Analytical Steps to Avoid

DOUBLE COUNTING

in Momentum Savings
Momentum Savings Analyses are Total Market Analyses

Momentum Savings Analyses

Total Market Analyses

Year 1

Year 2

Year 3

Total Market Savings

Council Baseline

KWH Average Consumption

High

Low

Market Average

Market Average

Market Average

Total Market Savings

Total Market Savings

Total Market Savings
WHAT is Double Counting?
Double-counting happens when you count the same savings twice.
There are two kinds of double counting

Double-Counting
Baseline Savings

Overlap between Savings
DOUBLE COUNTING
Baseline Savings
Momentum Savings Analyses are tracked from the Council baseline.
There is efficiency assumed in the Council baseline

If consumption stayed constant
There is efficiency assumed in the Council baseline

If consumption stayed constant

Efficiency assumed in the Council baseline
There is efficiency assumed in the Council baseline

If consumption stayed constant

Efficiency assumed in the Council baseline

Actual efficiency in the market
Getting the baseline right is the most important way to avoid double-counting.
2015

- **12%**
  - Incandescent (INC)

- **33%**
  - Halogen (HAL)

- **31%**
  - CFL

- **24%**
  - LED
2016

INC  HAL  CFL  LED

12%  33%  31%  24%
2017

12% | 14
---|---
33% | 33
31% | 31
24% | 24

INC | HAL | CFL | LED
Counting these bulbs in green is double-counting
The region uses many different baselines for reporting energy savings.
We true up program savings for double counting
OVERLAP
Savings
What is Overlap?

TECHNOLOGY

EFFICIENCY LEVELS

TIME
Correcting for Overlap

IDENTIFY

QUANTIFY

DEDUCT
Sources of Savings Overlap

- Momentum Savings Models
- Codes + Standards Savings
- Program Savings
- NEEA Program Savings
Sources of Savings Overlap

- Momentum Savings Models
- Codes + Standards Savings
- Program Savings
- NEEA Program Savings
Sources of Savings Overlap

Momentum Savings Models

Codes + Standards Savings

Program Savings

NEEA Program Savings
Overlap Between Momentum Savings Analyses and Codes + Standards
# Example: Residential Heat Pumps

<table>
<thead>
<tr>
<th>Technology</th>
<th>Momentum Savings from Residential HVAC Market</th>
<th>Momentum Savings from Heat Pump Standards</th>
<th>Overlap?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency Levels</td>
<td>7.7 – 11.5 HSPF</td>
<td>7.7 – 8.2 HSPF</td>
<td>✓</td>
</tr>
<tr>
<td>Time</td>
<td>2010-2014</td>
<td>2015</td>
<td>X</td>
</tr>
</tbody>
</table>
## Example: Small Packaged AC

<table>
<thead>
<tr>
<th>Technology</th>
<th>Washington State Commercial Building Code</th>
<th>Momentum Savings from Packaged AC Standards</th>
<th>Overlap?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency Levels</td>
<td>Minimum 14.0 SEER for Single Package Units &lt; 5 tons</td>
<td>Minimum 14.0 SEER for Single Package Units &lt; 5 tons</td>
<td>✓</td>
</tr>
<tr>
<td>Time</td>
<td>Compliance in 2015</td>
<td>Compliance in 2017</td>
<td>✓</td>
</tr>
</tbody>
</table>
Sources of Savings Overlap

Momentum Savings Models

Codes + Standards Savings

Program Savings

NEEA Program Savings
Overlap Between Momentum Savings Analyses and Programmatic Savings
## Example: Walk-in Coolers

<table>
<thead>
<tr>
<th>Technology</th>
<th>Program Savings from Custom BPA Refrigeration Project</th>
<th>Momentum Savings from Walk-in Cooler Standards</th>
<th>Overlap?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency Levels</td>
<td>Not Specified, Assumed Overlap</td>
<td>Depends on Component (Insulation, Motors, Lighting, and Doors)</td>
<td>✓</td>
</tr>
<tr>
<td>Time</td>
<td>2015</td>
<td>2014-2015</td>
<td>✓</td>
</tr>
</tbody>
</table>
Sources of Savings Overlap

Momentum Savings Models

Codes + Standards Savings

Program Savings

NEEA Program Savings
Overlap Between Momentum Savings Analyses and Savings from NEEA Initiatives
## Example: Refrigerators

<table>
<thead>
<tr>
<th>Technology</th>
<th>NEEA Savings from Energy Star 4.0</th>
<th>Momentum Savings from Refrigerator Standards</th>
<th>Overlap?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline to EnergyStar 4.0</td>
<td>![Energy Star Logo]</td>
<td>![Federal Standard Logo]</td>
<td>✓</td>
</tr>
<tr>
<td>Efficiency Levels</td>
<td>Baseline to Federal Standard (&gt; EnergyStar 4.0)</td>
<td>![Federal Standard Logo]</td>
<td>✓</td>
</tr>
<tr>
<td>Time</td>
<td>2010-2015</td>
<td>2015</td>
<td>✓</td>
</tr>
</tbody>
</table>
Correcting for Overlap
Two Key Numbers

Quantity of Units

Efficiency Levels
Correcting for Overlap
A GUIDE TO AVOID DOUBLE COUNTING MOMENTUM SAVINGS

Overlap occurs when two analyses find savings from the same efficiency levels, of the same technology, at the same time. This graphic will help analysts avoid and correct for this type of overlap when estimating momentum savings from standards and markets.

Are you analyzing a standard or market?

Both

Market or standard?

Does NEEA track this market?

Yes

Total savings, standards or market

If NEEA contributes to the total savings, the NEEA savings overlap with the Momentum Savings

Carefully review project data

If the pre-condition is below standard level, only the savings from bringing the equipment up to the standard overlaps.

If the resulting efficiency is above standard level, only the portion of savings from going above the standard overlaps with market savings

Remove all IOU and public power measure programs savings

No

Truing-up baselines

BPA and other entities must claim energy savings—programmatic, momentum, or otherwise—against a predetermined baseline. Most often, entities in the Northwest use the baseline as defined in the Northwest Power and Conservation Council’s (the Council) current power plan. Unfortunately, not all analysts in the energy efficiency industry interpret the Council’s defined baselines in the same way, or in some instances, use them at all. This complicates savings estimates, and may result in double-counting or lost savings opportunities. To avoid this pitfall, analysts must first identify and reconcile the baselines used in each analysis. Doing so will ensure analysts count savings from a common starting point and accurately capture overlap.