Developing an Incremental Cost Methodology: Washington’s Experience

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Background: Washington’s RPS

- Created in 2006 by voter initiative
- Targets:
  - 2012: 3 percent
  - 2016: 9 percent
  - 2020: 15 percent
- Applies to any utility with more than 25,000 customers
- The initiative also included an energy efficiency resource standard – “pursue all”
- The UTC administers the law for the state’s three investor-owned utilities; public utilities report to the WA Department of Commerce and the State Auditor
Why Incremental Costs Matter

**Cost cap:** A utility shall be considered in compliance if it spends *4 percent* of its annual revenue requirement on the *incremental* cost of eligible renewable resources and renewable energy certificates (RECs).

**But the law is vague on what an incremental cost is:**

“(T)he difference between the levelized delivered cost of the eligible renewable resource ... compared to the levelized delivered cost of an equivalent amount of reasonably available substitute resources that do not qualify as eligible renewable resources, where the resources being compared have the same contract length or facility life.”
## The Results

### IOU incremental cost calculations

<table>
<thead>
<tr>
<th></th>
<th>Puget Sound Energy</th>
<th>Avista Corporation</th>
<th>Pacific Power &amp; Light</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline resource</strong></td>
<td>Spot market</td>
<td>Spot market</td>
<td>Spot market</td>
</tr>
<tr>
<td><strong>Time period</strong></td>
<td>Projected</td>
<td>Actual</td>
<td>Actual</td>
</tr>
<tr>
<td><strong>Offsetting REC revenue</strong></td>
<td>No</td>
<td>Yes</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Hydro included</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Capacity value</strong></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Integration costs</strong></td>
<td>Yes</td>
<td>Unclear</td>
<td>Some</td>
</tr>
<tr>
<td><strong>Excess generation</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Incremental cost (2014)</strong></td>
<td>1.33%</td>
<td>1.22%</td>
<td>0.66%</td>
</tr>
</tbody>
</table>
The impetus for change

• Major interest in incremental costs in 2013
  • Records requests
  • Legislative hearings

• General misinformation about the RPS – How much does it REALLY cost?
  • Legislative witness: $50/year
  • Our data: $12/year

• UTC Chairman’s op-ed prompted even more requests

• Takeaway: Incremental costs being used as a policy metric
### Getting started – Sources of tension

<table>
<thead>
<tr>
<th>Spot market</th>
<th>Baseline resource</th>
<th>Fixed resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commission prescribes</td>
<td>Integration cost determinations</td>
<td>Utilities decide</td>
</tr>
<tr>
<td>Offsetting revenue</td>
<td>REC sales</td>
<td>Not relevant</td>
</tr>
<tr>
<td>One-time (projections)</td>
<td>Frequency of calculation</td>
<td>Annually (actuals)</td>
</tr>
</tbody>
</table>
**Baseline resource:** Spot markets explicitly excluded
- Utility determines baseline resource based on “same contract length or facility life” language of the law
- Same resource used for determining incremental energy and capacity costs

**Integration costs:** Full deference to utility

**REC sales:** Proceeds treated as offsetting revenue

**Frequency of calculation:** Annual
- Based on each resource’s actual production that year
The real source of tension

What the law says

“Same contract length or facility life” as a renewable resource

There is no contract or resource like a renewable

System operations

What is a reasonable counterfactual?
The proposed rule: A hybrid approach

• **Baseline resource:** Split into energy and capacity components
  • Energy component: No resource restriction (markets OK)
  • Capacity component: Utility calculates a capacity credit for each eligible resource and compares it to the lowest-cost baseline resource from most recent integrated resource plan

• **Frequency of calculation:** One-time and annual components
  • One-time component: Calculation of an eligible resource’s incremental cost at the time of acquisition, based on market forwards and integrated resource plan at that time
  • Annual component: Incorporates the proceeds of REC sales during the year and the current revenue requirement

• **Reporting:** The full incremental cost and the cost of just the resources needed to meet the current target
Issues for future consideration

• Avoided fuel costs/fuel risks
  • Proposed rule accepts the assumption that renewables exclusively displace market purchases (hydro)
  • Largest impact on fossil dispatch is hydro availability – difficult to tease out the avoided fuel costs from renewables

• Market benefits
  • By reducing market purchases, renewables keep market prices down
  • Again, difficult to model

• Economic and environmental benefits
  • Difficult to include these within our statutory framework
  • Quantification issues – 111(d) may help
We (Washington UTC staff) believe that the proposed rule:

- Provides consistency among the utilities
- Reasonably reflects the statutory requirements and operational characteristics of each utility’s system
- Generates reliable, comparable data for legislators and the general public as the future of Washington’s RPS continues to be evaluated
For reference

• Proposed rule filed Sept. 5; adoption hearing set for Nov. 5

• Rulemaking docket: [UE-131723](#)

• Washington’s RPS: [RCW 19.285](#)

• Washington UTC’s RPS and EE rules: [WAC 480-109](#)
Questions?