

RE: Case 20-E-0197; Comments on the Joint Utilities Coordinated Grid Process Proposal

Dear Secretary Phillips,

The Clean Energy Parties (CEP)<sup>1</sup>, a coalition of clean energy trade associations and member companies active in New York, submit the following comments in response to the Joint Utilities Coordinated Grid Planning Process Proposal submitted on December 27, 2022, in the above referenced proceeding.

### **Background and executive summary**

On September 9, 2021, the Public Service Commission (PSC) issued an Order on Local Transmission and Distribution Planning Process and Phase 2 Project Proposals (Phase 2 Order), advancing New York's progress towards meeting the climate targets established in the 2019 Climate Leadership and Community Protection Act. Within the Phase 2 Order, the Commission directed the Utilities to "consult with Staff, NYSERDA, and the NYISO and to develop and file a coordinated power grid planning process." The December 27, 2022, Joint Utilities proposal builds on their initial framework filed December 17, 2021. The objectives identified by the Commission include improved coordination of system studies conducted by the Utilities and NYISO, improved integration with NYSERDA renewable generation and storage procurements, and improved forecasting of renewable generation development. The Order goes on to say that:

"The Commission further finds that a properly coordinated planning process must meet certain minimum objectives. It must support all existing grid planning needs and criteria; it must identify upgrades at all levels needed to ensure the timely and cost-effective attainment of CLCPA policy goals; and it must provide accurate and actionable information to market actors, policy makers, and other key stakeholders. "2

The CEP have reviewed the Utilities' Proposal and while we agree that the updated CGPP proposal takes significant steps beyond the initial proposal and towards meeting the Commission's goals, we find that several areas lack sufficient detail to provide confidence that the CGPP will reach its full potential. Further, given that the proposed process will take 3 years, and the construction of the upgrades it identifies as necessary will come with their own significant lead times followed by multi-year siting and

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<sup>1</sup> The CEP is a group of aligned commenters including the Solar Energy Industries Association, the New York Solar Energy Industries Association, New York Battery Energy Storage Technology Consortium, the Coalition for Community Solar Access, Vote Solar, the Alliance for Clean Energy New York, and Advanced Energy United. Our perspective is informed by on-the-ground experience developing clean energy projects including the expertise of the following participating companies (among others): New Leaf Energy, Ecoxy Energy, US Light Energy, Pivot Energy, and Oya Renewables.

<sup>2</sup> Order on Local Transmission and Distribution Planning Process and Phase 2 Project Proposals, September 9, 2021 p. 19 <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={6A0FAE50-5710-42DD-969A-5116171E2457}>

construction of renewable generation, success in achieving the 2030 CLCPA goals depends on getting it as right as possible the first time. In order to fully realize the above stated objectives and to ensure that the CLCPA goals are met, the CEP recommend several improvements to the updated proposed CGPP process including:

- **Accelerate the CGPP process and distribution planning process, wherever possible.**
- **Fix the existing distribution planning process.** Use the CGPP to address timeliness, standardization and transparency within the distribution planning process while keeping distribution planning separate and more frequent than the CGPP.
- **Create a more structured and participatory Energy Policy Planning Advisory Council (EPPAC).** Establish a charter, clearly assign roles and responsibilities including a third-party facilitator, and create a decision-making process (CEP recommends consensus-based decision making).
- **Ensure energy storage is fully considered within the CGPP** Storage must be considered both as a part of the bulk system as well as a component of the proposed solution in the form of non-wires alternatives (NWA) or Storage-As-a-Transmission Asset (SATA)
- **Stage 1** CGPP scenario development should take a more holistic approach by identifying the least cost system build-out to meet the needs of the grid, incorporating both generation expansion for distributed energy resources as well as electrification-related demand growth.
- **Stage 2** The Network Modeling stage of the CGPP requires substantial alignment with distribution system planning to ensure consistent and appropriate decisions are made at the distribution level, as those decisions have the potential to significantly impact CGPP modeling outcomes.
- **Stage 3** The CGPP should identify the need for robust and consistent processes for the disaggregation and study of distribution-connected resources, which should subsequently be reflected within utility DSIPs. Further, assuming simultaneous dispatch of all renewable generation is problematic and fails to reflect the actual expected performance of renewable resources.
- **Stage 4.** There should be a robust process to compare solutions against all scenarios and ascribe value to those with tightened cost estimate thresholds, multi-value benefits, and implementation timeframes.
- **Stage 5.** This stage requires additional consideration of distribution-connected resources and their respective capabilities to truly build a holistic “least cost” portfolio of solutions.

- **Stage 6.** This stage requires a re-emphasis on critical reliability needs noted as “secondary” to the process.

### **Accelerate grid planning wherever possible.**

The CEP strongly encourage the Commission and Department of Public Service staff (staff) to seek opportunities to accelerate grid planning processes wherever possible. The existing CGPP proposal is understood to neglect the benefits of incorporating Multi-Value CLCPA solutions that simultaneously consider reliability, resilience, safety, and existing asset conditions. CEP supports Consolidated Edison Company and Orange and Rockland Utilities recommendations<sup>3</sup> requesting the commission to direct utilities develop further processes and refinements to account for the time sensitive nature of such system needs. The utilities recognized the enormous ratepayer benefit of dual or triple purpose projects and identified this gap in their revised proposal and requested directions to develop further process accounting for emerging needs.

Thus, CEP recommends the Commission consider reducing the CGPP cycle from 3 years to 2 years to effectively incorporate Multi-Value Projects and near-term distribution needs. This could be achieved by shortening the study process to 18 months with a 6-month decision making process for the Commission. Considering multi-year lead times for traditional upgrades as seen in recently approved Areas of Concern (AOC) projects, this timely identification of system needs also has the potential to reduce excessive rate payer risks that arise from near term congestion and curtailment of CLCPA resources.

### **Distribution Planning and Integration into CGPP**

In the revised CGPP proposal, the utilities state that the proposal “represents a significant evolution of existing LT&D planning processes to align analyses conducted statewide [ ].”<sup>4</sup> Over the past year, much discussion has taken place during nine technical conferences about the importance of integrating bulk transmission studies with LT&D analyses. Throughout those discussions, stakeholders have raised concerns regarding the effectiveness of current distribution planning practices and their ultimate integration into the CGPP. The technical conferences established an interim distribution planning working group which indicated the need for significant modifications to existing distribution planning to ensure distribution planning investments were sufficient to meet CLCPA objectives while considering enormous rate payer benefit and generation needs.

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<sup>3</sup>Comments of Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc. on Actions Taken to Implement the Accelerated Renewables Act, February 28, 2023

<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BF0EF9986-0000-C31B-991C-0C2A808B76A2%7D>

<sup>4</sup> Coordinated Grid Planning Process Proposal submitted by the utilities on December 27, 2022

<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={917A0496-FDEE-45D1-93BF-5E0EE3AF5A83}>

The CEP continues to have concerns about the limited consideration of distribution planning needs in the revised utility proposal. Distribution planning can and should occur more frequently than every 3 years, so the CEP highly recommends a separate distribution planning process that integrates into the CGPP enabling utilities to develop additional processes to address CLCPA objectives. However, current distribution planning processes are not working effectively towards meeting New York’s clean energy goals.

The Utilities point to existing processes including the Distribution System Implementation Plans (DSIPs) as the appropriate forum for distribution planning. To date, the DSIPs: do not provide an opportunity for robust stakeholder input; have not provided sufficient or uniform information in a manner that can be utilized by clean energy developers; and outline many efforts that the CEP agree would be beneficial but don’t come to timely fruition. The CEP recommends utilizing the CGPP as a centralized means to address the issues surrounding timeliness, standardization, and transparency to ensure that the resulting bulk and LT&D upgrades are complementary to distribution system upgrades. Misalignment of these significant investments will result in slower and more costly renewable energy deployment as well as higher rates for utility customers.

The CEP recommends the following minimum guiding elements be included within the CGPP in order to inform updates to individual utility DSIP updates:

- Robust evaluation and alignment of load and DER adoption forecasts being used in Stage 1 for future DER Development and investment selection.
- A clear feedback loop between constraints being identified in Stage 3 Local Assessment and the near-term and long-term solutions being proposed by utilities and communicated through a transparent distribution planning process.
- A transparent and consistent process to communicate regarding the “sufficiency,” timing, and implementation status of NWAs and other alternative solutions throughout the CGPP process.

The CEP is aware that the PSC recently issued a request for comment on DSIPs. We appreciate that opportunity to provide feedback and intend to offer a much more detailed set of recommendations for improving distribution planning for that docket. However, we hope that a final Order issued by the Commission on the CGPP provides guiding principles on the integration of distribution planning to ensure that we can optimize the value of this significant initiative.

### **The Energy Policy Planning Advisory Council (EPPAC)**

The CGPP includes the Investor Owned Utilities, NYISO, Technical Consultant(s), DPS staff and the Energy Policy Planning Advisory Council (EPPAC). The JU proposal infers that the EPPAC plays a substantial role in the process, however its makeup, decision making process, and ability to influence outcomes are not specified in the utilities’ proposal. Simply transferring the 2022 stakeholder process steering committee (Steering Committee) is not sufficient to ensure

effective collaboration. The proposal states that “[t]he Energy Policy Planning Advisory Council will represent stakeholder interests from across New York State. It will provide input and feedback on assumptions and the technical approach used in the CGPP analysis”<sup>5</sup> but does not sufficiently articulate how the EPPAC will accomplish its tasks. Further, the structure of the proposal places substantial responsibility on the EPPAC for the ultimate product, without empowering the EPPAC to meaningfully influence the process.

CEP recommends that the EPPAC be assigned the following (non-exhaustive) list of responsibilities:

- Advise utility system planners on the development of a set of generation build-out scenarios (as proposed by JU)
- Specifically identifying model inputs
- Provide extensive, iterative input on various model sensitivities
- Establish methodology for zonal disaggregation from generation buildout scenarios
- Engage and provide input on how the utilities will evaluate solutions across multiple scenarios.
- Evaluate how non-traditional and advanced technology solutions will be considered
- Provide input on the value of optionality in the probabilistic analysis with multiple scenarios

An effective, collaborative input process is essential to the success of the CGPP. Given this, the thoughtful formation and structuring of the EPPAC is a priority of the CEP. As noted in the Joint Utilities proposal, the steering committee was convened for a series of nine technical conferences. The conferences were largely report outs from the utilities, consisting of the utilities sharing slides and soliciting on-the-spot feedback. While helpful in that they illustrated the JU’s approach to date and the proposed path forward, the technical conferences in no way constituted a meaningful collaboration resulting in cross-training or timely data sharing. As proposed, the role of the EPPAC participants is largely advisory, with no expectations placed on the EPPAC to reach consensus or otherwise resolve disagreements in a way that ensures due consideration is afforded to all parties. Rather, as written, the JU has the ability to accept or disregard EPPAC input at their discretion. The CEP envision a more iterative and participatory EPPAC framework than that put forth by the JU. For these reasons, the CEP recommend the following:

- **Consensus based decision making structure.** The council should operate along the lines of a consensus-based working group. The working group should establish a charter that defines: the scope of work (i.e., the deliverables needed from the working group that will feed into the CGPP); consensus (i.e., the required number of council members needed to

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<sup>5</sup> Coordinated Grid Planning Process Proposal submitted by the utilities on December 27, 2022  
<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={917A0496-FDEE-45D1-93BF-5E0EE3AF5A83}>

approve a deliverable); roles and responsibilities recognizing the unique expertise and access to certain data of each council member.

- **Facilitation of the EPPAC.** In order to assist staff throughout the CGPP, CEP strongly recommends third party facilitation of the EPPAC, managed by DPS and NYSERDA. Third party facilitation by an entity with grid planning expertise will help ensure meaningful engagement by all parties and subsequent support for the outcomes of the process. Further, a third-party facilitator alleviates other council members' responsibility, including DPS and NYSERDA Staff, for administering the stakeholder sessions (e.g., setting meetings, taking and distributing notes, setting agendas). The third party facilitator could also assume responsibility for holding members accountable to the charter, which would enable the state agencies to participate as council members not arbitrators.
  - Alongside the facilitator (could be the same as the 3rd party facilitator), CEP recommends engaging a technical consultant managed by staff. The JU's propose that the utilities serve as the technical consultant to the EPPAC. While the utilities have much of the data and technical expertise, it is important that one or more technical consultants are a part of the entire process in order to ensure an unbiased review of the options and proposals put forth. In addition to CEP and JU technical consultants, CEP recommends that the EPPAC have access to a technical consultant under staff's direction tasked with education of the parties on mutually agreed upon issues of concerns as well as review and analysis of proposals presented to the EPPAC.
- **Formal Recommendations to be Issued by the EPPAC.** CEP recommends that the EPPAC be tasked with drafting and filing formal recommendations to capture the process and input of the members on the record. In keeping with the CEP recommendation for the EPPAC to operate as a consensus-based working group, these formal recommendations would need to achieve consensus as defined by the EPPAC charter.

### **The role of Energy Storage in the CGPP**

Energy storage systems will play a substantial role in the grid of the future both as a dispatchable multi-purpose resource and for ancillary grid services. Storage must be considered both as part of the bulk system as well as a component of the proposed solution in the form of non-wires alternatives (NWA) or Storage-As-a-Transmission Asset (SATA). The current proposal does not appear to directly consider storage in either scenario, and there is no discussion of any changes in needs for ancillary services, balancing or reserves as a result of increasing variable generation. This should be discussed more expressly within CGPP scope and scenario development, as it may impact other interconnection and operational assumptions, especially for multi-purpose resources like energy storage. Energy storage is being considered in the Advanced Technology Working Group's Energy Storage Task Force; however, it is critical that energy storage solutions are fully and properly considered in the main CGPP process and not unduly delayed.

In addition, it is critical that the operational assumptions applied to distribution-connected storage within the CGPP scenario process be applied consistently within the distribution interconnection study process. Energy storage resources applied to operate for system peak capacity within the CGPP are likely to be studied for interconnection as if they are instead fully charging during system peak times. Inconsistency in assumptions has the potential to block, delay, or increase interconnection costs for distribution-connected resources and negatively impact the execution of the investments identified within the CGPP. To the extent this requires communications or override control by the distribution utility to ensure system reliability, such enhancements to utility operational and control capabilities should be considered as a product of the CGPP and related stakeholder engagement opportunities as well.

The State's Energy Storage Roadmap<sup>6</sup> appropriately recognizes the important role that energy storage can play as a transmission asset and as an alternative to traditional wires alternatives. NY-BEST's recent study, "*Storage as Transmission Asset Market Study White Paper on the Value and Opportunity for Storage as Transmission Asset in New York*,"<sup>7</sup> illustrates that SATA is a cost-effective tool that can increase transmission capacity and integrate renewables in New York State. In order for the State to meet its storage targets, it is important that we coordinate across various state initiatives and incorporate storage as an NWA and SATA into the CGPP process.

Energy storage projects can be competitive as an alternative to traditional transmission lines and can provide additional benefits. SATA projects typically have a smaller land disturbance and shorter development, permitting, and construction timelines and energy storage can also be added incrementally to address uncertainties in transmission needs. Beyond increasingly utilizing existing transmission networks, energy storage can be utilized to address low or uncertain load growth scenarios and spiky peak-shaving applications to mitigate grid congestion, reduce renewable curtailment, and defer the uncertain need for new power lines. Storage can help to cost-effectively unbundle renewables across the state, from Canadian hydro resources to Long Island offshore wind resources.

To date, SATA is notably absent from state level transmission planning. At the state level, there have been numerous recent transmission approvals including the \$4.4 billion of utility Phase 2A transmission projects authorized by the PSC on February 16, 2023. While CEP fully recognizes the critical need for transmission and distribution system upgrades, the lack of a meaningful approach to SATA is potentially creating significant unnecessary costs to ratepayers. If allowed

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<sup>6</sup> "New York's 6 GW Energy Storage Roadmap: Policy Options for Continued Growth in Energy Storage," submitted by Staff of the New York State Department of Public Service and the New York State Energy Research and Development Authority (NYSERDA) on December 28, 2022

<sup>7</sup> *Storage as Transmission Asset Market Study White Paper on the Value and Opportunity for Storage as Transmission Asset in New York*, prepared for NY-BEST by Quanta Technology, January 2023, [https://cdn.ymaws.com/ny-best.org/resource/resmgr/reports/SATA\\_White\\_Paper\\_Final\\_01092.pdf](https://cdn.ymaws.com/ny-best.org/resource/resmgr/reports/SATA_White_Paper_Final_01092.pdf)

the competitive opportunity, SATA can provide value to New York ratepayers and consideration of SATA within the CGPP process is vital. It is important to note, also, that the greatest opportunity for SATA to provide cost effective transmission services is if independent developers are allowed to compete.

To ensure the incorporation of SATA in transmission planning as well as competition, CEP recommends that the utilities be directed to modify the Coordinated Grid Planning Process (CGPP) proposal to ensure the third-party developers have meaningful opportunities to provide storage as transmission/NWAs to utilities to meet local transmission needs arising from the process to ensure the lowest cost and greatest benefits to ratepayers.

## **Stage-Specific Process Design Comments**

### **CGPP Stage 1 Data Collection, Determination of Build-Out Scenarios**

#### **EPPAC & Data Requirements Scope**

- See comments above regarding Energy Policy Planning Advisory Council (EPPAC) design, meaning of “consensus” as it relates to selecting 3 scenarios, and role in data provision.
- In order to make EPPAC participation viable for stakeholders, the CEP suggest the EPPAC primarily play a review and feedback role rather than a data provision role. Individual stakeholders expected to contribute significant source data should be identified explicitly.
- The CEP request a more specific list of data sets or inputs that the Utilities expect to collect from the Stakeholders, or other sources, when they state, “The Utilities will use data collected in this stage to be specified in a capacity expansion model.”<sup>8</sup> E.g.,
  - Data from NYISO, NYPA and LIPA on load shapes and forecasts?
  - Renewable energy resource maps, costs, and expected areas with high development potential from NYSERDA (building on Clean Energy Hubs to identify areas with interest / pent up demand).

#### **Build Out Scenario Selection, Inputs and Sensitivities**

The development and selection of the scenarios and sensitivities within Stage 1 is perhaps the most critical element to the success of the overall CGPP, as it will inform the models and subsequent generation, transmission, and distribution investments. The approach described within the JU proposal focuses primarily on the least-cost generation buildout implemented through a zonal capacity expansion method at the bulk system level. The zonal capacity expansion method focuses on “large scale clean energy resources”. Rather than being part of the

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<sup>8</sup> Coordinated Grid Planning Process Proposal submitted by the utilities on December 27, 2022, pg. 16 <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={917A0496-FDEE-45D1-93BF-5E0EE3AF5A83}>



least-cost build out plan, deployments of distribution-connected DER are “assumed” and based only on utility forecasts.

Rather than identifying the least-cost generation build-out and penciling in distribution-connected resources after the fact, the CGPP scenario development process should take a more holistic approach by identifying the least cost system build-out to meet the needs of the grid, incorporating both generation expansion for clean energy resources as well as electrification-related demand growth. This is particularly relevant at the distribution level, where deployments of renewable generation can provide additional load-serving capacity on LT&D assets by offsetting local loads. Stage 1 of the CGPP should proactively identify the optimal and cost-effective deployment levels of distribution-connected resources to achieve these benefits as part of a complete consideration of “least-cost”. For locations where the forecast generation growth is lower than the identified levels, projects and programs should be identified for consideration within subsequent stages of the CGPP process.

The utility forecast process is also a critical element of the scenario development and allocation process. The JU’s proposal provides significant latitude to utilities’ engineering judgment and forecasts to inform the magnitude and location for distribution-connected resources within Stage 1 of the CGPP. Given that stage 1 specifically does not include existing constraint locations when considering new build-out, CEP believes it is critical that such forecasts go beyond basic trend-line analysis based on historical data to identify the expected growth in applications and interconnections that would occur if existing headroom constraints were not blocking growth. There are many locations already within New York where there is no existing headroom for distribution interconnections and where new applications cannot be submitted. At such locations, projections based on historical data will significantly underestimate actual interconnection interest and constructability. Forecasts utilized must capture not only historical development but also identify the pent-up demand for interconnection in such areas in order to accurately understand which areas are most likely to see interconnection growth and would benefit the most from headroom improvements.

Recognizing uncertainty, the proposed process develops multiple generation scenarios. CEP notes that load growth has similar uncertainty with the electrification of building and transportation potentially occurring at different rates in different regions and choices being made for the location of large additional loads like EV fast charging complexes. Multiple load scenarios should also be evaluated in the process and considered in evaluating solutions.

## **CGPP Stage 2: Network Models**

The network modeling stage of CGPP is another aspect where there is significant need for the CGPP to align with the distribution DSIP processes. The utility planners are responsible for taking the zonal build-out and translating it to the nodal (individual substation) level and, after that, to the individual nodes within the distribution models to enable power flow studies to be performed. The JU proposal identifies that the utilities will coordinate with the EPPAC on this

methodology in the first CGPP cycle, with the methodology to be updated in future CGPP cycles as necessary.

Given the degree of latitude that distribution utility planners have within the modeling process to shape the locations and sizes of resource interconnection projections within the models, it is critical that this process be approached consistently and with the appropriate degree of rigor and oversight. The decisions made by utility planners within this process will have significant impacts on the outcomes of modeling and study efforts within the local assessments in Stage 3. Individual distribution utilities may develop different strategies based on the characteristics of their service territory, and such strategies are best captured and overseen within a more effective DSIP process.

### **CGPP Stage 3: Local Assessment**

#### **Evaluation of Constraints**

As expressed within the CEP comments related to Stage 2, the translation of high-level zonal forecasts to location-specific sites and sizes for modeling purposes on distribution can create hugely impactful variations in the models. These model variations will necessarily show up within the evaluation of constraints within Phase 3. Highly concentrated large systems will have a very different impact on constraints like high voltage than a larger number of smaller systems spread across a wider area. The CGPP should identify the need for robust and consistent processes for the disaggregation and study of distribution-connected resources, which should subsequently be reflected within utility DSIPs.

In addition, JU's assumption of the simultaneous dispatch of all renewable generation at 100% of nameplate is problematic. First, simultaneous full nameplate output for all distribution-connected systems within the same region does not reflect actual expected performance of the (primarily solar) resources. While this may be true for large, ground-mounted systems with tracking or a high DC:AC ratio (when the scenario being studied occurs within a specific range of daylight hours), there is significantly more diversity in the installation and performance parameters of rooftop-mounted systems, which often optimize usable space rather than optimizing tilt and azimuth for production across all hours. These systems may also be impacted by shadowing from trees or other buildings. When considered together, such systems may produce lower than their nameplate over a wider range of time. Assuming full nameplate operation will overestimate production and, subsequently, underestimate the amount of installed generation capacity necessary to achieve the expected energy production.

In addition, it is unclear whether and how distribution-connected energy storage systems will be considered within the constraint identification methodology. The JU's proposal is specific to "all renewable generation", but there is no discussion or explanation of the operational or dispatch assumptions for energy storage. Absent a clear methodology and assumption set, each utility will likely consider energy storage resources using their own set of operational assumptions. If this is the intended approach, it should be identified more directly within the CGPP process and should

be incorporated as an element of the utility DSIPs in order to ensure transparency and consistency of approach.

## **Solutions**

Within the solutions phase of the local assessment, the JU proposal states that the utilities will propose near-term projects within 5 years for consideration in future optimizations within stages 4 and 5. One critical missing element within this process is an oversight and stakeholder feedback mechanism to ensure the reasonableness of the resulting project recommendations. This is particularly relevant to the assessment of non-wires alternative solutions and the degree to which they are considered and accurately represented within utility analysis processes. It is critical that the EPPAC be proactively engaged in both developing a solution evaluation process and in proactively engaging within the solutioning process in order to ensure the necessity and effectiveness of the identified investments.

The JU proposal also discusses the consideration of both traditional planning aspects as well as “reliability and resiliency and impacts or synergies with broader capital planning efforts”. The JU notes that “customers benefit when projects address multiple needs, and the Commission should encourage identification of projects with multiple benefit streams<sup>9</sup>. The development of CLCPA-driven projects that also provide reliability benefits (including resilience), however, can present challenges, as the timing need of reliability drivers may not always align with those of the CGPP. The Utilities thus recommend that the Commission direct the Utilities to develop a process for taking these timing needs into account.” The CEP agree with this and suggest a more robust early assessment of multiple values from possible solutions, including capacity, energy, resiliency, ability to provide ancillary services, equity, and other benefits rather than a singular focus on least-cost to unlock capacity. Again, the EPPAC should have a greater opportunity for input in this process, and the ATWG could also be tasked with making recommendations at this stage.

Finally, CEP believes that the Solutions portion of Stage 3 is the appropriate time within the CGPP process to evaluate the impacts of flexible interconnection as a means of relieving identified constraints. The JU’s proposal to start the evaluation process at 100% of nameplate, setting aside for the moment CEP’s concerns with overestimation of actual production, is intended to act only as a means of identifying existing constraints. The JU identifies within their proposal that, within Stage 3, the “Utilities will also address whether any NWA, such as storage or an advanced technology, could viably and cost-effectively replace or reduce the scope of identified local solutions”. CEP agrees with this approach and believes it is reasonable and appropriate for flexible interconnection to be evaluated as an alternative to local T&D upgrades in a manner consistent with its expected operational capabilities, given that the costs of developing control and optimization infrastructure could be shared across many projects across utility service territories to improve overall cost-effectiveness of the solution.

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<sup>9</sup>Comments of Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc. on Actions Taken to Implement the Accelerated Renewables Act, February 28, 2023  
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## **Headroom Assessment**

The Utilities propose that headroom assessments only be conducted every 3 years, rather than every 6 months as it is currently performed. The migration to the CGPP process does not reduce the need for headroom assessments and the publication of Hosting Capacity maps on a more frequent basis. This data is critical to the site selection process and helps to align developer interest with cost-effective locations within utility territories. The CEP would suggest, rather, that the distribution Hosting Capacity maps continue to be updated on a more regular basis, and further, that the solutions selected at Stage 6 be integrated into the hosting capacity maps and headroom analyses once approved by the Commission, so that developers can begin to develop these newly accessible sites. This will allow parallel clean energy project development with the LT&D upgrades, enabling projects to be completed more quickly to contribute to CLCPA goals.

## **Application of Advanced Technologies and Non-Wires Alternatives (NWA)**

As discussed within the Solutions section of our Stage 3 Comments, CEP believes that advanced technologies, including Battery Energy Storage Systems (BESS), other storage technologies and flexible interconnection, are critical components for consideration within the CGPP. The Phase 1 and Phase 2 orders reflect this, directing utilities to consider such technologies for mitigating CLPCA needs.

The JU's proposal for considering such technologies, in its current form, does not establish a clear, transparent, timely or collaborative process for evaluating and including these technologies within the CGPP. The timeline and approach for consideration of alternatives should ensure that commercially proven alternative technologies are included in the utilities' distribution system plan upgrades.

The current proposal relies on the utilities to determine whether an NWA solution is suitable for a particular CLPCA need and to "solicit advice" from the ATWG concerning the consideration of advanced technologies as solution opportunities. Importantly, several energy storage technologies, including battery energy storage systems (BESS) are commercially available and widely used in grid applications today. For commercially available widely used technologies this is an unnecessary step. Instead, the CGPP should clearly accelerate deployment of commercially proven technologies, such as energy storage, for T&D purposes. Further, a mechanism should be created to ensure that third-party developed solutions are considered for technologies like energy storage. This will ensure that the potential solution set is not limited.

At a minimum, a mechanism for EPPAC feedback and review should be incorporated within the NWA evaluation process in order to improve collaboration and process oversight. The ATWG should function in the role identified within the LT&D Planning proceeding and cited by the JU in their proposal, which is to "work to address technical barriers and challenges associated with developing and deploying advanced technologies on the New York electric T&D systems." Rather than gatekeeping which technologies should be considered, the ATWG should be engaged to determine the steps necessary for scenario analysis and eventual deployment.

#### **CGPP Stage 4: Review of Preferred Solutions**

CEP's primary concern within Stage 4 of the JU's proposed CGPP process is the unification of the study outcomes and subsequent recommended solutions across the 3 scenarios. Because each scenario will utilize a different resource mix, there may be significant variations in the types or locations of solutions identified by each scenario. This potential divergence is important to consider proactively within the development of the CGPP process, as it will directly impact the subsequent investments. Failure to account for such divergence could result in inefficient resource deployment, increasing the cost and timelines for achieving state clean energy goals. This resolution will necessarily be complex and require collaboration across a variety of stakeholders and should subsequently include a mechanism for EPPAC engagement.

The JU would consider estimated cost targeted at a +50%/-25% accuracy. The CEP notes that this is a very broad estimate range and recommends that a method be created to ascribe increased value to projects with greater cost certainty.

The CEP recommends that the identification and acceleration of those solutions that provide multi-value benefits occur no later than this stage.

CEP also note that as presented in the CGPP, it is unclear whether the recommended solutions are intended to cover all the scenarios or whether some level of probabilistic analysis will be done. If the solutions are required to meet the requirements of each scenario, this approach could greatly increase costs and potentially lead to overbuilding. As a result, we urge the CGPP to incorporate probabilistic analysis in the evaluation of solutions against the three scenarios.

It is further unclear how load growth or load changes beyond five years will be factored into the scenarios and project evaluation. Including some level of futuristic planning and modeling should be considered before solutions are selected. In addition, CEP recommends that the project evaluation consider a given solution's timeline/speed to implementation.

Finally, CEP urges the evaluation process to consider and value optionality in the project evaluation process. Optionality recognizes that there may be changing conditions and requirements over time. While a given solution might meet a specific short-term need, it may not have been selected if conditions change. In the case of the CGPP, solutions that provide optionality should be valued for their ability to respond to changing requirements and enable – rather than limit- future solutions.

All of the factors discussed above are important to ensuring the selection of cost-effective flexible solution and we urge their inclusion in the CGPP.

#### **CGPP Stage 5: Least Cost Planning Assessment**

While the JU's proposal initially identifies both local transmission and distribution projects, the remainder of the Stage 5 content refers solely to transmission expansion as a means of achieving "least cost" planning. CEP believes that distribution-connected resources and their impact on

existing and forecasted local constraints are critical to achieving an investment plan which captures not only “least cost” considerations (by incorporating the additional capacity value that distribution-connected DER can provide to local infrastructure) but also the maximum benefits available through non-wires alternatives for reliability and resiliency. The incorporation of such capabilities within the project selection process is central to achieving a holistic and efficient project portfolio.

Considering time-varying avoided costs is crucial in evaluating the actual value offered by distributed generation. This value is severely underestimated for locations with higher penetration. Using CGPP study outputs aligned with the achievement of CLCPA targets to set time-varying avoided costs will allow the Commission and the utilities to evaluate the actual value of DER. The avoided cost components include energy, generation capacity, transmission capacity, distribution capacity, ancillary services, cost of procurement, environmental savings including greenhouse gas (GHG) emissions reductions.<sup>10</sup>

### **CGPP Stage 6: Least Cost Plan Report**

Within the Least Cost Report in Stage 6, the JU proposal centers \$/MW and \$/MWhr as the means by which projects will be ranked, with “secondary” benefits like reliability and asset condition to be “noted and discussed”. This approach is not consistent with the identification and utilization of non-wires alternatives in the earlier stages of the process. NWA solutions often rely on multiple value streams in order to justify their cost. While the intent of the CGPP is certainly to enable New York’s grid to achieve the clean energy targets set within the CLPCA, it is also a process by which the planning of the grid is coordinated, which means accounting for all of the factors that drive grid investment. The sidelining of all other needs cannot be the intended outcome of this process and will not result in a holistic, efficient, optimized plan to enable the grid to meet the needs of all stakeholders.

### **Additional CLCPA considerations- Timing, Flexible Interconnection as a stop-gap solution and other near-term opportunities**

The CEP are concerned about the CGPP timelines, and their ability to support the State’s clean energy goals. The Utilities propose a 3-year CGPP process, which if started this summer, would end mid-2026. Approved reinforcement projects would likely require 2 or more years for construction. The renewable energy projects enabled by these upgrades would also need to go through land acquisition, financing, design, permitting and interconnection request (hopefully in parallel with some of the utility construction work, if improvements and resultant new headroom capacity are transparent and integrated into the interconnection process), then procurement, construction, and commissioning. At best, this first round of projects might be completed by 2030 but may not be significant enough to move the needle on the 70x30 target.

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<sup>10</sup> 2022 Distributed Energy Resources Avoided Cost Calculator Documentation For the California Public Utilities Commission, June 22, 2022  
<https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-side-management/acc-models-latest-version/2022-acc-documentation-v1a.pdf>

The CEP suggest a fast-tracked initial cycle, or one-time parallel process, building on known current constrained areas with high demand for interconnection, in order to enable investments in a timely manner, and resulting projects to interconnect in advance of the 2030 target. Existing constraints and bottlenecks are known and stakeholders can provide timely and accurate feedback on where they would be most likely to develop new projects or increase customer adoption if barriers were removed. A one-time process in parallel during year 1 of the Utilities' CGPP process could identify such areas and proposed LT&D investments to enable timely and sustainable development during the mid-2020s to meet the 70x30 goal. Distribution interconnection end-to-end timelines are generally much faster than larger transmission-connected systems. Subsequently, relieving constrained areas on the distribution system or sub-transmission should be a core focus for achieving the 70x30 goal.

From the Utilities' proposal, it appears that all LT&D investments are conceived by the Utilities to be location-specific deployments of new resources and with limited near-term potential consideration of control technologies, FICS (Flexible Interconnection Capacity Solution)<sup>11</sup> or aggregation (e.g., Active Network Management)<sup>12</sup>. While this may be more fully within the scope of the DSIP efforts, understanding the interplay between the two, integrating the ITWG efforts, and accelerated consideration of DER management options, and other control technologies, as part of the CGPP will enable the utilities to deploy stopgap solutions<sup>13</sup> until cost-effective upgrades can be identified, designed, or constructed. From a development perspective, CEP contemplates near term deployment of successful REV demo projects (i.e., FICS & ARI) permits DER projects to interconnect during multi-year design and construction of traditional upgrades while also supporting and even de-risking longer-term efforts for robust and coordinated transmission and distribution grid planning by providing real world market indicators for potential future grid upgrades.

In addition to improving the DSIP planning process and ensuring coordination with CGPP, the CEP strongly recommend that the state continue and improve upon near-term solutions under consideration in other forums such as the Interconnection Policy Working Group, the Interconnection Technical Working Group and the Advanced Technology Working Group. However, the CEP are concerned that, while the above working groups can be effective, the groups are not currently making sufficient progress on critical and time sensitive priorities including (but not limited to):

- Cost Share 2.0 expansion for multi-value projects
- Flexible IX, “Active Curtailment” (Dynamic Power Control)
- DERMS, DERCOS & ADMS

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<sup>11</sup>Interconnection Technical Working Group Meeting - March 2022

<https://dps.ny.gov/system/files/documents/2022/11/avangrid-flexible-interconnection.pdf>

<sup>12</sup>Interconnection Technical Working Group Meeting - May 2022

<https://dps.ny.gov/system/files/documents/2022/11/active-resource-integration-itwg-presentation-draft.pptx>

<sup>13</sup>ORDER ON POWER GRID STUDY RECOMMENDATIONS, January 20,2022

<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={23F0F463-A059-4CFC-9134-4535F660611F}>

## **Conclusion**

The CEP greatly appreciates the opportunity to provide input on the Coordinated Grid Planning Process, which is an essential component of meeting New York's clean energy and climate goals. It is our hope that the enclosed recommendations will substantially improve the CGPP process thereby increasing the likelihood of success. We look forward to continuing to collaborate with the Commission, DPS staff, NYSERDA, the utilities and other key stakeholders as we chart a path towards bringing clean, resilient, reliable, and renewable generation online.

Sincerely,

A handwritten signature in black ink, appearing to read "Valessa Souter-Kline". The signature is written in a cursive, flowing style.

Valessa Souter-Kline  
Northeast Regional Director  
Solar Energy Industries Association

Filed on behalf of the Clean Energy Parties