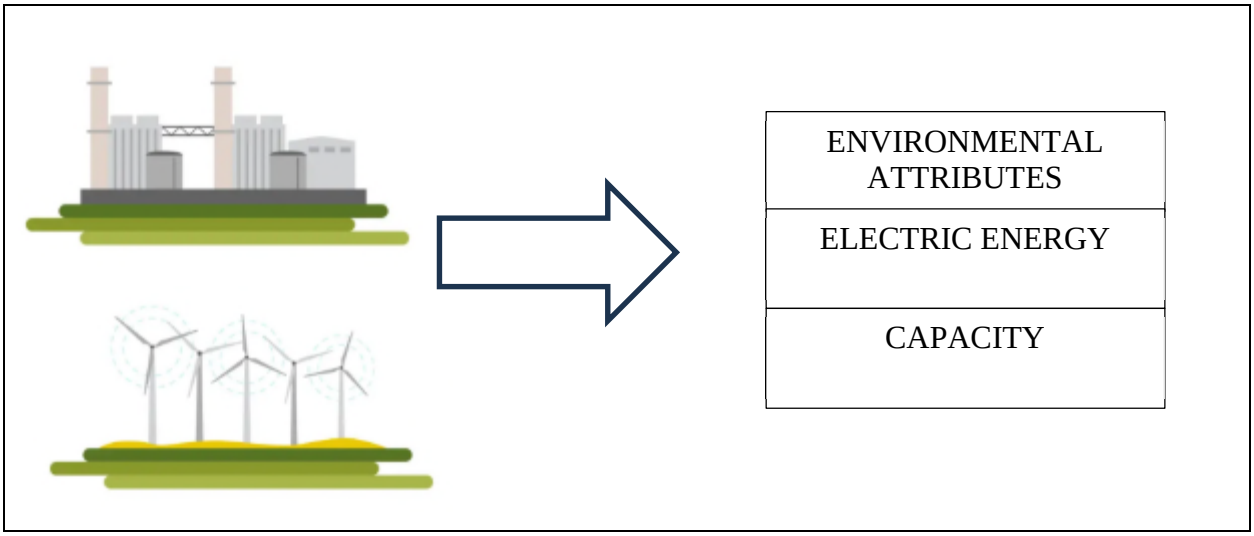
HOW DOES A POWER PLANT MAKE "ENVIRONMENTAL ATTRIBUTES"?

When a power plant generates electricity, it produces multiple products including **electric energy**, **capacity**, and **environmental attributes.**



E**lectric energy** represents the power produced by the plant over time. Energy is measured in megawatt-hours (MWh). The energy produced by a power plant can be consumed on-site, or alternatively the energy can be transmitted over the utility grid to be consumed somewhere else. In Maine, ISO New England operates a wholesale market for electric energy. Generators bid energy supply offers into the market, and ISO-NE selects bids and dispatches generators based on a reliability-constrained least-cost dispatch model. ISO-NE pays dispatched generators a wholesale market price for the energy they produce, under FERC-regulated rates.

Capacity represents the plant's maximum capability to inject power to the grid, if the plant were asked to run all-out. About 20 years ago, ISO-NE restructured its markets to add a wholesale capacity market, which ISO-NE operates alongside its energy market. Generators bid capacity supply offers into the market, and ISO-NE awards capacity supply obligations to generators by selecting lowest-cost offers based on a model of the region's capacity needs. In addition to energy payments, ISO-NE pays capacity-supplying generators a wholesale market price for this capacity product, under FERC-regulated rates.

Environmental attributes represent the narrative facts of how each megawatt-hour of energy was produced. For example, "this megawatt-hour was produced by the XYZ power plant, on April 14, through the use of wind energy generation" – or "these megawatt-hours were produced by the ABC power plant, on December 12, through the use of coal combustion". Each megawatt-hour of electric energy is associated with environmental attributes of this nature – but the energy is sold separately from the environmental attributes.

Unlike energy and capacity, environmental attributes aren't generally regulated by federal law and don't have a market administered by ISO-NE. Instead, state laws like Maine's renewable portfolio standards (RPS) found in 35-A M.R.S. § 3210 use environmental attributes to pursue state objectives. For example, the Maine RPS requires retail electricity suppliers to procure defined percentages of their supply from various categories of generating resources. The

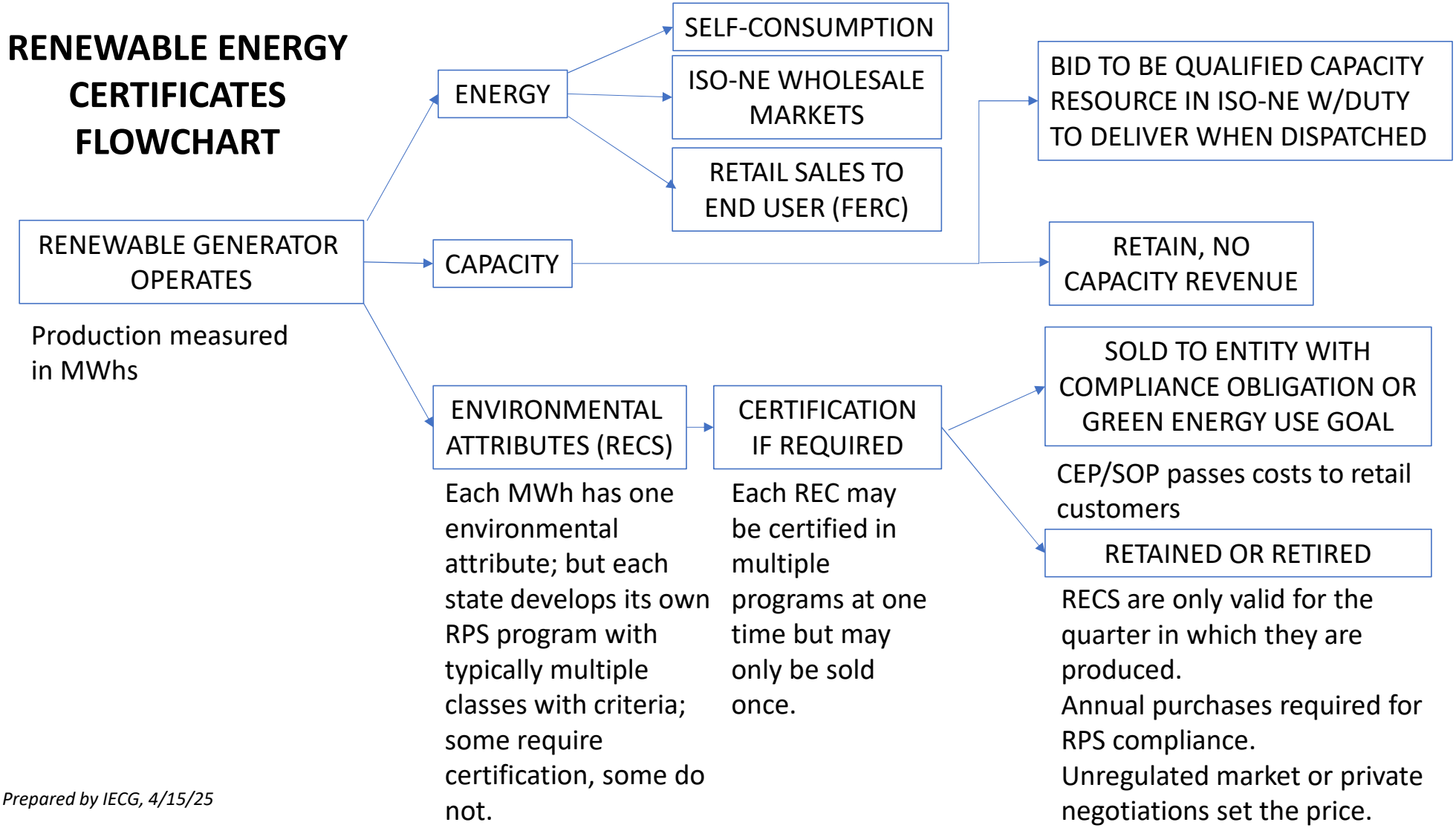
NEPOOL regional stakeholder group operates a Generation Information System (GIS) to track environmental attributes.

WHICH "ENVIRONMENTAL ATTRIBUTES" DOES THE MAINE RPS VALUE?

The Maine RPS presently has four tiers, each of which values a different set of environmental attributes:

Class I	Plant is "new" after 9/1/2005 (built, added, refurbished, or restarted after 2+ years) Plant is either (1) wind or solar of any size or (2) another renewable technology up to 100 MW (fuel cell, tidal, geothermal, hydro, biomass, or anaerobic digestion)
Class IA	Plant is "new" after 9/1/2005 (built, added, refurbished, *but not including plants restarted after 2+ years*) Plant is either (1) wind or solar of any size or (2) another renewable technology up to 100 MW (fuel cell, tidal, geothermal, hydro, biomass, or anaerobic digestion)
Class II	Plant is either (1) a QF under federal law or (2) a renewable technology up to 100 MW (fuel cell, tidal, solar, wind, geothermal, hydro, biomass, or anaerobic digestion)
Thermal	Heat, steam, hot water or another form of thermal energy (1) Produced directly by a facility using sunlight, biomass, biogas or liquid biofuel or produced as a byproduct of electricity generated by a Class I or Class IA resource; (2) That begins operation after June 30, 2019, as certified by the commission; (3) Delivered to an end user in the State in a manner that can be verified by metering or other means certified by the commission to allow for auditable validation of useful thermal energy generated; (4) Used for heating, cooling, humidity control, process use or other end use to meet a need of the end user that would otherwise be met using another energy source such as electricity or an on-site thermal energy system; and (5) Generated or delivered in accordance with any efficiency performance standards established by the commission.

RENEWABLE ENERGY CERTIFICATES FLOWCHART



Prepared by IECG, 4/15/25