



Energy Efficiency Transition Stakeholder Meeting

Application of Utility Targets

**Thomas Edison State University
111 West State Street
Trenton, NJ 08608**

February 4, 2020
11:00 am – 1:00 pm



@NJBPU



New Jersey Board of
Public Utilities

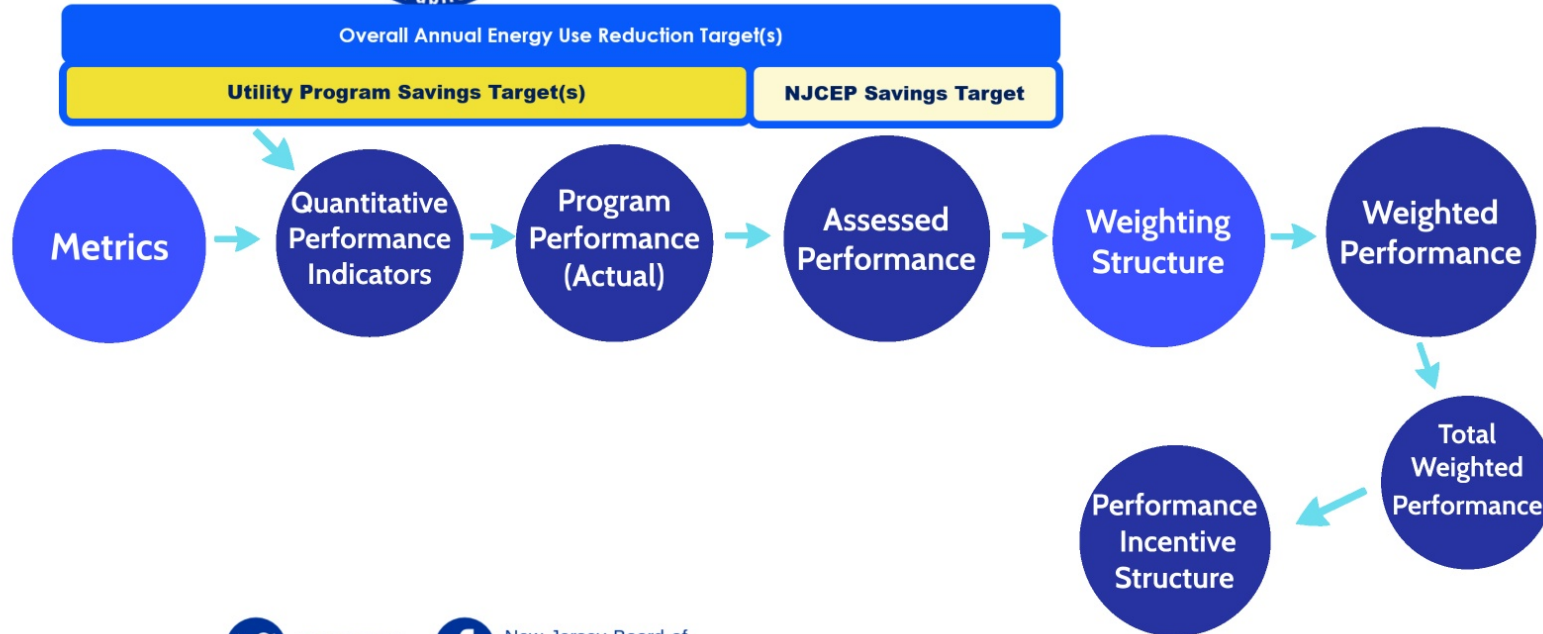


AGENDA

- **Welcome** (Kelly Mooij, Deputy Director, Division of Clean Energy, NJ Board of Public Utilities)
- **Timeline & Next Steps Overview** (Kelly Mooij, Deputy Director, Division of Clean Energy, NJ Board of Public Utilities)
- **Utility Performance Review Structure & Processes** (Jessica Brand, Program Administrator, Energy Efficiency, Division of Clean Energy, NJ Board of Public Utilities)
 - › Clarifying Questions
 - › Comments
- **Utility-Specific Targets** (Eric Belliveau, Partner, Optimal Energy, Inc.)
 - › Clarifying Questions
 - › Comments
- **Stakeholder Comments**
- **Wrap Up & Next Steps** (Kelly Mooij, Deputy Director, Division of Clean Energy, NJ Board of Public Utilities)



Application of Utility Targets



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Overall Targets

- Overall, net annual energy use reduction target(s), based on territory-specific achievable potential
- Specific to each utility territory
- Separate for electric versus gas usage
- Represent the total of NJCEP & Utility-Program Savings Targets (including co-managed)
- Established as percentages of annual energy use and ultimately derived into actual MWh and Therm targets

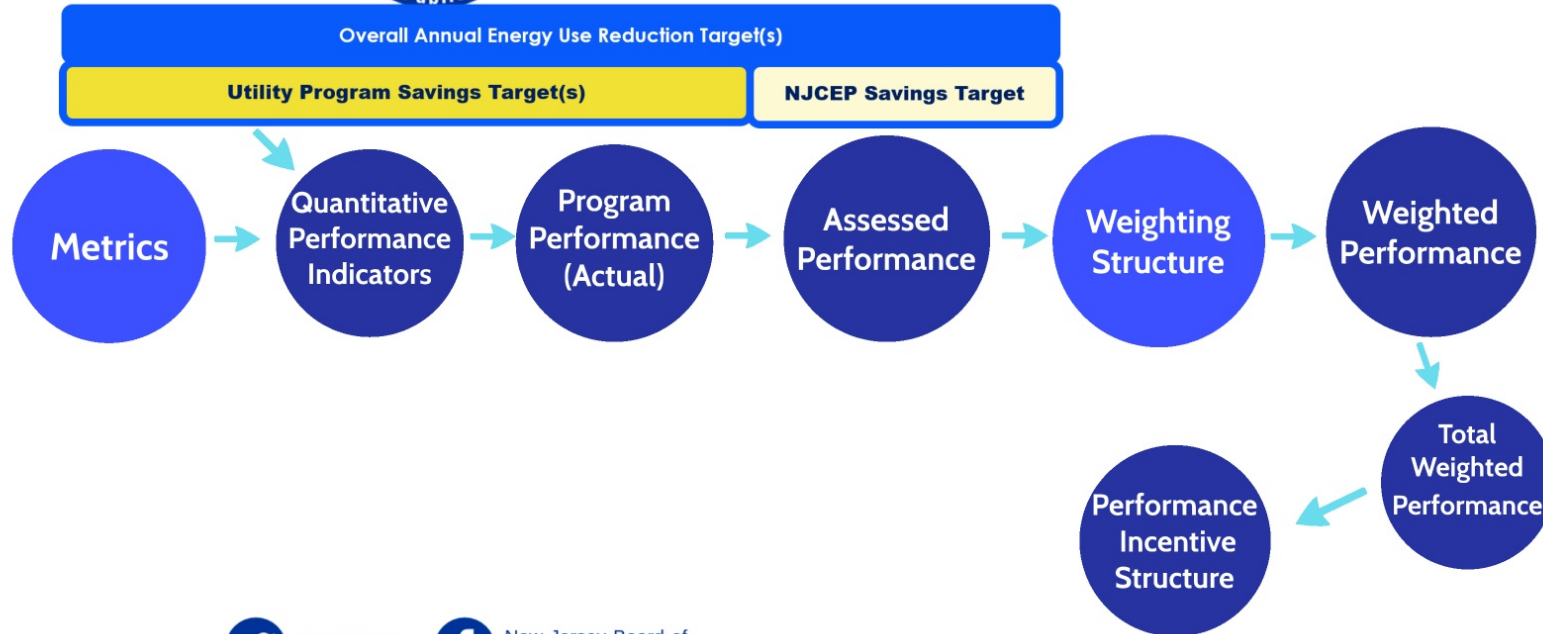
NJCEP Savings Target

- Annual target representing anticipated energy savings to come from programs administered by New Jersey's Clean Energy Program (NJCEP)
- Established for each utility territory

Utility Program Savings Target

- Utility-specific annual energy use reduction target
- Represents savings anticipated to come from utility-administered and co-managed programs
- Does NOT include savings expected to come from programs administered by NJCEP
- Basis for development of utility-specific quantitative performance indicators (QPIs)

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Metrics

- Multifactor, policy-based priorities for programs
- Utilized to establish program goals and review utility performance
- Consistent among utilities
- Evaluated at the portfolio level for each utility (separately for gas vs. electric)

1. Annual Energy Savings

2. Annual Demand Savings

3. Lifetime Energy Savings

4. Lifetime of Persisting Demand Savings

5. Utility Cost Test (UCT) Net Present Value (NPV) of Net Benefits

6. Low-income Lifetime Savings

7. Small Business Lifetime Savings

1. Annual Energy Savings

Annual energy savings are the ex post evaluated net annual incremental savings for each individual year of the plan period, measured in megawatt-hours (MWh) for electricity and therms (th) for gas.

This metric is specifically referenced in the CEA and is a common metric for jurisdictions seeking to encourage reductions in energy use to evaluate incremental savings.

2. Annual Demand Savings

Annual demand savings are the ex post evaluated net annual incremental peak demand savings.

During initial years, in metrics and in QPI results, demand savings will reflect only “passive” peak demand savings resulting from efficiency programs and will not include active demand management / demand response savings. The inclusion of active demand savings in the metrics will be considered in future program years.

Multi-year peak demand savings are important for grid stability and the reliability of electricity and natural gas sources.

They are measured in MW for electric demand and peak-day therms for gas.

3. Lifetime Energy Savings

Lifetime energy savings are the ex post evaluated net cumulative lifetime savings (net savings times measure life) captured in a given year.

Net lifetime savings are a factor in calculating the overall benefits of energy efficiency programs, and including this metric encourages the inclusion of longer-term, persistent energy saving measures in energy efficiency program portfolios. Lifetime energy savings also provide a better comparison to supply side options. They are measured in lifetime MWh for electricity and lifetime therms for gas.

4. Lifetime of Persisting Demand Savings

Lifetime demand savings are the ex post evaluated net cumulative “lifetime demand savings” captured during a given year. Lifetime demand savings are calculated as the annual peak demand achieved times the number of years the peak savings are expected to persist.

Lifetime peak demand savings are important to encourage longer-lasting measures and better manage grid implications. During the initial years, the lifetime demand savings metric will reflect only “passive” demand resulting from efficiency programs and will not include active demand management / demand response. Active demand savings may be included in future program years. Lifetime demand savings are measured in lifetime MW for electricity and peak-day therms for gas.

5. Utility Cost Test (UCT) Net Present Value (NPV) of Net Benefits

This metric will reflect the ex post evaluated NPV of the net benefits achieved during a given year, as determined by the UCT, and is measured in dollars. While the UCT is not used for screening purposes in New Jersey, it is a useful and relatively easy metric to measure utility-specific costs and benefits of efficiency programs. While many additional benefits are provided by efficiency, beyond those in the UCT, there can be disagreement about the calculation of those benefits. The relatively shorter and more easily monetized benefits contained in the UCT avoid unnecessary contention while helping to maintain a focus on achieving efficiency at reasonable costs.

With this metric, if a utility can achieve its goals with fewer resources, it will achieve higher net benefits and attendant incentives. Therefore, this metric is the primary means of encouraging cost efficiency of operations.

6. Low-income Lifetime Savings

The low-income metric will be calculated as the ex post evaluated net lifetime energy savings captured during a given year from qualifying low-income programs.

The metric is measured in lifetime MWh for electricity and lifetime therms for gas.

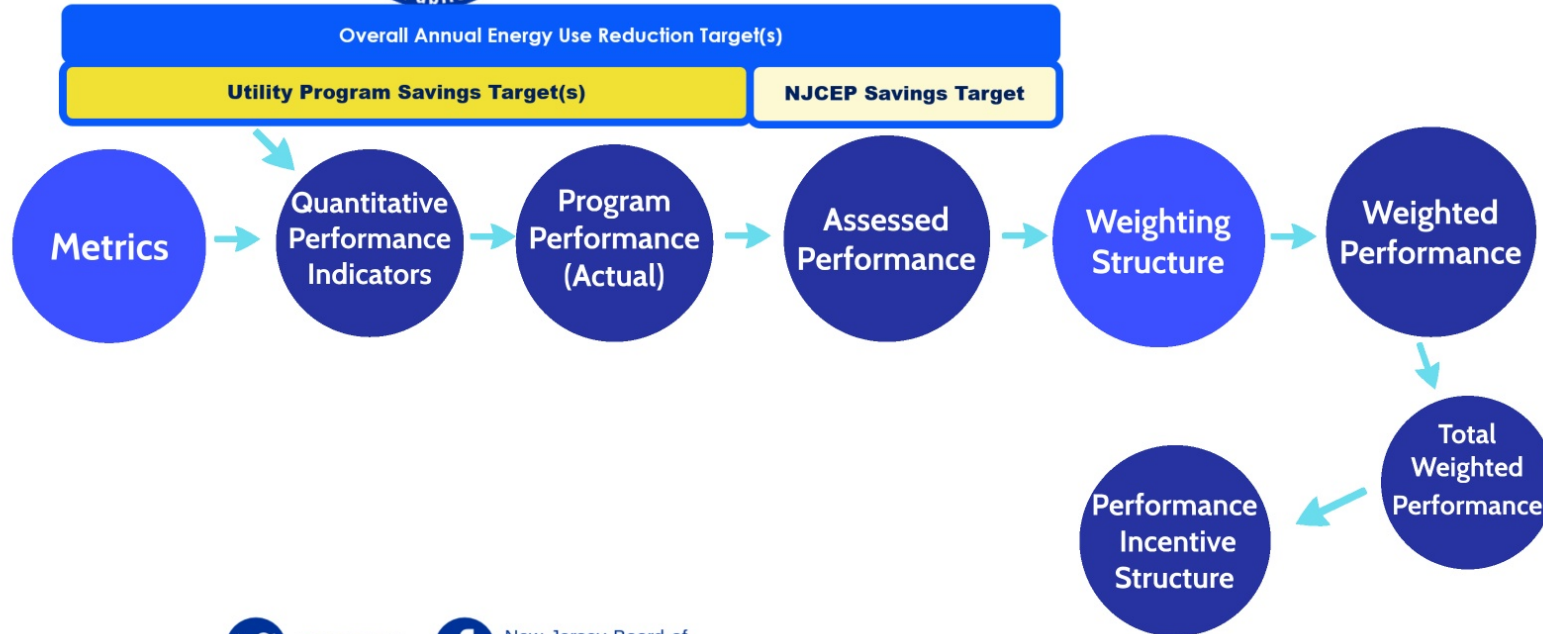
A low-income metric is necessary to promote the equitable distribution of utility resources.

Low-income programs are often more expensive on a per MWh or per therm basis compared to other programs, but the CEA is specific in its mandate of equitable service. The focus on energy savings instead of spending helps to ensure that low-income programs are achieving results that will translate into energy savings for low-income ratepayers. The focus on lifetime savings helps to promote measures with longer lives.

7. Small Business Lifetime Savings

Small business lifetime savings will be measured as the ex post evaluated net lifetime savings captured during a given year from small businesses. The savings are measured in MWh for electricity and therms for gas. Small business energy savings are typically more difficult and expensive to achieve, much like low-income lifetime savings. Therefore, the inclusion of this metric will discourage utilities from seeking only easy-to-reach and larger customers, where savings are typically captured through implementation of larger projects with longer lived and less expensive measures from a cost per lifetime unit perspective.

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Quantitative Performance Indicators (QPIs)

- Numeric value representing anticipated annual performance associated with each metric; utilized to establish goals and review performance.
- To be developed based on guidance from Staff, following input from stakeholders, and included in utility program filings
- Will be utilized to evaluate utility performance for the purpose of applying performance incentives and penalties

1. Numeric Value (MWh/Th)

2. Numeric Value (MW/peak-day Th)

3. Numeric Value (Lifetime MWh/Th)

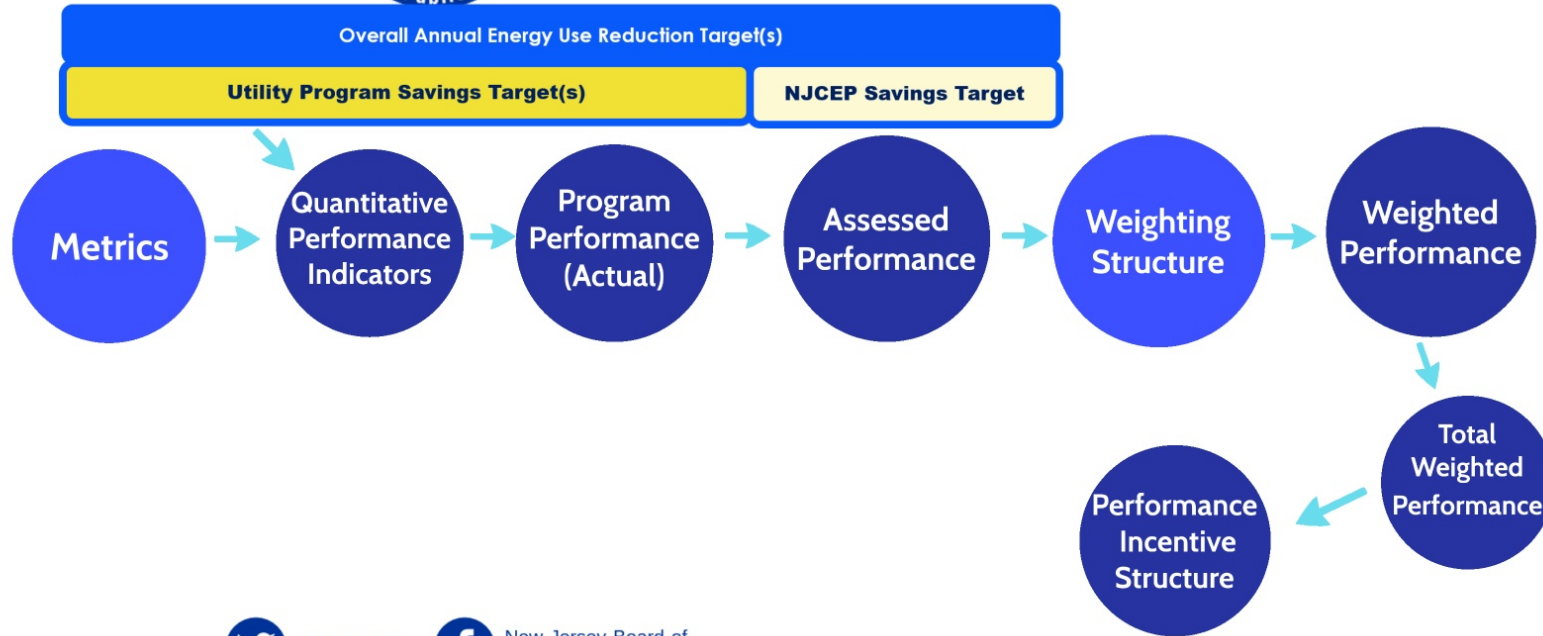
4. Numeric Value (Lifetime MW-yr/Peak day Th-yr)

5. Numeric Value (\$)

7. Numeric Value (Lifetime MWh/Th)

6. Numeric Value (Lifetime MWh/Th)

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Program Performance

- Actual program performance related to each QPI
- Reported and reviewed annually
- Reported as numeric values

1. Numeric Value
(MWh/Th)

2. Numeric Value
(MW/
peak-day Th)

3. Numeric Value
(Lifetime MWh/
Th)

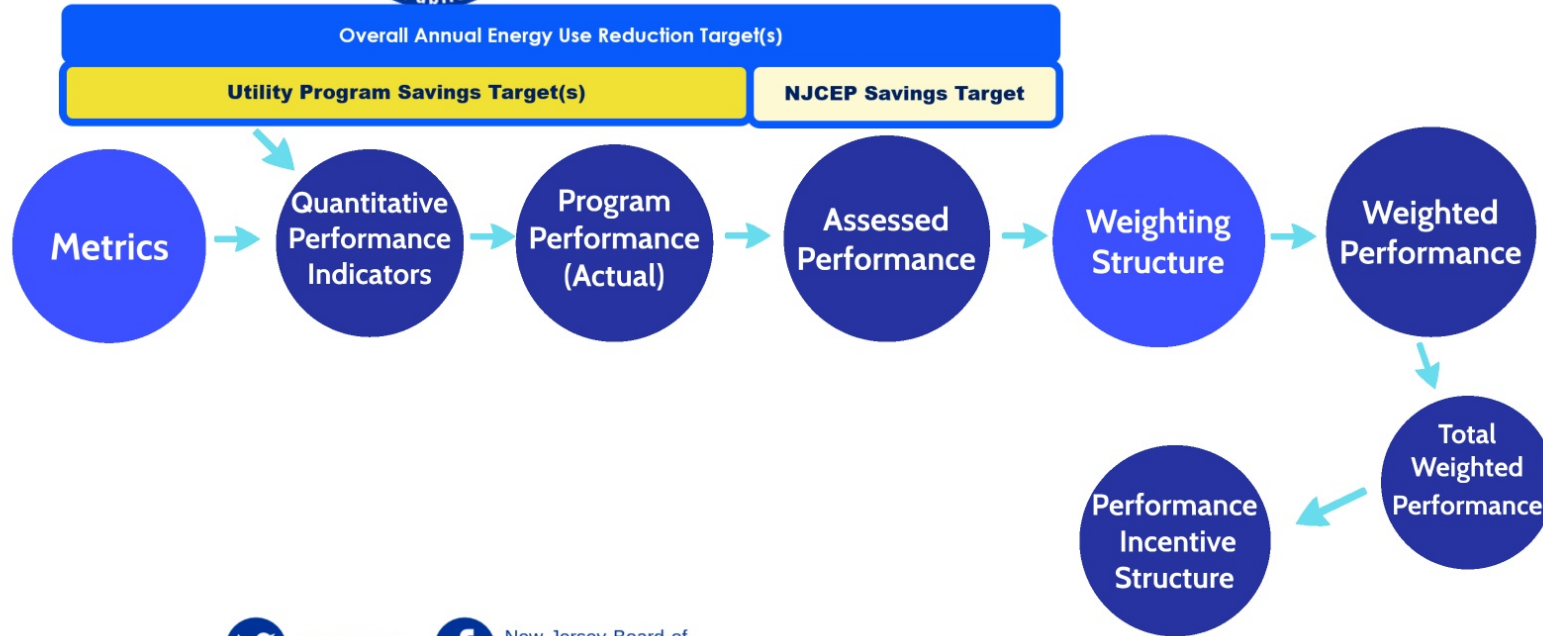
4. Numeric Value
(Lifetime MW-yr/
Peak day Th-yr)

5. Numeric Value
(\$)

6. Numeric Value
(Lifetime MWh/
Th)

7. Numeric Value
(Lifetime MWh/
Th)

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Assessed Performance

- Measure of actual performance, compared to anticipated QPI performance for each metric

$$1. \text{ Program Performance} \div \text{QPI} = \text{Assessed Perf. (\%)}$$

$$2. \text{ Program Performance} \div \text{QPI} = \text{Assessed Perf. (\%)}$$

$$3. \text{ Program Performance} \div \text{QPI} = \text{Assessed Perf. (\%)}$$

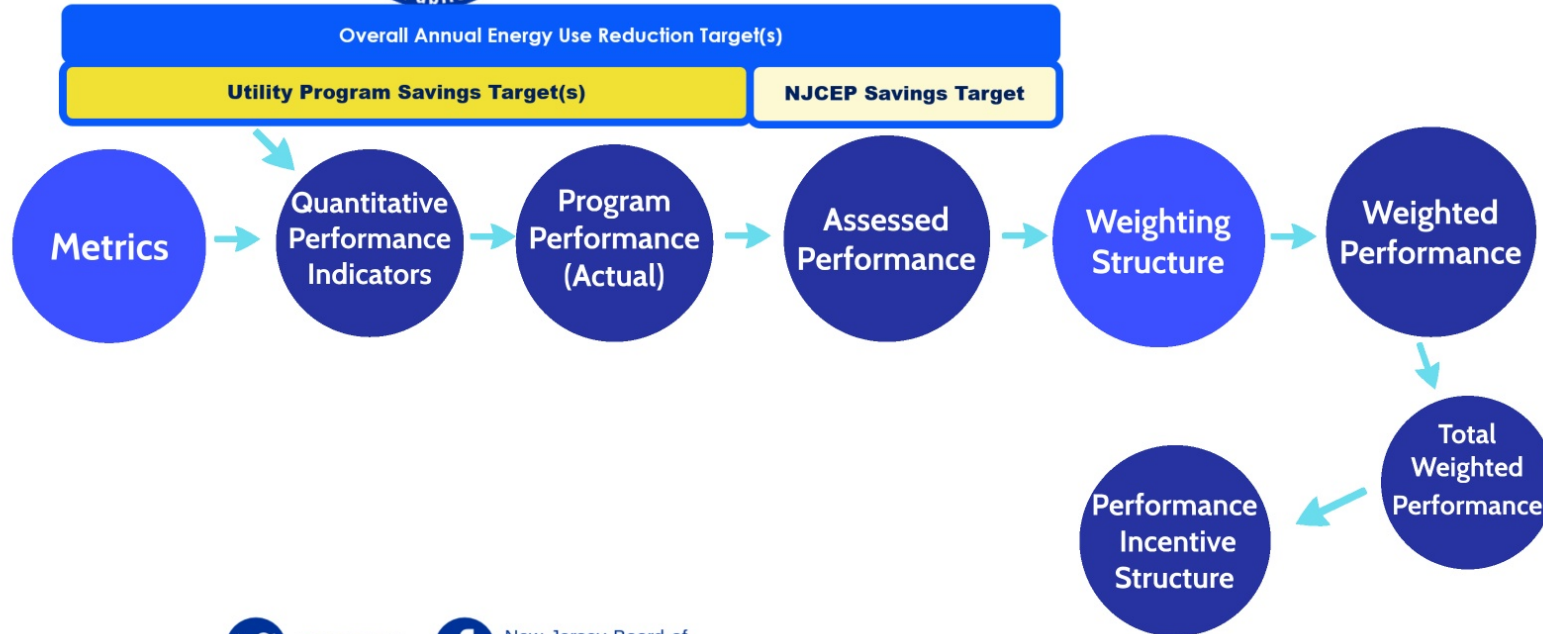
$$4. \text{ Program Performance} \div \text{QPI} = \text{Assessed Perf. (\%)}$$

$$5. \text{ Program Performance} \div \text{QPI} = \text{Assessed Perf. (\%)}$$

$$6. \text{ Program Performance} \div \text{QPI} = \text{Assessed Perf. (\%)}$$

$$7. \text{ Program Performance} \div \text{QPI} = \text{Assessed Perf. (\%)}$$

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Weighting Structure

- Percentage value (weight) associated with each metric within the utility's portfolio
- Consistent among utilities

1. Annual Energy Savings
10%

2. Annual Demand Savings
5%

3. Lifetime Energy Savings
20%

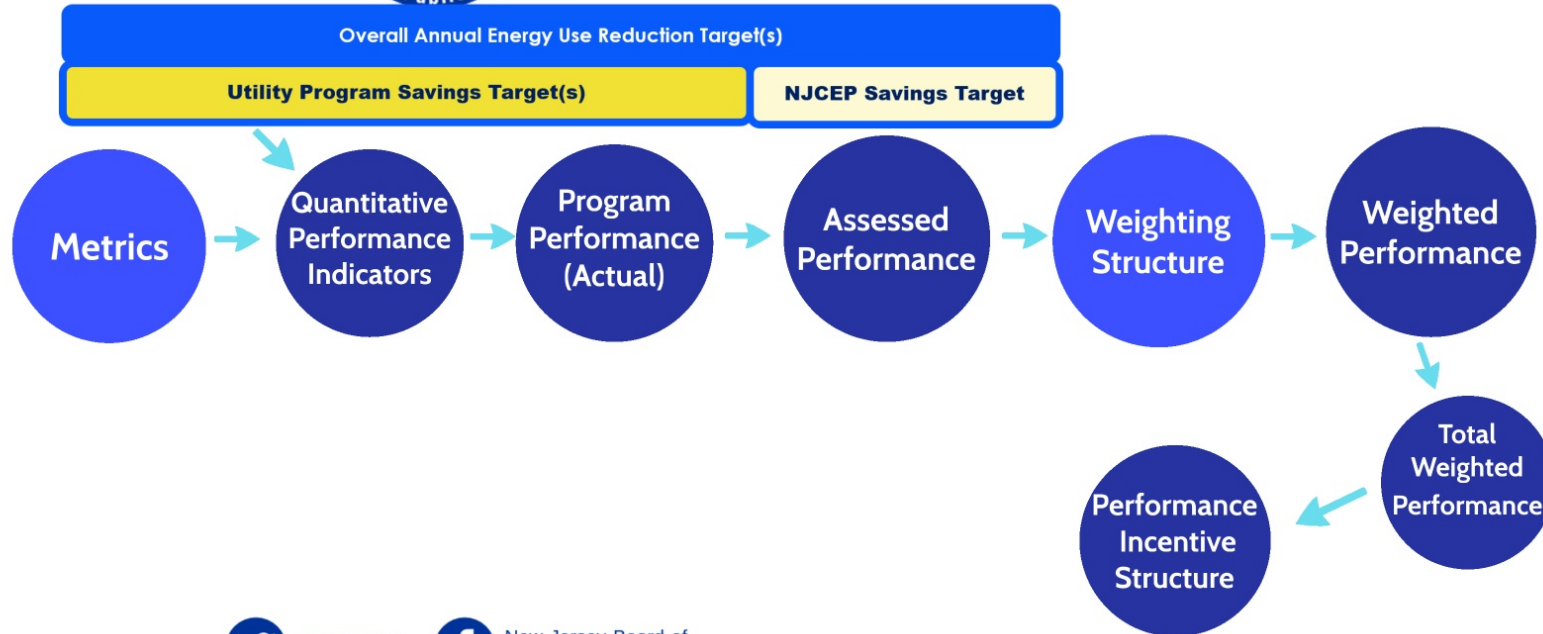
4. Lifetime of Persisting Demand Saving
10%

5. UCT NPV of Net Benefits
35%

6. Low Income Lifetime Savings
10%

7. Small Business Lifetime Savings
10%

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Weighted Performance

- Measure of actual vs. anticipated performance with weighting structure applied

1. Assessed Performance
 \times Weight =
Weighted Perf.
(%)

2. Assessed Performance
 \times Weight =
Weighted Perf.
(%)

3. Assessed Performance
 \times Weight =
Weighted Perf.
(%)

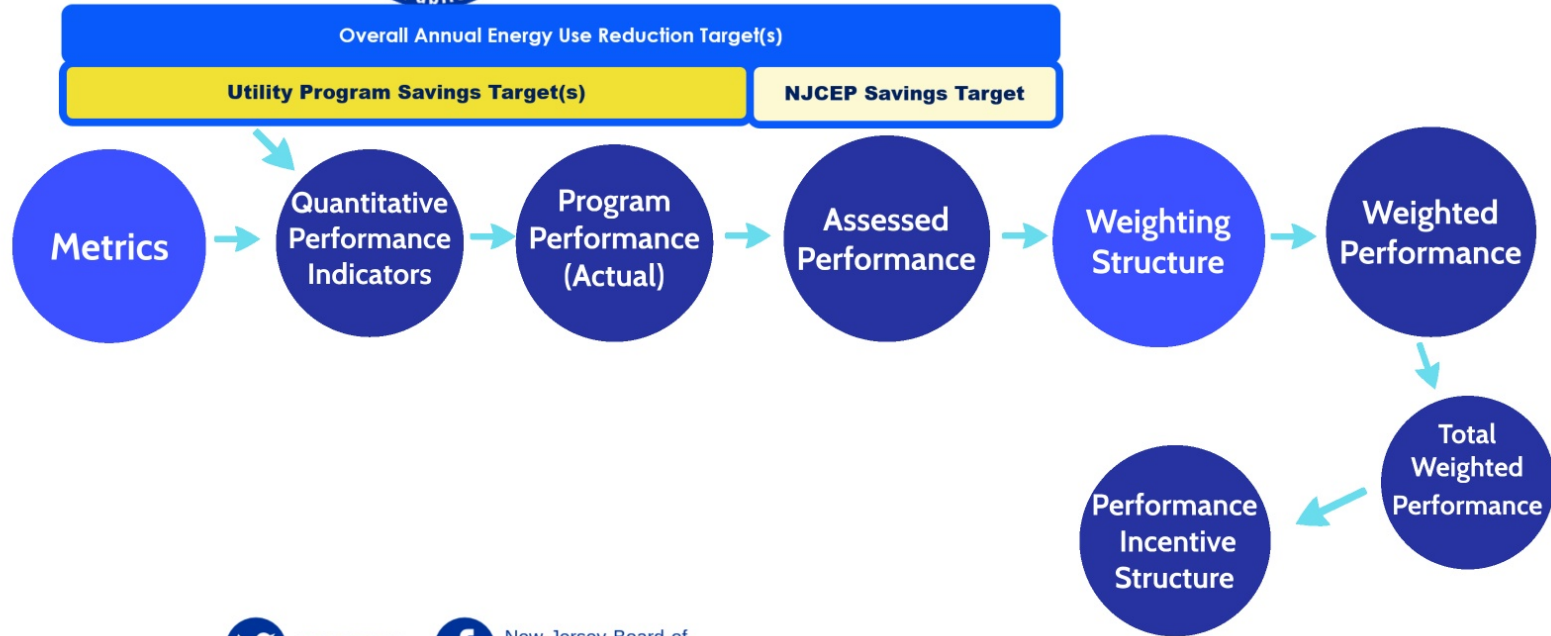
4. Assessed Performance
 \div QPI =
Assessed Perf.
(%)

5. Assessed Performance
 \times Weight =
Weighted Perf.
(%)

6. Assessed Performance
 \times Weight =
Weighted Perf.
(%)

7. Assessed Performance
 \times Weight =
Weighted Perf.
(%)

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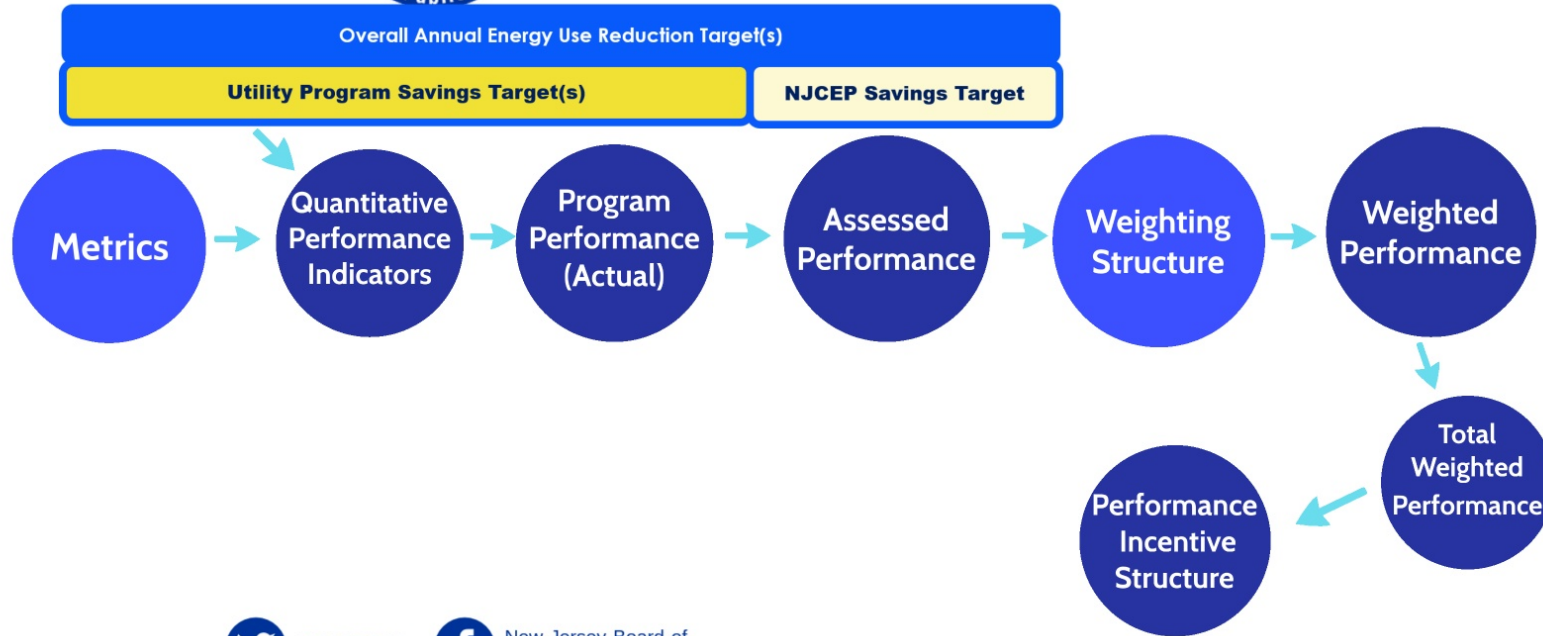
Total Weighted Performance

- Sum of the "weighted performance" associated with each individual metric for a given utility
- Reflects total utility performance related to all QPIs and based on the established weighting structure



Total of
"Weighted
Performance"
for Metrics 1-7

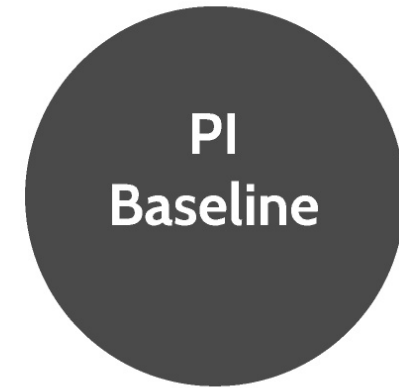
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Performance Incentive/ Penalty Structure (PI Structure)

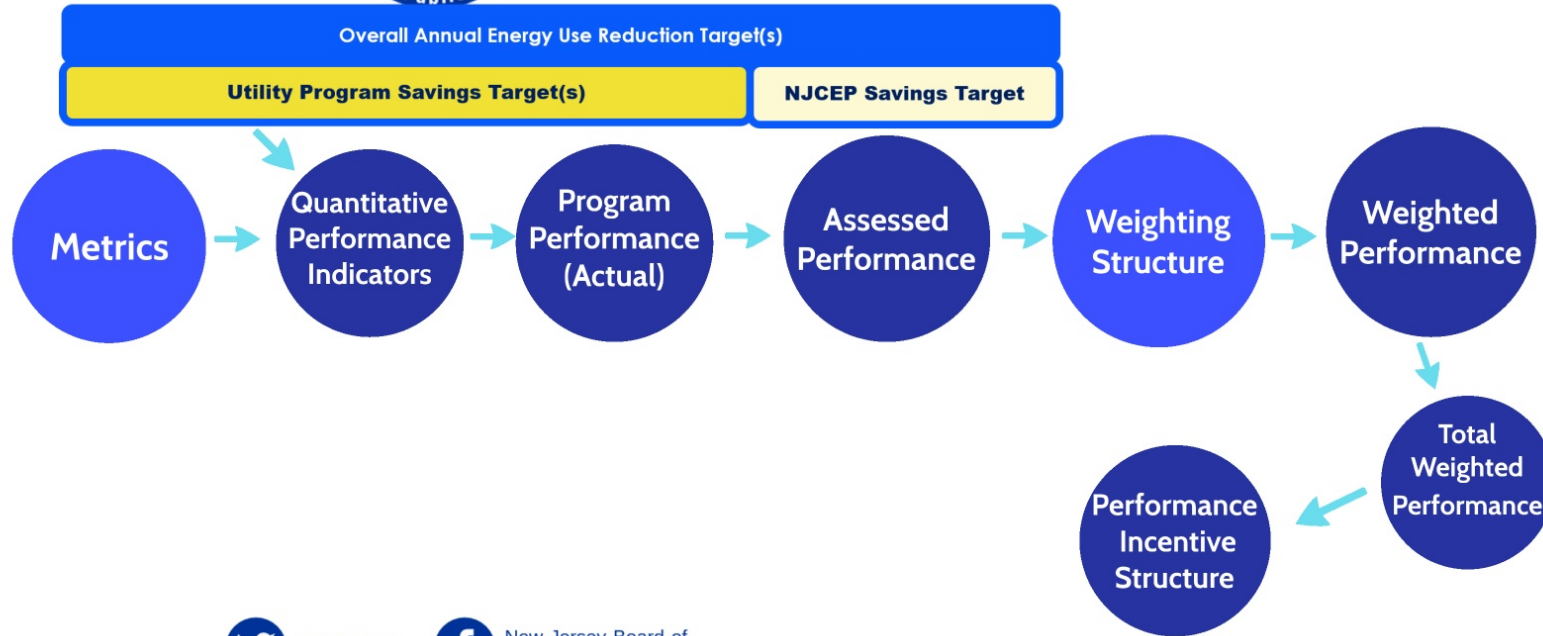
- Mechanism for applying performance-based incentives/penalties (the details of the performance incentive structure are being discussed within the topic of "cost recovery")



Performance Incentive (PI) Baseline

- Element of the performance incentive (PI) structure that represents the hypothetical performance incentive that a utility would earn if they were to achieve exactly 100% of their targeted QPIs
- 100% QPI achievement = PI Baseline

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Phase-In of Metrics & Weighting Structure

Years 1-2

1. Annual Energy Savings – 40%
3. Lifetime Energy Savings – 60%

Years 3+

1. Annual Energy Savings – 10%
2. Annual Demand Savings – 5%
3. Lifetime Energy Savings – 20%
4. Lifetime of Persisting Demand Savings – 10%
5. Utility Cost Test (UCT) Net Present Value (NPV) of Net Benefits – 35%
6. Low-income Lifetime Savings – 10%
7. Small Business Lifetime Savings – 10%

Triennial Review

Stakeholder process to review:

- Metrics
- Weighting Structure
- Annual Utility-Specific Targets
- Performance Incentive/Penalty Structure

Summary of Utility Targets

Electric Utilities

Program Year	Overall Annual Energy Savings Target (%)
Year 1 (FY22)	0.75%
Year 2 (FY23)	1.10%
Year 3 (FY24)	1.45%
Year 4 (FY25) <i>preliminary</i>	1.80%
Year 5 (FY26) <i>preliminary</i>	2.15%

Gas Utilities

Program Year	Overall Annual Energy Savings Target (%)
Year 1 (FY22)	0.25%
Year 2 (FY23)	0.50%
Year 3 (FY24)	0.75%
Year 4 (FY25) <i>preliminary</i>	0.95%
Year 5 (FY26) <i>preliminary</i>	1.10%



THANK YOU

Comments may be submitted electronically to EnergyEfficiency@bpu.nj.gov on or before **Tuesday, February 11, 2020** with the subject line "Application of Utility Targets".



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