Testing the Impact of Pace

Conservation Resources Advisory Committee
March 24, 2017

Acquisition Rate Sensitivity Testing

- Problem: EE acquisition rates uncertain
- Purpose:
  - What is the value of going faster or slower?
  - What is impact on EE avoided cost?
  - What are the resource consequences?
  - What are the revenue requirements?
- Tool: Regional Portfolio Model
  - Test slow & fast achievable penetration
- CRAC Issue: What ranges to test?
Accomplishments Compared to Targets Since 2005

Five years where achievements exceeded targets by over 40%

Ramp Rate Sensitivity Testing
Staff Analysis: Two Methods Considered

1. Swap Ramp Rate Curves
   - SLOW: Shift Down One
   - FAST: Shift Up One

2. Shift Ramp Rates
   - SLOW: Proportional Shift Later in Time
   - FAST: Proportional Shift Earlier in Time

- Both applied to all measures & all cost bins
- Both have affect of moving forward/backward in time
Family of Ramp Rate Curves

Seventh Plan Lost Opportunity Ramp Rates

Separate Ramp Rates for each Measure

Swap Example

For FAST: Swap in 12Med

For SLOW: Swap in 3Slow

NATIVE Rate is 5Med
Impact of Swaps: Cumulative
All Measures All Cost Bins

Impact of Swaps: Cumulative
First Five Years, All Measures All Cost Bins
Impact of Swaps: Incremental
All Measures All Cost Bins

Plus/Minus 100 aMW per year in early years

Shift Method
- Find mid point of each curve
- Proportional & symmetric shift each side of mid point
- Scalable
- FAST: Shift up if left of mid-point,
- SLOW: Shift down if left of mid-point
Shifts are smoother curves, less dramatic near-term

Impact of Shifts: Cumulative
20 Years, All Measures All Cost Bins (33% Shift)
Impact of Swaps: Cumulative
First Five Years, All Measures All Cost Bins (33% shift)

Impact of Swaps Incremental
Discussion

- Swaps move acquisitions 3-4 years
  - Big jumps in faster ramps
- Shifts move acquisitions 1-4 years (depend on shift %)
  - Proportional shifts faster & slower ramps

Fast/Slow Results

- RPM analysis expected in May
End

## Ramp Rate Swap Mapping

<table>
<thead>
<tr>
<th>Ramp Rate - Base</th>
<th>Fast</th>
<th>Slow</th>
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<tbody>
<tr>
<td>1Slow</td>
<td>3Slow</td>
<td>1Slow</td>
</tr>
<tr>
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<td>5Med</td>
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