

## SEA Schedule 13 – REG 2024-2026 PY BCA – Revised Benefits Methodology

Benefit Category	Description of Benefit	Previous Methodology	Revised Detailed Methodology	Revised Source of Value
<b>Avoided Energy Benefits</b>	The value of energy generated by modeled DG (offsetting the need to purchase energy from other generators in ISO-NE wholesale energy markets)	AESC 2021 values for 8,760 hours/year (adjusted to account for changes in natural gas forwards since 2021) applied to solar production profiles*	AESC 2024 values for 8,760 hours/year (without modifications to account for changes in natural gas forwards) applied to solar production profiles*	<a href="#">Avoided Energy Supply Components in New England: 2024 Report (AESC 2024)</a>
<b>Energy Demand Reduction-Induced Price Effects (DRIPE) Benefits</b>	The assumed change in the ISO-NE wholesale energy prices resulting from additional supply from modeled DG	AESC energy price effects values over 8,760 hours/year applied to solar production profiles, plus assumption of decay over time due to lower prices increasing usage	No change, only updated to AESC 2024 values	<a href="#">AESC 2024</a>
<b>Energy Cross-DRIPE</b>	The assumed change in natural gas prices (and, in turn, ISO-NE wholesale energy prices) resulting from reduced wholesale energy requirements	Same approach as Energy DRIPE, but utilizing cross-DRIPE values from AESC	No change, only updated to AESC 2024 values	<a href="#">AESC 2024</a>
<b>Avoided Capacity Benefits</b>	The value of capacity from modeled DG in the ISO-NE Forward Capacity Market (FCM)	AESC capacity prices multiplied by estimates of solar coincidence factor from ISO-NE 2023 Capacity, Energy, Loads, and Transmission (CELT) Report with annual system peak hour through 2031 (and assumed flat thereafter)	AESC estimates of current capacity market through 2027, and summer and winter capacity prices thereafter, multiplied by estimates of solar coincidence factor from Analysis Group report on Marginal Reliability Impact approach to future FCAs	<a href="#">AESC 2024 and Analysis Group report</a>
<b>Capacity DRIPE Benefits</b>	The assumed change in the price paid to resources assuming a capacity supply obligation (CSO) in the FCM resulting from the additional capacity bid by modeled DG	Same approach as Avoided Capacity plus assumption of decay over time due to lower prices increasing usage	AESC estimates of capacity DRIPE associated with current capacity market design through 2027, and summer and winter capacity DRIPE thereafter	<a href="#">AESC 2024</a>
<b>Transmission Benefits**</b>	The avoided cost of new transmission assets and facilities resulting from modeled DG	Pool Transmission Facility (PTF) value from AESC multiplied by the ISO-NE CELT coincidence value	Summer and Winter Pool Transmission Facility (PTF) value from AESC multiplied by the ISO-NE CELT coincidence value	<a href="#">AESC 2024</a>
<b>Reliability Benefits</b>	The value of improved reliability of the electric system resulting from increased capacity procured through the FCM, due to increased low-cost	Value of lost load (VoLL) multiplied by reduced outage estimates derived from AESC	No change, only updated to AESC 2024 values	<a href="#">AESC 2024</a>

	supply (rather than reduced demand alone) reducing clearing price			
<b>Renewable Energy Credit (REC) Benefits</b>	The value of RECs titled to (and resold by) Rhode Island Energy (RIE) at forecasted commodity REC values	Product of total system production and SEA-forecasted Rhode Island REC price values through 2040, and increased thereafter at 2%/year (long-term inflation rate)***	No change to methodology, only updated to reflect new SEA REC price forecast analysis at end of 2023	<a href="#">Sustainable Energy Advantage's New England Renewable Energy Market Outlook (REMO) 2023-3 analysis</a>
<b>Non-Embedded Greenhouse Gas (GHG) Reduction Benefits</b>	Value, based on a social cost of carbon methodology, of reduced GHG emissions not already captured in energy prices, adjusted to reduce overlap for benefits captured in REC value	Price/short ton New England electric-sector marginal abatement value in RIE energy efficiency filings from 2021 AESC Supplement (as used by RIE in its energy efficiency plans)	No change to methodology, only updated to AESC 2024 values	<a href="#">AESC 2024</a>
<b>Non-Embedded Nitrogen Oxide Reduction (NOx) Benefits</b>	Value of reduced NOx emissions not already captured in energy prices	AESC cost/short ton methodology (similar in form to Non-Embedded GHG approach)	Not included in AESC 2024 and thus omitted from the revised BCA	N/A
<b>Macroeconomic Benefits</b>	Economic impacts (e.g., jobs, spending) resulting from construction and operation of modeled DG projects	Upfront and annual direct and induced spending/MW resulting from construction/operation of REG projects	No change, but results provided include those with said benefits, and without said benefits, <b>pursuant to PUC 2-8</b>	National Renewable Energy Laboratory's Jobs and Economic Development Impact ( <a href="#">JEDI</a> ) model
<b>Ecosystem Services Benefits</b>	The non-carbon value of ecosystem services associated with improved water supply, water quality, flood and storm damage mitigation, wildlife habitat and air pollution removal provided by conserved open space	Value per acre of benefits described at left, multiplied by typical acres/MW of solar PV projects (3.8 acres/MW)	No change to values or methodology	<a href="#">Delaware Valley Regional Planning Commission study</a>

\*Energy prices are assumed to include avoided embedded greenhouse gas emission standard compliance costs

\*\*Though SEA is confident said values exist on certain feeders, there are no quantified avoided distribution savings, since such values cannot be generalized to all projects

\*\*\*No REG systems assumed to be behind the meter, therefore all production assumed granted to RIE for resale, or retirement at no cost