CETA Incremental Cost Provision
Options, Considerations, and Questions

Incremental Cost Requirements Workshop
Washington Utilities and Transportation Commission and Department of Commerce, Olympia, WA

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Presentation Outline

1. Context and Scope of the Incremental Cost calculation
2. Illustrative Incremental Cost formula
3. Options for Addressing Incremental Cost
4. Other Implementation Questions and Options
5. Hypothetical examples
Incremental Cost Provision
Scope and Context
Incremental Cost Provision: Context

Clean Energy Transformation Act

• “Washington must address the impacts of climate change by leading the transition to a clean energy economy”

• “transition the state's electricity supply to one hundred percent carbon-neutral by 2030, and one hundred percent carbon-free by 2045”

• “transition to one hundred percent clean energy is underway, but must happen faster than our current policies can deliver”
Incremental Cost Provision: Scope

CETA section 6:

- A utility “must be considered to be in compliance with the standards under RCW 19.405.040(1) and 19.405.050(1) if, over the four-year compliance period, the average annual incremental cost of meeting the standards or the interim targets established under subsection (1) of this section equals a two percent increase of the investor-owned utility's weather-adjusted sales revenue to customers for electric operations above the previous year, as reported by the investor-owned utility in its most recent commission basis report.”

- “All costs included in the determination of cost impact must be directly attributable to actions necessary to comply with the requirements of RCW 19.405.040 and 19.405.050.”
Incremental Cost Provision: Scope

What is the incremental cost provision?!

- Baseline = What utility would do in the absence of CETA sections 4 and 5
  - All existing laws, regulations, Commission orders (e.g. existing energy efficiency, demand response requirements)
  - Other sections of CETA, e.g. social cost of carbon, coal shutdowns
- Incremental cost = cost above this baseline that is a consequence of complying with CETA §§ 4-5
Incremental Cost Provision: Formula

\[ 4 \text{ Year Annual Average Incremental Cost} \% = \left( \frac{\text{ICC}_1}{\text{WASR}_0} + \frac{\text{ICC}_2}{\text{WASR}_1} + \frac{\text{ICC}_3}{\text{WASR}_2} + \frac{\text{ICC}_4}{\text{WASR}_3} \right) \frac{1}{4} \]

\text{ICC}_x = \text{Incremental Cost to Comply with Sections 4 and 5 in year X} \ ($)

\text{WASR}_y = \text{Weather-Adjusted Sales Revenue for electric operations in year Y} \ ($)
3 Options for Addressing Incremental Cost
Incremental Cost of Compliance Provision: Options

1. Proxy Costs for Resources
2. Market Costs as Proxies
4. Incremental Cost Set-Aside
5. Others?
Proxy Costs for Resources

How would this option work?

• Compare cost of resources to be acquired under CETA with a proxy resource
  • Decide who will select proxy resource
  • Determine proxy resource
  • Consider what other costs are included in the comparison (fuel consumption, generation capacity, operations and maintenance, transmission, ancillary services, and emissions)
  • Looks at levelized cost of a resource over its lifetime (lifetime of proxy resource or CETA resource?)
How to determine a proxy given current costs?

Clean Energy Contracts vs. Natural Gas

HISTORICAL AND PROJECTED EVOLUTION OF CEP COSTS

Note: The “kink” in the CEP cost curve in 2018 reflects the difference between historical cost decline rates for renewables and storage, and the much more moderate future cost decline rates predicted by technology analysts.
Proxy Costs for Resources

Would it work?

Pros:
• Simpler than modeling?
• Examples from other states in RPS setting

Cons:
• Difficult to determine proxy resource
• Do proxy fairly replace portfolio of resources?
• Complicated by levelized cost timeframe, fuel costs, system impacts
• Hard to consider other factors
Market Costs as Proxies

How would this option work?

• Compare costs of CETA resources with wholesale market spot price
  • Considerations of energy and capacity
  • Shape market price curve to output of CETA resource?
  • Use historical market prices for CETA resource generation or projections compared to resource lifetime?
Market Costs as Proxies

Would it work?

Pros:
• Comparison is to an easily-determinable market cost, not a proxy resource
• Can potentially compare different attributes to those market costs

Cons:
• Is wholesale market cost a fair representation of non-CETA costs?
• What market cost is used?
Integrated Resource Planning

How would this option work?

At least two approaches:

1. CETA-compliant modeling runs compared to non-CETA-compliant portfolio (but need to establish proper baseline, including other CETA, pre-CETA requirements) up front

2. Requirement to do a modeling run for future comparison to actual costs if incremental cost compliance provision used
Integrated Resource Planning

Would it work?

Pros:
• System-wide view
• Can ensure that all baseline requirements are included in comparison
• Can incorporate CETA section 4(8) requirements
• Can ensure that all portfolio attributes are discussed

Cons:
• Must ensure inputs are accurate
• Requires additional modeling to establish a baseline
• Timing of costs and benefits may be outside of compliance period
Incremental Cost Set-Aside

How would this option work?

• Utility would set aside a projected 2%
• Utility would monitor expenditures that qualify as incremental CEIP costs
• Could choose to use incremental cost compliance mechanism if used 2% or more
• Would need to justify to the Commission (would imply a post-compliance period filing)
Incremental Cost Set-Aside

Would it work?

Pros:
- Provides a mechanism to monitor incremental costs
- Simpler than modeling portfolios of resources; no baseline
- Could consider section 4(8) pieces in developing portfolio

Cons:
- Clear direction needed about what would qualify as incremental
- Post-compliance period review might allow utility to spend less than 2%
- Post-compliance might also hinder full discussion of other factors
Other Options? Questions?

- Hybrid approaches – proxy resources + modeling
4 Other Implementation Questions and Options
Key Implementation Issues in Incremental Cost Provision

1. What is the definition of “directly attributable” and “necessary to comply”?

2. How and when is “compliance” using the incremental cost provision determined?
   - Should there be true-up mechanisms between CEIP cycles?

3. How to demonstrate that investments in RE and non-emitting generation have been maximized?
“Directly Attributable to Actions Necessary to Comply”

- CETA Section 6, (3)(a) and (4)(a):
  - “all costs included in the determination of cost impact must be directly attributable to actions necessary to comply with the requirements of Sections 4 and 5 of this act.”
  - In other words, anything included in $\text{ICC}_x$ must satisfy this requirement
Broad Interpretations

• Include costs not related to other explicit legal requirements (e.g. the RPS)
• Include all costs associated with an approved CEIP, i.e. whatever is in the CEIP is incremental
• Include costs of investments that enable compliance, (e.g. utility IT, new utility personnel)
• Include costs related to making utilities better situated to comply, (e.g. employee training)
Narrow Interpretations

• Only include costs that can be directly tied to a requirement in CETA sections 4 and 5
• Only include costs for investments that are determined to be the “bare minimum” required to comply, e.g. G, T & D
• Only include costs for investments (or fractions of investments) that would not happen in a world without CETA sections 4 and 5
Timing of Commission/Commerce Decision Regarding Use of ICC Provision

• Statute seems ambiguous on when the determination should be made

• Note two intents in statute that commenters highlighted:
  • Purpose of incremental cost provision is to protect customers from unreasonable costs
  • Ambitious/aggressive goals require decisive action by utilities who must be empowered to achieve the goals
# Before CEIP Time Period (ex ante)

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<tr>
<th>Basic Idea</th>
<th>Pros</th>
<th>Cons</th>
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<td>CEIP forecasts incremental cost of meeting the standards or interim targets</td>
<td>Aligns ICC determination with decision on CEIP</td>
<td>Makes forecasts more important (and potentially controversial)</td>
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<td>If &gt;2%, utility considered in compliance</td>
<td>Potentially simpler than also including an after-the-fact review</td>
<td>Creates uncertainty about whether the ICC will actually be met (ICC&gt;2%)</td>
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- **CEIP forecasts incremental cost of meeting the standards or interim targets**
  - If >2%, utility considered in compliance
  - Could use proxy cost or modeling/planning approach

- **Pros**
  - Aligns ICC determination with decision on CEIP
  - Potentially simpler than also including an after-the-fact review

- **Cons**
  - Makes forecasts more important (and potentially controversial)
  - Creates uncertainty about whether the ICC will actually be met (ICC>2%)
## After CEIP Time Period (ex post)

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<td>- Utility accounts for costs to implement CEIP including costs that are incremental&lt;br&gt;- Ex post review determines compliance&lt;br&gt;- Could use any of the 3 approaches discussed</td>
<td>- Relies on actual data, accounts for how costs change over time&lt;br&gt;- Can still include a forecast of costs&lt;br&gt;- Possibly allows a more thorough review of whether all customers are benefiting</td>
<td>- Conflicts with the idea that CEIP investments will be approved by UTC/Commerce&lt;br&gt;- If ICC $\neq 2%$, ex post review of utility actions (which were already approved in CEIP?)</td>
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True-up Mechanism

- Could be used with ex post or ex ante approach but seems most important for ex ante
- In both cases, a key first question is whether the ICC provision is being used for compliance
  - With ex ante: true-up to 2% if needed
  - For both, whether to “true down” in the case of costs over 2%
- How to actually “true-up”? Costs will be in rate base
## Combination

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<td>• Use forecast to invoke this section for compliance</td>
<td>• Certainty for utility and parties regarding applicability of ICC provision to a given CEIP</td>
<td>• Added complexity compared to choosing one compliance approach</td>
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<td>• CEIP approval process determines what investments should be made</td>
<td>• Relies on actual cost data</td>
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<td>• Tracking of costs (interim reports?)</td>
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<td>• Review ex-post</td>
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Maximizing Investments in RE and Non-Emitting Gen

- *If ICC is relied upon for compliance*, Section 6(3)(b) requires a utility to demonstrate that it has maximized investment in RE and non-emitting generation prior to using alt. compliance options
- Implications for the timing of ICC determination
- Demonstration could include forecasts of different potential scenarios for meeting interim and long-term CETA targets
Combining ICC Calculation and Implementation Options
Proxy Costs – Hypothetical

Only costs that are the "bare minimum" deemed incremental

Analyze G, T, and D investments needed for CETA §§ 4 & 5 compliance

Determine proxy resource for each investment (least-cost option in a non-CETA §§ 4 & 5 scenario)

If ICC is projected >2%, utility complies with CETA §§ 4 & 5 provided it undertakes the approved investments prudently

Commission approves CEIP including forecast of incremental cost. May include modifications to max RE and NE generation

Determine which costs to include, compare levelized costs of CETA §§ 4 & 5 resources to levelized costs of proxies

Utility implements actions to meet targets in CEIP, tracks investments made and actual costs

After-the-fact review of utility investments undertaken compared with CEIP

After-the-fact review to evaluate accuracy of cost forecast and adjust future planning requirements
Proxy Costs – Challenges

• At a time when renewable resources are often the least expensive generation resource, what would be used as proxies?
  • Least-cost option in a non-CETA §§ 4&5 scenario could be higher cost
• How to determine a least-cost proxy for DR and EE, given their role in a larger portfolio? Or for investments made to support DER deployment? Would this essentially mean a case-by-case demonstration of the choices utilities would have made in the absence of CETA §§ 4 & 5?
• Does an approach to ICC that does not rely on actual costs create a risk that CETA requirements and goals will not be met?
Within IRP process, develop a non-CETA baseline run

Develop CETA compliant runs/runs of CEIP

Compare CETA and non-CETA runs to estimate incremental cost of compliance

Utility proceeds with CEIP or with a modified CEIP if utility is modifying CEIP because of incremental cost considerations

Commission approves CEIP including forecast of incremental cost. May include modifications to max RE and NE generation

Utility could at this point decide to use incremental cost provision or decide to proceed with CEIP as outlined

Utility implements actions to meet targets in CEIP, tracks investment, but might stop short because of incremental cost

After-the-fact review of utility investments - did utility spend 2% on incremental costs?

If not, what is the remedy/penalty? If so, how far off from CEIP goals is the utility?
IRP Questions

• Modeling the baseline to use to compare a CEIP portfolio is an important aspect of using the IRP as the incremental cost comparison.
  • Should rules include requirements for the baseline portfolio to provide direction and so that the baseline is standardized across utilities?
  • If the utility compares actual costs later, is there a concern that the baseline is also no longer up to date?
• Equitable distribution of benefits will make some scenarios more appropriate than others; how does this factor into decisions about using the incremental cost provision?
About RAP

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