

The seal of the Minnesota Public Utilities Commission is centered in the background. It features a central eagle with wings spread, perched on a globe. Below the eagle is a ship on water. The seal is surrounded by a circular border with the text "MINNESOTA PUBLIC UTILITIES COMMISSION" and a star at the bottom.

# **Addendum to SWE's Energy Efficiency and Demand Response Potential Studies**

Stakeholder Meeting

April 8, 2015



# Allocation of Funding

- SWE determined that the present value net benefits of EE programs are higher than DR programs
- Present value net benefits increased from approximately \$1,340 million at 20% DR spending to approximately \$1,492 million at 0% DR spending
- Commission initially agreed with SWE's assessment that EE programs provide better return on investment than DR programs



# Allocation of Funding

- However, Commission also recognized that DR programs are cost-effective and explored options for determining EE and DR targets, based on budgetary considerations

<b>Funding Scenario (EE/DR) [%]</b>	<b>PV Net Benefits [million \$]</b>	<b>Difference in PV Net Benefits Between 100% EE and EE/DR Split Funding Scenario [million \$]</b>
<b>100/0</b>	\$1,492	\$0
<b>90/10</b>	\$1,416	\$76
<b>85/15</b>	\$1,378	\$114
<b>80/20</b>	\$1,340	\$152



# Allocation of Funding

- Commission proposed 90% EE and 10% DR funding allocation split for determination of targets to maximize present value net benefits of EE&C Program
- Specifically,
  - Duquesne, PECO, Penn Power & West Penn Power – 90% EE; 10% DR
  - Penelec – 100% EE (no cost-effective DR at 90/10)
  - Met-Ed and PPL – All potential DR as potential is below 90/10 spending allocation



# Addendum to SWE Market Potential Studies

- Commission directed SWE to determine EE and DR potential using 90/10 budgetary allocation split
- SWE developed *Application of Market Potential Study Results to Phase III Goals – Addendum to 2015 SWE Market Potential Studies*
- Commission proposed EE and DR targets based on results included in SWE's Addendum



# Proposed Peak Demand Reduction Targets

**Table 7: Modified Phase III DR Program Potential – Net of Projected PJM Commitments**

EDC	5-Year DR Spending Allocation (Million \$)	Program Acquisition Costs (\$/MW/year)	Average Annual Potential Savings (MW)
<b>2016-2020 – 10% DR Spending Allocation Except Where Noted by Asterisk</b>			
Duquesne	\$9.77	\$57,976	42
*FE: Met-Ed	\$9.95	\$51,210	49
*FE: <u>Penelec</u>	\$0.00	\$50,782	0
FE: Penn Power	\$3.33	\$49,349	17
FE: WPP	\$11.78	\$46,203	64
PECO	\$42.70	\$64,257	166
*PPL	\$15.38	\$41,622	92
<b>Statewide</b>	<b>\$92.90</b>	<b>\$52,310</b>	<b>430</b>



# Proposed Consumption Reduction Targets

Table 6: Modified Five-Year Energy Efficiency Program Potential Savings and Budget by EDC

EDC	Portfolio EE Spending Ceiling (Million \$)	Program Acquisition Costs (\$/1 <sup>st</sup> -YR MWh Saved)	2016-2020 EE Potential Savings <sup>3</sup> (MWh)	% of 2010 Forecast
<b>2016-2020 – Five-Year EE Program Potential</b>				
Duquesne	\$88.0	\$186.9	470,609	3.3%
FE: Met-Ed	\$114.4	\$182.2	627,814	4.2%
FE: Penelec	\$114.9	\$191.9	598,612	4.2%
FE: Penn Power	\$30.0	\$176.1	170,182	3.6%
FE: WPP	\$106.0	\$181.0	585,807	2.8%
PECO	\$384.3	\$184.7	2,080,553	5.3%
PPL	\$292.1	\$183.7	1,590,264	4.2%
Statewide	\$1,129.6	\$184.4	6,123,842	4.2%