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Demand Resources in the New England Forward Capacity Market

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Topics Covered

- Background to New England Forward Capacity Market
- New England Forward Capacity Market
- Demand Resources in the FCM
- Demand Resources in the ICR
- Potential DR Impacts

The New England FCM came from a settlement of a contested FERC filing by ISO New England

- FERC ALJ Initial Decision Recommending LICAP, June 2005.
- Regional FERC settlement process in late 2005-early 2006. Settlement Agreement approved by FERC, June 2006.
- FCM concept supported by most New England stakeholders. Settlement Agreement had some significant dissenters and abstainers.

Settlement Agreement specified many of the design features of the FCM

- Annual auction for delivery three years forward. First delivery year is June 2010.
- Annual product (not seasonal).
- Existing capacity is included in auction, but can "de-list" through a bid.
- New capacity offers at a price.
- Demand Resources can qualify as existing or new capacity.

Settlement Agreement specified many of the design features of the FCM

- Quantity purchased in each auction is the annual Installed Capacity Requirement (ICR)
- Clearing price in auction (last MW purchased) becomes the payment to all cleared capacity in the delivery year
- Opportunities to fine-tune obligations in reconfiguration auctions (monthly). Penalties for failure.
- Many special considerations for various resources
- “distinct treatment” for DR is specified in the SA

Demand Resources in the FCM

- Specific requirement of Settlement Agreement
- Working Group process began prior to June 2006
  - Developed DR definitions and rules for Transition Period
  - Developed rules for DR for FCM Annual auction for delivery three years forward. First delivery year is June 2010.
- Reviewed and approved by NEPOOL Committees
- Demand Resources include
  - energy efficiency
  - load management
  - demand response
  - distributed generation

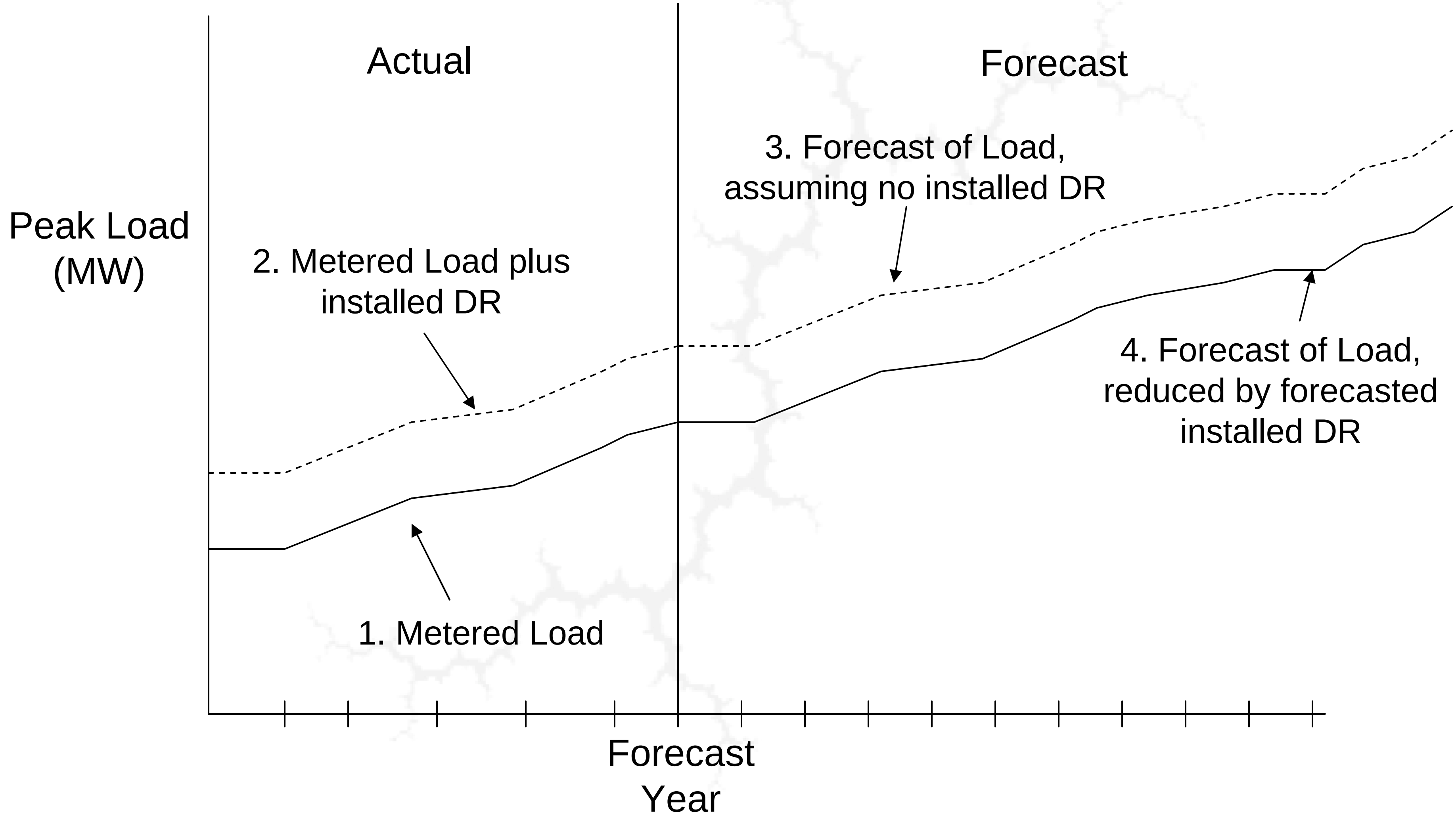
Demand Resources in the FCM

- Three sets of performance hours to select from for DR
  - On Peak for “always on” DR
  - Seasonal Peak for “weather sensitive” DR
  - Critical Peak for “dispatchable” DR
- Penalties for DR are different than generation resources
  - All are penalized for failure to show up
  - Generation penalized for (unplanned) outages
  - DR rating is reduced for non-performance in hour
- Goal is comparable payment for comparable performance

It is important to consider the role of Demand Resources when setting the ICR

- ICR is made up of the load forecast, impacts of tie benefits, transmission and distribution line losses, required reserves, and other factors.
- Pre-FCM, the ICR is determined yearly, for the upcoming power year.
- Pre-FCM, the forecast of demand resource implementation reduces the load forecast

Current Treatment of Demand Resources in ISO Peak Load Forecast

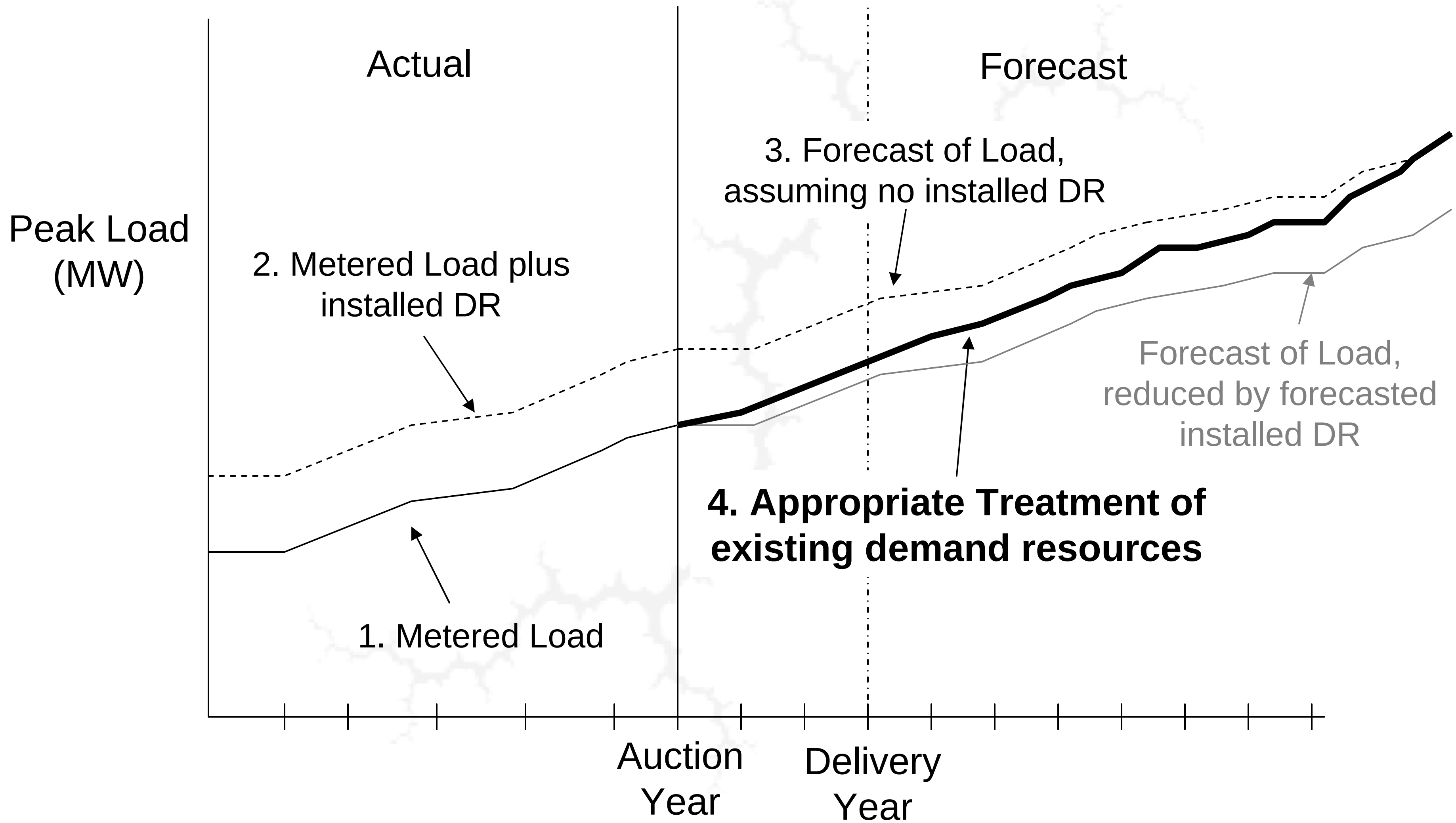


Appropriate Treatment in the ICR

- For the FCM auction, the ICR is determined for the auction, 3 years in advance of the Commitment Year.
- It is not appropriate to reduce the load forecast by any assumptions about new Demand Resources that may bid into the auction.
- Only the continuing effect of existing demand resources should be a load reduction

All Energy Efficiency measures have a property called “measure life” which proscribes the number of years for which that measure has an impact on load. Existing Energy Efficiency measures should continue to reduce the ISO’s load forecast only until their measure life expires.

Appropriate Treatment of Demand Resources in Setting the ICR for the FCM



Potential Impacts of DR in the FCM

Capacity payments are an additional revenue source for Demand Resources

- At $6 per kW month, a one MW resources earns $72,000 a year. 100 MWs is $7.2 million.
- The New England cost for 30,000 MWs is over $2 billion a year. At $8 it is close to $3 billion.
- To the extent that the obstacle to greater implementation of Demand Resources is financial, this capacity market should help:
  - Customer, utility, or state-sponsored DSM
  - Energy Service Company DSM

Customer generation can receive capacity payments

- Combined heat and power (CHP) projects
- Behind-the–meter generation
- Distributed generation from PV and wind can be aggregated
- Alternative to new transmission lines and remote baseload generation

Questions

