

# Overview of the Pacific Northwest System for Tracking Energy Efficiency Resources

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# The PNW's Approach To "Standardization" of Savings Measurement & Verification

*(We're Not California)*

- **Established An Ongoing Centralized Process for Technical Review**
  - Carried out by *Regional Technical Forum (RTF)*
  - RTF composed of utility and non-utility engineering and economic experts, staffed by Council
  - Funded by Bonneville Power Administration, utilities and system benefits administrators
- **Public process**
- **RTF builds on historical program experience and ongoing evaluations of regional acquisition programs**

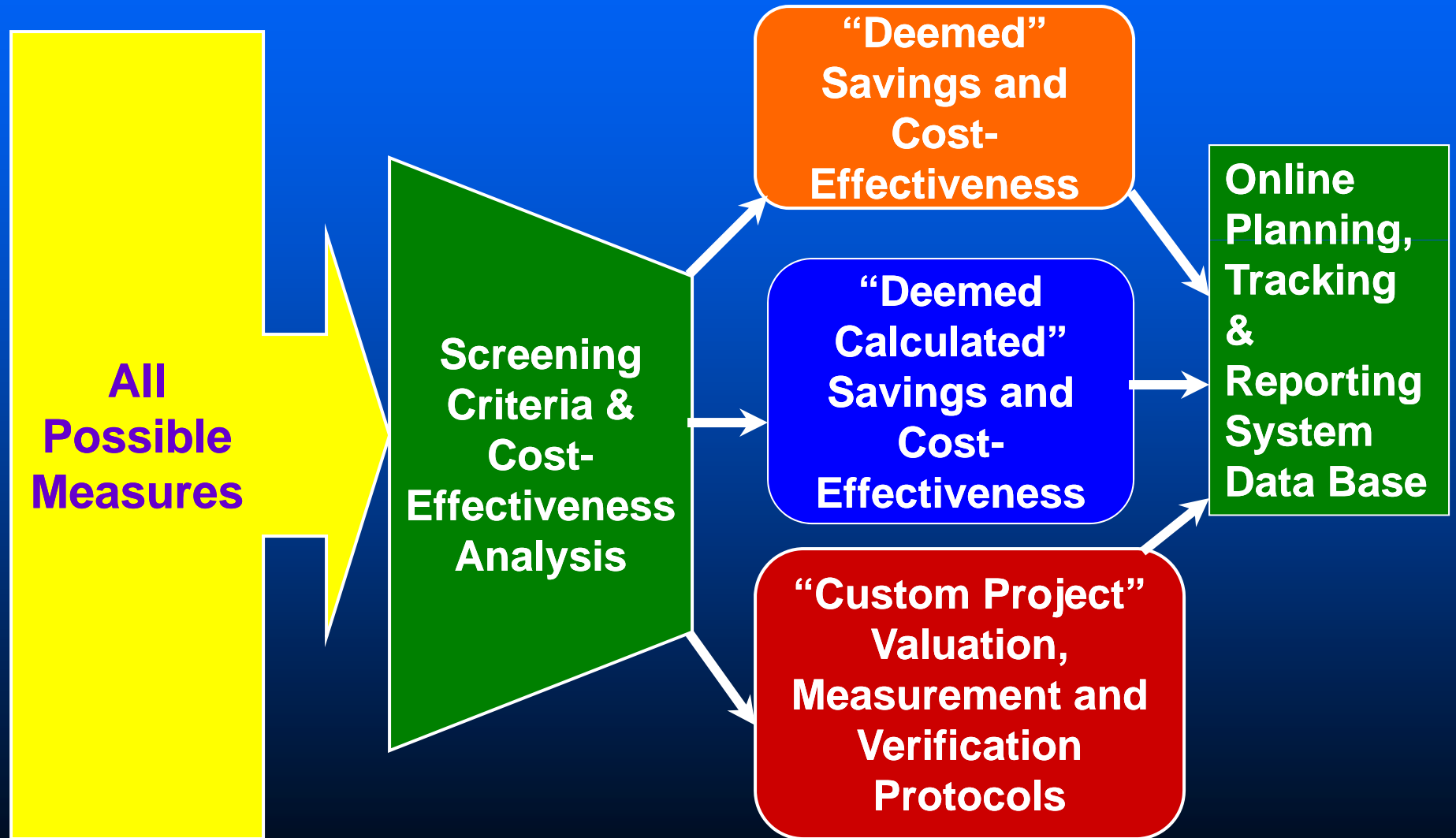
# RTF's Major Functions

- **Establish a Standardized Regional Cost-Effectiveness Methodology**
  - Public domain software for evaluating cost-effectiveness
- **Recommend Measurement and Verification Protocols**
  - *Use IPMVP, ASHRAE, FEMP, NAPEE Model Energy Efficiency Program Impact Evaluation Guide*
  - *Develop “tailored” M&V Protocols for custom, but “recurring” projects (e.g. grocery store refrigerated case retrofits)*
- **Develop and Maintain Internet-based System for Tracking and Reporting Regional Energy Efficiency Savings and Expenditures**
  - Deemed savings (with minimum technical specifications & Q/C criteria)
  - EM&V protocols
  - Default inputs for cost-effectiveness evaluations (e.g., forecast of future energy prices, cost of deferrable distribution and transmission, value non-energy benefits such as water savings, etc.)
  - *Forecast CO2 content/kWh saved (based on load shape of savings)*

# RTF's Operation

- **Continuous process for updating deemed savings as technology and standard practices change.**
- **Appeals process**
  - Utilities/SBA or other parties, including vendors, can demonstrate that different savings and value estimates should apply
- **Collaborative development of EM&V protocols for programs operated across multiple utility service areas**

# Measure Screening Process



# Online Planning, Tracking and Reporting System

- Designed to assist utilities and contractors:
  - **Identify potential energy efficiency** measures and programs eligible for utility and/or SBC administrator programs.
  - **Track progress** toward savings goals using standardized values, calculations and protocols
  - **Report** energy efficiency activity status to utility/SBC administrator management and regulators

# Major Components of the PNW Online System

- Data Base
  - Deemed Measures
  - Deemed Calculation
  - Custom Measure EM&V Protocol
- Business Rules
  - Reporting periods
  - Verification requirements
  - Reimbursement levels (for Bonneville customers)
- Interactive Web-base Software Platform
  - Two-Way System
    - » Users download deemed savings, calculators & protocols/custom project reports
    - » Users upload results

# "Deemed Measure" System Inputs

## ■ Shared Assumptions

- Discount/Finance Rates
- Measure life
- Savings and load shape (by climate zone when needed)
- Future market prices
- Measure cost
- Transmission & Distribution losses
- Deferred cost of Transmission & Distribution system expansion

## ■ Utility/Project specific assumptions

- Program administrative cost
- Consumer incentive
- Number of units
- Consumer's retail rate

# “Deemed Calculated” Measure System Inputs

## ■ Shared Assumptions

- Discount/Finance Rates\*
- Measure life
- Load shape (by climate zone when needed)
- Future market prices\*
- Transmission & Distribution losses\*
- Deferred cost of Transmission & Distribution system expansion\*

\*Can be made utility specific

## ■ Utility/Project specific assumptions

- Program administrative cost
- Consumer incentive
- Number of units
- Consumer’s retail rate
- Measure/project cost
- Site/Case specific inputs (e.g., hours of operation, gals/day, tank size, etc.) needed to calculate savings

# "Custom Measure" System Inputs

## ■ Shared Assumptions

- Discount/Finance Rates\*
- Future market prices\*
- Transmission & Distribution losses\*
- Deferred cost of Transmission & Distribution system expansion\*

\*Can be made  
utility specific

## ■ Utility/Project specific assumptions

- Program administrative cost
- Consumer incentive
- Number of units
- Consumer's retail rate
- Measure/project cost
- Measure life
- Measurement and verification protocol to calculate savings
- Load shape (by climate zone when needed)

# System Outputs

- Measure/Project/  
Sector, Utility and  
Program Level  
Benefit/Cost Ratios
  - Societal
  - Utility
  - Participants
- Measure/Project/  
Sector, Utility and  
Program Level
  - Savings (MW & MWH)
  - Utility Expenditures
    - » Administrative Cost
    - » Consumer Incentives
  - Total Societal Benefits
  - Total Utility System  
Benefits
  - Total Participant Benefits
  - CO<sup>2</sup> Reduction

# Online Planning, Tracking and Reporting System

- Tour Route -
  - Design concept (E-commerce model)
  - Navigation (Site Tour)
    - » Organization (Sector, Category, Sub-Category)
    - » Measure Types (Deemed, Deemed Calculated, Custom)
    - » Measure Selection
    - » Measure Reporting
      - “Batch” Upload Function
      - Status & Progress Reports
    - » Document Distribution
    - » Guest Access
    - » User Support
  - System Flexibility

# The Online System

Planning, Tracking and Reporting  
System