CECONY's Update to its Transmission Planning Criteria

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CECONY Transmission Planning Criteria – UPDATES

- The existing Fundamental Design Principles encapsulated in Con Edison's Transmission Planning Criteria – Specification TP-7100 – will be updated to provide more clarity
- New Fundamental Design Principle will be added regarding the Underfrequency Load Shedding (UFLS) program and "large loads"
- New Fundamental Design Principle will be added regarding overloaded equipment and need for its replacement

CECONY Transmission Planning Criteria – Principle #1

- New generation facilities ~~and~~, transmission facilities, and large loads/end-user facilities shall not require the interruption of any transmission path (for example by opening circuit breakers).

CECONY Transmission Planning Criteria – Principle #2

- Interconnection plans for new generation facilities, ~~and~~ transmission facilities, and large loads/end-user facilities shall satisfy the need for adequate substation diversity recognizing that an acceptable configuration may require the relocation of existing feeders. For example, this design principle requires alternating supply and load feeders in substation design, and sufficient physical and electrical separation to maintain the integrity of essential supply paths to avoid common mode losses.

CECONY Transmission Planning Criteria – Principle #3

- New generation facilities, ~~and~~ transmission facilities, and large loads/end-user facilities proposing to interconnect to an existing transmission substation shall ensure that a single event (e.g., breaker failure) will not result in the outage of multiple supply sources (generation or transmission) into a Transmission Load Area.

CECONY Transmission Planning Criteria – Principle #4

- New generation facilities, ~~and~~ transmission facilities, and large loads/end-user facilities proposing to interconnect to an existing transmission substation shall ensure that a loss of any single feeder will not result in the outage of multiple bus sections. Similarly, a single event (e.g., breaker failure) at the remote end of the interconnection shall not result in the outage of multiple bus sections of the existing transmission substations.

CECONY Transmission Planning Criteria – Principle #5

- New generation facilities ~~and~~, transmission facilities, and large loads/end-user facilities proposing to interconnect to an existing transmission substation shall do so in a manner consistent with the design basis established by Con Edison for that substation, i.e., ring bus, double ring bus, or breaker-and-a-half. The new interconnection shall not compromise the basic design concepts inherent in these configurations. For example, transmission feeders shall not be connected to the syn buses of a breaker-and-a-half configuration.

CECONY Transmission Planning Criteria – Principle #6
(the bottom portion will become its own Principle #16)

- New generation facilities, ~~and~~ transmission facilities, and large loads/end-user facilities proposing to interconnect to an existing transmission feeder shall require the construction of a new substation with the appropriate breaker configuration at the Point of Interconnection to maintain system reliability. In the case where the existing transmission feeder is one of multiple feeders with common terminals, then all such transmission feeders shall be incorporated into the design of the new substation. ~~The requirement to construct a new substation does not apply when connecting load, or generation less than 20 MVA for a single unit or result not exceeding 75 MVA in aggregate, to radial transmission feeders. Radial transmission feeders are defined as those that supply power from a common source to substations whose bus voltage is below 100 kV.~~

CECONY Transmission Planning Criteria – Principle #7

- Interconnection plans for new generation facilities, ~~and~~ transmission facilities, and large loads/end-user facilities shall be designed to ensure system reliability, and as such shall comply with basic substation reliability design. For example, interconnection plans will avoid overhead crossings of other feeders within one mile or less from the substation and associated substation bus sections, provide adequate separation and when necessary independent routing of underground feeders, and provide separation of control and relay protection wiring.

CECONY Transmission Planning Criteria – Principle #8

- Con Edison shall not be obligated to supply or absorb reactive power for entities interconnecting transmission systems or large loads/end-user facilities (new or modified interconnections) with Con Edison's Transmission System. Such entities shall supply the additional reactive power requirements attributable to such interconnection to ensure reactive power neutrality at the Point of Interconnection to the Con Edison Transmission System. This requirement is applicable under normal system conditions (i.e. when all design facilities are in service), as well as steady-state conditions occurring after design criteria contingencies described in the New York State Reliability Council (NYSRC) Reliability Rules & Compliance Manual for Planning and Operating the New York State Power System.

CECONY Transmission Planning Criteria
"New Principle" #16 (Principle #6 'Clarification')

- New generation facilities, transmission facilities, and large loads/end-user facilities proposing to interconnect to radial transmission feeders, high-voltage distribution feeders and their corresponding step-down transformers, shall not create/introduce imbalance(s) which may result in reduction of capability for radial transmission feeders, high-voltage distribution feeders, and/or distribution area substations. Radial transmission feeders and high-voltage distribution feeders are defined as those that supply power from a common source to distribution area substation(s) whose secondary bus voltage is below 100 kV.

CECONY Transmission Planning Criteria
New Principle #17

- Large loads/end-user facilities shall incorporate Underfrequency Load Shedding (UFLS) capability in their design that conforms with Con Edison's UFLS program frequency thresholds, nominal operating times, and load shedding amounts. The project shall ensure that such UFLS capability is operational as of the commercial operation date of the project.

CECONY Transmission Planning Criteria
New Principle #18

- Substation equipment that may be overloaded either in pre-contingency or post-contingency conditions must be replaced with equipment having adequate (higher) ratings.

Thank you!