

2020 Q3 & Q4

Market Planning Quarterly Report

IMPORTANT UPDATES:



What's New!

Hello CEAC members,

Our 2020 Q3 & Q4 Market Planning Quarterly Report contains key assumptions updates for the upcoming 2020 Annual Reporting period. NEEA reports on key assumptions changes every quarter as part of the standing agenda with CEAC. As a part of the Quarterly Reports, we provide the full set of assumptions that NEEA staff are employing in the reporting of savings. **This full list will be available starting next year in 2021.**

The full list will contain assumptions for NEEA Baseline Regional Key Assumptions and The Seventh Power Plan Baseline Regional Key Assumptions. Both of these documents will be posted to our NEEA Funder Portal.

The NEEA Funder Portal houses reference materials, informational presentations, and other regional documentations. All of these materials can be accessed by creating an account at:

<https://neea.org/portal/sign-in>

We hope this portal can provide easier access to our work and if you have any suggestions for the portal or issues accessing the portal, please email Kyle Billeci at kbilleci@neea.org

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Integrated Systems

UPDATES

Ductless Heat Pumps

Since 2017 Bonneville Power Administration and NEEA have been working together on an HVAC distributor data project to collect more comprehensive market information. NEEA finalized the 2019 dataset in September and BPA is now starting their regional-level analysis, extrapolation, and reporting process. Materials are posted to [BPA's website](#) when available.

NEEA uses this dataset to estimate total regional DHP sales, a method which was reviewed by Ecotope in Q1 2020. Additional NEEA programs including existing commercial HVAC and future residential HVAC programs are planning for this as a key source of market data as well.

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Manufactured Homes

At their May 19, 2020, meeting, the Regional Technical Forum (RTF) approved updates to the unit energy savings (UES) of new manufactured homes. These updates included adjustments to the assumptions for the fraction of heat pumps installed and presence of non-electric heat in new manufactured homes, and an elimination or reduction in savings from dishwashers, refrigerators, and lighting. Incorporating these updates into the whole-home UES for both NEEM 1.0 and NEEM Plus homes, the new savings rate for each tier is roughly 20% lower than the previous rate.

Many of the updates are based on data from the 2016-2017 RBSA. As such, NEEA will update the savings rates of new Manufactured Homes retroactively through 2016.

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Products

UPDATES

Ultra-High Definition TVs (RPP)

ENERGY STAR recently published a Version 9 draft specification for televisions using a NEEA-developed test procedure. NEEA's lab testing results show that current test criteria under-estimates television energy consumption by as much as 50 percent. NEEA anticipates midstream incentives for Version 9 ultra-high definition televisions beginning in 2022. The measure will save 35-40 kWh over the market average. In the meantime, NEEA is gathering data to establish a naturally occurring baseline and estimate the incremental cost.

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Extended Motor Products (XMP)

Extended Motor Products initiative will begin reporting savings for Commercial Clear Water Pumps and Circulator Pumps in 2020. The savings reported in 2020 will be limited to pumps sold by the distributors partnering in the program. The savings estimates are based on the horsepower and efficiency of the pumps and the technical assumptions based on the Regional Technical Forum. This initiative will be introduced and its assumptions reviewed with CEAC on November, 19th.

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Codes & Standards

UPDATES

Commercial Codes

One of the effects COVID-19 has had on energy savings is delays to the codes adoption process. Delays include:

- **Washington:** The 2018 WSEC effective date for both Commercial and Residential buildings moved from July 1, 2020 to February 1, 2021.
- **Oregon:** The state cancelled meetings on Oregon's 2020 Zero Energy Ready Commercial Code, which could push the effective data to late 2021.

Idaho and Montana have either adopted or in the process of adopting 2018 IECC.

- **Montana:** Adoption of the 2018 IECC for Commercial buildings is in progress.
- **Idaho:** Idaho adopted the 2018 IECC with amendments for Commercial buildings on April 2, 2020, with an effective date of January 1, 2021.

COVID-19 also has impacted Commercial New Construction activities. Dodge's Q3 report estimates 2020 non-residential construction starts are 11% less in square footage in comparison to 2019.

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Residential New Construction & Multifamily

Similar to Commercial Codes, Residential codes have seen delays to the codes adoption process. Delays include:

- **Washington:** The 2018 WSEC effective date for both Commercial and Residential buildings moved from July 1, 2020 to February 1, 2021.
- **Oregon:** Adoption of the next Residential Specialty Code has been delayed until April 2021.

Idaho and Montana have either adopted or in the process of adopting 2018 IECC.

- **Montana:** Adoption of the 2018 IECC for Residential buildings is in progress.
- **Idaho:** Idaho adopted the 2018 IECC with amendments for Residential buildings on April 2, 2020, with an effective date of January 1, 2021.

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Codes & Standards

UPDATES

Residential New Construction (Cont.)

Earlier this year, NEEA published two studies providing insight into Oregon and Washington residential code specifications and compliance. Data from these studies was used to determine state-level compliance and shows a current compliance rate in Oregon of 89% and a rate of 91% in Washington. NEEA will use these rates along with HUD permit totals to report the number of code-compliant single- and multi-family new homes built under ORSC 2017, WSEC 2015, and future Oregon and Washington codes.

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Codes & Standards

UPDATES

Residential & Non-Residential Standards

In January 2020, the Department of Energy (DOE) published four new national appliance efficiency standards covering portable air conditioners (PAC), uninterruptible power supplies (UPS), air compressors, and commercial packaged boilers. These standards were adopted at the end of 2016 but withheld from official publication until an appeals court decision in October 2019 required the DOE to publish the delayed standards. In the interim, Washington state adopted the 2016 final national standards for PAC, UPS, and air compressors as state standards in 2019.

NEEA has contracted Cadeo Group to develop a savings model for each standard. To date (early November 2020), models have been completed for PAC, UPS, and air compressors.

The table below shows the compliance date and average first year savings:

Standard Product	Federal Standard		Washington State Standard	
	Compliance	First-Year Savings (aMW)	Compliance	First-Year Savings (aMW)
Portable Air Conditioners	2025	0.3	2022	0.1
Air Compressors	2025	1.2	2022	0.5
Uninterruptible Power Supplies	2022	0.7	2021	0.3

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Natural Gas

UPDATES

Efficient Gas Water Heaters

NEEA has developed a preliminary measure workbook that contains an early look at possible savings and cost effectiveness calculation inputs for a Gas Heat Pump Water Heater measure. The intent of socializing this with utilities in the region and across the nation is to bring awareness and encourage utility support as close as possible to the launch of a commercialized product (expected in 2022). These materials have been shared with NEEA's Natural Gas Advisory Committee and are available upon request.

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Residential New Construction

Delays are the same as in the Codes & Standards section for Residential New Construction. Delays include:

- **Washington:** The 2018 WSEC effective date for both Commercial and Residential buildings moved from July 1, 2020 to February 1, 2021.
- **Oregon:** Adoption of the next Residential Specialty Code has been delayed until April 2021.

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TOGETHER We Are Transforming the Northwest

