

Measure Cost Guidance

Subcommittee Meeting #1

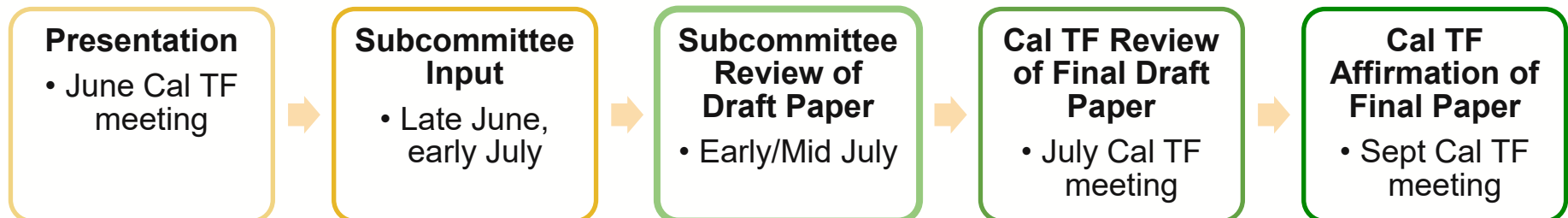


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Objectives and Timeline

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- **Goal**
 - Create guiding principles for measure developers
- **Value**
 - Create broad understanding of measure cost requirements and “fundamentals”
 - Facilitate the consistency of data sources and methods
 - Provide greater transparency into measure development
 - Provide measure developers with trade-offs associated with each method to ensure accuracy, transparency, and cost-efficiency
- **Timeline**



Fundamentals

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Measure cost estimates should

1. Comply with regulatory direction

- “all equipment costs, installation, operations and maintenance, cost of removal (less salvage value), and administration costs” regardless of who pays for them. (Standard Practice Manual, 2001)
- Whether incremental or full measure costs are used depends upon measure application type
 - ✦ Incremental costs for NC/NR
 - ✦ Full measure costs for everything else
 - ✦ AR – full measure cost in 1st baseline, IMC in 2nd baseline

- *Are there other regulatory requirements we need to include?*
- *Why have O&M and removal costs been excluded ?*

Fundamentals (cont.)

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2. Represent average prices actually paid by customers

Estimates of prices for high efficiency technology and standard efficiency or in situ counterpart

3. Represent current market conditions

4. Enable an “apples to apples” comparison between base and measure case costs

5. Exclude cost associated with product or feature choices not directly related to EE.

- *Are there other Fundamentals that should be included?*
- *Differentiation for high-impact measures?*

Measure Cost Data Sources

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(Related to Fundamental #2: Represent average prices actually paid by customers)

What is the *preferred* data source?

- ... for equipment, labor, ongoing O&M, disposal cost
- ... for base/existing case and for measure case

It depends upon the measure, the market through which it is sold.

- ... define for specific measures, measure groups, or end use categories

Considerations ...

- The point in the supply chain that data will most closely represent price actually paid
- Data for all cost components are not likely to come from one single source
- List prices \neq average price paid
 - How to estimate mark-ups/discounts not reflected in data
 - How to account for sales/installations
- Data availability
- Cost to collect and process data
- How to estimate missing data points

■ *Are there other key considerations?*

Measure Cost Data Sources

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See matrix of data sources.

- Goal is to finalize matrix of alternative data sources, strengths/weaknesses, hierarchy, for defined measure groups and use cases.
- Refresh and update what we have learned from WO017 and other studies/guidelines.
- Will be included in white paper
 - *Should guidance include a hierarchy of data sources for specific measure groups? Or more generally present pros/cons and applicability?*
 - *Is primary data always superior to secondary data?*
 - *Special consideration for high-impact measures?*



Homework Assignment:

Send comments/revisions/additions to Jennifer Holmes by Friday July 10.

Measure Cost Data Vintage

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(Related to Fundamental #3: Represent current market conditions and Fundamental #4: Apples to apples comparison)

- *How current is “current”?*
- *How often should measure costs be reviewed?*
- *What should the triggers be to review measure costs?*
- *When is it sufficient to adjust measure costs for inflation? (instead of collecting new data and estimating new values)*
- *Agreement that all cost elements should be of same vintage? What would be exceptions?*

Analytical Methods

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(Related to Fundamental #2: Represent average prices actually paid by customers and Fundamental #5: Exclude cost associated with product or feature choices not directly related to EE.)

What is the *preferred* analytical method?

Considerations ...

- Characteristics of the data
 - Sample points
 - Variability
 - Mean vs median values
 - Availability of measure attributes
 - Missing data points
- If need to estimate only EE portion of cost difference
- Cost / Time
- Expertise
- Measures in analysis
 - *Are there other key considerations?*

Analytical Methods

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See matrix of analytical methods.

Goal is to finalize matrix of alternative methods, strengths/weaknesses, hierarchy, for defined measure groups.

- *Should guidance include a hierarchy of analytical methods specific measure groups? Or more generally present pros/cons and applicability?*
- *Is there one method that is always superior to others?*



Homework Assignment:

Send comments/revisions/additions to Jennifer Holmes by Friday July 17.