What's New in Public Utility Law

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BARCLAY DAMON LLP

New York's Ambitious Clean Energy Goals

40% Reduction
in GHG emissions from 1990 levels

Reducing greenhouse gas (GHG) emissions from the energy sector—power generation, industry, buildings, and transportation—is critical to protecting the health and welfare of New Yorkers and reaching the longer term goal of decreasing total carbon emissions 80% by 2050.

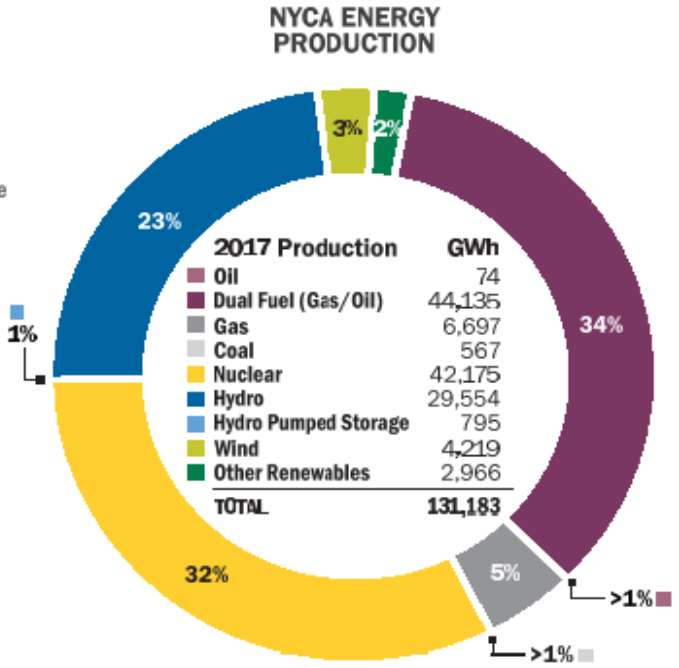
50% Generation
of electricity must come from renewable energy sources

Renewable energy sources, including solar, wind, hydropower, and biomass, will play a vital role in reducing electricity price volatility and curbing carbon emissions.

Source: The Energy to Lead, 2015 New York State Energy Plan at 2.

Clean Energy Levels Today

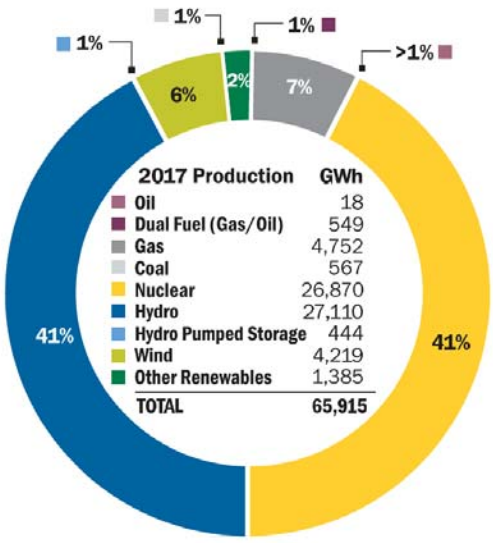
Figure 15:
Electric Energy Production in New York State by Fuel Source – Statewide, Upstate New York and Downstate New York: 2017



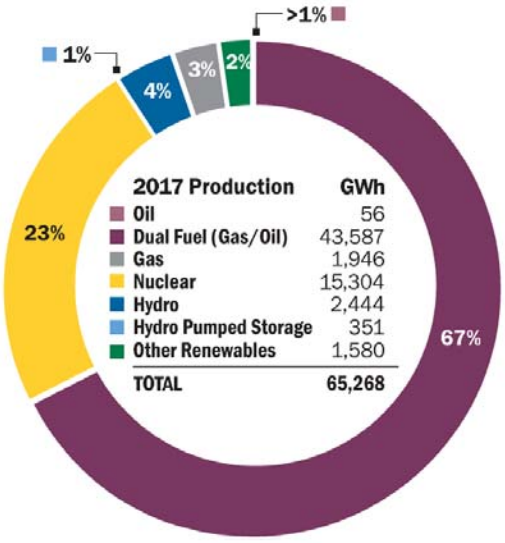
Source: New York Independent System Operator, Inc., Power Trends 2018 at 25.

Upstate vs. Downstate

UPSTATE ENERGY (Zones A-E)



DOWNSTATE ENERGY (Zones F-K)



Source: New York Independent System Operator, Inc., Power Trends 2018 at 25.

What Utility Regulators Are Doing to Help Meet the State Energy Plan Goals

Wholesale Market Programs

- Direct Subsidy
- Carbon in Dispatch

Retail Market Programs

- Net Metering
- Value of Distributed Energy Resources (VDER)

Two Alternative Paths for Carbon Reduction in Wholesale Markets

- The PSC's Clean Energy Standard (CES) Program
  - Zero Carbon Energy Credits (ZECs)
  - Renewable Energy Credits (RECs)
- The NYISO's Carbon in Dispatch Proposal

ZECs

- ZECs are paid to the operators of existing nuclear power plants
- The payment rate for 2017 and 2018 is $17.48 per MWH
- This translates to 1.75 cents for every kWh of electric energy supplied by New York's existing nuclear plants
- ZECs will continue to be paid for another 10 years at prices escalated for inflation
- ZEC payments in 2017 and 2018 are expected to total $965 million
- These costs will be recovered from retail consumers of electricity in New York State in their bills for utility service

RECs

- RECs are paid to the operators of new generating facilities powered by renewable resources
- Because RECs are only paid to new renewable resources, total REC payments are very low today
- By 2030, the PSC estimates that energy production from renewable resources will need to increase by 33.7 million MWH per year
- At the 2018 price for RECs established by NYSERDA of $17.01 per MWH, this would represent an payment premium of $573.237 million per year for electricity from renewable resources
- These costs will also be recovered from end users in New York State in their bills for utility service

NYISO's Alternative Approach

- All wholesale generating facilities in New York State must bid to sell electricity into a "spot market" administered by NYISO
- This is a very simplified discussion of how NYISO spot markets for electricity operate:
  - Generator submit bids for each hour of the day, stating the price per MWH they will accept and the MWH of electricity they will supply at that price
  - In scheduling supplies of electricity for each hour, NYISO accepts bids from generators starting with the lowest price offered and increasing until it has accepted enough electricity to meet forecast demand in that hour

NYISO's Alternative Approach (cont'd.)

  - NYISO then pays all successful bidders a price per MWH equal to the highest price accepted to secure sufficient electricity to meet forecast demand
  - Retail consumers ultimately pay these costs in their electric power bills

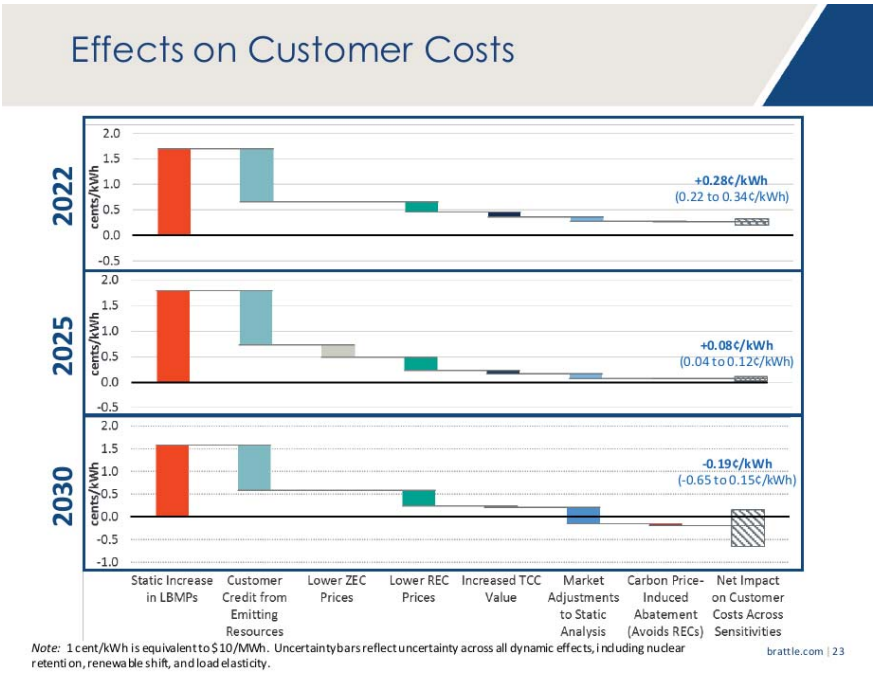
Integrating Carbon Costs in Dispatch

- NYISO would start by determining the amount of CO_2 emitted by each generator bidding into its markets
- Using the social cost of carbon set by the PSC, NYISO would then add the "social cost of carbon" to each generator's bid per MWH of electricity supplied
- This would increase wholesale market prices, providing incentives for clean energy supplies, including nuclear and renewable resources

Partial Refunds of Carbon Charges

- Clean energy suppliers would receive the full spot market price, including the premium resulting from the inclusion of the social costs of carbon in all bids
- Resources that emit carbon would have the social cost of their carbon emissions deducted from their payments and, therefore, would not benefit
- Revenues collected from wholesale sales of electricity from carbon-emitting resources would be returned to consumers in other ways

Impacts on Consumers of Including Carbon Costs In NYISO Dispatch Process:



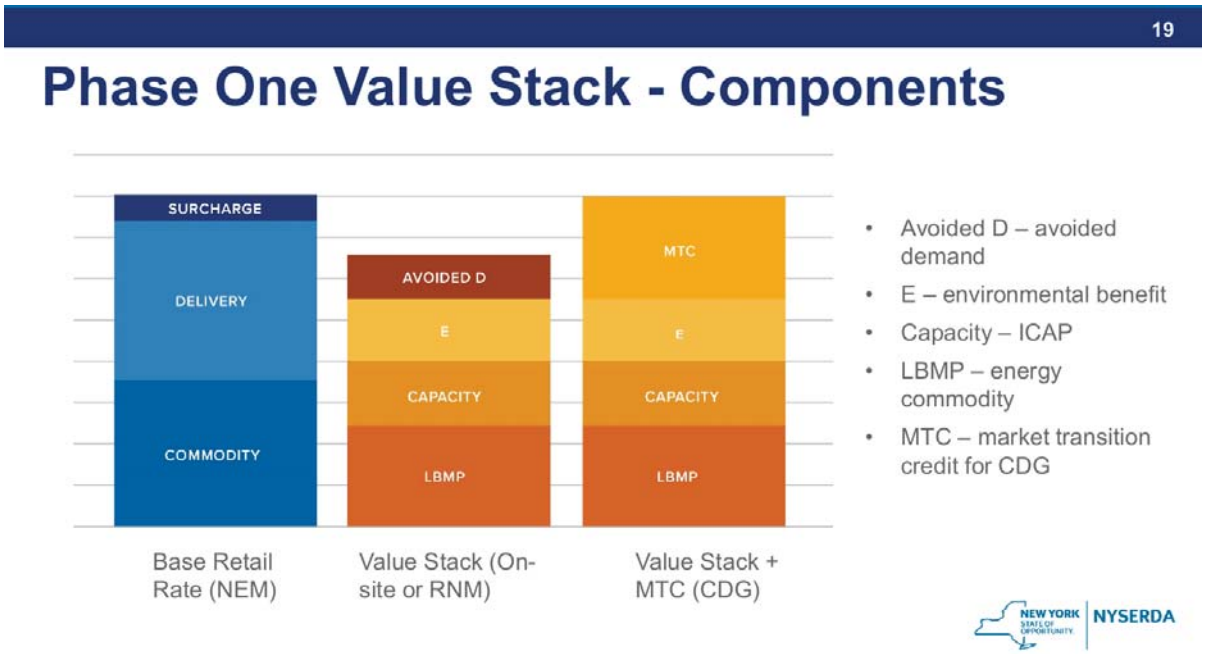
Source: The Brattle Group, Analysis of a New York Carbon Charge (Updated) at 23 (November 18, 2018).

PSC Initiatives at the Retail Level

- For many years, the PSC has employed net metering to encourage renewable resources
  - Under net metering, the customer producing electricity from a qualifying renewable resource can "spin the meter backwards"

- More recently, the PSC has begun to replace net metering with a new rate setting methodology known as the Value of Distributed Energy Resources or VDER

Comparison of Net Metering and VDER



Source: NYSERDA, Summary of Value of Distributed Energy Resources (Updated 10.13.2017) at 19.

Thank You!

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