

New England Electric Grid Issues

NH OCA Advisory Board

April 11, 2016

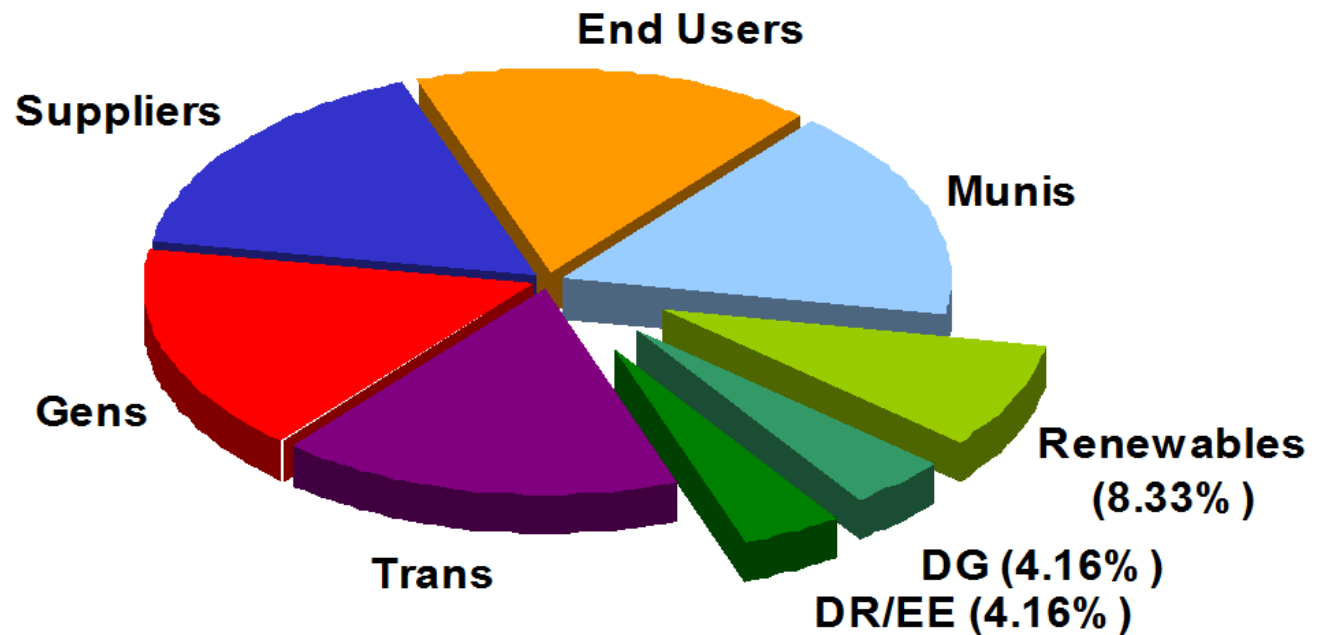
Stakeholder Process, Current Issues & Future Concerns

Paul Peterson

Synapse Energy Economics

Stakeholder Process

NEPOOL Participants



ISO New England

Oversight

Federal Energy
Regulatory Commission

North American Electric
Reliability Corporation

Independent
Board of Directors

Northeast Power
Coordinating Council



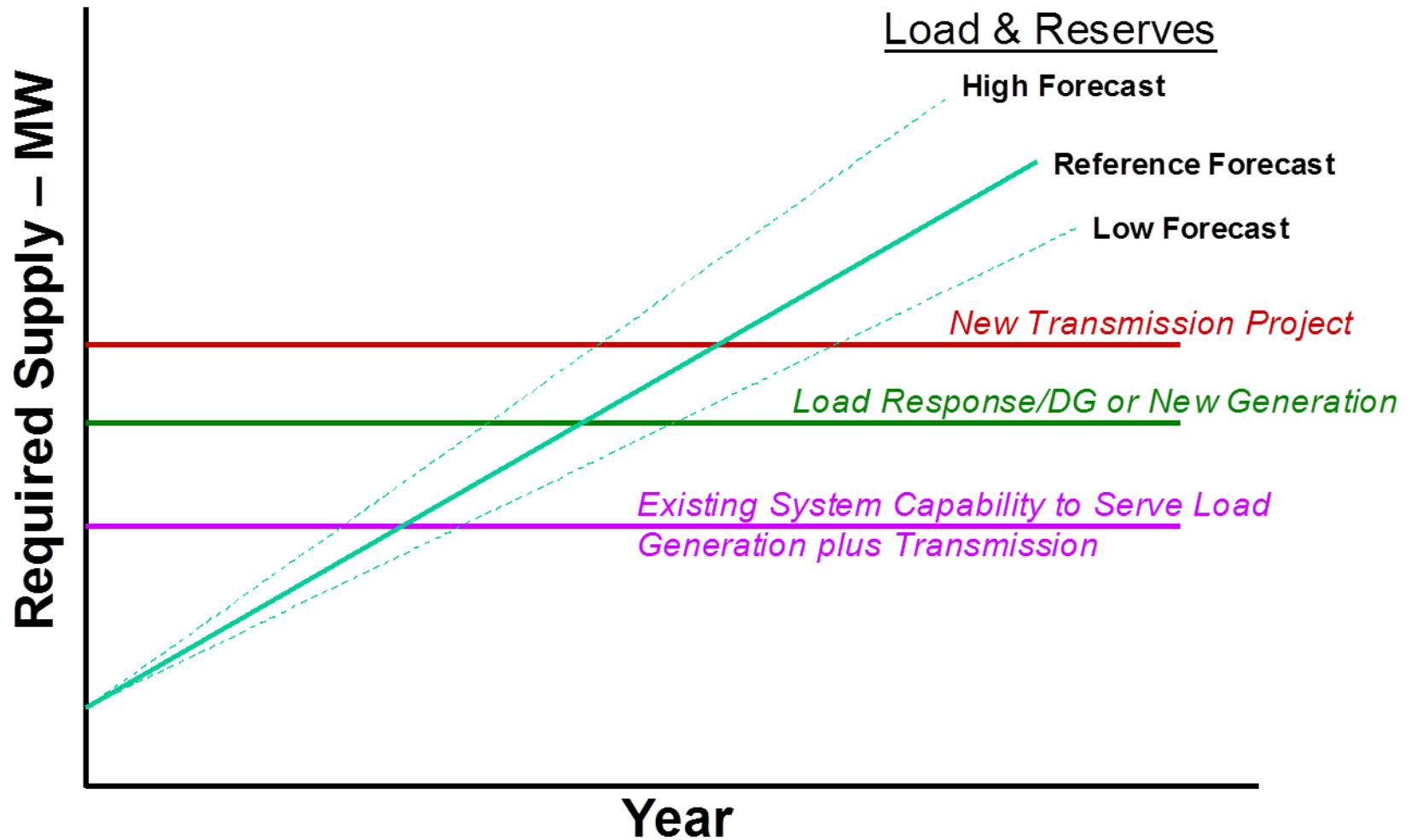
New England Electricity Market
Participants (NEPOOL)

New England States

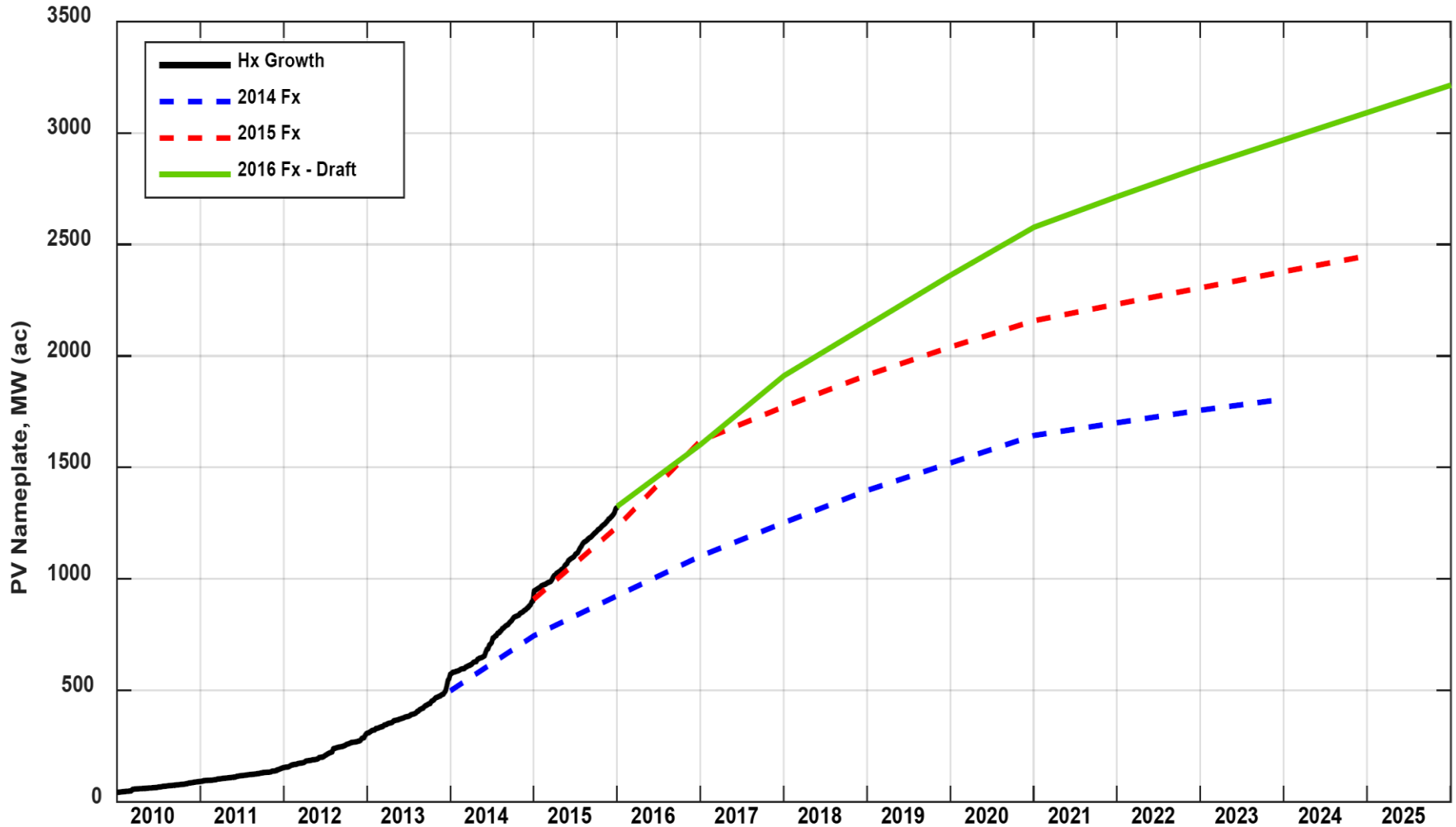
Inputs

Current Issues

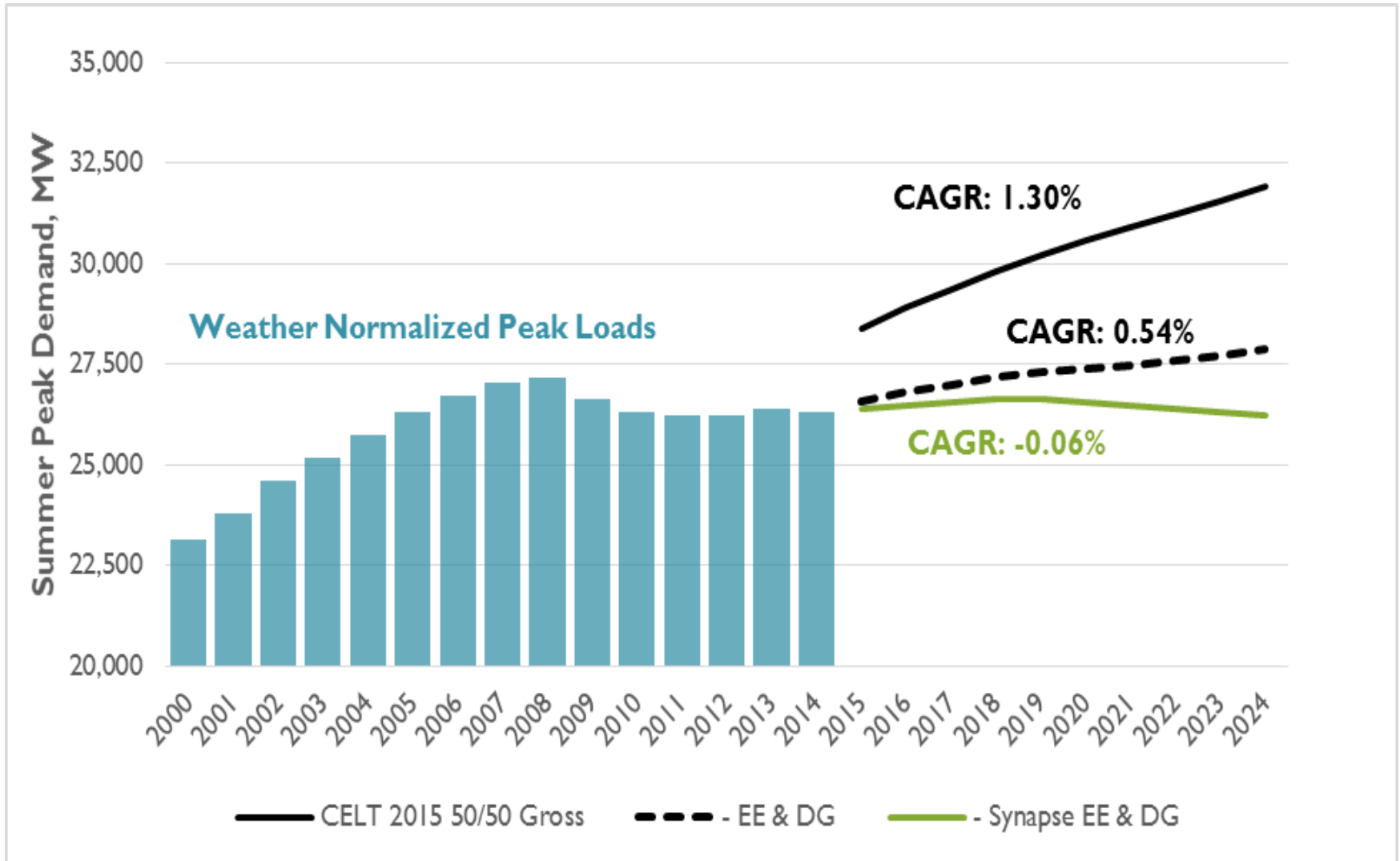
ISO-NE 2004 Planning Horizon



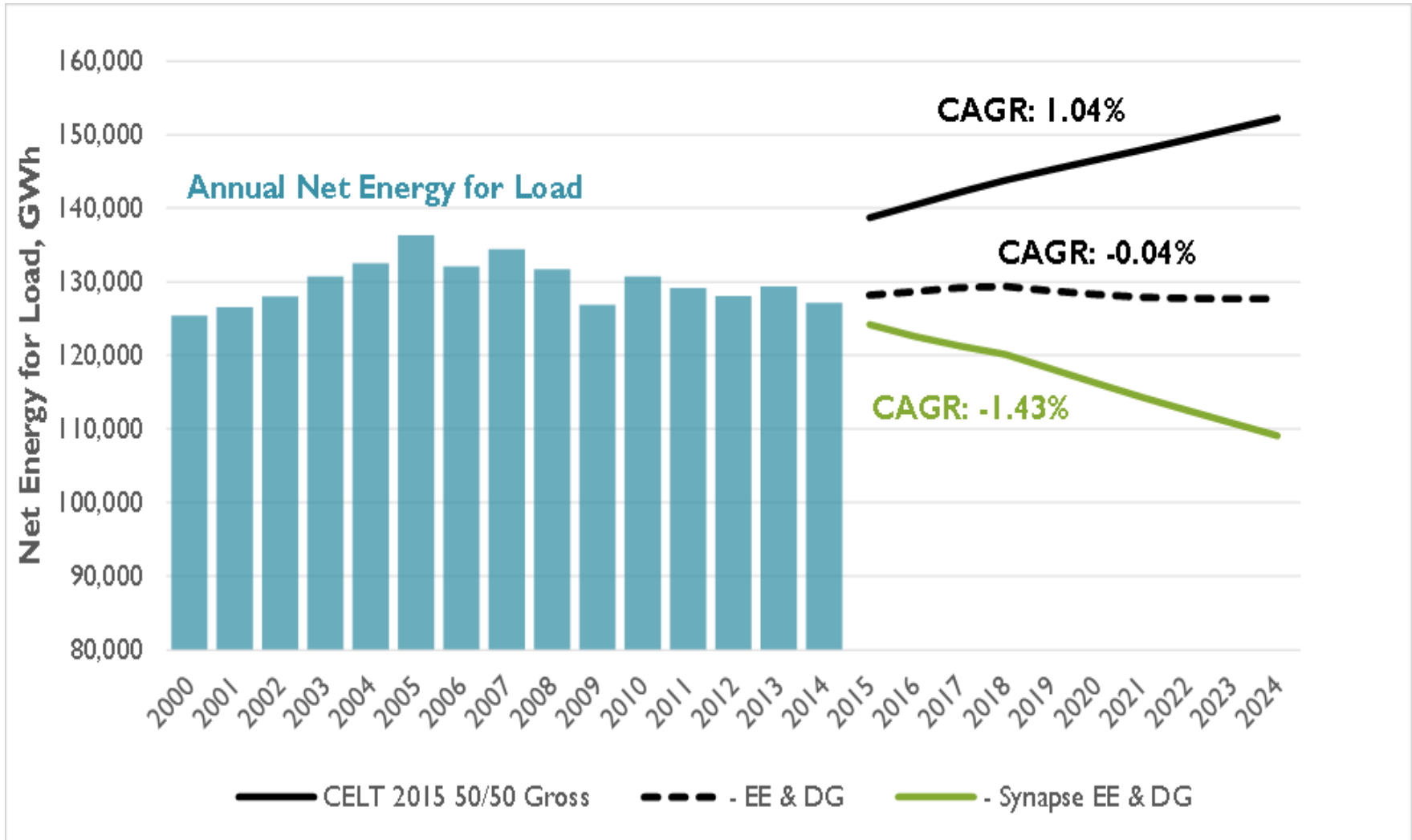
ISO Forecasts of PV



Synapse 2015 Adjustments for EE and PV



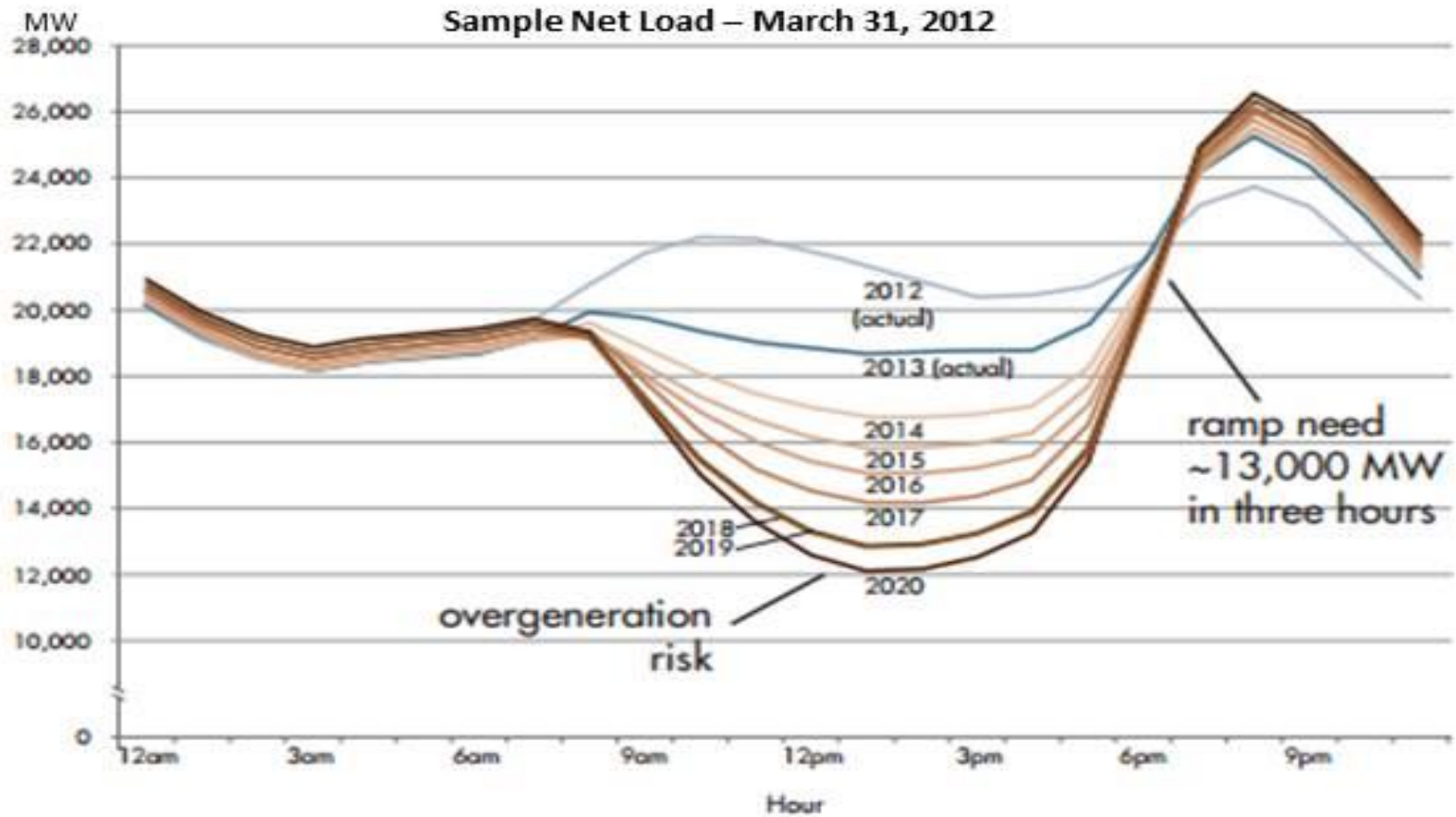
Synapse 2015 Adjustments for EE and PV



Future Concerns

California Duck Curve

The duck curve shows steep ramping needs and overgeneration risk



(from the California Independent System Operator)

Impacts of expanding distributed resources

- Declining energy market revenues
- Fixed costs for grid infrastructure
 - Poles and wires
 - Generation investment
- Increasing capacity market revenues
- Increasing T&D charges

Challenges for state utility commissions