. The EV requirements should be in the electrical code. And the Council should reconsider the ERI proposal and allow it as an optional compliance path.	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council is putting together a stakeholder group and technical experts to create an ERI-based performance path

		that is anticipated to be adopted into the 2021 code later this year.
Kyle Tarbet	The Walla Walla Valley Chamber of Commerce wishes to express opposition to any and all energy code proposals which ban, eliminate or restrict the use of natural gas for residential heating, water heating or cooking...Eliminating the option to use natural gas is a mistake. Please show your support for Washington businesses by voting against the following proposals: 62, 63, 65, 66, 84.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating (065 and 066).</p> <p>This does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The Council was originally created as an advisory body to the Legislature, but in 1985 the Legislature conferred authority to the Council to adopt the Washington State building code, determining that more expertise was necessary than enacting rules at the legislative level.</p> <p>The final rule also adopts the new definition for “Residential Building” and the scoping under the residential energy code. The Council felt that moving smaller multi-family buildings to the commercial code would provide parity between three- and four-story buildings, and would not increase cost or energy use for these buildings.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Jennifer Thomas Spokane Homebuilders Assn with 198 signatures	We and the community members listed at the conclusion of this letter have strong objections to eight Group 2 Code Change Proposals to the Washington State Residential Energy Code. As a community, we urge you to disapprove code change proposals that would increase the cost of new home	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements (065 and 066). Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (032) was not adopted. The Council felt there

	<p>construction and exacerbate the housing crisis.</p> <ol style="list-style-type: none"> 1. 21-GP2-073: R406 Table - OPTION 1: heat pumps NOT required vs. OPTION 2: heat pumps required 2. 21-GP2-032: Sealed Air Handler 3. 21-GP2-065: Heat Pump Space Heating 4. 21-GP2-066: Heat Pump Water Heating 5. 21-GP2-079: U-Factor Replacements 6. 21-GP2-080: Water Heater Install Location 7. 21-GP2-089: Allowed Leakage Rates 	<p>was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>The Council moved forward with the adoption of Option 2 for the Fuel Normalization table and the credit options table (073). This version of the table does not provide credit for the code baseline heat pump space heating system. Option 1 contained that credit because that version of the table had gas heat at the baseline. Option 2 of R406 also requires fewer credits to be achieved than in Option 1, since it takes into account all of the other gains made in the prescriptive portion of the code.</p> <p>There were many different cost analyses presented with respect to the heat pump requirements (065 and 066), but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. The lifecycle cost analysis from OFM also included replacement costs for equipment within the analysis. Gas is still allowed as a supplemental heat source for both space and water heating. The Council also received comments from many low income housing advocates who felt it was in the best interest of the community to provide heat pumps systems for equity and sustainability, not just first cost. The Council does not have the ability to mandate upgrades for existing housing, so it is important for sustainable and cost effective heating and cooling to be introduced into new construction for future stock. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the</p>
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		<p>requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>The Council adopted the requirements for water heater installation (080) with no additional modifications made to the language. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p>
<p>Jennifer Thomas Spokane Homebuilders Association September 29 Public Hearing October 14 Public Hearing</p>	<p>Oppose WSEC-R We represent 800 members throughout Eastern Washington. I don't want to do anything to jeopardize our health, but I don't want to exacerbate the housing crisis. Price is important and we shouldn't price more families out of the housing market or drive up rent to drive our workforce from the area. I request that you prioritize the baseline economic analysis and do not implement more restrictions to drive up the cost of housing.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates</p>
<p>Cristine Thompson</p>	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>

		<p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Holly Townes</p> <p>September 29 Public Hearing</p>	<p>Hello. This is Holly Townes, a WA professional engineer specializing in building energy efficiency. For your review and record at the end of this memo is the comments I gave on September 29th. I worked to keep short. I would therefore like to add the following comments to support the heat pump proposals and to address some of the comments of the gas businesses and builder associations:</p> <p>Making upgrades at the time of construction is far cheaper than retrofits. It will be far less costly than the economic and human cost of climate exacerbated wildfires, heat waves, species loss, coastal land loss and big storms.</p> <p>Heat pumps have been used in successfully in cold climates for years and worked well. The newer ones work even better at lower temperatures without backup and more efficiently.</p> <p>Support Heat Pump proposals (065, 066)</p> <p>ASHRAE has made it clear that transitioning to heat pumps is the most cost effective way to address climate change. It is less expensive to make this change in new construction than to retrofit. Some may feel threatened by this change, but we must transition to clean energy.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

Joaquim Travares	I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066 , 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Jennifer Valentine	I urge you to adopt the proposed energy code updates, because moving away from methane gas in our buildings is important for addressing the climate crisis.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
City of Vancouver	The Vancouver City Council supports the proposed changes to the state building energy code for residential and low-rise multifamily	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-

	<p>buildings...We ask the State Building Code Council to approve these code changes.</p>	<p>11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Michael VanLoon</p>	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Vashon Climate Action Group 26 signatories</p>	<p>The signatories of this letter urge you to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health. Let's turn the tide by taking action now to reduce climate pollution from new residential buildings.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of</p>

		<p>5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Robin Vasquez October 14 Public Hearing</p>	<p>Support WSEC-R</p> <p>The Lacey City Council adopted a policy protecting trees—many of those trees are dying because of climate change. I urge you to act similarly and adopt the proposed code. It is good for the environment, good for people and good for the sustainability of our towns and cities. Help keep WA green for the kids and protect their future.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Ivan Velasquez September 29 Public Hearing</p>	<p>Oppose WSEC-R: Heat pump (065)</p> <p>I'm a sales representative at Fosseen's Home and Hearth. We have seen an increase in sales to customers with heat pumps, especially those with older units that have lost efficiency and don't heat well. They don't hold up as well as gas, wood or pellet stoves.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, along with other fuel sources, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

<p>Simon Vickery September 29 Public Hearing</p>	<p>RE Sources urges the State Building Code Council (SBCC) to pass the full set of residential energy code proposals currently undergoing public comment. In particular, we strongly support the requirements for heat pump systems in new homes and stronger ventilation for kitchens with gas stoves to protect indoor air quality and respiratory health.</p> <p>Support WSEC-R: Heat Pump Proposals (065, 066)</p> <p>All of these proposals are good public policy and will improve air and water quality by no longer burning gas, and improve the indoor air quality. A lot of people have mentioned affordability and grid reliability, which are important concerns, but someone else's concern—the Washington State Utilities and Transportation Commission, local municipalities and the state. I urge you to do the best for our buildings, health and environment.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Seth Vidaña City of Bellingham October 14 Public Hearing</p>	<p>Support WSEC-R</p> <p>Bellingham has made progress passing local codes to meet our carbon reduction plan, but are preempted from making changes to the residential codes. Also want to acknowledge that the electrification changes will lead to new jobs.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		time for education on building and sealing to achieve lower leakage rates.
Linda Vivas	Please pass the new proposed energy codes for residential buildings... high efficiency heat pumps and improved ventilation for gas stoves. I recently replaced my old heat pump with a high efficiency one. Much better results, and quieter. I am very pleased with my unit and extremely happy that it will help lower greenhouse emissions. We need to stop relying on fossil fuels, therefore we need codes like these. Builders will just keep using fossil fuel generated products until there is a mandate for them to be better. Our children depend on the decisions made now. Let's all do the right thing for the future. Please find the courage to do your part.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Connie Voget	Thank you for this opportunity to comment in support of the proposed update to our state's residential energy code requiring new homes be built with high efficiency heat pumps for heating and cooling spaces and for water heating, and requiring increased ventilation for kitchens with gas ranges.	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Rich Voget Sierra Club September 29 Public Hearing	Support WSEC-R Heat Pump proposals (065, 066)	The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were

	<p>Since June we've collected hundreds of signatures petitioning the Council to adopt these updates. Allowing gas utilities to expand the use of fracked gas into new residential construction would increase greenhouse gas emissions. The Climate Commitment Act requires cuts in greenhouse gasses, so the codes should support state law. To meet these reduction goals, today's new buildings would need to retrofit from gas to electric, which would be more expensive. I urge you to move away from methane gas.</p>	<p>made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Mark Vossler WA Physicians for Social Responsibility September 29 Public Hearing</p>	<p>Support WSEC-R Cardiologist and president of WAPSR. We are witnessing the impact of climate change and air pollution. Will send a detailed report. Burning gas produces dangerous levels of greenhouse gases and other pollutants, which increase the risk of asthma and as well as other health risks. These risk fall disproportionately on lower income households, where people are more likely to live in smaller dwellings. Since electric home heating and cooking is readily available and cost effective, there is no excuse to continue burning gas.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

WA Clean Energy Coalition	<p>The Washington Clean Energy Coalition and our colleague organizations listed below strongly urge the State Building Code Council to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we strongly support the requirements for heat pump systems in new homes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
WA Environmental Council	<p>WEC strongly supports the proposed residential energy code updates under consideration by the State Building Code Council, particularly the requirements for heat pump systems in new homes and stricter ventilation for gas stoves to protect indoor air quality and health. We urge the Council to vote to approve the full package of proposals.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>

WA Environmental Council 394 signatories	<p>I'm writing to urge you to approve the proposed updates to the Washington State residential energy code to require that new homes be built with high efficiency heat pumps to heat and cool our spaces and water, and with increased ventilation for kitchens that burn polluting gas.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
WA Physicians for Social Responsibility	<p>On behalf of healthcare professionals across Washington State, we urge you to adopt the proposed residential building code updates. In particular, we strongly support the requirements for heat pump systems in new homes and stricter ventilation requirements for homes with gas stoves. These advancements are critical to protect public health especially in Washington's most vulnerable communities.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>

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<p>WashPIRG 102 signatories</p>	<p>I am writing on behalf of WashPIRG and the undersigned 100+ Washingtonians (included in attached PDF) to urge the State Building Code Council to vote in support of the full package of residential energy code proposals that are out for public comment. In particular, we support the requirements that new homes be built with high-efficiency heat pumps to heat and cool our spaces and water, and with increased ventilation for kitchens that burn polluting gas.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Darin Watkins</p>	<p>As a sitting member of the residential TAG Group for the SBCC – I have raised the issue repeatedly about the need to complete a cost benefit analysis or a small business impact study on these code proposals, as required in the RCW's. Specific to Spokane, there are a number of critical issues to consider...Should this proposal STILL go forward, I ask that you consider exemptions for those working to provide low-income housing, and for border counties faced with enormous greenhouse gas emissions from</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0</p>

	<p>commuters finding available housing in state's with far less building restrictions.</p>	<p>ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California requirements, the Council anticipates greater availability of products. As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The Washington State Utilities and Transportation Commission has expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>The Council also received comments from many low income housing advocates who felt it was in the best interest of the community to provide heat pump systems for equity and sustainability.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits</p>
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		<p>required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>As part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTs%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, and reflects the changes made during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council's rulemaking page: https://sbcc.wa.gov/2021-code-adoption-cycle.</p>
Corey Watson	<p>I am writing today on behalf of JK Monarch Fine Homes to voice concerns over the Group 2 code package currently up for consideration. I urge the SBCC to remove proposals 032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091 from the Group 2 building code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby</p>

		<p>losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Rachael Weasley October 14 Public Hearing	<p>Support WSEC-R: Heat Pump Proposals</p> <p>As we see more extreme weather, a well insulated home with a heat pump will be much safer and do a better job at maintaining air temperatures and indoor air quality during heat waves and wildfire smoke. Concerned about building new gas infrastructure as we are hoping to reduce carbon emission. There is already a housing affordability crisis with fossil fuel furnaces, which, if anything, has contributed towards it. Safe air is necessary for our children.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Jeff Webb	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>

		<p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Elyette Weinstein	<p>SBCC can have an important role in this effort. Transitioning homes and buildings to clean electric heating, water heating and cooking can sustain a significant workforce over many years. Jobs include the HVAC work — both in gas removal and electric appliance installs, service and maintenance — as well as construction jobs associated with building modifications; and electrical work associated with new renewable energy and grid infrastructure...Please update our building codes to provide good jobs for Washingtonians</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Dan Welch September 29 Public Hearing</p>	<p>Support WSEC-R Support approving the energy code updates. Buildings are the largest and fastest growing source of carbon emissions. Need to move to all electric buildings to meet climate goals. Have been building homes that use these strategies for the past nine years. Technology and availability have improved over that time. The changes meet state climate action targets and occupants have healthy, comfortable, durable homes that are less costly to operate.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		time for education on building and sealing to achieve lower leakage rates.
Christine Wells 9/21/22 Christine Wells 10/13/22	<p>I urge you to adopt the proposed energy code updates requiring heat pumps in new residential buildings and a phase out of gas stoves and furnaces in new homes and apartments. Moving away from methane gas in our buildings is important for lower carbon emissions and addressing the climate crisis. Gas is also a major contributor to poor indoor air quality and health including asthma symptoms in young people.</p> <p>I'm writing to urge you and your council to adopt the proposed energy code updates as a way of doing our part to address the climate crisis. This is important to me, as a physician, for many reasons</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Wendy	<p>It is ridiculous to ban the use of natural gas in new construction. Natural gas is an economical way to heat homes and businesses and Washington has already set too many codes and regulations. These codes burden builders that then have to pass the cost on to buyers driving up the ever-rising cost of new home construction. As required by law the SBCC will need to complete a cost benefit analysis or small business impact study on this code proposal.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing</p>

		<p>time for education on building and sealing to achieve lower leakage rates.</p> <p>As part of the filing for the proposed rulemaking, a preliminary cost benefit analysis and a small business economic impact statement were prepared for the rules with a cost impact. Those documents begin on page 7 of the filing, found here: https://sbcc.wa.gov/sites/default/files/2022-08/WSR_OTIS%20Combined_WAC%2051-11R_WSEC-R.pdf. A final cost benefit analysis was completed after the code was adopted, and reflects the changes made during the adoption process. The final analysis can be found on the Washington State Energy Code section of the Council's rulemaking page: https://sbcc.wa.gov/2021-code-adoption-cycle.</p>
<p>Akil Wereded</p> <p>October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals</p> <p>We have a moral obligation to reduce carbon emission. We inherited this problem from our parents and shouldn't pass it on to the next generation.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Gordon Wheat</p>	<p>As a physician I would like to emphasize the public health benefits of the proposed building code updates. The health impacts of climate change are already serious in Washington and highly likely to worsen in the near future... Most Washingtonians don't</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas</p>

	<p>know how local hospital ICUs and ERs were overwhelmed during the “heat dome” in June 2021. Heat stroke emergencies from coming heat events in Washington will again likely overwhelm the critical care capacity of hospitals so that hospitals will be unable to provide optimal lifesaving care, and people will die who could have been saved.</p>	<p>heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Gordon Wheat October 14 Public Hearing</p>	<p>Support Energy Code Building Electrification</p> <p>Houses are being built tight and this doesn't allow indoor air pollution to escape without turning on a vent. This is an important safety measure. Decreasing the number of gas stoves reduces health problems.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Amy Wheeless</p>	<p>As the Public representative on the Energy Code TAG, I would like to offer the NW Energy Coalition's support for the recommended changes to the residential portion of the Washington State Energy Code (WSEC-R) and urge their adoption...Building energy codes are a key piece for meeting our energy</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy</p>

	<p>and capacity needs with energy efficiency, and with the corollary benefit of saving residents money on their utility bills. HVAC improvements and envelope measures help make our homes and buildings more efficient and also help save energy when our system needs it the most—on cold days in winter when our hydroelectric resources are low and natural gas prices can be more volatile, but also increasingly in the summer, where we are starting to increasingly see more dangerous heat events in our region. As we move forward toward a cleaner grid, it will become even more critical to deploy strategies that make the best use of our energy.</p>	<p>savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Angela White Olympia Master Builders</p>	<p>We are writing to urge the State Building Codes Council to reconsider the proposed changes to our state building code, as the changes will inevitably put more obstacles in the way of solving the most immediate existential crisis of our time. That is the lack of affordable housing in our region and our state. And thus, the slow decay of the American dream for thousands of our neighbors...We urge the council to reconsider the entire package of code changes and acknowledge the most important ongoing crisis in our state of the lack of affordable housing. Is now really the time to be weighing the right of our neighbors to have a roof over their head with the desire to be number 1 in the race to zero emissions?</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>The adopted rule, as with the proposed rule, contains an exception that allows heat pump water heaters to be installed</p>

		<p>outside the building thermal envelope, thus allowing them to be installed in a garage or utility space.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>The Council also received comments from many low income housing advocates who felt it was in the best interest of the community to provide heat pump systems for equity and sustainability.</p>
Ted Williams	<p>Natural Gas Direct, LLC is pleased to submit the following comments on the subject energy efficiency code proposals on behalf of OmegaFlex Corporation...OmegaFlex supports the "minority report" comments and proposed solutions of the Washington State Energy Residential Technical Advisory Group.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>The Council did not amend the code to add an exception for gas heat pump water heaters to be installed outside of the thermal envelope. This issue could be revisited in the future once there are more products on the market and there are minimum federal efficiency rates established.</p>

The Council reviewed the carbon emission factors in the proposal, including the electricity metric, and determined that retention of the proposed values in the adopted emissions table was the best alternative at this time. The metric for electricity is consistent with the commercial energy code value and in alignment with the Clean Energy Transformation Act, Clean Buildings law and the Office of Financial Management's cost tool.

The Council moved forward with the adoption of Option 2 for the Fuel Normalization table and the credit options table. This version of the table does not provide credit for the code baseline heat pump space heating system. Option 1 contained that credit because that version of the table had gas heat at the baseline. Option 2 of R406 also requires fewer credits to be achieved than in Option 1, since it takes into account all of the other gains made in the prescriptive portion of the code. This section has a menu of items available for the homeowner/builder to choose from to achieve the target energy savings. While this option eliminated some of the credit packages in the 2018 code, as they were already required under the changes in the prescriptive rules, it also reduced the total number of credits required to be met. As gas and other fuel sources are allowed for supplemental heating, the menu items present include efficiency gains for those supplemental heating appliances—gas, propane and heat pump systems.

This proposal does not eliminate gas as a fuel source for space and water heating. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed for space heating. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy. While there are supply chain problems currently, they are present for many of the components of construction. As conditions normalize out of the pandemic crises, and as manufacturers increase production based on California

		<p>requirements, the Council anticipates greater availability of products.</p> <p>See also the response to the Minority Reports at the top of this document.</p>
<p>Judson Willis</p> <p>October 14 Public Hearing</p>	<p>Oppose WSEC-R Affordability</p> <p>I spoke four years ago about where we would be today, about how affordability will affect WA. With the recent increase in loan rates, the average income can only afford a \$322K home, which you can't find on the market today. I would like to see a performance method put into the code so we don't have to chase credits and make it more affordable for everyone.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p>

		<p>The Council is putting together a stakeholder group and technical experts to create an ERI-based performance path that is anticipated to be adopted into the 2021 code later this year.</p>
<p>Forest Wilson Olympia Master Builders October 14 Public Hearing</p>	<p>Oppose All Codes Runs a countertop company and has lost employees who couldn't afford the cost of living in WA. This is not the time to be adding to the cost of building homes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p>
<p>Kurt Wilson October 14 Public Hearing</p>	<p>Oppose WSEC-R HP are more efficient, but there is a cost to that. The electrical grid is not equipped to handle the load from electrification. You think this will somehow put a dent in global greenhouse gas emissions, but the rest of the world counteracts these efforts. This is being done at the expense of roofs over people's heads. Electric rates will certainly be higher in the future and there could be rolling blackouts like California. We're increasing regulation unnecessarily without a cost benefit analysis.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements for space and water heating.</p> <p>This rule does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed. There were many different cost analyses presented, but based on current design trends and the higher efficiency of heat pumps, the Council felt this was the best path forward towards the mandated 70 percent reduction of energy.</p> <p>As to the impact on the electrical grid, since the requirements affect new construction, these impacts will affect the system gradually over time rather than a mass impact. The UTC has</p>

		<p>expressed their opinion that this will allow ample opportunity for utilities to manage their resources.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Alyssa Wood	<p>I'm writing to urge you to adopt the proposed energy code updates, because moving away from natural gas in our buildings is important for addressing the climate crisis and public health. Addressing fossil fuel use in homes is crucial for local governments to meet climate commitments, protect community health and safety, lower costs for builders and tenants, and create a green energy economy that will spur the creation of high-road jobs. The Thurston Climate Mitigation Plan, which the City of Tumwater has accepted along with our neighbors, includes Strategy B6: convert to cleaner fuel sources...Please pass the proposed energy code and help the City of Tumwater retain the trust and progress we've worked hard to build hand-in-hand with our community to create a brighter future in the face of the climate crisis.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Grzegorz Wosik	<p>I OPPOSE proposals 21-GP2-073, 21-GP2-065, 21-GP2-066, 21-GP2-062, 21-GP2-063 because they will have the effect of banning natural gas in new homes, taking away Energy Choice.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. The final adoption included Option 2 for Section R406. While this option eliminated some of the credit packages in the 2018 code, it also reduced the total number of credits required to be met. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary</p>

		<p>source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Steve Yester	<p>Please vote to remove the costliest proposals (032, 058, 059, 060, 062, 063, 065, 066, 079, 080, 089, and 091) from the final Group 2 code package.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. Several changes were made, however. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 (proposal 032) was not adopted. The lower U-factor for windows in WAC 51-11R-40211 (proposal 079) was not adopted, and the required U-factor remains at 0.30. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 (proposal 089) was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates. The Council chose to retain the requirement for water heaters to be located within the thermal envelope (WAC 51-11R-40340, proposal 080), with no additional modifications. The Council felt this was a good change to the code, to reduce standby losses and to capture any waste heat within the thermal envelope.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Monica Zazueta</p> <p>October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump proposals</p> <p>Moving away from methane is important for addressing the climate change, health, equity and the future of our</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be</p>

	<p>children. What we do over the next 3-4 years will determine the future of humanity.</p>	<p>located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
Carrie Ziegler	<p>I urge you to adopt the proposed energy code updates. Moving away from methane gas in our buildings is essential for addressing the climate crisis, public health, and equity. Now is our chance to change course and create a livable future for all. Please do your part and pass these codes.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements. Several changes were made, however. The lower U-factor for windows in WAC 51-11R-40211 was not adopted, and the required U-factor remains at 0.30. The requirement for the air handler to be located in conditioned space in WAC 51-11R-40320 was not adopted. The Council felt there was insufficient energy savings related to the cost of compliance for these two items. Lastly, the air leakage rate in WAC 51-11R-40240 was modified from 3.0 air changes per hour (ACH) to 4.0 ACH. This was a compromise between the previous requirement of 5.0 ACH and the proposed 3.0 ACH. There were comments that achieving the 3.0 rate was difficult and costly for builders. Going to 4.0 ACH provides some improvement while allowing time for education on building and sealing to achieve lower leakage rates.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Jessica Zimmerle October 14 Public Hearing</p>	<p>Support WSEC-R: Heat Pump proposals</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and</p>

	<p>The smoke has been weighing us down and we think asking the children and vulnerable people to stay inside will help keep them protected, but indoor air quality can be 2 to 5 times more polluted. We want to see more clean air in our homes and action against the climate crisis.</p>	<p>066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>
<p>Kenneth Zirinsky September 29 Public Hearing</p>	<p>Support WSEC-R: Heat Pump Proposals (065, 066)</p> <p>Urge adoption of this code to eliminate natural gas in buildings to improve the health of citizens and reach the statutory goals of energy consumption and greenhouse gas emissions.</p>	<p>The Council moved forward with the adoption of the 2021 Washington State Energy Code, Residential Provisions, including the heat pump requirements in proposals 065 and 066 and Option 2 for Section R406. This proposal does not eliminate gas as a heating source. While gas is prohibited, for the most part, as the primary source of heat it is allowed as a supplemental heat source, and gas heat pumps are allowed.</p> <p>Please note that gas stoves are still allowed under the Residential and Mechanical Codes, although they are required to be vented at a higher rate than electric stoves.</p>