

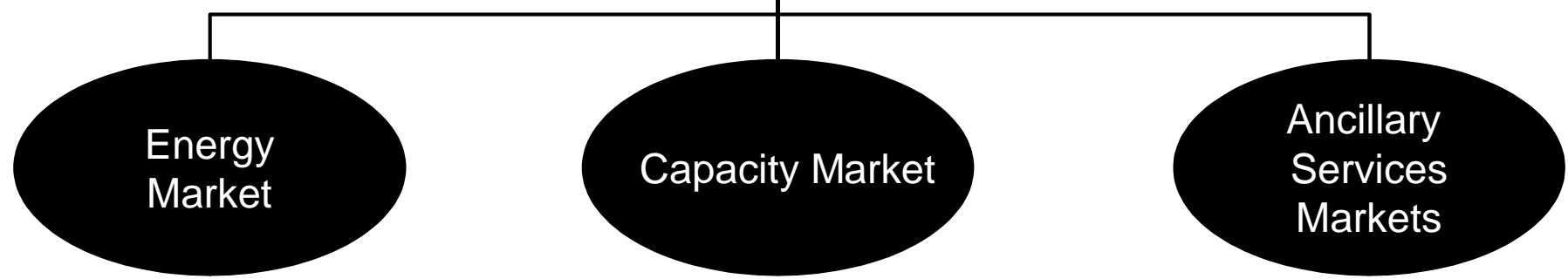
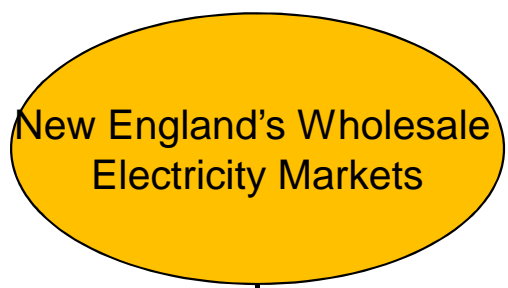
Where Does Transactive Energy Fit In Wholesale Energy Markets?

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- This presentation represents the thoughts of the author and should **not** be interpreted as a description of the final implementation plans of ISO New England Inc.

- New England Wholesale Electricity Markets
- FERC Order 745
 - Price Responsive Demand in Wholesale Markets
- Retail Loads

Quantity buying, selling, and reselling of the electric energy generated by a bulk power system to meet the system's demand for electric energy.

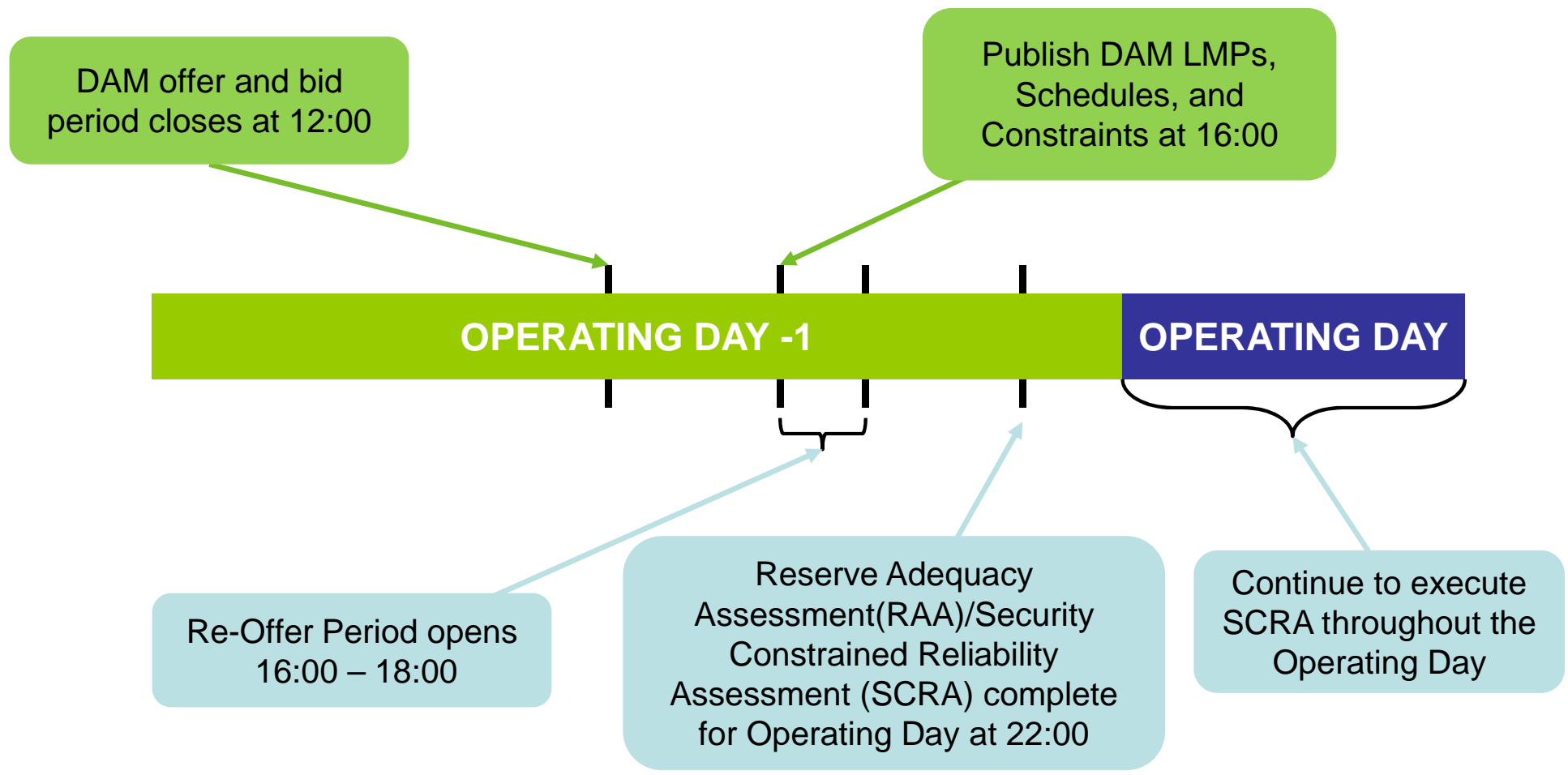


System for purchasing and selling electricity using supply and demand to set the price

Market where resources receive compensation for having invested in capacity and delivers in the capacity commitment period(s)

Services that ensure the reliability of production and transmission of electricity

Day-Ahead Market (DAM)

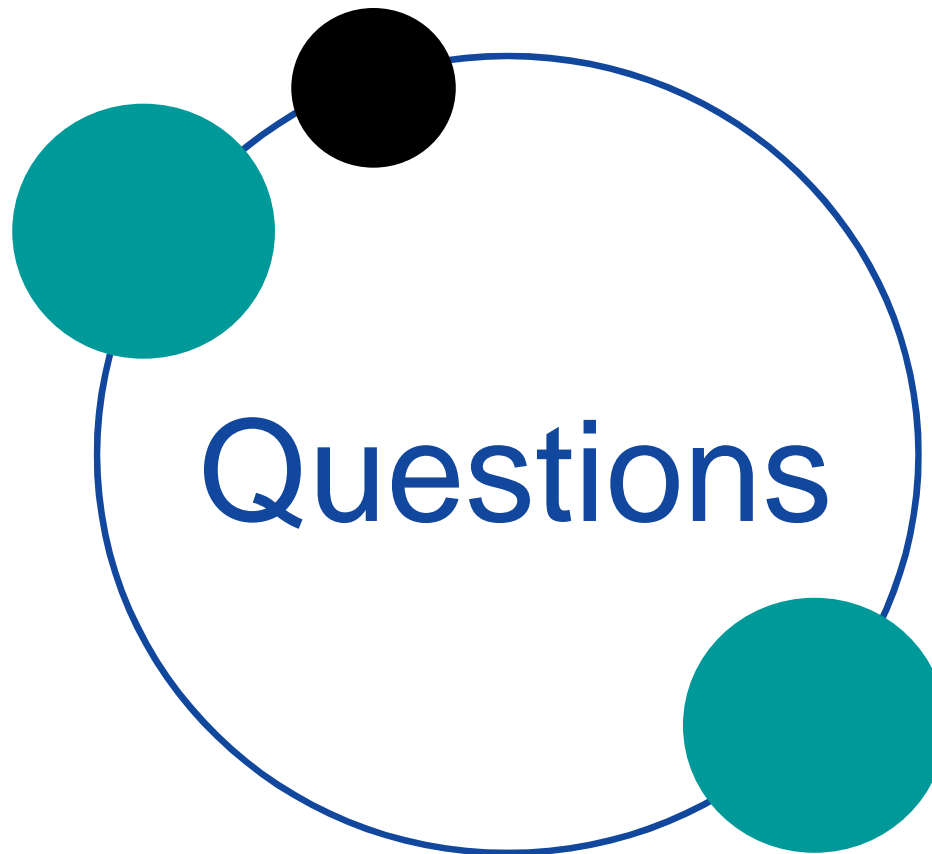


Real-Time Market (RTM)

- Demand Response Compensation in Wholesale Markets
 - pay demand response resources the full LMP capability to balance supply and demand;
 - dispatch demand response when the payment is cost-effective
 - allocate the costs proportionally to all entities that purchase from the relevant energy market in the area(s) where the demand response reduces the market price for energy.

- Individual retail customers do not want to submit daily offers into the Energy Market
- The ISO does not want to communicate directly with 100,000 homes for 10 kW interruption at each home
- An aggregator (ARC) is needed to be an intermediary

- The question for Transactive Energy is what service is being provided?
- ARC must present these resources within the services that the ISO is looking to purchase?
- ARC must model an aggregation of load and level of interruption available each hour
 - Day Ahead Energy
 - Real-Time Energy
 - Reserves
 - AGC



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