

The New RTF Protocols

Presented by:

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Topics for Today

- What is the Regional Technical Forum (RTF)
- *Guideline* Development at the RTF
 - Savings Estimation Methods
 - Measure Cost and Non-Energy Benefits Guidelines
- RTF 2012 Workplan
- How RTF is addressing Small/Rural Utility needs

What is the RTF?



- Initiated by Congressional report language to develop “consistent standards and protocols for verification and evaluation of energy savings...”
- Provides Centralized & Unbiased Technical Review
 - Energy Savings Data & Assumptions
 - Cost-Effectiveness Methodology & Assumptions
 - Standard Protocols & Guidelines for Savings Estimation

Seeks Value Through

Open

- Findings used widely
- Learn from others
- Transparency

Peer Review

- Many eyes
- Yields high quality

Economy of Scale

- Big savers held in common
- Avoid duplication
- Seek synergies

Who Uses It?

Utilities, ETO, BPA

- Reduce analysis and costs

Regulators

- Wide review
- Establish standards for reliability & methods

Evaluators

- Conveys expectations
- Describe methods

What the RTF Does

- Provide independent review of savings & costs estimates for measures commonly used in PNW
- Establish systematic approach for RTF review
- Continually update estimates of savings & costs
- Provide open access to all estimates & data
- Provide guidance for estimating savings from custom measures & for program-level savings
- Assist the Council by assessing new efficiency technologies
- Track regional progress toward efficiency targets

What the RTF Does Not Do

- Perform direct regulatory function
- Require use of specific savings estimates/protocols
- Establish utility program reporting requirements
- Evaluate savings for ALL measures
- Restrict which measures utilities can install
- Require the use of specific program designs
 - Except for technical and quality control requirements for unit energy savings measures (e.g. PTCS)
- Establish “rebate or willingness to pay” levels
- Primary research (RTF relies on others for research)

How Measures Get to RTF

Measures with Obvious Regional Scope

- Large Program Savings (CFL)
- High Unit Count (Appliances)
- Deployed widely across funders
- Most NEEA Initiatives
- Large New Initiatives (Ductless HP, HP Water Heater)
- Long-Standing (Residential Weatherization)

**RTF-
Identified**

Measures for Specific Needs

- Individual utility driven
- Vendor-driven (Grocery, Distribution Efficiency)
- Proposers develop data & analysis
- Some where proposers lack resources to develop data/analysis

**Proposer
Initiated**

Other Technical Needs

- Council Plan Development
- Analytics (Marginal Line Losses, Direct Use Gas, Codes)

Requests

Why Does the RTF Need *Guidelines*?

- RTF Mission
 - Reliable estimates of savings
 - Transparent methods for estimating savings
- RTF operated for 10 years transparently but its “rule book” evolved with experience
- RTF needed to capture its current best practices as an add to consistent decision-making and operations



Development of the RTF *Guidelines*

- *Guidelines* development began in the fall of 2010
- Scope of *Guidelines* grew to encompass various inputs for estimating cost-effectiveness
 - Savings Estimation Guidelines
 - Measure Life Guidelines
 - Measure Cost and Non-Energy Benefit Guidelines
- Over a year of intensive engagement by the full RTF (utilities, regulators, staff and consultants)

Savings Estimation Methods

- **Unit Energy Savings (UES – formerly “deemed”)**
 - Stable unitized savings that can be reliably forecast through the period defined by the measure’s sunset criteria
 - UES measures reduce program delivery cost by simplifying the data that must be collected
 - **Small Saver** – Likely savings from a measure are too small to warrant the resources needed to qualify for UES.
- **Standard Protocol** – when savings from a measure vary widely but can be determined by a standardized procedure for data collection and analysis that is applicable to many different end-use sites
- **Custom Protocol** – requires site-specific data collection and analysis to develop reliable estimate of savings
- **Program Impact Evaluation** – analysis of randomly sampled program participants to determine savings achieved during a period of program delivery

Cost and Non-Energy Benefits Guidelines

- Provide a systematic approach to developing estimates & documenting approaches & sources
- Only address costs/benefits that can be monetized
- A How-To manual
 - Determine whether all key information assembled
 - Check list and summary sheets
 - Document elements analyzed, methods & findings
 - Standard Information Workbook for common assumptions
- A Supplement to Guidelines for Savings Estimation
 - Inform cost-effectiveness of UES & Standard Protocol measures

Guidelines Still Under Development

- Effective Useful Life (EUL) Guidelines
 - Determination and documentation of the RTF's best judgment of the median measure life, or effective useful life (EUL) for UES measures, and standard or custom protocols
- Program Impact Evaluation Guidelines
 - Define level of treatment for approved methods
 - *Guidelines* rely on impact evaluation to:
 - Reliably estimate savings for all the other measures
 - Provide data for developing and improving UES and standard protocols
 - RTF provides peer review of research designs

Guidelines Measure Status

Active

- Measure meets all requirements set forth in *Guidelines*

Under Review

- Errors need to be corrected
- Calculation updates with new identified data sources
- Calculation updates with data to be developed or sought

Out of Compliance

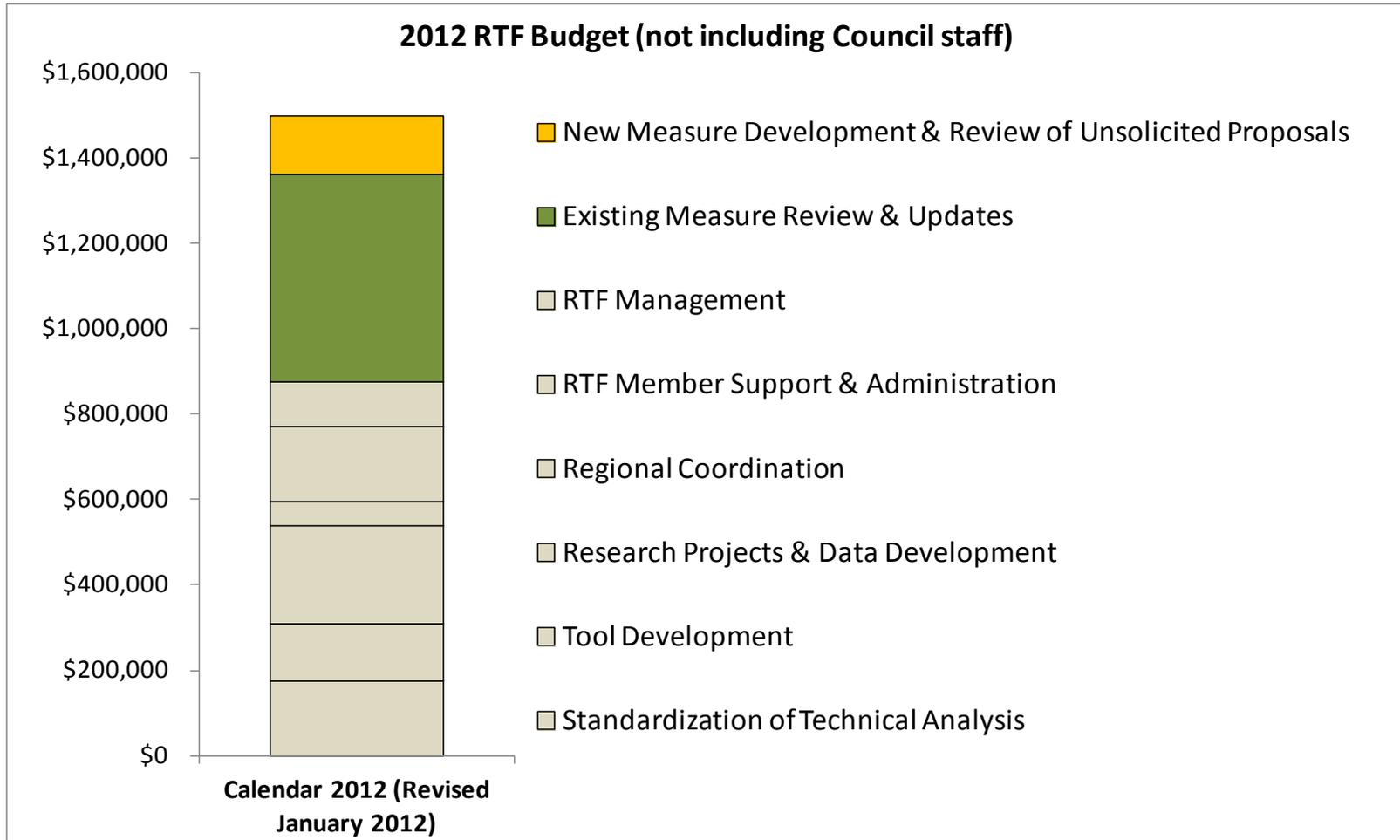
- Lack of data sources identified that can bring the savings estimations into guideline compliance
- 1 year to bring research plan to RTF for review

De-activated

- Inadequate data exists to bring into compliance with *Guidelines*
- Federal/State codes require target efficiency level

Updating Existing Measures in 2012

Bringing Measures into Compliance with Guidelines



Small and Rural Utility Work

Action item from 6th Power plan stated:

- Determine what technical support the RTF can offer to help small/rural utilities achieve greater efficiency savings
- Identify infrastructure and delivery constraints
- Determine what program design and delivery improvements NEEA and BPA can provide small/rural utilities to assist with the implementation of efficiency programs

Small and Rural Utility Work

Approach RTF has taken so far:

- Contractor conducted in-depth interviews with 20 small and/or rural utilities
- RTF subcommittee provided guidance and input on select recommendations
 - Composed of RTF members, Council staff, BPA, NEEA, NRU, IDEA, utilities, and other interested parties
- October 2010 – January 2012 | Final report available

Products

- All RTF measures are available on the RTF website: www.nwcouncil.org/energy/rtf/measures
 - Library of Unit Energy Savings (UES) Measures and supporting documentation
 - Library of Protocols (Savings Methodologies)
 - Guidelines for how the RTF does its work
 - Calculators, Software, Tools, Data
 - Minutes, Agendas, Subcommittee Work, Reports
 - RTF Decisions Database
- 20 Active Subcommittees
- Quarterly Newsletter Updates & Annual Report

Contact

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BPA and the RTF

Presented by:
Lauren Gage
BPA

Who at BPA works on RTF issues?

- PAC
 - Karen Meadows
- RTF Voting Members*
 - Ryan Fedie
 - Erin Hope
 - Lauren Gage
- RTF Operations Committee
 - Danielle Gidding
- Sub-committees and ad-hoc issues
 - Elizabeth Daykin (planning)
 - Sector leads – Sarah Moore, Allie Robbins and Elizabeth Daykin
 - Program managers, engineers

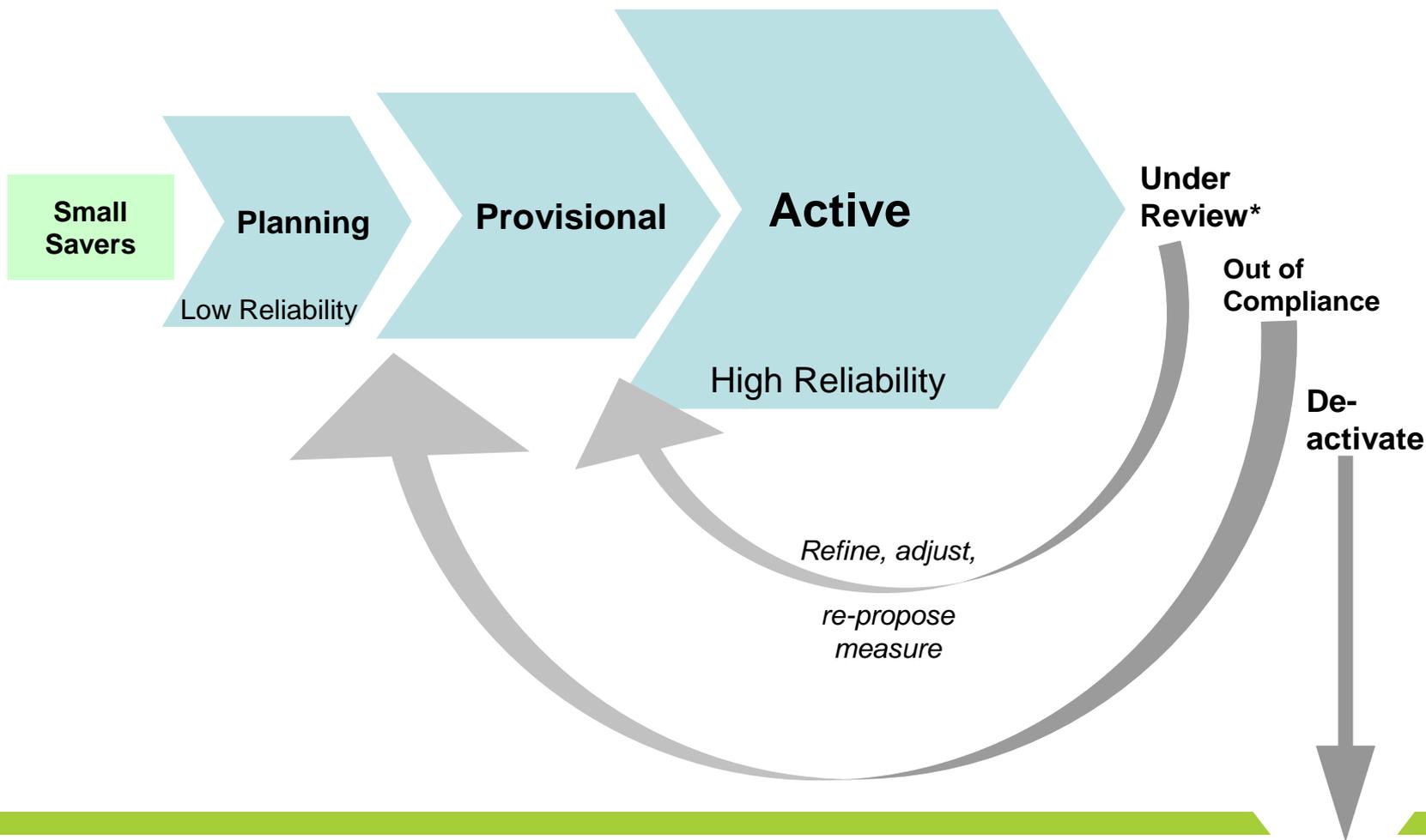
Active Subcommittees

- Custom Protocol and
- Program Impact Evaluation
- End-Use Business Case
- Fan VFD
- HPWH Evaluation
- Lighting
- Measure Cost and NEB
- Measure Life
- PTCS
- Residential Weatherization and Ventilation
- Rooftop Unit Work Group (RTUG)
- Small/Rural Utilities
- UES Measures
- Ground Source Heat Pump

My thoughts on changes at the RTF...

- Huge organizational strides at the RTF
- Guidelines help us know what is needed/required
- Savings guidelines allow the RTF to manage tradeoffs between reliability, cost and risk
- Regional research increases and strategy is required because of guidelines
- More impact evaluation
- Increased use of standard protocols

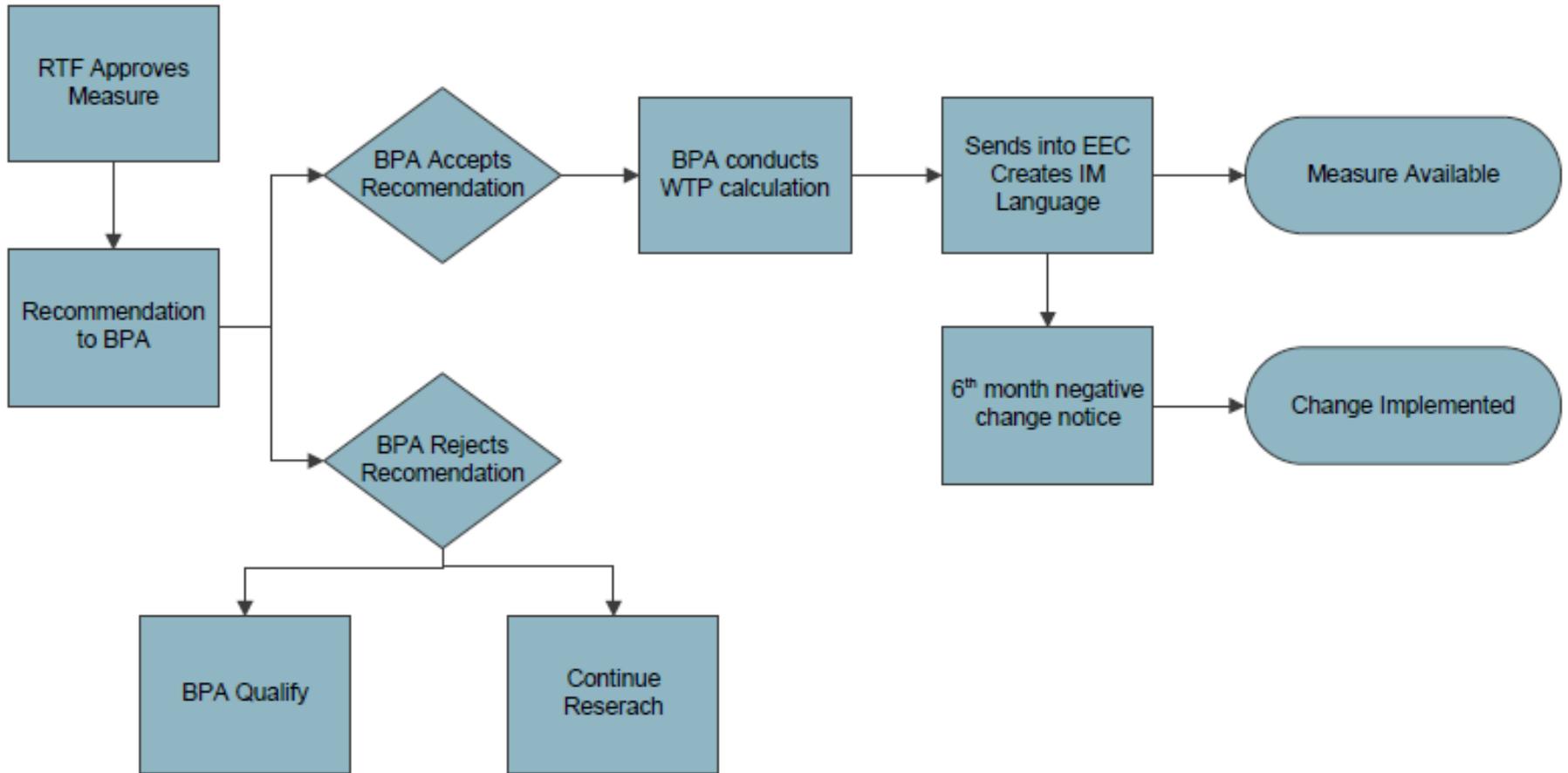
UES Measure Types based on Guidelines



How BPA uses the RTF

- BPA has historically aligned itself very closely to the RTF measures
 - Huge benefits to this – regional consistency, reduction in overall regional planning/evaluation efforts
 - Some cons – has lacked some flexibility (i.e., difficult to get a measure deemed when there's no research)
- To conduct more research to support RTF approval, BPA has created the BPA Qualified path
 - BPA also strongly supported the Small Savers and Planning estimate categories in the Guidelines

BPA Planning Process



BPA Process Related to RTF Measures

- The adoption of the *Guidelines* has not substantially impacted the BPA process for offering reimbursement for measures
- BPA will continue to follow the process outlined in the IM, including the 6th month negative change notice policy
- BPA will continue to accept/reject measure status changes from the RTF

BPA approach to different RTF UES (AKA deemed) measure types

Generally, when a new measure is approved through any of these categories, BPA will offer it:

- Active UES – standard “deemed measures”
- Provisional UES
- Planning UES
- Small Saver UES

What if a measure gets moved to Out of Compliance? Under Review? De-activated?

- **Under Review or Out of Compliance**
 - BPA will continue to offer the measure
 - BPA will support research to bring measure into compliance
 - Changes to the measure will be made once new research has been completed and the RTF has approved updated savings
- **De-activated**
 - BPA may follow the RTF recommendation and remove the measure from the BPA offering (following the negative change notice policy)
 - Or, may choose to continue the measure by continuing research or moving the measure to BPA Qualified

How can utilities participate?

- Attend/listen to monthly meetings
- Participate in sub-committees
- Conduct research and submit data that supports measure development
- Work with BPA to conduct research in your territory

Contact

For more information, contact:

Lauren Gage

Evaluation and Market Research Lead

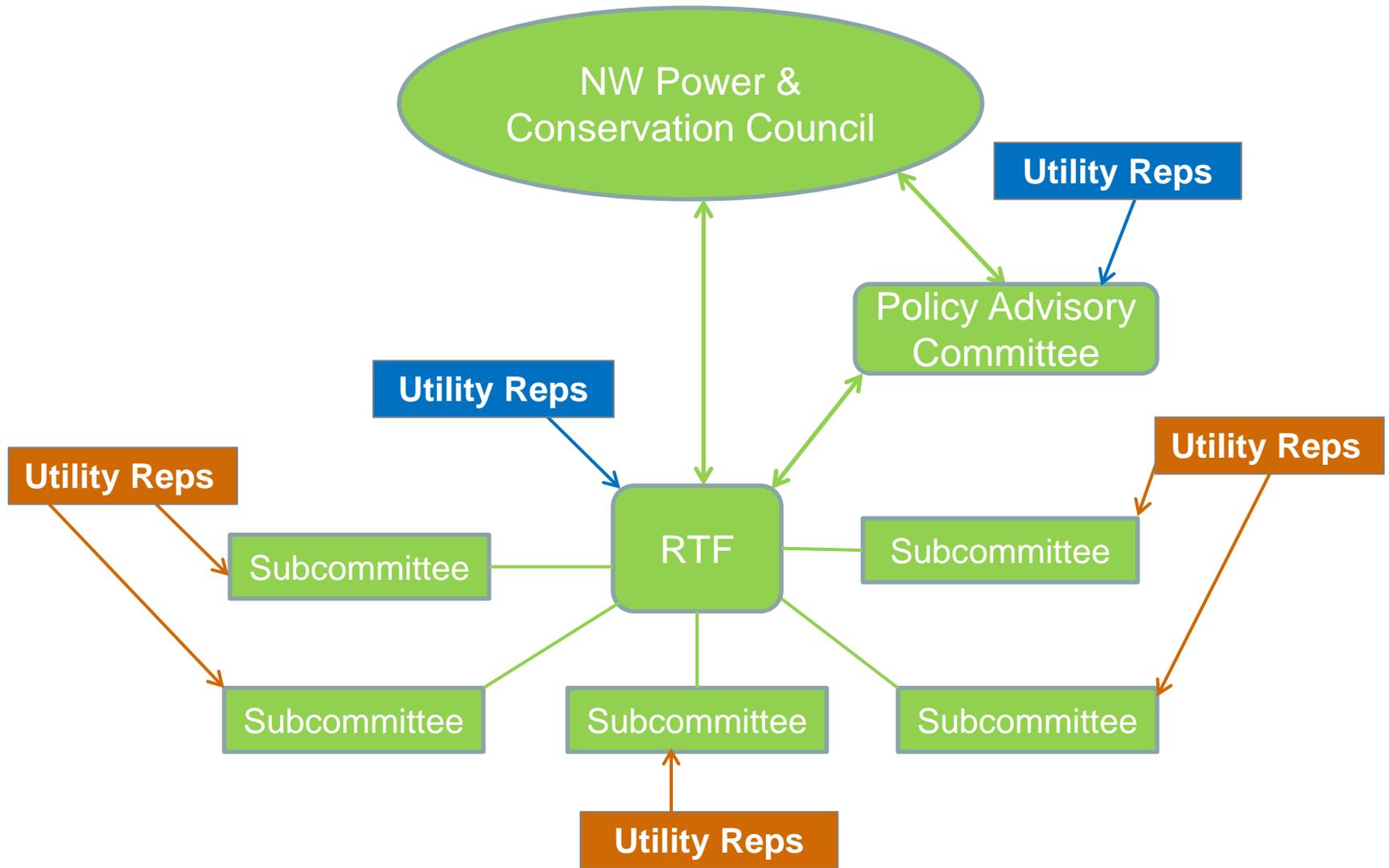
lsmgage@bpa.gov 503-319-7195

RTF and Utility Involvement

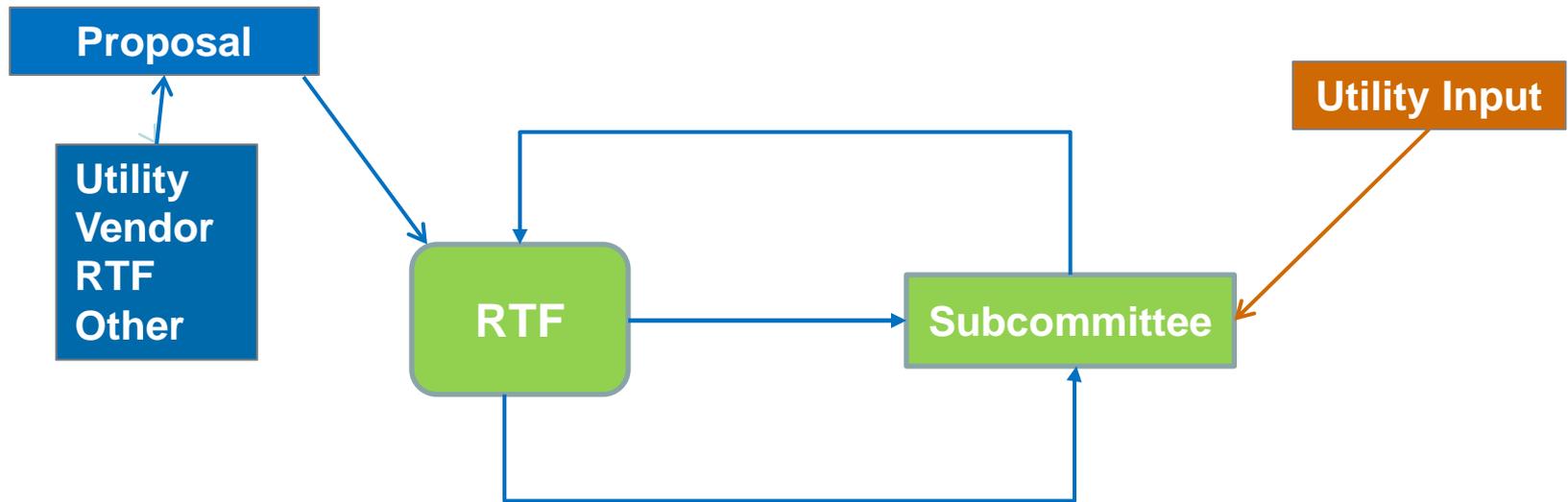
Presented by:
Eugene Rosalie
Cowlitz PUD

RTF and Utilities

- The work of the RTF impacts utilities in a variety of ways
 - Approval of measure savings
 - Current review of measures to the Guidelines can impact measure status, savings, or B/C ratio
 - Approval of protocols
 - Custom protocols
 - Upcoming Non-residential lighting protocol
 - Reviews and supports regional research
 - Technical experts available for review and comment



RTF Process



How can utilities get involved?

- Attend meetings
 - In person or by webinar
- Get involved in subcommittees
- Sign up for the RTF newsletter
 - <http://www.nwcouncil.org/energy/rtf/newsletter/default.htm>

SRR and the RTF

- SRR utilities have historically been limited in the number of methods for achieving energy savings
 - Few deemed measures that are applicable for SRR areas
 - Geography can make it difficult to implement a cost effective program
 - Utilities have limited staff to do custom projects or create programs

SRR and the RTF

- As requested by the region, the Council's Sixth Power Plan includes addressing SRR utilities
 - *“Take into account the unique circumstances and special barriers faced by small and/or rural utilities in achieving conservation and the development and implementation of conservation program”*
- Utilities made SRR a important piece of BPA's Post 2011 Conservation planning

SRR and the RTF

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The RTF SRR Report

- RTF approved the reports recommendations and directed subcommittee to set priorities

- Subcommittee identified three main tasks for the RTF to follow up with:
 - Develop a set of school measures as a package
 - Work on a set of Small Savers
 - Prepare a measure checklist

SRR Checklist

Small/Rural Utility UES Measure Design Checklist

Principles when assessing and approving UES measure definitions and specifications.

The purpose of this checklist is to identify to the RTF barriers to implementation of UES measures by small and rural utilities.

Where barriers are identified, the RTF may choose to mitigate by re-specifying the measure or developing a small/rural utility-specific measure. Mitigation may cause reduced unit energy savings and costs, but should allow better participation by small/rural utilities. Small/rural utility-specific UES measures are likely candidates for small saver status.

Measure Description:

The measure applies to small and rural utilities.

Example: HVAC improvements in high rise office buildings - no; residential weatherization - yes. If not, don't proceed with remainder of checklist.

Notes:

The measure requires minimal utility oversight.

Example: onsite inspections not required

Notes:

The measure requires minimal technical support from the utility.

Example: blower door training of utility staff not required

Notes:

Small/Rural utilities are likely to have local infrastructure necessary to deliver the measure.

Examples: Stores in the area sell the product; contractors in the area offer the

The measure definition is straightforward.

Example: "meets Energy Star" (versus "MEF 2.43 to 2.67 with gas water heater and electric dryer")

Notes:

Identification of compliance with the measure is straightforward.

Example: product is sold with rating attached (window U-value or Energy Star); model number lookup in a database not required

Notes:

Contact

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