

# SCR Generation in Excess of Host Load

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NYISO Installed Capacity Working Group February 8, 2011



#### Overview

- On August 30, the NYISO proposed changes to Services Tariff definitions to address the registration of behind-the-fence generators as SCRs when the generator's Installed Capacity exceeds the load of the facility:
  - Special Case Resource
  - Local Generator
  - SCR Generator
- On January 12<sup>th</sup>, the Business Issues Committee (BIC) directed the ICAPWG at its January 19, 2011 meeting to further discuss:
  - the issues described in the presentation made to the BIC
  - the development of tariff language regarding the definition of SCR Generator, and
  - solutions for allowing the participation of SCR Generators for the Summer 2011 Capability Period.
- The ICAPWG discussed the above at its meetings on January 19 and 24, 2011.



#### **Generators as SCRs**

- Behind-the-fence generators fall into one of five general operational states.
  - Those states permitted by specific tariff definitions are noted in the right-hand column.

Group	Operating Mode	Installed Capacity	Operating Level	Tariff Definition
1	Emergency	≤ APMD	n.a.	Local Generator
2	Emergency	> APMD	n.a.	SCR Generator
3	Baseload	≤ APMD	n.a.	Local Generator
4	Baseload	> APMD	≤ APMD	Local Generator
5	Baseload	> APMD	> APMD	none

 Units operating in baseload mode, supplying energy to the grid and providing Capacity in excess of the host load are not permitted to participate as SCRs.



### Eligibility as SCR

- The current definition of a Local Generator requires that a generator "synchronized to the local distribution system" do so "solely in order to support a Load that is equal to or in excess of the resource's Capacity."
  - Distinguishing feature is whether these units are intended for baseload operation or not
  - If operated in baseload mode, the tariff requires that the generator not provide energy to the grid
- To provide sufficient distinction in the Demand Response Information System (DRIS), the following rules need to be developed:
  - distinguish baseload vs. emergency generator operation, and
  - identify generators supplying energy to the grid



- To identify whether an SCR generator is operated in baseload mode, there are several data collection options that can be considered:
  - Distinguish by DEC air permit (Facility, State, or EPA Title V)
  - Require that annual run hours be input to DRIS on a monthly basis
  - Provide check-box capability in DRIS for various ranges of operating hours
- Generators not operating in baseload mode would not be subject to a test comparing the resource's Capacity vs. host load MW.



- Generators operating as baseload units would need to provide to DRIS:
  - the annual kWh consumed by the host load  $(Q_i)$ , and
  - the annual kWh produced by the generator  $(Q_q)$ .
- Baseload generators with nameplates <= 2 MW whose output Q<sub>g</sub> is greater than that consumed by the host load Q<sub>I</sub> (Q<sub>g</sub>/Q<sub>I</sub> > 1.0) would not be permitted to register as an SCR.
- Baseload generators with nameplates > 2 MW would not be permitted to register as an SCR if the ratio  $Q_q/Q_l > 0.3$ .
- For more than one unit operating at the same location, the nameplates and the limits would be for the total of all the units.
- For more than one load being served by the unit(s) at the same location, the total of all loads is required.



- NYISO proposed rules for classifying SCR and Local Generators:
  - Prior to the beginning of a Capability Period, report operating hours over the previous 12-month period
    - If annual total over the previous 12-month period <= 500 hours, classify as emergency generator eligible as SCR
    - If annual total over the previous 12-month period > 500 hours, classify as baseload generator
  - Report kWh host load consumption over the previous 12-month period Q<sub>1</sub> and kWh generator production (total for all units at the site) over the same period Q<sub>a</sub>.
    - If generator nameplate <= 2 MW and  $Q_g / Q_l$  <= 1.0, classify as baseload generator eligible as SCR
    - If generator nameplate <= 2 MW and  $Q_g / Q_l > 1.0$ , generator cannot participate as an SCR
    - If generator nameplate > 2 MW and Q<sub>g</sub> / Q<sub>I</sub> <= 0.3, classify as baseload generator eligible as SCR
    - If generator nameplate > 2 MW and  $Q_g$  /  $Q_l$  > 0.3, generator cannot participate as an SCR



 New SCR Generators and Local Generators that have never operated for a period of twelve months and that seek to qualify as an SCR will for the first year of their registration be limited to a declared value no greater than the baseline of the host load.



### **Proposed Tariff Revisions**

 The tariff language presented on the next three slides is based upon the definitions proposed by the NYISO at the January 19 ICAPWG meeting, with modifications highlighted and underlined.



#### **Proposed Tariff Revisions**

- New defined term: SCR Generator, Sec. 2.19 (revisions from 8/30 in red):
  - **SCR Generator** A Generator that is operated to provide Energy directly to a Load to which it is interconnected. An SCR Generator can provide Installed Capacity only as a Special Case Resource. An SCR Generator can provide Installed Capacity in an amount greater than the baseline of the Load to which it is interconnected (such baseline determined in accordance with the methodology set forth in ISO Procedures) provided it synchronizes to the local distribution system solely for the purpose of supplying Energy (a) as a Special Case Resource at the time of an ISO Special Case Resource test or Special Case Resource event, (b) pursuant to a tariff or other authorized load control program of the Transmission Owner or local distribution company in whose service territory it is located, or (c) to the Load to which it is connected on an emergency or other occasional basis (consistent with ISO Procedures), in a quantity no greater than the baseline of the Load to which it is interconnected (such quantity and baseline determined in accordance with the methodology set forth in ISO Procedures). SCR Generators that are new and have never operated for a period of twelve months and that seek to qualify as SCRs are limited for the first year of their registration to a declared value no greater than the baseline of the host load (such declared value and baseline determined in accordance with the methodology set forth in ISO *Procedures*). A Special Case Resource that is an SCR Generator may only sell Energy and Capacity as a Special Case Resource, and is precluded from selling Energy, Capacity, and Ancillary Services, under all other provisions of the ISO Tariffs.



#### Proposed Tariff Revisions (cont'd)

- Revised definition: Local Generator, Sec. 2.12:
  - A resource operated by or on behalf of a Load that is either: (i) not synchronized to a local distribution system; or (ii) synchronized to a local distribution system solely in order to support a Load that is equal to or in excess of the resource's Capacity. Local Generators supply Energy only to the Load they are being operated to serve and do not supply Energy to the distribution system. Local Generators that are new and have never operated for a period of twelve months and that seek to qualify as SCRs are limited for the first year of their registration to <u>a declared value no greater than the baseline of the host load</u> (such declared value and baseline determined in accordance with the methodology set forth in ISO Procedures). A Special Case Resource that is a Local Generator may be offered as non - synchronized Operating Reserves.



#### Proposed Tariff Revisions (cont'd)

- Revised Special Case Resource definition, Sec. 2.19:
  - Special Case Resource A Demand Side Resource capable of being interrupted upon demand, a Local Generator, or an SCR Generator, that is (a) rated 100 kW or higher, (b) not visible to the ISO's Market Information System, and (c) subject to special rules, set forth in Section 5.12.11.1 of this ISO Services Tariff and related ISO Procedures, in order to facilitate its participation in the Installed Capacity market as an Installed Capacity Supplier. A Special Case Resource that is not a Local Generator or an SCR Generator may be offered as synchronized Operating Reserves, Regulation Service, and Energy in the Day-Ahead Market.



#### Proposed Tariff Change (cont'd)

- Redlined version of the existing Special Case Resource definition, Sec. 2.19:
  - A Demand Side Resources capable of being interrupted upon demand, and-a Local Generators, or an SCR Generator, that is (a) rated 100 kW or higher, that are(b) not visible to the ISO's Market Information System, and-that are(c) subject to special rules, set forth in Section 5.12.11(a).1 of this ISO Services Tariff and related ISO Procedures, in order to facilitate theirits participation in the Installed Capacity market as an Installed Capacity Suppliers. A Special Case Resources that are is not a Local Generators, or an SCR Generator may be offered as synchronized Operating Reserves, and Regulation Service and Energy in the Day-Ahead Market. A Special Case Resources using a Local Generators rated 100 kW or higher, that are is not visible to the ISO's Market Information System may also be offered as non-synchronized Operating Reserves.



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