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NextEra Energy Resources Draft 2023 IEPR Comments

Additional submitted attachment is included below.

NextEra Energy Resources, LLC Comments on the Draft 2023 Integrated Energy Policy Report
Docket No. 23-IEPR-01

December 1, 2023

NextEra Energy Resources, LLC (NextEra) appreciates the opportunity to comment on the Integrated Energy Policy Report (IEPR) and the California Energy Commission's (CEC) continued focus on critical issues important to ensuring the state is able to meet its ambitious de-carbonization and clean energy goals[1]. NextEra provides these comments on two particular issues of note within the Draft IEPR: the interconnection enhancement processes and AB 205 CEC Opt-in Permitting.

Since 1989, NextEra has been helping fuel the state's economic growth as its largest independent clean energy developer. To date, NextEra subsidiaries have invested over $9 billion in California, owning and operating wind, solar, energy storage, and transmission facilities in more than 20 counties across the state. NextEra brought over one gigawatt (GW) of solar and storage online in California this year alone. NextEra also has a significant number of projects submitted in the California Independent System Operator's (CAISO) Clusters 13, 14, and 15 interconnection processes.

I. Interconnection Enhancements will be vital to ensuring enough renewable resources come online in time to meet the state's 2045 goals

The Commission highlights a number of important efforts currently underway to address many of the challenges facing long-term de-carbonization including efforts to improve grid-level interconnection processes, including the CAISO's Interconnection Process Enhancements (IPE) stakeholder process[2]. NextEra provided comments in the CEC's Commissioner Workshop on the Clean Energy Interconnection – Bulk Grid on May 31, 2023, outlining several improvements to the current CAISO interconnection process that could ensure only the most well-sited, commercially viable, and financially healthy projects are entering the interconnection queue

[1] Senate Bill 100 (De León, Chapter 312, Statutes of 2018) accelerated the state's renewables goal to 60% by 2030 and 100% emissions free electric retails sales by 2045, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB100

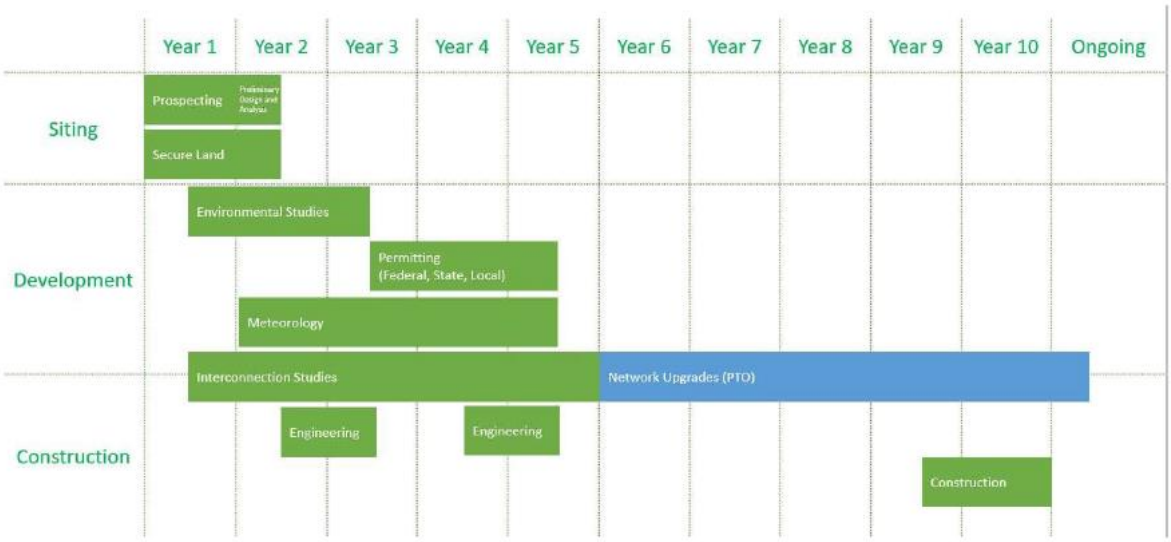
[2] California Energy Commission, Draft 2023 Integrated Energy Policy Report (IEPR), p. 40, (Nov. 13, 2023)

thereby shortening current timelines associated with interconnecting renewables to the grid[3]. NextEra also has appreciated the opportunity to participate in IPE. CAISO staff has worked diligently throughout the summer and fall, holding numerous workshops and soliciting hundreds of pages of stakeholder feedback. Currently, parties are awaiting a final straw proposal in this proceeding.

Real, workable improvements are needed in this round of the IPE to facilitate the identified seven GW of new renewable resources needed to interconnect annually through 2045[4]. As the nation's largest clean energy developer, NextEra has extensive experience with interconnection processes throughout the country. Below we highlight several critical issues and offer specific solutions that have been successful in alleviating interconnection issues in other markets.

In its May CEC Interconnection comments, NextEra included the table below to help visualize the significant increase in interconnection study timelines that developers are currently facing. The total interconnection process timeline will be approximately nine years for Cluster 14 projects and that is anticipated to grow to 10 years or more for Cluster 15.

Expected Development Timeline for Cluster 15 Projects for CAISO Submissions in April 2023



The timeline for studying projects requesting interconnection with CAISO and then completing needed transmission upgrades is lengthy due to the number of projects requesting

[3] NextEra Energy Resources, LLC, Comments in the CEC's Commissioner Workshop on the Clean Energy Interconnection – Bulk Grid, (May 31, 2023), https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-IEPR-04

[4] Draft 2023 IEPR, p. 2

interconnection, based on customer demand and policy needs. The timeline is also lengthened due to CAISO transmission owners expanding the scope of required transmission upgrades beyond that contemplated in the original studies. These lengthy timelines are adding significant financial risk to projects and hinder the state's ability to bring enough generation capacity online at a pace that will enable it to meet its decarbonization goals and ensure reliability. The IPE process presents a significant opportunity to begin to fix this process now in order to ensure it works more efficiently for current and future overwhelmed queues (e.g., Clusters 14 and 15).

A. The CAISO Should go beyond minimum compliance with the Federal Energy Regulatory Commission (FERC) Order 2023

While the CAISO's initial IPE straw proposal[5] opted to remove all items included in FERC Order 2023[6] from consideration under the IPE initiative and instead address them in its compliance filing at FERC, the CAISO should go beyond minimum compliance with FERC Order 2023. Key provisions included in the order are as follows:

- All Transmission Providers must use cluster studies;
- Increased deposit costs for cluster studies;
- 20% of Network Upgrade costs must be deposited in conjunction with large generator interconnection agreement (LGIA) execution, with clear penalties assessed against such deposits for projects which later withdraw;
- 90% Site Control is required at the time of entry to the queue.

The CAISO is advanced in its early adoption of the cluster study process and has agreed to adopt FERC Order 2023's strict site control requirements[7] starting with Cluster 15. The CAISO should go further in its adoption of increased financial security and study deposits in its compliance filing to FERC this year and apply the strict site control requirements to any prior-queued projects that have not yet executed an LGIA.

A central tenet of NextEra's advocacy on interconnection reform has been that participating in the interconnection process has been substantially undervalued due to the low cost of entry relative to the demand for CAISO grid access. NextEra has proposed several reforms to properly reflect the value of entry to the queue, including increasing financial security and study deposits. These reforms, of course, are more expansive and go beyond the pro forma measures applicable to all transmission providers in FERC Order 2023. One size, however, does not fit all. While it is

[5] CAISO, IPE Straw proposal, (Sept. 21, 2023), http://www.caiso.com/InitiativeDocuments/Straw-Proposal-Interconnecton-Process-Enhancements-2023-Sep212023.pdf

[6] FERC Order 2023, issued in July of this year, requires many reforms to interconnection processes under the Open Access Transmission tariffs (OATT). The reforms are aimed at decreasing interconnection timelines, for which most markets have seen a dramatic increase due to overwhelmed queues and limited capacity. Independent System Operators and Regional Transmission Organizations, including CAISO, must submit a compliance filing by the end of the year outlining how they will meet FERC Order 2023's new requirements. *Improvements to Generator Interconnection Procedures and Agreements*, Order No. 2023, 184 FERC ¶ 61,054 (2023) ("Order No. 2023"), https://www.ferc.gov/media/e-1-order-2023-rm22-14-000

[7] CAISO, 2023 IPE Straw proposal, p. 26, (Sept. 21, 2023), http://www.caiso.com/InitiativeDocuments/Straw-Proposal-Interconnecton-Process-Enhancements-2023-Sep212023.pdf

clear that the CAISO's current tariff largely complies with much of FERC Order 2023, it is important to note that enhancements that could go above and beyond the Commission's requirements are not likely to be part of the CAISO's FERC Order 2023 compliance filing as CAISO has indicated to stakeholders that they plan to comply with the exact language of the Order on a prospective basis (Cluster 15 forward)[8]. Given that CAISO still faces overwhelmed queues[9] under a tariff that already largely complies with Order 2023, it follows that incremental reforms above and beyond the FERC Order 2023 requirements may be necessary to alleviate backlogs in the current interconnection process.

As stated in NextEra's May 31, 2023, CEC Interconnection comments, and further supported by FERC Order 2023[10], increasing financial security requirements and study deposits required throughout the process will ensure that the value of entry to the queue is properly reflected. To-date, CAISO's current rules have not stemmed the tide of more speculative projects entering the queue, due in large part to the low cost of entry.

As outlined in our May comments, there are four changes that the CAISO could implement in this round of IPE or its FERC Compliance filing that align with or go beyond FERC Order 2023 and have had success in other regions[11].

1) Eliminate the nearly free option to enter the queue by making a one-time entry fee of $100,000 non-refundable, increasing the financial security that developers must put at risk to enter the queue. This will lead to more meaningful study results sooner in the process by limiting the number of speculative projects.
2) Require higher study deposits throughout the process, such as a $8,000/MW which is refundable before the start of Phase 1 studies. This would be much more effective than the CAISO's current $150,000 refundable study deposit requirement and is more rigorous than the deposit range contemplated by FERC in Order 2023[12]. This would also give developers time to have their initial scoping meeting and then decide if it is worth proceeding any further in the process without penalty.
3) Implementing higher deposits for network upgrades and interconnection facilities and more stringent commercial readiness requirements to obtain deliverability would further ensure this product was being fully and fairly valued. Securing network

[8] CAISO, "2023 Interconnection Process Enhancements Track 2 Working Group Meeting: Scoring Criteria Stakeholder Meeting", (November 15, 2023), http://www.caiso.com/InitiativeDocuments/Presentation-InterconnectionProcessEnhancements2023Track2WorkingGroup-Nov152023.pdf

[9] Cluster 13 has a total of 16, 854 MW, Cluster 14 65,566 MW and Cluster 15 a whopping 350,000 MW of interconnection requests. CAISO 2023 Interconnection Process Enhancements Straw Proposal & Issue Paper, (March 6, 2023),
http://www.caiso.com/InitativeDocuments/Issue-Paper-and-Straw-Proposal-Interconnecton-Process-Enhancements-2023-Mar132023.pdf

[10] Order No. 2023, 184 FERC ¶ 61,054 (2023)

[11] Southwest Power Pool, Open Access Transmission Tariff, Sixth Revised Volume No. 1 - Attachment V Generator Interconnection Procedures, (December 1, 2020),
https://opsportal.spp.org/documents/studies/SPP%20Tariff%20Attachment%20V%20Generator%20Interconnection%20Procedures.pdf

[12] Order No. 2023, at P502

upgrades are critical to ensuring that resources are able to deliver their output to meet system demands. These upgrade deposits should be increased and become increasingly non-refundable as the projects move through the study process[13]. Specifically, NEER proposes increasing the Phase 1 posting to 25% of upgrade costs and increasing the Phase 2 posting to 50% of upgrade costs.

4) Finally, with respect to the criterion for applying for deliverability based on having executed a contract with a load serving entity (LSE), FERC recently approved a CAISO proposal which requires a minimum 5-year contract term for Resource Adequacy (RA) and allows for a $10,000/MW fee in lieu of meeting the contract execution requirement[14]. It should be noted that new renewable generation projects require long-term contracts for financing. Therefore, to support new generation, developers should have an RA capacity contract of at least 10 years to apply to the CAISO for deliverability. The minimum fee in lieu-of having an executed contract should also be increased to $20,000/MW to reflect the significant value of deliverability.

Establishing higher financial security and study deposits throughout the interconnection and deliverability process will incentivize developers to withdraw projects where commercial prospects are poor, permitting is troubled, site control is not available, or upgrade costs are too high. The CAISO should adopt such requirements in its FERC Order 2023 compliance filing.

B. The CAISO's proposal to arbitrarily cap the number of interconnection requests that a developer may submit and that it will study in a given zone is discriminatory and will dilute the quality of the cluster of projects getting through the queue

The most recent IPE straw proposal would limit the request that a developer may submit in each cluster application window to 25% of the available transmission MW capacity across the CAISO footprint for that cluster[15]. Additionally, the straw proposal would limit the amount of capacity that the CAISO will study to up to 150% of that zone's available transmission capacity[16]. Taken together, these proposals arbitrarily reduce the number of projects that can compete to meet demand. This would be a negative result for electric customers as it risks increasing RA costs by artificially constraining supply.

Rather than implement un-tested reforms with unknown results, which are not likely to solve the issue of poor quality, speculative projects from entering the queue and not progressing, the CAISO should look to enhancements and reforms that have been vetted and approved by FERC and which are working to deliver results in other regions, such as those outlined above.

[13] Currently, projects must post a deposit reflecting 15% of upgrade costs as determined in Phase 1 and then 30% of such costs as determined by the Phase 2 study. CAISO Tariff, Appendix DD, 11 (2023)

[14] U.S. Federal Energy Regulatory Commission, Docket No. ER23-941-000, California Independent System Operator Corp., Tariff Amendment to Implement Interconnection Process Enhancements (March 27, 2023)

[15] 2023 IPE Straw proposal, p. 21

[16] 2023 IPE Straw Proposal, p. 26

C. Automation and standardization of interconnection processes will streamline such processes

The Commission rightly identifies standardization and automation of interconnection processes as one tool in the toolkit to help reduce interconnection timelines[17]. In its May Interconnection comments, NextEra highlights similar efforts in other markets. For example, SPP is currently collaborating with Amazon Web Services and Pearl Street Technologies to introduce automation of data validation, model development, study processing and use of cloud computing[18].

These efforts are intended to not only improve the speed with which interconnection studies are completed and are also intended to ensure that accuracy of study results is not compromised by faster study timelines. Automation and standardization should be incorporated for each step of the interconnection study process. For example, performing the right data validation and ensuring that the data entering the interconnection study models is correct will result in fewer manual inputs or adjustments as the study process proceeds. Additionally, automating the interconnection study model building process, as well as study processing, will help with the study schedule and will allow CAISO engineers to focus on applying their engineering judgement to the results of the studies instead of performing manual tasks. Finally, the use of cloud computing is essential to allow CAISO to ramp up computing capability quickly and cost effectively.

For relatively small cost, the CAISO could adopt such measures and trim years off the interconnection process and in doing so will enable the benefits of projects in the queue to reach ratepayers and customers faster. NextEra strongly encourages the CAISO to explore such options as soon as possible and leverage best practices from other regions.

I. While the AB 205 opt-in provides an alternative to local permitting, the reality is that the pre-submittal requirements before an application can be deemed complete under existing CEC procedures are extremely detailed and require many months of advanced technical work in order to submit an application

NextEra is keen to continue working with its local stakeholders in the siting of its renewable and transmission projects. As mentioned, subsidiaries of NextEra currently own and operate facilities in over 20 counties within the state and greatly value these relationships. The Opt-in process can provide important optionality when needed and has the potential to provide the benefit of streamlining as well. Under AB 205, the statutory 270-day clock starts only when the CEC has deemed an application complete[19]. This will only be as beneficial from a streamlining perspective as the pre-application process allows for.

[17] Draft 2023 IEPR, p. 5

[18] American Council on Renewable Energy (ACORE), Comments on FERC Proposed Rule on Improvements to Generator Interconnection Procedures and Agreements, (Oct. 13, 2022), https://acore.org/acore-commentson-ferc-proposed-rule-on-improvements-to-generator-interconnection-procedures-and-agreements/

[19] This bill requires the CEC to be the lead agency under the California Environmental Quality Act (CEQA) and to take final action on certification of the project within 270 days. The start of this clock only begins once the

NextEra has yet to take a project through this process, but it is concerned that the process would provide minimal streamlining benefit given the extensive and technical engineering and environmental documentation that is required in an application pursuant to the CEC regulations. This is in large part due to the fact that the CEC permitting process was created for thermal projects, which differ greatly from storage and renewable projects, and which do not align with renewable energy development timelines. For example, the amount of engineering work that needs to be completed for purposes of the CEC pre-application process compared to a typical local (*i.e.*, county or city) permitting process is almost triple. California Environmental Quality Act (CEQA) and land use permitting through local land use agencies require approximately a 10% level of design whereas currently the CEC application for certification process requires about a 30% level of design at the application stage. Further, the CEC process requires an extensive and detailed evaluation of environmental impacts too early in the permitting process, which discourages engineering flexibility.

Instead, a successful permit process should facilitate a range of inputs that can be incorporated into engineering design throughout the permit process from stakeholders, including resources agencies. Additionally, the level of engineering detail required for a complete application by the CEC process is often not available early enough in the process due to rapid technological changes and ongoing supply chain issues. For example, when the model and make of batteries are changed, internal roads and containers will require layout reconfiguration. Although this typically does not require greater disturbed area, it may require modification of the CEC application whereas a county process would typically not require a supplemental application/CEQA process.

While not all projects are alike and there is only one project undergoing review by the CEC process, the potential for lag time in the pre-application process is evidenced by the first renewable project to go through the AB 205 Opt-in process, Fountain Wind in Shasta County. The project filed its pre-application in January 2023, but was not deemed complete until October 2023, despite providing a thorough set of environmental and engineering documents, due to technical deficiencies with the extensive application submittal requirements[20]. That means that it took nine months for the developer simply to trigger the start of the 270-day statutory clock. If no further delays occur, the project will take 18 months to permit. This timeline does not offer any streamlining benefit. Further, the open-ended nature of the pre-application process creates uncertainty in the timeline. NextEra offers several items for consideration to enhance the Opt-in process such that it offers both optionality and streamlining:

- Allow licenses for renewable projects to be issued based on fewer engineering-level details (aligned with local rules) and allow the CEC building and grading permit stage to address the final site design.

application is deemed complete. Assembly Bill 205 (Committee on Budget 2022) https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB205

[20] CEC, Determination of Complete Application for the Fountain Wind Project, (Oct. 3, 2023), https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-OPT-01

- Allow overestimation of environmental impacts during the licensing process and refinement of impacts - as long as they are less than those originally evaluated - during the final design building and grading process (which is regularly done during county CEQA and permitting evaluation).
- Hold training for CEC SMEs to put into context the appropriate level of environmental evaluation to meet CEQA and CEC standards for renewable energy projects versus typically more complex fossil fuels projects.
- Hold trainings for applications and applicants' consultants on the level of information expected for evaluating the impacts of renewable energy projects.

NextEra has very much appreciated the opportunity to work through this new process with CEC staff and looks forward to continued collaboration to enhance this process.

Respectfully,

Sarah Qureshi
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