

State of Nevada Energy Code Collaborative Meeting Minutes

January 7, 2020

Review Previous Meeting Items

Jim summarized the last meeting where we discussed the RESNET data analysis, a presentation on zero energy buildings (and the November zero energy ready training at SW Gas), general service lighting in Nevada and the status update of the residential field study as of September.

Note: due to technical issues the recording is not available for this meeting. Presentations will be included with distribution of the minutes.

2021 IECC Update on Preliminary Results

Jim Meyers with SWEEP highlighted some of the potential changes in the 2021 IECC. Jim emphasized the results released by ICC are preliminary and a validation committee, ICC Board review, and challenge period must occur before the final version is announced – most likely in the first quarter of 2020. The codes will be published in late 2020.

Jim showed examples of voting guides that were provided by different organizations describing support or opposition to code change proposals in the 2021 codes. The ICC released preliminary results of the online governmental consensus vote (OGCV) in December. An example of how possible vote counts could take place to support the committee position, from last April, or to override the committee position.

Highlights addressed the residential proposals and Jim will provide highlights of the commercial proposals in the next quarterly collaborative meeting. The 2021 IECC can see the removal of words in section titles such as “mandatory” and “prescriptive” and this will be replaced with tables in both the residential and commercial section that provide mandatory requirements when following a performance type compliance pathway.

Additional highlights include:

- Window efficiency changes
- Hot water compactness (only when using the residential performance path)
- Water heater type(s) are now specified in the code
- Wall insulation changes for cavity only and exterior only insulation options
- Duct leakage testing for all duct locations
- New air leakage option using cfm/ft² for attached and single family < 1,500 ft²
- Electric readiness for appliances, if gas then also electric
- Exterior lighting controls required for low-rise multi-family
- Multiple ERI changes including 2015 ERI scores, 2018 IECC envelope and on-site power not to exceed 5 percent energy use
- Zero appendices – zero energy for residential, and zero carbon for commercial

Update on the Residential Energy Code Field Study

Shaunna Mazingo with Mazingo Code Group (MCG) discussed the current status of the residential field data study in Nevada. Currently, we are waiting for final contract approval at NASEO and DOE to start the Nevada study. The hope is the contract will be signed soon and the work can commence.

Shaunna summarized the goal of the study as a reminder since the kickoff meetings were held back in October. Only new site built single family homes, single site visit per house, the focus is on individual code requirements and not the house, 126 visits to obtain 63 observations. The first phase only includes the data collection and phase two is the training from the data findings.

The key data items that will be collected include envelope tightness, window values, exterior wall insulation and ceiling insulation, lighting, duct leakage and foundation insulation – if applicable. All data is sanitized and the address, builder name, jurisdiction and so-forth will not be provided to PNNL. There will be no personally identifiable information to be reported to PNNL. The data will then be analyzed by PNNL. The project team will perform blower door tests, duct leakage tests and observe frame cavity insulation installation.

Training opportunities for 2020

Jim, Robin Yochum and others spoke about training opportunities for building energy codes in Nevada for the year 2020. Tom and Jim mentioned the zero-energy ready training held at Southwest Gas in November and how it was a great turnout. SWEEP used PNNL funding for this along with the sponsors who provided refreshments and facility space. The PNNL funding for zero energy ended in 2019, but SWEEP would like to continue providing this type of information in Nevada for residential and commercial building industry.

Robin mentioned they will be turning attention to energy code training now that they have new staff and the start of the new year. And Les had led the effort to get energy code training sessions into Educode 2020 in March. Three days of training will be provided; 3/11 – building science, 3/12 – 2018 IECC residential, 3/13 – 2018 IECC commercial and 90.1. The goal is to get a full week track at Educode in 2021.

Jim will talk with Sara Gutterman at Green Builder Media to see if an advanced schedule of upcoming webinars and trainings in support of NV Energy's educational training efforts. Information will be passed along through the collaborative mailing list when received.

Innovative Heat Pump Programs

Tom Polikalas provided highlights of utility programs across the country and at Berkshire Hathaway owned utilities. Tom mentioned how the use of heat pumps, for space and water, can save money for new construction. There are numerous reports that show how efficient a heat pump water heater (HPWH) is compared to electric resistance water heaters.

Rocky Mountain Power in Utah offers a \$550 rebate for HPWHs. In New Hampshire a utility provides a \$750 rebate for HPWHs and in some specific areas of Arizona Public Service a pilot program is running with the installation of a HPWH with a value of \$6,000.

For space heating an example of a Colorado utility who provided the ground loops of a ground source heat pump. The utility owns the ground loops and connection to the house similar as a utility owns the electric grid up to a house. Because the loops are owned by the utility there is little increased cost to new homes to add space conditioning heat pump systems.

The conversation would like to be continued to advance programs like this in Nevada.

Upcoming Events

January 20, 2020

Fourth Annual 2020 Sustainability Symposium

UNLV Campus: <https://www.greenbuildermedia.com/sustainability-symposium-2020-improving-the-human-condition>

International Builders Show - Jan 21-23, 2020

Las Vegas Convention Center – Free attendance to the expo floor.

https://registration.experientevent.com/shownhb201/?_ga=2.2249845.435740282.1578505474-633869351.1578505474

February 1-5, 2020 - [ASHRAE Winter Conference](#), Orlando, FL

February 24-26, 2020 - [RESNET Conference](#), Scottsdale, AZ

May 11-13, 2020 (tentative) - DOE National Energy Codes Conference, Chicago, IL

May 14-16, 2020 – [AIA Conference on Architecture](#), Los Angeles, CA

Wrap Up

Doodle Poll to help select a date for the next meeting in April 2020. Please go to the following link and select dates that work for your schedule: <https://doodle.com/poll/97ua7ed5pt9ngeq8>