

Q&A Related to Pending Utility Solicitation of Energy Storage Proposals

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Questions from Technical Conference

- Q1 How should a developer factor the NYSERDA incentive into their RFP response?
- A1 Bidders should bid their best contract price. The NYSERDA incentive will combine with utility funding to pay the contract price. There is no anticipated separate second source of funding from NYSERDA.
- Q2 What is being solicited and what is being awarded through this RFP process?
- A2 Each of the Joint Utilities are soliciting for energy storage scheduling rights over a seven-year period. The utility may dispatch the units by: (1) bidding the unit directly into the NYISO markets and dispatching them in a way to lower procurement costs; or (2) dispatching the unit for localized grid needs. In return for the dispatch rights, the winning bidders will receive a fixed upfront payment, or a stream of annual payments as specified in the upcoming RFPs.
- Q3 What prior experience do prospective bidders need to demonstrate and can they respond as a team instead of as an individual entity?
- A3 Bidders need to have experience developing a commercial-sized / utility-scale battery storage system within or outside of NY. In addition, they need to demonstrate the capability to conduct business in NY including the ability to register with and participate in NYISO markets, as well as an understanding of and ability to comply with local ordinances and zoning laws relative to the siting of a battery storage system. Bidders can bid individually or as part of a team provided the proposal clearly identifies the team and who will perform specific roles (e.g., developer, owner, operator, market participant, etc.).
- Q4 Are the utilities looking for four-hour resources or longer?
- A4 The bids are anticipated to be for systems that can provide the rated capacity for four hours, but that could vary by utility based on system needs which will be described in detail in the RFPs.
- Q5 For the Bulk Power use cases, what is the bidders' Installed Capacity obligation within the NYISO markets?



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- A5 The winning bidders will be responsible for qualifying the contracted MW level into the NYISO capacity market and to enable submitting corresponding bids into the NYISO's Spot Market Auctions throughout the duration of the contract period. The bidders will not be responsible for any impact on the actual amount of Unforced Capacity provided based on pending NYISO rules on energy storage or, to the extent the storage resource is subject to the NYISO's minimum offer price rule, whether the offer floor price clears in the Spot Market Auctions.
- Q6 How does the requirement to execute an interconnection agreement impact eligibility?
- A6 The winning bidders are responsible for obtaining and executing interconnection agreements for their projects. Energy storage projects that have executed an interconnection agreement prior to the Commission's December 13, 2018 Order will be ineligible to participate in the utility RFPs. ***Note this is a change from some of the utilities' Implementation Plans which indicated interconnection agreements had to be executed after February 11, 2019.***
- Q7 What NYISO markets will the Bulk Power systems be required to participate in?
- A7 Some RFPs will require winning bidders to participate in the Installed Capacity ("ICAP"), energy, and 10-minute synchronized reserve markets. For energy and 10-minute reserves, the resource will be required to make offers into the NYISO's day ahead market with bids carrying into the real-time markets. Any additional beneficial markets that align with the localized grid needs will be defined in the upcoming RFPs.
- Q8 Will the utility optimize the resource in the real-time markets?
- A8 Unless scheduled for specific distribution requirements, it is anticipated that the utilities will use the NYISO to perform optimization in both the day ahead and real-time markets based on submitted bids.
- Q9 Will the utility consider participation in other NYISO markets?
- A9 Yes. The utility specific RFP will indicate the market participation plan. The winning bidder(s) may propose participation in other markets (e.g., Regulation).
- Q10 How will the utilities share market revenues with the winning bidders?



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- A10 Based on feedback at the March 28th Technical Conference, the utilities are no longer proposing revenue sharing with winning bidders during the contract term. **Note this is a change from the utilities' Implementation Plans which indicated sharing some of the realized NYISO market revenues.**
- Q11 Will the utilities extend the 2022 in-service date for awarded projects due to concerns about the time to obtain a NYISO interconnection?
- A11 The utilities cannot extend the in-service date of 2022 set by the Commission. The utilities, however, would support a joint request with a winning bidder to the Commission for an extension if a project's interconnection is delayed. Examples of other potential delays that could arise are the NYISO timeline to go through the class year process or the time to complete required system upgrades for the project's interconnection.
- Q12 What is the utilities thinking about differences in timing of in-service dates when reviewing RFP proposals? Will a project that is expected to go in service earlier receive greater weighting than a similar project that will go in service later?
- A12 There is no anticipated consideration of timing other than the 2022 deadline unless otherwise specified in the draft RFPs.
- Q13 Aside from Con Edison, would utilities consider installations larger than 10 MW?
- A13 Yes, the implementation plans state at least 10 MW of energy storage will be procured. Minimum capacity requirements will be specified in the RFPs.
- Q14 Aside from Con Edison, would utilities provide the ideal locations of the storage projects ahead of the RFP issue?
- A14 Central Hudson is looking at areas defined their 2018 DSIP Update. Orange and Rockland has already provided locational maps. NYSEG/RG&E are in the process of completing a bulk system study that may provide beneficial locations which to the extent possible will be released ahead of their RFP. To avoid any confusion and risk of change to locations that are currently being analyzed, National Grid will not be providing locations ahead of its draft RFP.
- Q15 What operational characteristics are required for the energy storage asset?
- A15 The detailed operational characteristics will be specified in the RFPs



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Q16 When will payments to the developer be made, after contract is executed or once the energy storage project is operational?

A16 Payments will start when the energy storage project is in service.

Q17 Do the bidders need to include forecasted NYISO revenue in their bids?

A17 Consistent with the change in revenue sharing noted in A10, the utilities will retain all NYISO revenues for the initial seven-year period. Thus, the bidders should consider NYISO revenues only for the period beyond the seven-year contract.

Q18 Will the utilities conduct additional RFPs beyond this initial RFP offering?

A18 The Commission's Storage Order permits the utilities to conduct additional storage solicitations "as necessary." (p. 54)

Q19 Will the utilities share details regarding the bid ceiling methodology for the sake of transparency?

A19 As explained at the Technical Conference, no.

Q20 How will the utilities factor in any upgrades that may come from the interconnection studies?

A20 The interconnection costs are the responsibility of the winning bidder. The utility will consider any further system upgrades as part of an evaluation related to overall project viability and timing.

Week of 4/15 – 4/19

Q21. Slide 9 of the Joint Utilities of New York "Energy Storage Deployment Program" presentation dated March 29, 2019 indicates that one of the focuses of CECONY, O&R, NYSEG and R&G is a "round trip efficiency >85%". Would the utilities please clarify the rationale for such an arbitrary requirement, and comment on how they would remedy the reduced competitive and cost-effective outcomes for procurement where such an efficiency threshold severely restricts eligible storage technologies?



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- A21. The Energy Storage Roadmap assumed a round trip efficiency of 85% across all use cases analyzed. The cited utilities believe this assumption is reasonable and prefer storage technologies capable of achieving this efficiency.
- Q22. Is there scope in this process to consider the relative pros and cons of including an efficiency threshold in the Program, including how it contributes or impairs the Roadmap objective of ensuring “a range of storage solutions will be deployed to meet customer and system needs,” with the potential outcome of maintaining, changing or removing such a threshold?
- A22. The utility storage solicitation is only one element of the State’s overall storage strategy. The retail and bulk storage incentives described in NYSERDA’s March 11th Energy Storage Market Acceleration Incentives Implementation Plan will also help produce a range of storage solutions to meet customer and system needs.
- Q23. Is the reference to a round trip efficiency intended to be a minimum RFP requirement or an evaluation preference and if a preference, how will it be evaluated against other operational characteristics of the project (for example, the ability to provide synchronous inertia)? Other energy storage technologies can provide significant, differentiated benefits (e.g., longer duration, longer life, no degradation, synchronous inertia, lower cost to rate payer) but may have lower round-trip efficiencies. As such, will Joint Utilities consider other means of ensuring that “a range of storage solutions will be deployed to meet customer and system needs”?
- A23. Both requirements and evaluation criteria will be specified in the utilities’ RFPs.
- Q24. Are the utilities able to provide further details regarding potential re-contracting after the initial seven-year term? Revenue expectations from re-contracting has the potential to significantly impact bid pricing. We note that longer-term certainty matched to the project life of longer life technologies can lower the cost to the rate payer.
- A24. The utilities have not made any determinations regarding re-contracting beyond the seven-year period.
- Q25. Will the RFPs provide a forward wholesale market price curve or price spread to be used by all developers to run valuation for the energy arbitrage? Likewise, for all other contemplated revenue streams. Or is it up to each developer to use its market view. (JU Storage Solicitation Slide #8 of 18, bullet point #1)
- A25. No. Please see the responses to Question 10 and Question 17.



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- Q26. Should an asset need to transfer equity and or operational ownership during the seven-year contract period, will it require approval from the interconnecting Utility? (JU Storage Solicitation Slide #7 of 18, bullet point #4.)
- A26. The winning bidder will retain ownership of the asset for the duration of the contract. As noted in the response to Questions 2 & 3, the utilities are soliciting bidding and scheduling rights for energy storage over a seven-year period which can come from an individual entity or a specific team of respondents. Any restrictions on changes in ownership or control of the project will be specified in the RFP and/or contract.
- Q27. Any true up mechanism for interconnection upgrade cost for bids that are submitted before an interconnection study is complete? Or will the RFP require that this study and cost be complete before bid submittal? (NYSERDA Presentation Slide #6 of 16, bullet point #3a)
- A27. As described in the utilities' response to Question 20, interconnection costs and associated upgrades are the responsibility of the winning bidder.
- Q28. Will there be a separate contract with NYSEDA or is its grant funding distributed through the RFP's seven-year Contract with the offtake Utility (in our case National Grid)? (NYSEDA Presentation Slide #8 of 16, bullet point #1)
- A28. The details of the incentive arrangement are currently being developed.

Week of 4/22 – 4/26

- Q29. Regarding the need for site control, can utilities provide more details on what contracts they would expect to be in place in order to qualify? (i.e., Lease signed and memorandum filed, Purchase Option with a fully negotiated purchase contract, Lease option with a form lease, etc.)
- A29. The listed options are all suitable ways of demonstrating site control. Any specifics may be identified in the utilities' RFPs.
- Q30. Con Edison mentioned it would be targeting five zones for deployment of energy storage projects. How much weight is given to projects within these zones? Would the procurement be exclusively for those zones and if not, would there be a continuum of value for projects adjacent to these zones to significantly far away? How much value is assigned to this aspect?
- A30. Projects located and electrically connected in specific load areas will be preferred in bid evaluations as described in the utility implementation plans and 3/29 stakeholder conference.



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Final preferred load zones will be confirmed in the RFPs. No specific weights or values will be provided to bidders. The procurement is not exclusively for projects in the preferred load zones.

Week of 4/29 – 5/3

- Q31. Will the RFP specify a run pattern for the asset? E.g. “the battery will perform one cycle per day, 300 days per year.” If you can’t be this specific in the RFP, what parameters will you provide?
- A31. Detailed operational characteristics will be specified in the utilities’ RFPs. Projects should have the capability for one complete cycle per day.
- Q32. Is it possible to negotiate payments for additional services (like regulation) in writing before the conclusion of the RFP? One option for this would be to run a two-step RFP, first to “downselect” qualified bidders, then to negotiate final offers. Our reasoning is it would be difficult for bidders to price in additional margin if we only have a verbal agreement that we might be able to capture this margin if we are selected. Bidders need more certainty than that if Con Edison or the other JUs are dispatching the asset.
- A32. Bids will be evaluated solely upon the evaluation criteria outlined in the respective RFPs and must be fully responsive to the RFP requirements. After winning bidders are selected, utilities may be open to negotiating for additional services at their discretion, which must be severable. There will not be a two-step RFP.
- Q33. We understand revenue sharing is no longer a component of the RFP but there is still discussion around the general structure of an upfront + ongoing payment. Would Con Edison or the other JUs be open to an ongoing payment set at a \$/cycle value? A \$/cycle VOM payment is incentive compatible and would help bidders better value the ongoing O&M portion of the project.
- A33. Any payments during the term of the contract, whether fixed annually or tied to actual operations, will be specified in the individual utilities’ RFPs.

Week of 5/13 – 5/17

- Q34. This question and Q35 are for the utilities focusing on NYISO wholesale market value streams (CECONY, O&R, NYSEG, RG&E): Will these utilities also include the value of distribution-level benefits when evaluating distribution-tied bids? If so, how will these distribution-level value streams be calculated? If not, would it not be counter to REV and “stacking benefits” principles



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- to value distribution-tied storage only for wholesale contributions and not at all for distribution-level benefits?
- A34. The stated utilities will include the value of distribution benefits upstream of distribution-connected resources. Specific valuation methods will not be publicly disclosed.
- Q35. Will the utilities specified in Q34 consider distribution-tied bids in Preferred Load Areas that plan to apply for NYISO Energy Resource Interconnection Service (ERIS) only and not Capacity Resource Interconnection Service (CRIS)? In other words, will they consider a bid offering high-value distribution-level benefits, de facto peaker offset in a targeted TLA at full utility control, and NYISO Day-Ahead/Real-Time Energy and Ancillary Services market revenues (e.g. 10-min Spinning Reserves, Regulation Service, Voltage Support Service, Black Start) but not NYISO Capacity market revenues?
- A35. All resources must obtain Capacity Resource Interconnection Service and be eligible to bid into the NYISO capacity markets.
- Q36. While it is technically feasible to get to Stage 9 of the NYISO interconnection process in 2019 (as NYSERDA proposes), NYISO has recently reiterated in its Order 841 responses to FERC and in presentations at Con Edison Energy Storage Day that “dual participation” rules and redesign of Class Year/Interconnection Queue/CRIS application procedures are not to be formalized into tariffs till late 2019 or 2020, likely after the proposed bulk storage RFP deadlines. NYISO interconnection experts in fact encouraged storage applications to “go distribution” via the utility process in the near- to mid-term. This prompts two questions:
- a. If distribution-tied bids can go through the Large DG utility interconnection process and meet the proposed 2022 in-service date for utility dispatch purposes, can they wait to apply for NYISO wholesale market participation (ERIS and CRIS rights) till after these outstanding rules and redesigns are finalized, even if it could mean deferring NYISO revenues till 2024 or later?
 - b. Unlike Question 11, which asks for an extension of the 2022 in-service date (and thus delay of upfront payment), perhaps this compromise would allow JU/developers to meet PSC mandate while mitigating stakeholder risk?
- A36. Storage projects will need to meet the 2022 in-service date, including participation in the NYISO wholesale markets specified in the utility RFP at that time.

