

**NYISO Procedure for Establishing  
Embedded Costs for  
Suppliers of Black Start Services**

The NYISO tariffs define Black Start Capability as the ability of generation facilities to assist in the restoration of the New York State Power System in the event of a system-wide blackout. Black Start-capable facilities are prime-movers able to self-sustain their own continued operations without an outside energy source, thus, making these units the initial sources of energy for restoring the New York Control Area.

Black Start Service cannot be self-supplied; it must be purchased from the NYISO under Rate Schedule 6 of the Open Access Transmission Tariff ("OATT"), the charge for which is determined according to each Transmission Customer's monthly Load Ratio Share applied against the total "embedded cost" for Black Start Capability. The embedded cost for Black Start represents the cumulative amount of payments from the NYISO to those facilities supplying this capability in the NYCA.

Payments to Black Start Capability providers are determined according to Rate Schedule 5 of the NYISO Market Administration and Control Area Services Tariff ("Services Tariff"), and are comprised of two components: (1) "capital and fixed operation and maintenance costs associated with only those facilities within Generators that provide Black Start Capability; and (2) "annual costs associated with training operators in system restoration."

This embedded cost information is to be supplied to the NYISO by May 1<sup>st</sup> of each year and is to be based upon "FERC Form No. 1 or equivalent data." These submitted costs then determine payments to Black Start suppliers from May 1 through April 30 of the following year.

The NYNYISO will determine and pay embedded costs to Black Start Capability suppliers as follows:

**1. Guiding Principles**

- Black Start-related embedded costs will be determined according to "cost of service" principles.
- Suppliers will be compensated only for the incremental costs incurred to establish and maintain a facility's Black Start capability.

- The NYNYISO will not pay for Black Start service from generators which are obligated to provide, and are compensated for, restoration services required under individual divestiture-related contractual obligations.
- Consistent with the NYNYISO tariffs, embedded cost information should be based upon “FERC Form No. 1 data or on data reasonably equivalent to the FERC System of Accounts. Cost information submitted in support of Black Start service payments should be sufficient in detail to allow the NYISO to develop payments with a minimum of further analysis. The accuracy of submitted cost information shall also be certified as to accuracy and completeness by the Market Participant’s chief financial officer, or equivalent.
- Black Start plant and related general plant shall be calculated as an average balance over the prior twelve months of such plant investments based upon generally accepted accounting principles, engineering studies, or evaluations similar in principle to the FERC Uniform System of Accounts.
- The Black Start Allocation Factor for each facility providing restoration service shall be the ratio of Black Start-related wages and salaries at the facility to the its total wages and salaries, exclusive of administrative and general wages and salaries.
- The NYNYISO will be solely responsible for determining whether embedded cost data submitted by a supplier conforms to the tariffs and this procedure.

## **2. Determination of Capital and Fixed Operation and Maintenance Costs**

### **A. Capital Costs**

Capital Costs for Black Start Capability shall equal the product of a supplier’s Black Start Plant Investment and a Weighted Cost of Capital Rate. Black Start-related plant equipment could include, but may not be limited to, stand-alone generators capable of self-starting and self-sustained operation without an external electrical supply, air compressors, air tanks, batteries and chargers, direct-current (“DC”) motors, DC controllers, and DC/Alternating Current inverters. Black Start suppliers will be responsible for justifying the inclusion of proposed plant investment in Black Start costs by submitting sufficient written explanations of the facility’s necessity to, and use in, system restoration.

Black Start Plant Investment shall consist of (i) Black Start Plant, as would be presented in FERC Account 345 – Accessory Electric Equipment or its equivalent, (ii) related general plant, as would be presented in FERC Account 244 or its equivalent, less (iii) related depreciation reserves for (i) and (ii), less (iv) related Accumulate Deferred Taxes, plus (v) related Cash Working Capital.

- Black Start Plant shall be the calculated average balance of a supplier's investment in each facility.
- Black Start-related general plant shall be the calculated investment in general plant at each facility multiplied by the Black Start Allocation Factor.
- Black Start-related depreciation reserves shall be the sum of the depreciation reserve assignable to Black Start Plant and the depreciation reserve for Black Start general plant, determined as the product of the total general plant reserve for the associated black start facility and the Black Start Allocation Factor.
- Black Start-related accumulated deferred taxes shall equal the facility's average balance of total accumulated deferred income taxes multiplied by the ratio of Black Start-related plant and general plant to the facility's total plant in service.
- Black Start-related working capital shall be a 12.5% allowance (ratio of 45 days to 360 days) of Black Start operation and maintenance expense and related administrative and general expense.

The Weighted Cost of Capital Rate shall equal the Weighted Cost of Capital, plus Federal Income Taxes, plus State Income Taxes.

- The Weighted Cost of Capital shall be the weighted average cost of debt and common equity, utilizing a proxy capital structure of 50% debt and 50% equity.
- The equity component rate shall be
- The cost of debt component rate shall be the then-current interest rate on 30-year U.S. Treasury bonds.
- Federal Income Taxes will be at 35% Federal income tax rate.
- State Income Taxes will be at the applicable state income tax rates.

## **B. Fixed Operation and Maintenance Costs**

Black Start suppliers shall be compensated only for those non-variable operation and maintenance costs that are reasonably assignable to the Black Start-related portion of the supplier's facilities. A reasonable allocation shall be the total of all non-variable operation and maintenance costs at a Black Start facility multiplied by the facility's Black Start Allocation Factor.

## **3. Annual Training Costs**

Each Black Start supplier shall be compensated by the NYNYISO for the annual costs associated with training its operators in system restoration. For the purposes of this calculation, the NYNYISO shall assume that each supplier will incur costs for no more than \_\_\_\_ worker-hours [**e.g., NEPOOL's methodology assumes 25 hours here**] per black start unit per year for training in system restoration.