****

2019 Business and Operating Plan
2015-2019 Funding Period

# Final

# October 10, 2018

# Introduction

This document describes the proposed Regional Technical Forum’s (RTF) 2019 work plan and the 2015-2019 Funding Period. The budget for 2019 is proposed at $1,875,200.

The RTF staff will present the draft work plan and business plan to the RTF at the July meeting. This initiates a 30-day stakeholder comment period, ending on August 17, 2018. Staff will then incorporate stakeholder comments into a final proposed work plan and business plan. The RTF and the RTF Policy Advisory Committee will consider these proposed documents at their respective September meetings. The Council approved the work plan at its October 2018 meeting.

# Work Scope

The RTF will continue to pursue the tasks adopted by the Council in its charter, based on the original directive from Congress (1996) and the 1996 Comprehensive Review of the Northwest Energy System.[[1]](#footnote-1) These are:

1. Develop and maintain standardized protocols for verification and evaluation of energy savings.
2. Conduct periodic reviews of the region’s progress toward meeting its conservation resource goals, acknowledging changes in the market for energy services, and the potential availability of cost-effective conservation opportunities.
3. Provide feedback and suggestions for improving the effectiveness of the conservation resource development programs and activities in the region.

Consistent with these tasks, the RTF will continue to provide recommendations to the Bonneville Power Administration (Bonneville), the region’s utilities, and system benefit charge administrators to facilitate the operation of their conservation resource acquisition programs. The 2018 work plan includes, but is not limited, to:

* Review and update existing measures and standardized protocols for verification and evaluation of energy savings. The RTF maintains and continually updates a library of around one hundred measures and protocols, approximately 30 percent of which will require updating in 2019 due to approaching sunset dates.
* Develop and maintain protocols by which the savings and the regional cost-effectiveness for energy efficiency measures, technologies, or practices not specifically evaluated by the RTF can be estimated.
* Coordinate with regional research entities to identify opportunities for improving understanding of various measures and protocols, and work to advance these measures that require additional research to inform reliable estimates by identifying potential research sponsors or using data collected by sponsors
* Develop new measures and protocols and review proposals for new measures and protocols.
* Continue to standardize and update the Guidelines for technical review of measures, protocols, and impact evaluations, and explore paths for providing savings estimation guidance for custom projects.
* Update and develop new tools for measure analysis, including updates to ProCost, SEEM, and commercial building simulation models.
* Upon request of program sponsors, review measurement and verification and program impact evaluation plans and results to assess their suitability for use supporting studies for RTF-related measure evaluations.
* Provide support and outreach to small and rural utilities to ensure the unique circumstances and barriers of their service territories are accounted for when developing RTF technical measures and specifications.
* Support the Council’s Eighth Power Plan development of conservation and demand response supply curves.
* Review efficiency-related technical analysis developed for the Council’s Power Plan.
* Provide outreach, training support, and presentations for RTF related matters.
* Maintain a process through which Bonneville, the region’s utilities, and system benefit charge administrators may demonstrate that different cost, savings, and cost-effectiveness findings should apply to their specific programs or service territories.

# 2019 Activities and Budget

The specific tasks contained in the RTF’s work plan are largely driven by the requests it receives from parties within the region, primarily utilities, the Bonneville Power Administration (BPA), Energy Trust of Oregon (ETO), Northwest Energy Efficiency Alliance (NEEA), and state energy offices (SEO). To facilitate the submittal of proposals by parties in the region for review by the RTF, the RTF established an online proposal form. This proposal form is designed to collect the minimum data that is required for a measure to be considered for RTF approval. This proposal process allows the RTF to respond in a timely manner to emerging technical issues and questions, and prioritize incoming requests. In addition, the RTF will issue an annual request to BPA, the region’s utilities, ETO, NEEA, and SEOs asking these entities to identify specific technical research and evaluation issues that they believe should be addressed during the coming year.

During its operating year, the RTF typically adjusts the allocation of resources among the categories in its work plan based on requests received, proposals, and the pace of multi-year projects. Specifically, the RTF reviews the budgets allocated to the review of existing and new measures and, within those budget categories, reviews the allocation of funding between Unit Energy Savings (UES) measures and Standard Protocols. The RTF notifies the Council and its funders of all significant reallocation of resources or priorities.

The RTF divides its work into six categories of elective work and three categories for management and administration. Table 1 presents a summary of these categories for 2019. It includes components for Contract Request for Proposals (RFPs), a RTF contract analyst team and RTF Manager, and Council staff in-kind contributions. The component labeled “Subtotal Funders” represents the amount of funding required from the RTF’s voluntary funders. A detailed budget for 2019 and the five-year funding period budget forecast are in the accompanying Excel workbook. Each category of work is briefly discussed in the sections following Table 1.

Table 1: Planned RTF Activities for 2019

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Contract RFP2019** | **RTF Contract Analyst Team and RTF Manager 2019** | **Total Funders 2019** | **Council In-Kind Contribution 2019** |
| Existing Measure Updates | $84,000  | $292,000 | $376,000 | $22,000 |
| New Measure Development  | $41,000  | $223,000 | $264,000 | $9,200 |
| Standardization of Analysis | $23,500 | $210,000 | $233,500 | $1,500 |
| Tool Development | $130,000  | $151,400 | $281,400 | $15,000  |
| Demand Response  | $0 | $93,000 | $93,000 | $5,000 |
| Regional Coordination  | $0  | $130,000 | $130,000 | $16,000 |
| Website, Conservation Tracking  | $60,000 | $5,000 | $65,000 | $45,000  |
| RTF Member Support & Admin | $182,000 | $90,000 | $272,000 | $10,000  |
| RTF Management | $3,300 | $157,000 | $160,300 | $66,500  |
| **Subtotal New Work** | $523,800  | $1,351,400  | $1,875,200 | $190,200  |

## Existing and New Measure Development ($640,000)

Review and maintenance of the RTF energy efficiency measure library is the core work of the RTF. This library includes around 70 unit energy savings (UES) measures and 7 standard protocols. The UES measures provide data on the energy savings, costs, and lifetime for a variety of energy efficiency opportunities across sectors. The standard protocols provide a standardized methodology to estimate energy savings using site specific data. Collectively, these measures provide unbiased analysis of energy savings to support program planning and evaluation, minimizing the need for BPA and each utility to conduct this analysis on their own.

With the approval of each new measure or existing measure update, the RTF sets a measure sunset date. A sunset date is a date is tied to when the RTF believes there might be significant changes in the market or new data requiring an updated analysis. In 2019, there are 26 UES measures and 2 standard protocols slated to sunset. In addition to the existing suite of measures, the RTF sets aside funding for review and development of new measures. For 2019, the RTF is anticipating up to 8 new UES or standard protocols. This estimate is based on a mix of known measures identified by stakeholders and placeholders to account for others not yet identified. Maintaining existing measures and updating new measures represents approximately one third of the overall budget.

As with past years, the RTF has allocated a portion of its 2019 budget for the review and development of measures specifically targeted at small and rural utilities in recognition of their limited resources and the unique circumstances of their service territories. For 2019, the RTF plans on allocating $40,000 towards the development of measures identified by the small/rural subcommittee.

## Standardization of Technical Analysis ($233,500)

Consistency and rigor in the RTF analysis is critical for the final work product. To that end, the RTF maintains a set of *Operative Guidelines* that provide a transparent starting point for RTF decision making. The RTF contract analyst team thoroughly reviews each other’s analysis against those *Guidelines* in preparation for developing recommendations to the RTF. This internal vetting process is critical to ensuring consistency and rigor in analysis. Given the importance of this internal vetting and review process, the RTF work plan explicitly accounts for this 12 percent of the budget; although the RTF considers this to be part of measure development.

## Tool Development ($151,400)

Over the past several years, the RTF has supported the enhancement of several tools to improve RTF analysis. As an independent technical body, the RTF sees the potential to provide an important role for the region in enhancing these tools, and developing new ones, that will support regional analysis of energy efficiency opportunities.

### ProCost

ProCost is a tool used by the Council, RTF, and regional stakeholders to characterize the costs and benefits of energy efficiency measures and programs. This tool allows the comparison of energy efficiency on equal footing to other generation and demand side resources. In 2019, the RTF plans to make several enhancements to this tool in support of the Council’s Eighth Power Plan analysis, which ultimately feeds into future RTF measure analysis. These updates include developing a methodology for valuing two peak periods, improving the ability to process many measures at once, and improvements to the line loss calculation.

### SEEM

SEEM stands for Simplified Energy Enthalpy Model. This is a residential building energy use model that the RTF uses to estimate consumption and energy savings in residential housing. In 2019, the RTF plans to wrap up efforts to calibrate the outputs of this building model with data from the most recent Residential Building Stock Assessment. This work helps to ensure the model results best reflect actual energy savings in the real world.

### Commercial Building Simulation Models

The RTF has been working to develop a suite of commercial building simulation models to support RTF and Council work. Similar to SEEM, the RTF is seeking to gradually build on and improve these models to provide the most accurate results of building consumption and energy savings for the commercial sector.

### Saving Shape Development

Over the past couple years, the RTF has invested more time into understanding when its efficiency measures save energy. The RTF currently uses an extensive set of load shapes that provide information on when end uses use energy. Many RTF measures, however, have the potential to shift when the energy is used based on how the devices or systems are controlled. To better reflect when and how these energy savings are occurring, the RTF plans to invest time in 2019 to develop savings shapes. These savings shapes will support the estimation of capacity savings from the RTF library of energy efficiency measures, and are expected to be useful for regional players to conduct similar analysis on their individual peak electric loads.

## Demand Response ($93,000)

In 2019, the RTF is allocating 5 percent of its budget to support analysis on up to six demand response technologies. The focus of this work will be developing technical inputs (*ex ante* estimates) of capacity potential to support supply curve development. Many of these technologies have overlap with energy efficiency opportunities.[[2]](#footnote-2) For 2019, the plan is to develop per unit capacity savings estimates as one input into the Council’s Eighth Plan development. For example, with smart thermostats, the RTF will estimate the demand response savings potential for these technologies across different climate zones, HVAC system types, and other attributes as appropriate. The RTF will also develop costs estimates for technology purchase and installation. As with its energy efficiency measures, the RTF will leverage existing studies and believes that the analysis and inputs for these demand response technologies will provide useful data to all regional stakeholders considering demand response in their integrated resource plans.

## Regional Coordination on Energy Efficiency ($130,000)

The RTF both relies on and is supportive of many regional efforts. To this end, approximately 7 percent of the 2019 budget is allocated to regional coordination. This includes:

### Regional Research Coordination

The RTF does not conduct primary research, but requires data to support its measure development. This includes lab studies on new products, metered data in the field to ground analytical assumptions in real-world data, billing analysis to improve reliability, market research to inform baseline assumptions, and other such research. To that end, the RTF allocates budget to engaging with these regional entities to provide insight as to what data are most useful for RTF analysis and feedback to support rigorous research and analysis.

### Eighth Plan Development Support

As a technical advisory committee to the Council, the RTF provides unbiased analysis to support Council work. In 2019, the RTF anticipates supporting the Council in its development of energy efficiency inputs into the Eighth Plan. This includes ensuring its existing measure suite is supportive of the planning needs and developing savings and cost assumptions for measures not in the RTF library.

## RTF Member Support and Meeting Support ($272,000)

The RTF consists of 30 voting members. It is these members themselves that do the final deliberation and decision making on the contract analyst recommendations. The RTF meets in person 12 days each year. It is at these in person meetings where the bulk of the member deliberations and decision occur. In 2019, the RTF is allocating 15 percent of its budget to ensuring (1) all members can attend these in person meetings, (2) the contract analysts can attend the in-person meetings, and (3) all members are able to devote time to the RTF both at these in-person meetings and during other remote deliberations.

## Regional Conservation Progress Survey ($55,000)

Per its charter, the RTF supports the annual Regional Conservation Progress (RCP) survey to track the region’s progress against the Council’s Power Plan targets.

## RTF Management and Administration ($160,300)

Approximately 10 percent of the RTF budget goes to management and other administration. This includes direct support of the RTF Manager, website development, phone and conference lines, and other administrative functions.

## Council In-Kind Support

In addition to the $1,875,200 budget supported by the region’s funders, the Council contributes approximately $190,200 of in-kind support to the RTF. This includes a full time RTF Assistant, who provides day to day support of the RTF operations. Additionally, Council staff provide in-kind support of technical analysis, contracting and legal assistance, and other administrative tasks.

# Organization and Staffing

The full RTF meets about once a month for an all-day meeting. As regional demand for its products and services increase, the RTF is constantly looking for ways to improve its operational efficiency and lessen the burden it places on its volunteer members. One of the key ways the RTF has met this need is the creation of a dedicated contract analyst team that provides the majority of technical support for the RTF. This helps to ensure more consistency in analysis, while providing flexibility of measure development across a team. In 2019, the RTF work plan will continue to implement this strategy, although 28 percent of its budget will continue to be reserved for focused projects completed through other contracts. Figure 1 below shows this breakdown.

Figure 1: Percentage of Budget Allocated to RTF Manager/Contract Analyst Team vs. Contract RFP for 2018-2019

Figures 2 and 3 below show the change in allocation for the contract analyst team and contract RFP over the past two years, respectively. The RTF Manager will continue to oversee the work of a dedicated contract analyst team to provide subcommittee support, review research projects, develop technical work related to new and existing measure development, and work with external stakeholders on bringing measures through the RTF process. Funding set aside for outside contracts will be used to review RTF Manager and contract analyst team work products, conduct research projects as outlined in the work plan, aid in tool development, support Guidelines review, and provide further support to the small and rural utilities work plan.

Figure 2: Contract Analyst Team Allocation for 2018-2019

Figure 3: RTF Contract RFP Allocation for 2018-2019

# 2019 Funding

Proposed funding levels for the RTF are developed with advice from the RTF Policy Advisory Committee (RTF PAC). In 2014, the RTF PAC recommended a five-year funding level starting at $1.67 million per year with an annual increase of 2.5 percent for wage and inflation rates over the following years. The RTF PAC also recommended that funding shares should follow the allocation method developed for NEEA funding, with an adjustment for Northwestern Energy.[[3]](#footnote-3)

This approach solicits funding from Bonneville, several of the large generating public utilities, and all six investor-owned utilities in the region. Table 2 shows the 2019 funding shares and contributions by funder.

Table 2: 2019 Funding Shares

|  |  |  |
| --- | --- | --- |
| Organization | NEEA Funding Allocation | Share of RTF Budget (rounded)\*\* |
| Bonneville Power Administration | 36.04% |  $695,900  |
| Energy Trust of Oregon | 20.15% |  $389,000  |
| Puget Sound Energy | 14.14% | $273,000 |
| Idaho Power Company | 8.97% | $173,100 |
| Avista Corporation, Inc | 5.74% | $110,900 |
| PacifiCorp (Washington) | 2.54% | $49,100 |
| Northwestern Energy | 4.04% | $40,900\* |
| Seattle City Light | 3.66% | $70,600 |
| PUD No 1 of Clark County | 1.31% | $25,400 |
| Tacoma Power | 1.10% | $21,200 |
| Snohomish County PUD | 0.65% | $12,600 |
| Eugene Water and Electric | 0.32% | $6,100 |
| PUD No 1 of Cowlitz County | 0.38% | $7,400 |
| **Total** | **99.03%** |  **$1,875,200** |

\* Northwestern’s contribution adjusted to $40,900 for 2019. The RTF will adjust its work plan accordingly.

\*\* All funding shares adjusted by 100%/99.03% because Chelan Country is present in NEEA funding, but not RTF funding.

# Multi-Year Funding Period of the RTF

The RTF PAC approved a RTF developed multi-year work plan and budget for 2015-2019 to aid in long-term work plan development. This 5-year period coincided with the current NEEA funding cycle, and may vary in the upcoming years depending on future NEEA funding cycle changes. Annual work plan development is intended to provide flexibility to meet regional needs year to year and keep focus on high priority work. Table 3 shows RTF funding for the 2015-2017 calendar year, committed 2018 funding, and projected funding for the 2019 calendar year based on work plan priorities in the future, and a forecasted 2.5% inflation rate (wage plus inflation) each year.

Table 3: 2015-2019 Funding Plan

|  |  |  |
| --- | --- | --- |
|   | **Previously Funded** | **Proposed Funding** |
| **CY 2015** | **CY 2016** | **CY 2017** | **CY 2018** | **CY 2019** |
| Contracts | $425,600  | $508,000 | $480,300  | $488,700  | $523,800 |
| Contract Analyst Team | $1,087,000  | $1,020,000  | $1,162,500  | $1,192,000  | $1,194,400  |
| RTF Manager | $125,000  | $135,000  | $147,000  | $153,000  | $157,000  |
| Subtotal Funders | $1,637,600  | $1,663,000  | $1,789,800  | $1,833,700  | $1,875,200  |
| Council Staff In-Kind Contribution | $201,600  | $148,100  | $204,200  | $194,500  | $190,200  |

1. See the RTF Charter at https://rtf.nwcouncil.org/about-rtf/charter-and-bylaws [↑](#footnote-ref-1)
2. Likely technologies include smart thermostats, water heaters, lighting controls, electric vehicle chargers, refrigeration warehouse controls, and irrigation pumping controls. [↑](#footnote-ref-2)
3. NorthWestern Energy’s NEEA share is based on the entire state of Montana, while the RTF share is only western Montana. This equates to a total RTF funding amount of $1,637,600 for the starting year of 2015. [↑](#footnote-ref-3)