

SEPA NOTE TO FILE – NOVEMBER 2021 (SDCI)

Description of amendment proposal and subsequent code-advisory recommendation

The City Council is considering an amendment that expands heat pump requirements and restricts gas water heating to address many new commercial uses. The legislation (Ordinance 126279) to be amended went into effect on March 15, 2021, sponsored by the Executive, restricting gas water heating for hotels and tall multifamily residential uses.

Follow-up review in 2021 has occurred by Seattle's Construction Codes Advisory Board, with recommendations to adjust the code amendment proposal. The CCAB unanimously approved a motion recommending expanding the relevant requirements from hotel and apartments, as per the current requirements, to all occupancies, with the scope limited. Exceptions have been made for:

- a. Small water heating systems (15 kW or less).
 - Draft language: A service water heating system in a tenant space under a separate permit with a total heating capacity in that tenant space that is no greater than 15 kW (51,195 Btu/h) is permitted to be electric resistance.
- b. Point of use instantaneous electric water heaters serving fixtures no more than 8 feet of developed pipe length from the water heater, that would not contribute to the building combined water heating capacity calculation.
- c. Unitary heat pump water heaters located in conditioned space, where they are sized to meet all calculated service water heating demand using the heat pump compressor, and not supplementary heat.
- d. Energy districts in occupancies other than hotels and apartment buildings.
 - For other than Group R-1 and R-2 Occupancies, steam or hot water district energy systems that utilize fossil fuels as their primary source of heating energy, that serve multiple buildings, and that were already in existence prior to the effective date of this code, including more energy-efficient upgrades to such existing systems, are permitted to serve as the primary heating energy source.
- e. Existing buildings in occupancies other than hotels and apartment buildings.
 - Draft language: Replacement equipment for existing central service water heating systems serving other than Group R-1 and R-2 occupancies is permitted to utilize fossil fuel or electric resistance heat as the primary heating energy source.
- f. SDCI's draft language to permit booster heaters to be electric resistance. Booster heaters are needed due to the short term load increases at meal times in restaurants.
 - Draft language: Commercial dishwashers, commercial food service equipment, and other approved process equipment are permitted to utilize electric booster heaters for supply water temperatures 120°F or higher.

SDCI was also asked to clarify starting temperature for other primary heating systems in C404.2.3.1.

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SEPA Findings

This addendum to the November 16, 2020, SEPA Threshold Determination provides additional discussion about SEPA environmental impact implications of prospective expansions of gas water heating restrictions across many non-residential occupancy categories. The discussion assumes that CCAB recommendations including the exceptions are adopted into the legislation.

A review of the findings of the prior SEPA DNS confirms that its written contents are durable in addressing the nature of impacts likely to be generated by the update of the Energy Code, even when considering the newer amendment proposal. For example, the prior DNS mentioned water heating in its evaluation of potential energy-related impacts, regarding utility impacts:

“At the same time, implementing the proposal would cumulatively lead to greater energy efficiencies, including in use of electricity, by future new buildings and many remodeled buildings. This would likely occur due to the proposed Energy Code’s restrictions on the use of electric resistance heating and water heating, and the use of heat pumps for space heating and other requirements for efficient use of electricity in lighting, mechanical and other systems. Renewable energy would be required on most commercial projects. The cumulative effect of these actions would be to help moderate or offset the overall potential for impacts on the City’s electrical utility systems and its provision of utility services to future new development. This finding suggests that the proposal has a lack of potential to generate significant adverse impacts on SCL as a utility, including in its ability to fulfill future obligations to provide electrical service over the long-term.”

(Underlines added for emphasis)

On land use and building-design related topics, the prior DNS indicated,

“The proposed Energy Code updates would influence the energy efficiency and design of systems used in future new and remodeled buildings, but would not create potential for adverse differences in physical or land-use related impacts at future development sites. For example, this checklist (sic) identifies no substantive potential for physical differences in probable layout, total size, location, or use of commercial or larger multi-family residential buildings. Therefore, there is no identified potential to create direct or indirect adverse spillover land use or shoreline use impacts such as land use incompatibilities or conflicts between neighboring uses, or side effects such as more demolition of affordable housing.”

(Underlines added for emphasis)

The conclusions regarding no potential or a minimal potential for significant adverse environmental impacts remain durable. However, this finding is premised on the inclusion of the CCAB-recommended exceptions in the legislation.

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Implementing the CCAB recommendations, as outlined above, could help minimize or avoid potential difficulties that might arise for individual future users. This is an important point to consider regarding how the new amendments would exempt the new water heating rules from applying to certain situations that might create practical difficulties for certain kinds of land uses like restaurant kitchens or small water heating system users, or other arrangements such as energy districts. The CCAB recommended exceptions may help avoid unintended and potentially unforeseen indirect land use impacts like discouraging various uses like restaurants from locating in Seattle neighborhoods. Conceptually, factors like cost of alternative water heating systems, lack of practical feasibility to locate them in existing buildings, and possibly reduced functionality in relation to business needs, might dissuade businesses from locating in Seattle. At worst, without the recommended CCAB exceptions, the cumulative effect could be diminished vitality of Seattle neighborhood business districts if too many barriers to businesses providing amenities, services, and employment would discourage their presence.

The DNS also commented on the potential for localized electrical system impacts:

The proposal, and the effects of this proposed amendment: “could lead to the need for localized improvements in its electrical distribution facilities. This would relate to localized increases in electrical demand from future development that could exceed the capacity of segments of the existing service facilities. This would depend on the specific location, timing, quantity and nature of future development that might occur in future years. SCL notes it will continue to study these future needs going forward. This SEPA determination categorizes this finding as a probable adverse but not significant adverse utility impact, because it can and would be remedied by future system improvements that would be identified and provided as needed according to the localized demands caused by individual future developments.”

To the extent that more new buildings and uses could be subject to the enhanced requirements under the current proposal, this potential adverse impact could perhaps occur and be addressed by SCL in more locations than it would have before. However, this finding would remain one that is adverse but not a significantly adverse potential impact, because it can be remedied if it occurs. Also, factors like the CCAB recommended exceptions are important. With those exceptions, the likelihood of needing localized improvements in any given location could be low. For example, not applying the requirement to uses in existing buildings would reduce the volume of potentially affected parties considerably because new building developments are a small fraction of all business activity that could be otherwise potentially affected. Also, the exceptions would perhaps reduce the chances of multiple parties clustering in a given area that might cumulatively generate a need for electrical distribution system improvements.

Conclusion

SDCI finds that the environmental impacts of the proposed amendment by the City Council that expands heat pump requirements and restricts gas water heating to address many new commercial uses is adequately addressed by the prior DNS and SDCI’s additional discussion in this addendum.