

Proposed Black Start Changes for Con Edison Plan

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March 30, 2012

Overview

◆ Background

- *NYISO Black Start Program*
- *Local Transmission Owner Black Start Programs*

◆ Proposed Changes

- *Test Procedures*
- *Test Scheduling*
- *Commitment Period*
- *Program Participation*
- *Compensation – to be reviewed at April 30 meeting*

Background

- ◆ **The NYCA Black Start and System Restoration plan is comprised of the NYISO plan and local TO plans**
 - *NYISO plan is to energize the 345-KV transmission backbone from Black Start Facilities*
 - *Con Edison plan to restore its local area is specified in Rate Schedule 5 of the MST*
- ◆ **Changes are proposed for the local Con Edison plan**

Proposed Test Procedure Changes

- ***30 days to remedy a failed test***
 - Otherwise payment is forfeited from the date of the failed test
 - Currently a failed test results in immediate suspension of payment
- ***Generator Owners continue to certify annually that critical components are maintained***

Proposed Test Procedure Changes

- *Gas Turbine testing remains as currently defined*
- *Combined Cycle testing requirements to be added to the tariff*
 - **Gas turbine at the site must start without external power sources and start a steam turbine, which must synchronize to the transmission system within six hours**

Proposed Test Procedure Changes

- ***Steam unit current testing requires it to:***
 - **Be in hot condition to start the test**
 - **Start up using energy and voltage control from a black start gas turbine**
 - **Synchronize to the transmission system within six hours after isolation**
 - **Be operating at minimum load within eight hours after isolation**

Proposed Test Procedure Changes

- ***Steam unit changes***

- **Annual test requires**

- Switching to isolate the steam unit from the transmission system
- Establishing a cranking path to an isolated black start gas turbine
- Energizing the steam unit's internal light and power bus
- Adding auxiliary load (e.g., boiler feed pump, fans) as required to introduce fire into the boiler

- **Does not require synchronization to the transmission system**

Proposed Test Procedure Changes

- ***Steam unit changes (cont'd)***
 - **Every three years, a more comprehensive test requiring synchronization to the transmission system**
 - The test can be performed if the unit is hot from current operations or when it becomes hot on the way up from a cold start

Proposed Test Procedure Changes

- ***Steam unit changes (cont'd)***

- If a steam unit is in a cold condition, it can start its internal light and power bus from the transmission system to come to a hot condition, isolate from the transmission system and establish its cranking path to a black start gas turbine to re-energize its internal light and power bus
- If a steam unit is online and hot from current operations, it must isolate from the transmission system and establish its cranking path to a black start gas turbine to re-energize its internal light and power bus

Proposed Test Procedure Changes

- ***Steam unit changes (cont'd)***
 - **Whether starting from a cold or hot condition, the steam unit must synchronize to the transmission system and be at minimum load within eight hours of establishing its cranking path**
 - **No interim milestone times are required**

Proposed Test Schedule Changes

- *Extend the black start testing period to be January through May and September through December*
 - No tests will be allowed in June, July and August
 - Current test period is November through April
- *As currently, test dates must be agreed upon by the Generator Owner, Con Edison and NYISO*
 - Test witnesses are not required, but Con Edison and NYISO may have witnesses present

Proposed Commitment Period Changes

- ***Increase notification of withdrawal from one year to two years***
- ***Withdrawal effective after PSC approval***
- ***Stagger commitment periods among black start units***

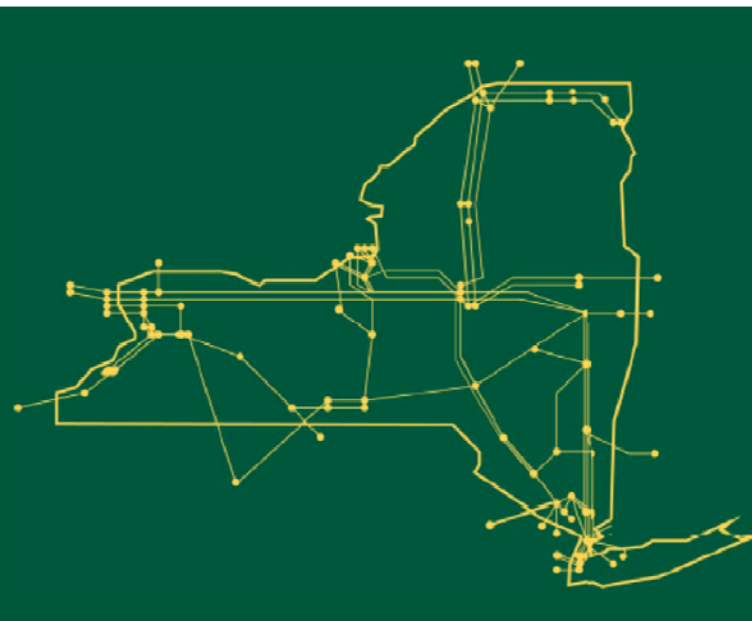
Proposed Program Participation

- ***New or repowered units will be required to have black start capability and provide black start service upon a finding that this capability would provide a material benefit to system restoration***
- ***Determination will be made early in the interconnection process***
- ***Units identified for participation will be assured full recovery of related costs***

Schedule

- ◆ **Tentative Black Start Task Force Teleconference April 13**
- ◆ **Black Start Task Force Meeting April 30 to Review Proposal for Compensation Changes**
- ◆ **BIC and OC Review and Approval May 16 or 17**
- ◆ **MC Review and Approval May 30**

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