

BTM:NG Initiative – Energy Market Design Concepts

Pradip Ganesan

*Market Product Specialist, Energy Market Design
New York Independent System Operator*

MIWG

*January 29, 2015
Rensselaer, NY*

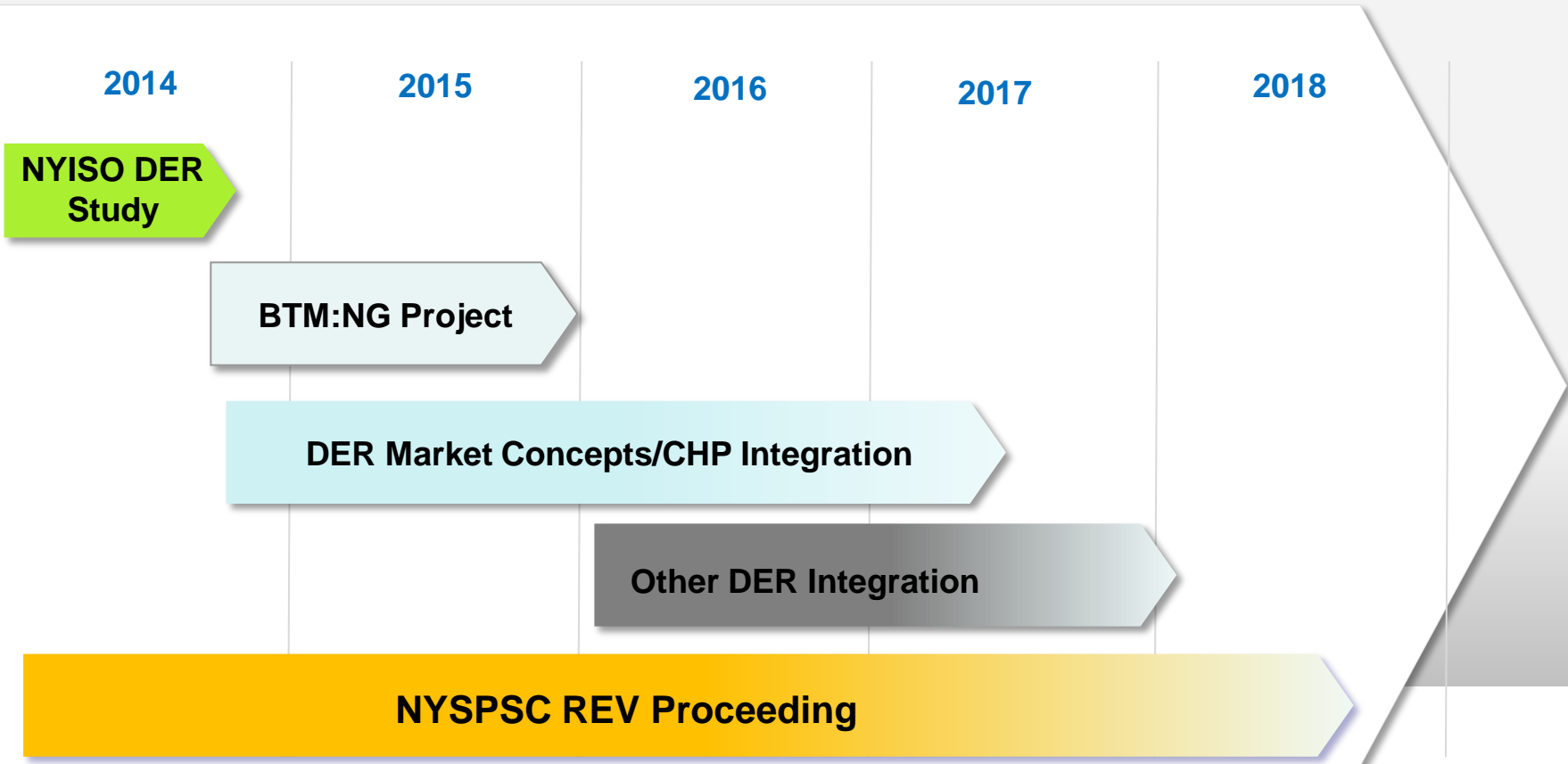
Background

- ◆ Wholesale generator requirements to participate in the NYISO markets were covered in the November 19th, 2014 MIWG.
- ◆ Behind the meter resources that would like to register as wholesale generators can do so today by doing the following:
 - *Qualifying to and then selling the full capability into the wholesale markets ('coming out from behind the meter')*
 - *Moving the load they serve into the wholesale market via an LSE and*
 - *Setting up a wholesale market bilateral contract between the generator and load*

Scope

- ◆ This presentation introduces market design concepts for Behind-the-Meter Net Generators (BTM:NG) that would like to participate in the wholesale market with surplus or “net” generation without ‘coming out from behind the meter’.
- ◆ This presentation addresses design concepts for participating in the energy market.
 - *Changes to the capacity market for BTM:NG shall be presented at a future working group meeting.*
- ◆ DER initiatives and the outcome of REV proceedings are not addressed as part of the BTM:NG initiative.
 - *The timeline on the next slide puts this project in context with other related proceedings and initiatives.*

Timeline

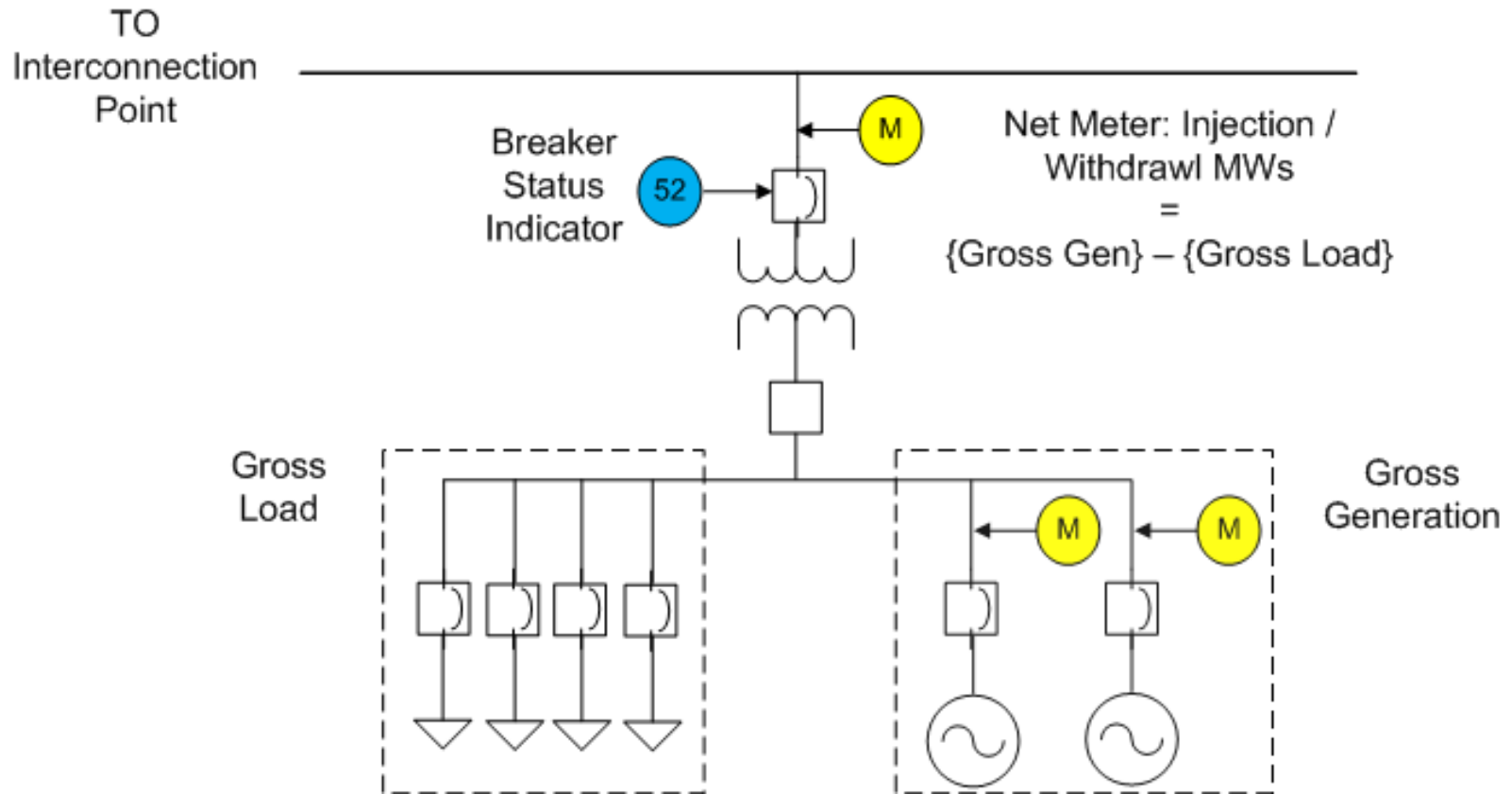


-  NYISO DER Study
-  BTM:NG Integration
-  DER Market Concepts/CHP Integration
-  Other DER Integration
-  NYSPSC REV Proceeding

Minimum Metering Requirements

- ◆ The BTM:NG resource must be able to follow dispatch instructions given by NYISO via the connecting TO.
- ◆ Necessary metering includes:
 - *A net meter that measures the net injection/ withdrawal at each interconnection point to the TO's distribution grid.*
 - *One generation meter per BTM:NG resource that measures gross output.*
- ◆ The meters installed at the facility must conform to specifications in the Metering requirements manual.

Minimum Metering Requirements



Requirements and Treatment

- ◆ **The BTM:NG resource:**
 - *Must have a minimum of 1 MW of net generation (above load requirements).*
 - Excess generation above 1 MW can be in increments of one-tenths of a MW.
 - *Must meet minimum participation criteria as described in the tariff for generators.*
 - Requirements including but not limited to Section 26.1 of the MST.
 - *Will be subject to requirements and penalties for non-compliance that are similar to those assessed against wholesale generators.*
- ◆ **Load associated with a BTM:NG will not be eligible to register in NYISO demand response programs.**

Bidding/ Scheduling Requirements

- ◆ **The BTM:NG resource must conform to the following requirements to participate in the day-ahead and real-time markets:**
 - *Bid in a manner that allows operations to dispatch to its maximum bid MWs.*
 - *Follow base points or self schedule and be subject to same requirements and penalties as other wholesale generators.*
 - *Ancillary service requirements that apply for wholesale generators will apply to a BTM:NG, if qualified to provide ancillary services.*

Related Efforts

- ◆ The NYISO is reviewing the implications for wholesale system planning, operations and cost allocation of onsite generation and its potential to increase in the future.
- ◆ This effort will run in parallel with the BTM:NG project but may implicate it.
 - *One cost allocation issue the NYISO will be looking at is whether any changes to the allocation of the costs of maintaining a reliable grid are warranted. Today the costs of maintaining a reliable grid are incorporated entirely into wholesale capacity and energy charges. The question is should costs of maintaining a reliable grid also be paid by load that is served by onsite generation when it relies on, and uses, grid-provided energy if its generation becomes unavailable.*
- ◆ Many entities engaged in wholesale market efforts are engaged in a similar review and we hope to leverage all of that information as well.

Next Steps

- ◆ Introduce the participation of BTM:NG in NYISO markets
 - *September 19th, 2014 MIWG/ICAPWG*
- ◆ Review wholesale generator requirements to participate in NYISO markets
 - *November 19th, 2014 MIWG*
- ◆ Introduce Energy Market design concepts for BTM:NG participation
 - *January 29th, 2015 MIWG/ICAPWG*
- ◆ **Continue to discuss with stakeholders**
 - *February 2015 – May 2015*
- ◆ **Present final proposal at BIC**
 - *June 2015*

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



www.nyiso.com