

# Utility Toolkit for Performance-Based New Homes Programs



Performance Path  
Playbook



Utility  
Toolkit



Rater  
Toolkit



Builder  
Toolkit



*Thanks for your interest in creating a performance-based incentive program for new homes! This guide provides overview information and links to supporting resources for launching and maintaining a successful program in your territory.*

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## Overview

The New Construction Standard Protocol is a method by which “utility-grade” energy savings estimations can be generated using commercially available software tool REM/Rate™.

It was developed by the BetterBuiltNW team in partnership with the Northwest Power and Conservation Council’s Regional Technical Forum (RTF) along with regional stakeholders. Since the protocol’s approval for use in July 2016, the BetterBuiltNW team has engaged with public- and investor-owned utilities throughout the region to establish and support residential new construction programs based upon its principles.

The protocol leverages energy modeling software REM/Rate as a platform for calculating heating and cooling energy savings.



## Utility Toolkit for Performance-Based New Homes Programs

Here's how we help homeowners save money:



- NEEA's AXIS database encourages whole-home savings by combining modeled heating and cooling savings and RTF-approved Unit Energy Savings for above-code measures.
- A "percentage improvement" metric is provided for each home, which measures the home's performance relative to state energy code and determines compliance with Bonneville Power Administration's (BPA) minimum eligibility threshold (10%), as well as optional utility-specific incentive thresholds.

BPA's New Homes Performance Path, based on the RTF's approved New Homes Standard Protocol, provides an opportunity for Northwest utilities to offer a residential single-family new construction incentive based on internally generated energy savings estimates. The BetterBuiltNW, RTF and BPA teams have defined whole-home energy modeling requirements and utility program design guidelines to ensure reliable energy savings for above-code homes across the Northwest.

Leveraging REM/Rate and the trained network of Home Energy Raters/Verifiers who use it to qualify homes allows utilities great flexibility in tailoring their new construction program offerings to the needs of their market. Now, utilities can partner with Raters/Verifiers, builders, and Home Certification Programs active in their territories to market and deploy their program.

Utilities interested in launching a performance-based new homes program should familiarize themselves with the approach by reviewing the following orientation materials available on BetterBuiltNW.com:

- Two-hour overview webinar
- Performance Path slide deck
- AXIS slide deck

Utilities may launch their new homes program at any time. See Program Design (p6) for more information on flexible options and example program structures.





## Program Checklist

Utilities may launch a performance-based new homes incentive program at any time. Consult the BetterBuiltNW team at [info@BetterBuiltNW.com](mailto:info@BetterBuiltNW.com) on program design, Performance Path orientation, AXIS database configuration and quality assurance planning

✓ **Complete AXIS database configuration and training.** All Northwest utilities have a company profile in AXIS. Utilities can manage their company profile and users. If you have a user account, visit [nea.pivotalenergy.net](http://nea.pivotalenergy.net) to log in. If you are new to AXIS and don't have a user account, contact Jon Belmont at NEEA.

✓ **Complete internal program set up** (i.e., application forms, W9s, website content, incentive processing, reporting, define workflow between AXIS and internal systems, partner agreements, kick-off event planning, etc.).

✓ **Launch program.** Consider communications for announcing program launch, as well as kick-off and orientation events for local partners. Raters/Verifiers may begin entering homes in AXIS whenever the utility gives the alert that they are ready.

✓ **A communication bulletin** can be distributed by BetterBuiltNW or directly from the utility.

✓ **Consider hosting a kick-off event.** The BetterBuiltNW team has orientation and training content ready to be delivered to your program partners. This also provides the utility an opportunity to speak on the specifics of their program and incentive structures.

✓ Receive program data from the BetterBuiltNW team on an ongoing basis. Once homes start coming through, we'll provide a periodic Pipeline Report specific to your program. File and field quality assurance (QA) activities will begin and BetterBuiltNW will continue to provide support where needed.





## Program Design

New homes programs based on the BPA New Homes Performance Path have a few common elements for all participants across the region, including modeling requirements, and use of REM/Rate and the AXIS database. There is flexibility for utilities to add requirements in order to customize their incentive program. Add-on options include:

- Requiring the home receive a local or national home certification such as ENERGY STAR®, Built Green, National Green Building Standard, Earth Advantage, etc. Links to each of the Home Certification Programs are on BetterBuiltNW.com.
- Requiring a higher percent improvement threshold to qualify. The BPA and regional percent improvement minimum is 10%.
- Requiring specific space heating, space cooling, or water heating fuel source and/or equipment type.

Utilities may add other requirements or create flexible options. The BetterBuiltNW team is available to assist with program design decisions and can also provide analysis on savings potential and feasibility of proposed program structures. Utilities may set their own incentive amounts or add bonus payouts for meeting higher percent improvement thresholds. There is flexibility at the utility level while streamlining payment requests to BPA. Here are some examples of program designs across the region:

- **10%** improvement minimum, electric space heating, pass through of BPA-utility reimbursement as the builder incentive (variable incentive based on kWh savings)
- **15%** improvement minimum, electric space heating, pass through of BPA-utility reimbursement as the builder incentive, bonus incentive if 30%+ improvement
- **10%** improvement minimum, electric cooling equipment, flat builder incentive
- **20%** improvement minimum, gas space heating, flat builder incentive
- **20%** improvement minimum, home certification requirement, electric space heating, pass through of BPA-utility reimbursement as the builder incentive





## Utility Toolkit for Performance-Based New Homes Programs

Contact the BetterBuiltNW team to discuss your program design options including:

- Raising minimum percentage above code threshold
- Space heating fuel and/or equipment type
- Water heating fuel and/or equipment type
- Builder incentive structure – variable, flat or tiered
- Home certification required, such as Built Green or ENERGY STAR
- File and field QA roles/responsibilities

1. Consult with BBNW team on program design, orientation/training needs, database configuration, and QA planning



2. Complete AXIS database configuration and user training



3. Set up internal program mechanisms (application forms, program page on utility website, internal systems workflow)



4. Launch program (consider communication and kick-off event needs)



5. Receive program data (pipeline reports, QA results, etc)



6. Refine program over time

### Participant Roles

**Utility (program owner):** Determines program design and incentive requirements; manages utility-specific document needs (i.e. application form, W9, AXIS home report, partner agreements);

approves/processes/issues incentives and manages utility reporting to BPA and others.

**Rater/Verifier:** Consults with builder on home design, incentive and certification requirements; conducts home energy modeling and field verification as well as enters and submits home data in AXIS; responds to requests /provides guidance, submits data to Home Certification Program and provides reports to builder.

**Builder:** Reviews and implements home design recommendations from Rater/Verifier; constructs homes to meet utility incentive and/or home certification requirements; submits necessary documents to utility and/or certification program.

**Quality assurance (QA) agent:** Completes file and field QA on homes currently completed by the BetterBuiltNW team. Utility staff may be trained to perform field QA services in the future. See the Quality Assurance section (p9) for more detail.

### Rater/Verifier Qualifications and Training

Raters/Verifiers must be appropriately trained and experienced to provide energy modeling and field verification services. Many Raters/Verifiers across the Northwest are RESNET® credentialed or work within other Home Certification Programs that do not require current RESNET credentials. Refer to the Rater/Verifier Qualifications resource for more information on the qualifications and training necessary to provide modeling and field verification services on eligible projects.



## Modeling Requirements

The energy modeling requirements are a supplement to REM/Rate internal guidance and must be followed by all Performance Path participating Raters/Verifiers. These requirements are available on BetterBuiltNW.com.

To determine the percent improvement metric and to complete energy modeling for a project, Raters/Verifiers utilize a set of user-defined reference home (UDRH) files that represent a code-level built home in each state. There are specific UDRHs for each state, heating configuration (central or zonal), home size category (small, medium, large). The UDRH files are available for download on BetterBuiltNW.com.

REM/Rate is the approved modeling software for the New Homes Performance Path. For Raters/Verifiers that use Ekotrope software for modeling and qualification in other Home Certification Programs, there is an easy step-by-step process to convert modeling files between REM/Rate and Ekotrope available on BetterBuiltNW.com. Raters/Verifiers should confirm that model inputs have accurately transferred between the software.

## AXIS

In addition to the AXIS overview content, there is a supplemental resource for utility partners on BetterBuiltNW.com that is specific to data entry and workflow between Raters/Verifiers, QA agent, and the utility. Utilities will need an AXIS login to receive notifications, home data, and reports. The BetterBuiltNW team is available to support utilities getting started with AXIS. All northwest utilities have a company profile in AXIS. Utilities can manage their company profile and users. If you have a user account, visit [neea.pivotalenergy.net](http://neea.pivotalenergy.net) to log in.

If you are new to AXIS and don't have a user account, contact Jon Belmont at NEEA.

All utilities and Raters/Verifiers across the region use the same AXIS program named Utility Incentive V2 – Single Family Performance Path. Raters/Verifiers may begin entering homes in AXIS as soon as the utility formally launches a program. Some utilities accept homes retroactively for the months leading up to program launch. The BetterBuiltNW team recommends sending a communication or bulletin to Raters/Verifiers operating in the territory to announce the new program. See the Ready to Launch section (p10) for more info.

Raters/Verifiers will not see the builder incentive in AXIS until the utility's unique program settings are configured in AXIS. Unique program settings are based on the utility's program design and include the percent improvement thresholds, space/water heating fuel or equipment requirements, home certification requirements, and other settings unique to the utility. Contact the BetterBuiltNW team to discuss AXIS logins and program design settings.





## **Quality Assurance**

QA services are currently provided by the BetterBuiltNW team, according to QA protocols developed and demonstrated during NEEA's Next Step Homes pilot phase. File and field QA offers opportunities to develop and refine Raters'/Verifiers' familiarity with program requirements and verification best practices, so QA activities are focused on developing the technical acumen of participating Raters/Verifiers and field staff. Refer to the QA Plan for additional detail on rates for file and field QA under the New Homes Performance Path.

## **Event and Training Support**

The BetterBuiltNW team has developed training content on the unique requirements of the New Homes Performance Path. In support of a utility program development and launch, the BetterBuiltNW team can provide training and orientation on the modeling requirements, workflow and other mechanisms in use in the New Homes Performance Path. Please refer to the event planning questionnaire and contact the BetterBuiltNW team for assistance in planning your kick-off event.

## **Marketing Support**

For any questions regarding event communication, general marketing or guidelines to post content to BetterBuiltNW.com, please contact [info@BetterBuiltNW.com](mailto:info@BetterBuiltNW.com).





## Ready to Launch Checklist

Here's a quick checklist to successfully launch a new homes Performance Path program:

- ✓ **Watch overview webinar** and review the Utility Performance Path Overview for AXIS presentation and the Utility Performance Path overview and Modeling Presentation
- ✓ **Contact BetterBuiltNW** to discuss program design options and timelines to [info@BetterBuiltNW.com](mailto:info@BetterBuiltNW.com)
- ✓ **Complete utility-specific cost-effectiveness and budget screening**
- ✓ **Receive savings potential analysis** or other technical support (if desired)
- ✓ **Determine program design**
- ✓ **Partner with Home Certification Program** (if desired)
- ✓ **Activate AXIS login** and receive personalized training
- ✓ **Configure program design settings** in AXIS
- ✓ **Check in with QA team** and receive personalized training
- ✓ **Develop other utility-specific items** such as enrollment requirements, application forms, website content, etc.
- ✓ **Announce incentive program** to local partners
- ✓ **Host kick-off event** or other training event (if desired)
- ✓ **Maintain relationships** with local Rater/Verifier and builder partners
- ✓ **Stay in contact with the BetterBuiltNW team** and reach out with any questions to [info@BetterBuiltNW.com](mailto:info@BetterBuiltNW.com)