NYISO's Reliability Must Run Compliance Filing: NYISO Proposal

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Agenda

- **Notice Form**
  - *Planning Specific Information*
  - *MMA Specific Information*
- **12 Month Notice Period – Process Overview**
  - *Planning: Reliability analyses and open and transparent stakeholder process*
  - *MMA: Review information for deactivating unit and potential solutions and develop APR*
  - *NYISO selects RMR generator if RMR is necessary*
- **Availability & Performance Rate (APR):**
  - *Avoidable Costs plus incentive payment*
  - *Incentive component based upon Availability and Performance metrics*

Agenda

- Participation in the Market
- Uneconomic Retention
- Disincentives to Toggling
- Enhancements to RNA/CRP Processes
  - *Application of Base Case Inclusion Rules*
- Next Steps

Notice Form and Completeness Determination

- **Notice Form must be submitted with:**
  - ***Planning-related information***
  - ***Information MMA requires to determine unit costs and APR***
    - **Requiring 10 years of cost and maintenance information—5 years prior and 5 years prospective**
- **Completeness Determination**
  - ***Upon receipt of the Notice Form with required supporting information, the NYISO will have 10 business days to determine if Notice Form is complete***
    - **This is a preliminary determination, the NYISO may request additional information that it requires to perform its Tariff obligations**
  - ***The 12 month notice period begins to run upon the written determination of completeness by NYISO***
  - ***NYISO will post its receipt of a complete Notice of Mothball or Retirement***

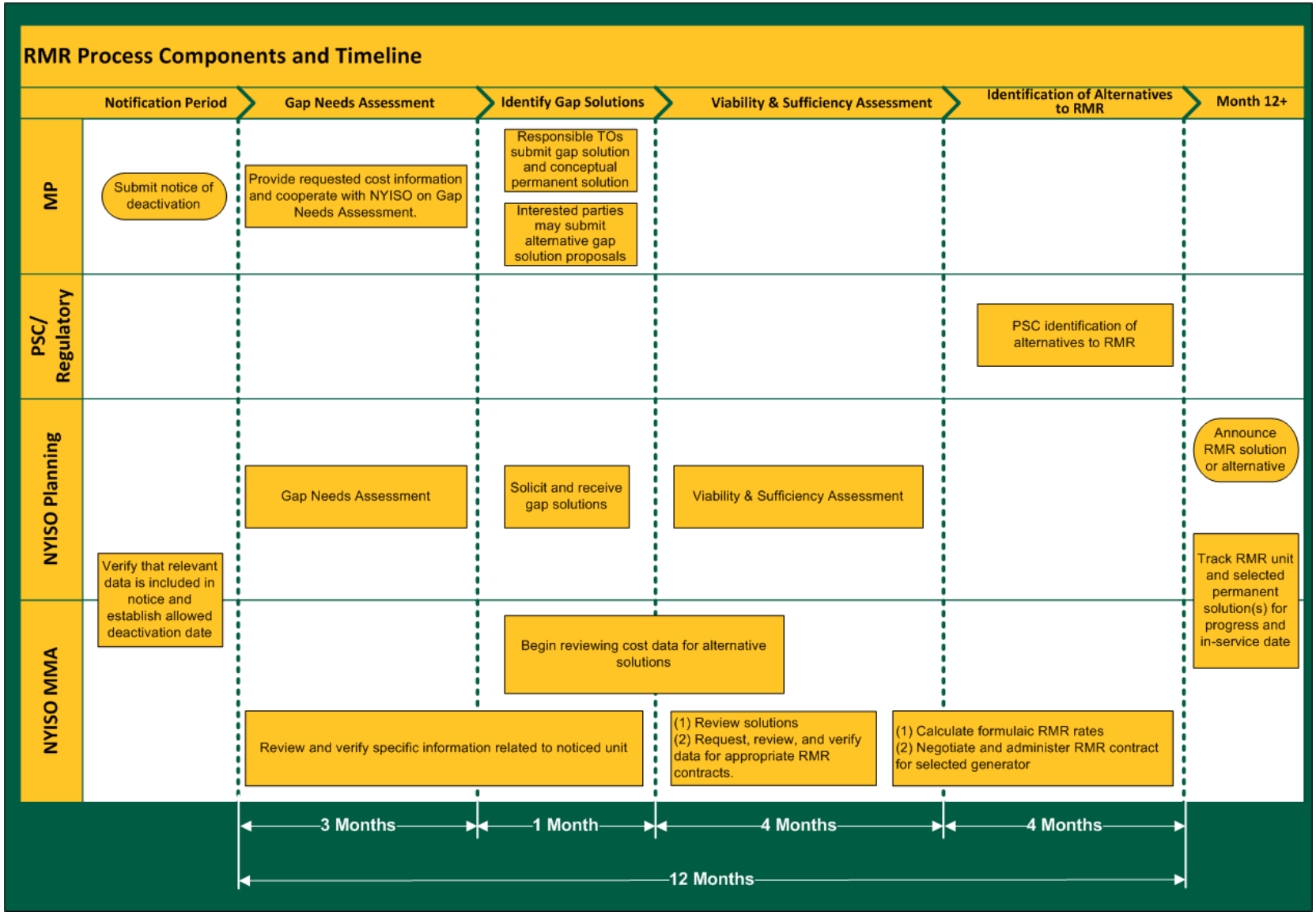
Notice Form: Data Reqts. (1)

- General Unit Information
- Planning Information
  - *Type of Deactivation (Mothball or Retirement)*
  - *Timing of Deactivation*
  - *Confirmation of ability to return Mothballed Generator to service if needed to address a reliability issue*

Notice Form: Data Reqts. (2)

- **MMA Information**
  - *Required to determine formulaic APR*
  - *Required to determine if deactivation is reasonable or to conduct physical withholding analysis*
- **Required Information May Include**
  - *Capital Expenditures necessary to keep the unit operational*
  - *Fixed Costs, including maintenance and capital improvement costs, that are necessary to provide RMR service*
  - *Existing contracts that address unit operation, revenue, and cost; and any agreements for sale or salvage*

12 Month Notice - Process Overview



Planning: Gap Needs Assessment (Months 1-3)

- Upon receipt of a complete generator deactivation notice NYISO, in coordination with Responsible TOs, will evaluate and determine the reliability impact of the noticed mothball or retirement
  - *NYISO evaluates Bulk Power Transmission Facilities (BPTF)*
  - *TOs evaluate non-BPTF. NYISO reviews and verifies TO studies*
- If initial study results indicate reliability criteria violations, alternative operating procedures and Local Transmission Plan updates will be considered
- NYISO will report the results of the Gap Needs Assessment to the NYSDPS and stakeholders

Planning: Gap Needs Assessment (Months 1-3)

- **If the Gap Needs Assessment concludes there is no Gap Reliability Need introduced by the noticed generator deactivation, the NYISO will notify the generator and stakeholders that the generator may deactivate**
  - ***The NYISO requires a minimum of 4 months after the submission of a complete notice to perform the Gap Needs Assessment and to review for possible physical withholding***
  - ***If a generator does not deactivate within one year after the 12 month notice period concludes, it must submit a new deactivation notice before it can mothball or retire***
  - ***If a generator rescinds the deactivation notice or does not deactivate within one year after the 12 month notice period concludes, the generator must reimburse the NYISO and TOs for costs incurred in carrying out the gap process, developing an APR for the generator and performing a physical withholding analysis during the 12 month notice period***

Planning: Solicitation of Gap Solutions (Month 4)

- If a Gap Reliability Need is identified that must be addressed before the next cycle of the Reliability Planning Process, NYISO will solicit Gap Solutions
- Possible Gap Solutions include:
  - *The noticed deactivating generator (eligible for RMR)*
  - *Mothballed or ICAP Ineligible Forced Outage (IIFO) generators that could return to service (eligible for RMR)*
  - *Gap Solution from Responsible TOs (required)*
  - *Alternative transmission solutions*
  - *Alternative demand-side solutions*
  - *New or market-based generation*
- Within the 30-day solicitation window Responsible TOs must submit preliminary permanent solution(s). The in-service date of the preliminary permanent solution(s) will be used to estimate the end date of the Gap Solution

Planning: Viability & Sufficiency Assessment of Gap Solutions (Months 5-8)

- NYISO will, in coordination with the Responsible TOs, evaluate and determine the viability & sufficiency of Gap Solutions to eliminate or shorten the need for an RMR
  - *Uses same viability & sufficiency concepts as in current Reliability Planning Process*
  - *The NYISO will report its findings to stakeholders*
- If there are no viable & sufficient non-RMR alternatives, an RMR is needed
- If there are viable and sufficient alternatives to eliminate or shorten the need for an RMR, the NYISO will refer the viable alternative solutions to the PSC. The PSC may identify transmission or demand-side alternatives to be implemented to address the Gap Reliability Need

Planning: PSC Identification of non-RMR Gap Solutions (Months 9-11)

- If there are viable and sufficient alternatives to an RMR, the PSC may identify transmission or demand-side alternatives to be implemented to address the Gap Reliability Need
- If alternative viable and sufficient solutions are identified by the PSC, NYISO will track those alternative solutions as part of the NYISO Project Tracking process
  - *If the identified alternative solutions eliminate the need for an RMR, the NYISO would not execute an RMR agreement*
- If an RMR is needed following consideration of alternatives, or if the PSC does not act on alternatives at least 30 days prior to the end of the notice period, the NYISO will execute an RMR agreement with a generator or ask the generator to file a rate for providing RMR service at FERC

MMA – Determining RMR Rate for Noticed Unit Deactivation

- **Months 0 - 4**
  - ***Consult with Unit Owner to determine unit physical parameters, cost and revenue information***
  - ***Perform physical withholding analysis in consultation with MMU***
- **Months 3 - 8**
  - ***Consult with owners of mothballed and IIFO units that may be able to address the reliability need to determine each unit's physical parameters, and avoidable cost information***
  - ***Review cost and other relevant information of proposed alternative (non-generator) Gap Solutions***

MMA – Determining RMR Rate for Noticed Unit Deactivation

- **Month 9**
  - ***Provide APR to viable RMR Unit(s)***
  - ***Provide opportunity for RMR Unit(s) to consider and accept the APR***
  - ***RMR Unit(s) that reject APR can file their own proposed rate at FERC under section 205 of the FPA at any point in the process***
    - **The MMU will comment on proposed rates that generators file**
- **Months 10 – 12**
  - ***If no alternative solution is authorized that fully resolves the need (see slide 12), the NYISO and a Generator that has accepted the APR will execute an RMR Agreement***
  - ***RMR Agreement is filed at FERC***

Selecting Unit for RMR Agreement

- **Resources submitting notices of deactivation will be required to submit data supporting the decision**
  - ***MMA and the MMU will evaluate the submissions to determine if the projections reasonably support the decision to retire or mothball***
- **During 3rd and 4th months of the notice period MMA will contact all currently mothballed and IIFO units that Planning determines may address the reliability need**
  - ***All such units that are available to return to service by the end of the 12th month notice period will be required to submit requested data to MMA***
- **NYISO will seek to execute an RMR agreement with the unit with the lowest Availability and Performance Rate**

Availability and Performance Rate (APR) for RMR Generator

- ***APR = Avoidable Costs + (Availability and Performance Payments)***
  - ***Avoidable Costs***
    - ***Costs that could be avoided if a unit were either (1) to cease supplying Installed Capacity and Energy for a period of one year or more while retaining the ability to re-enter such markets, or (2) to retire permanently***
    - ***May include accelerated cost recovery for necessary capital expenditures required to keep the unit operable for the term of the RMR agreement***
  - ***Availability and Performance payments***
    - ***These payments will be incentive-based and will not be paid if the unit fails to achieve availability and performance targets that are set forth in the RMR agreement***

Avoidable Costs Calculation

- **(+) Capital Expenditures necessary to keep the unit viable**
- **(+) Fixed Costs including maintenance and capital improvement costs that are necessary to provide the RMR services**
- **(+) Other costs that would be avoided if unit deactivated**
  - ***taxes, insurance, environmental, emission rights, fuel supply agreements, operational agreements, etc.***
- **(+/-) Any other relevant data or information**

Availability Payment

- **The NYISO is considering using the NERC Equivalent Availability Factor (EAF) Metric and the EFORd Metric as benchmarks for RMR unit availability**
  - ***EFORd is a measure of ability to respond when called to operate***
  - ***EAF is a measure of the overall availability of the resource relative to its DMNC***
- **NYISO proposes to assign greater weight to the Availability component of the incentive than the Performance component**

Performance Payment

- **The NYISO is considering using a Penalty Limit for Undergeneration (PLU) metric and a Compensable Overgeneration metric:**
  - ***The performance of a unit when dispatched is measured by calculating its:***
    - **Penalty Limit for Undergeneration**
      - This metric measures the units failure to follow base points (e.g., dragging or undergenerating)
    - **Compensable Overgeneration:**
      - Variable Cost compensation will be limited based on this metric

Participation of an RMR Unit in the NYISO-Administered Markets (1)

- **RMR units will offer into the Energy and Ancillary Service markets consistent with their NYISO-determined reference levels**
  - ***The NYISO's MMA Department and the MMU will work with the generator to update its reference levels to accurately reflect its variable operating costs before an RMR agreement becomes effective***
  - ***RMR Generators that ordinarily provide Voltage Support or Black Start services will be expected to continue to provide these services***

Participation of an RMR Unit in the NYISO-Administered Markets (2)

- The least cost RMR unit(s) selected to address a bulk or local transmission security reliability need will offer into the ICAP auction at a *de minimis* level (as a price taker)
- The least cost RMR unit(s) selected to address a resource adequacy reliability need will offer into the ICAP auction at their going-forward cost

Disincentives to Toggling between RMR and Market Rates

- **The RMR compliance filing will include anti-toggling provisions**
  - ***The NYISO is developing a "claw-back" rule that will apply to capital expenditure approved in the RMR contract and collected under the accelerated cost recovery***
    - **If a generator continues to participate in, or returns to the NYISO markets following the conclusion of its RMR Agreement, NYISO proposes to claw-back over time the capital that was advanced, less the unaccelerated depreciation that occurred during the term of the RMR**

Uneconomic Retention

- **The NYISO will address uneconomic retention of existing units in the RMR Compliance filing**
  - ***The NYISO is developing rules to address how units that receive RMR contracts will offer into the capacity market when the RMR unit is not the least cost, right-sized solution that was offered or proposed to address the reliability need***

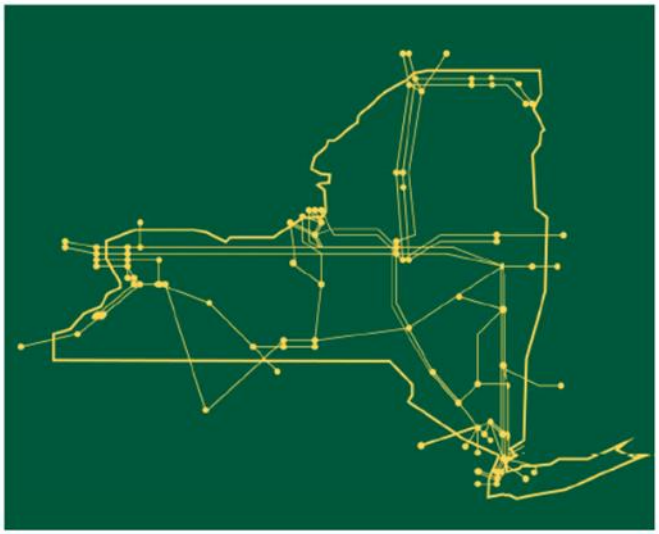
Long Term Reliability Planning

- **The impacts of generator deactivations will be evaluated in each RNA, and permanent solutions will be identified in each CRP.**
- **Generators that have issued a deactivation notice, including generators with an RMR, will be removed from the RNA base case. Temporary Gap Solutions will also be removed from the RNA base case.**
  - ***If the RNA does not identify the gap-related reliability needs, the RMR may be terminated and the temporary Gap Solutions may be removed.***
- **If Reliability Needs are identified in the RNA, the NYISO will solicit permanent solutions for the 10-year planning horizon.**
  - ***The continued need and term of the RMR would be reconsidered during the CRP based on the in-service dates of the identified and/or selected permanent solutions.***

Next Steps

- The NYISO anticipates returning to the ICAPWG/ESPWG on July 23
- The NYISO will consider input received during today's meeting while preparing the tariff provisions and *pro forma* RMR agreement
- Stakeholders can also provide additional comments in writing to deckels@nyiso.com
  - *Comments should indicate whether or not the stakeholder is requesting that they be posted with the meeting materials*

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.



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