

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**Arizona Public Service                    )       Docket No. ER14-2430  
Company                                    )**

**ANSWER OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION TO  
COMMENTS OF NRG SOLAR HYDER ENTITIES**

The California Independent System Operator Corporation (“CAISO”) provides this answer in response to comments filed by NRG Solar Hyder I LLC, NRG Solar Hyder II LLC, and NRG Solar Hyder III LLC (collectively “NRG”) regarding Arizona Public Service Company’s (“APS”) filing of three five-party unexecuted Non-Conforming Large Generator Interconnection Agreements with these three entities.<sup>1</sup> The CAISO, NRG, APS, Imperial Irrigation District (“IID”), and San Diego Gas & Electric Corporation (“SDG&E”), are all counterparties to the three Hyder interconnection agreements (“Hyder LGIAs”).<sup>2</sup>

APS filed the three five-party Hyder LGIAs unexecuted because of a disagreement among NRG, SDG&E and the CAISO regarding a provision that requires the Hyder projects to enter and be studied in the CAISO’s interconnection queue in order for the agreements to be effective as to the CAISO and SDG&E. The CAISO and SDG&E insisted on the inclusion of this provision because the point of interconnection for all three Hyder projects, the

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<sup>1</sup> The three Hyder LLC entities were originally owned by U.S. Solar Holdings but were purchased in 2012 by NRG Renew LLC.

<sup>2</sup> APS originally filed the three Hyder LGIAs on July 14, 2014. Due to an error with the effective date indicated on the cover pages, APS re-filed the LGIAs on July 31, 2014.

Hassayampa – North Gila (“HNG”) Line, is a transmission facility that is within the CAISO balancing authority area and for which the CAISO exercises operational control of SDG&E’s majority ownership interest. Thus, NRG will necessarily be obtaining interconnection service from the CAISO. In addition, the projects will have substantial impacts on the reliability of the non-jointly owned portions of the CAISO controlled grid.

For the first time in the development history of these projects, NRG now states that it has no plans to sell the output of the Hyder projects in the CAISO markets, and, therefore, does not believe that it needs to receive interconnection service from the CAISO. NRG’s election not to participate in the CAISO markets, however, does not change the fact that the Hyder projects will, because of the location of their point of interconnection, still need to receive interconnection service from the CAISO. NRG’s position appears to be based on the false assumption that requiring the Hyder projects to go through the CAISO’s interconnection process would be duplicative of APS’s interconnection process. To the contrary, the language in the five-party LGIA that NRG objects to merely requires the Hyder projects to enter into the CAISO queue for the purposes of determining and mitigating their impacts on the non-jointly owned portions of the CAISO controlled grid, which NRG explicitly acknowledges the need for and which APS cannot study. This is the case regardless of whether the CAISO is treated as an interconnection service provider or, alternatively, as an “affected system.”

Further, even if the Commission ultimately determines that the CAISO is more appropriately considered an “affected system operator” for these purposes, there is no merit to NRG’s contention that the CAISO has “slept on its rights,” or would require a waiver in order to perform these studies. Contrary to NRG’s unsupported claims, APS never indicated that the CAISO should study the reliability impacts of the Hyder projects as an “affected system,” and this is not what the five-party Hyder LGIAs contemplate. Also, NRG never informed the CAISO that it wished to obtain interconnection service solely from APS, nor could it, because the Hyder projects must obtain interconnection service from the CAISO based on their point of interconnection. If the Commission nevertheless determines that the projects should not be required to enter the CAISO’s queue, then it should dismiss the five-party interconnection agreements and direct APS to develop and file interconnection agreements removing the CAISO and SDG&E as parties. The Commission should also make clear that NRG must make appropriate arrangements with the CAISO to study the impacts of the interconnections, and mitigate any reliability impacts to the non-jointly owned portions of the CAISO controlled grid before the projects can be permitted to enter service.

**I. Answer**

**A. The CAISO Is Not Seeking to Impose Duplicative Interconnection Requirements on the Hyder Projects**

NRG asserts that the CAISO should be considered an “affected system” for purposes of the Hyder interconnections. In its comments on the Hyder LGIA filings, the CAISO explained why it would be inappropriate to treat it as an

“affected system” with respect to generators seeking to interconnect to the HNG Line. The CAISO will not repeat those arguments here. Regardless, NRG fails to explain, or even address, how the Hyder projects would be disadvantaged by requiring them to enter into and be studied in the CAISO queue, per the terms of the Hyder LGIAs as filed by APS.

The crux of NRG’s dispute is that, the Hyder projects having gone through APS’s interconnection process, the CAISO is now seeking to require the Hyder projects to undergo a “duplicative” and “entirely new” interconnection process that would undermine the Commission’s policy of “one-stop shopping” for interconnection service.<sup>3</sup> This is not true.<sup>4</sup> As the CAISO explained in its comments, APS’s study of the Hyder projects examined and identified customer-specific interconnection facilities and network upgrades necessary to mitigate impacts on the jointly-owned Arizona Transmission System and APS’s individual transmission system. The CAISO is not proposing to replicate these studies. Rather, the CAISO’s studies would be limited to identifying upgrades necessary to mitigate impacts of the interconnections on the non-jointly owned portions of the CAISO controlled grid.<sup>5</sup> As a result, these studies, the costs thereof, and any

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<sup>3</sup> NRG at 8-9.

<sup>4</sup> NRG cites to Order No. 2003-B, in which the Commission determined that a transmission owner belonging to an ISO or RTO cannot require a separate set of interconnection procedures or agreement for interconnections to facilities within the RTO’s or ISO’s operational control. This factual scenario is obviously not analogous to the current situation, because the relationship between APS and the CAISO is not one of a transmission owner within an ISO or RTO. Moreover, the CAISO is not seeking to perform redundant studies or impose overlapping or conflicting interconnection requirements.

<sup>5</sup> As explained in the CAISO’s initial comments, the Hyder projects entered the CAISO queue on two separate occasions. On the first occasion, the CAISO completed the first of its two

resulting upgrades, would be in no way duplicative of the work performed by APS.

NRG acknowledges that the Commission cannot ignore the reliability impacts of the Hyder projects on the non-jointly owned portions of the CAISO controlled grid,<sup>6</sup> which as the CAISO explained in its comments, are likely to be significant.<sup>7</sup> NRG also points approvingly to the participation of IID, with respect to whom Hyder will “pay for studies required to identify the effect (and upgrades required) to mitigate [the] effect of the proposed Hyder interconnection on IID.”<sup>8</sup> It is not clear, and NRG does not explain, how requiring the Hyder projects to enter into and be studied in the CAISO queue for purposes of identifying and mitigating the impacts of the Hyder projects on the non-jointly owned portions of the CAISO’s transmission system would be any less burdensome if the CAISO was treated as an affected system, such as IID. The only relevant difference between the CAISO and IID study processes for the Hyder projects is that, due to the volume of interconnection requests on its system, the CAISO conducts the majority of its interconnection studies through a cluster study process. Although the CAISO does allow independent study for projects that are electrically isolated from other projects in the CAISO’s queue, due to the size and planned location of the Hyder plants, and based on the CAISO’s previous study results showing

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study phases for the projects, which indicated substantial upgrades would be needed to mitigate reliability issues caused on the non-jointly owned portions of the CAISO’s transmission system.

<sup>6</sup> NRG at 12.

<sup>7</sup> Declaration of Deborah A. Le Vine, Attachment A to the CAISO’s initial comments, at P 16.

<sup>8</sup> NRG at 5.

significant reliability impacts,<sup>9</sup> the electrical impacts of the Hyder projects cannot be isolated from other projects in the CAISO's queue. Therefore, regardless of whether the Commission accepts the CAISO's position that it is an interconnection service provider, or concludes that it is an affected system, the Hyder projects will need to be studied by the CAISO as part of one of its queue clusters to ensure the reliability of the CAISO controlled grid and that any needed upgrades are appropriately coordinated with other interconnection requests in the same area of the grid.<sup>10</sup>

In addition, rather than requiring NRG to negotiate separate agreements with each of the two entities providing interconnection service, APS and the CAISO have, along with the other owners of the HNG Line, proposed a five-party LGIA that specifies all of NRG's obligations in a single agreement. This is a more efficient approach and consistent with the objectives of Order No. 2003. The five-party LGIAs here are largely based on the Agua Caliente agreement that was approved by the Commission. These multi-party interconnection agreements harmonize the interconnection service obligations of APS and the CAISO, recognizing the joint-ownership nature of the point of interconnection.

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<sup>9</sup> As explained in the CAISO's comments on the Hyder LGIAs, the Hyder projects were studied through Phase I of the CAISO's cluster process as part of queue cluster 3. The results of that study showed that significant network upgrades were needed to the non-jointly owned portions of the CAISO controlled grid in order to remediate the reliability impacts of the Hyder projects. Given the time that has elapsed since those studies were completed, the CAISO would need to perform new studies for the Hyder projects. However, the CAISO expects that such studies would still show the need for substantial reliability-driven upgrades.

<sup>10</sup> Declaration of Deborah A. Le Vine, Attachment A to the CAISO's initial comments, at P 16.

This provides the generators with significant benefits by ensuring that they are not subject to conflicting obligations between APS and the CAISO.<sup>11</sup>

These facts demonstrate that there is no merit to NRG's allegations that requiring the Hyder projects to be studied as part of the CAISO's queue would impose a "duplicative" and "entirely new" interconnection process in contravention of Commission policy. Consequently, the provision in the Hyder LGIAs requiring the Hyder projects to enter the CAISO queue does not violate the Commission's interconnection policies relating to "one-stop shopping."

**B. NRG's Claim That the CAISO Has "Slept on its Rights" Misrepresents the Background to the Unexecuted Filing**

In its comments, NRG spins a revisionist history in an attempt to demonstrate that the CAISO "slept on its rights" to participate in the APS studies of the Hyder projects as an affected system operator.<sup>12</sup> To the contrary, if any party can be said to have slept on its rights, it is NRG, not the CAISO.

NRG contends that APS "provided the opportunity" for the CAISO to participate in the APS interconnection process as an affected system operator.<sup>13</sup>

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<sup>11</sup> See, e.g., Hyder LGIAs Section 9.7.1 (addressing outage coordination between the parties with respect to the generators and jointly-owned facilities); Section 9.7.2.5 (providing that the parties will coordinate in outage recovery measures); Section 9.7.3 (providing for coordination between APS and the ISO regarding under- and over-frequency deviations); Section 13.5.2 (providing for coordination between APS and the ISO and the interconnection customer to schedule any reductions in interconnection service or disconnections during periods of least impact to the interconnection customer). In addition, as explained in APS's filing, a number of provisions were added or modified in order to make the five-party LGIAs consistent with the requirements of both the APS and CAISO pro forma LGIAs.

<sup>12</sup> NRG at 12.

<sup>13</sup> NRG at 5, 12.

The Commission should discard this allegation because NRG provides no evidence whatsoever to support it. Upon investigation, the CAISO was unable to find any communication in which APS indicated that the CAISO should evaluate the impacts of the Hyder projects on the CAISO controlled grid as an affected system in conjunction with APS's studies.<sup>14</sup> Indeed, it would have been strange for APS to have done so given that the CAISO and APS developed, filed, and obtained Commission approval of a similar five-party interconnection agreement for the Agua Caliente project in order to address potentially overlapping areas of responsibility and requirements between the APS and CAISO tariffs. As with the proposed five-party LGIAs for the Hyder projects, the Agua Caliente agreement provided for interconnection service to be provided by *both* APS and the CAISO, and reflected the outcome of studies performed by both interconnection service providers in their respective interconnection queues.<sup>15</sup>

NRG also claims that it is not attempting an end-run around the CAISO's interconnection process because it only intends to sell the output of the Hyder projects into APS markets, and therefore is seeking interconnection service solely from APS and not the CAISO. NRG's decision not to participate in the CAISO markets does not determine whether it receives interconnection service from the CAISO. Nevertheless, during the development process of the Hyder projects, neither NRG nor the previous owner ever informed the CAISO of an

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<sup>14</sup> Answering Declaration of Deborah A. Le Vine, Attachment A to this filing, at P 4.

<sup>15</sup> NRG's argument is also inconsistent with the fact that APS filed the Hyder LGIAs with the language requiring the projects to be studied in the CAISO's queue, which suggests that APS does not oppose this language.



intention to sell the output of the projects solely to APS or to obtain interconnection service solely from APS.<sup>16</sup> The Hyder LGIAs explicitly state that the Hyder projects will receive interconnection service from both the CAISO and APS. During the negotiation process, NRG never challenged these provisions, or requested the filing of a standard two-party LGIA with APS. Likewise, in its comments, NRG fails to explain why it would consent to enter into an interconnection agreement with an entity (the CAISO) from which it asserts it does not need or wish to receive interconnection service.

Because the CAISO will be providing interconnection service to the Hyder projects, the Commission should accept the five-party LGIAs with the provision requiring that the Hyder projects enter into and be studied in the CAISO interconnection queue. If, however, the Commission determines that the CAISO is not an interconnection service provider, but is instead an affected system, the Commission should simply reject the five-party interconnection agreements and direct APS to file standard two-party LGIA agreements with the Hyder projects. The Commission should also make clear that NRG is obligated to enter into appropriate arrangements with the CAISO to study the impacts of the interconnections, and to mitigate any reliability impacts to the non-jointly owned portions of the CAISO controlled grid, before the projects will be permitted to interconnect or commence testing and service.<sup>17</sup> As demonstrated above, there

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<sup>16</sup> *Id.* at P 5.

<sup>17</sup> See *Standardization of Generator Interconnection Agreements and Procedures, order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, at P 114 (2004) (noting that the timelines set forth in Order 2003 could be deviated from if an interconnection would endanger the

is no merit to NRG's suggestion that the "window" for the CAISO to perform such studies has closed.

## II. Conclusion

For the reasons stated above, the CAISO requests that the Commission grant the CAISO status as an intervenor and approve the Hyder LGIAs as filed, or reject the LGIAs in their entirety.

Respectfully submitted,

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Dated: September 4, 2014

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reliability of an affected system, and that although a transmission provider could not use third-party actions or inactions as an excuse for not proceeding with the design, procurement or construction of necessary upgrades, it might need keep a circuit to an interconnecting generating facility open until applicable reliability standards are satisfied).

## **Attachment A**

**UNITED STATES OF AMERICA  
BEFORE THE  
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**Arizona Public Service  
Company**

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**Docket No. ER14-2430**

**ANSWERING DECLARATION OF DEBORAH A. LE VINE ON BEHALF OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

I, Deborah A. Le Vine, hereby declare as follows:

1. I am employed as the Director of Infrastructure Contracts & Management at the California Independent System Operator Corporation (“CAISO”). My business address is 250 Outcropping Way, Folsom, CA 95630.
2. My background and qualifications are set forth in the declaration that I submitted in this proceeding on August 21, 2014. I will not repeat them here.
3. The purpose of this declaration is to address allegations made by NRG in this proceeding regarding the interconnection process for the proposed Hyder Solar 1, LLC, Hyder Solar 2, LLC and Hyder Solar 3, LLC (collectively “Hyder”) solar generation plants. As explained in my previous declaration, these projects plan to interconnect to the Hassayampa – North Gila 500kV transmission line, which is part of the Arizona Transmission System. The Arizona Transmission System is owned, in varying percentages, by APS, IID and SDG&E, with SDG&E having the majority ownership interest in the Hassayampa – North Gila Line. The Hassayampa – North Gila Line is located within the CAISO’s Balancing Authority Area.

4. In its comments, NRG claims that during APS's study of the Hyder projects, which examined only the impacts of those projects on the Arizona Transmission System and APS's own facilities, APS provided the CAISO with the opportunity to participate in the APS studies as an "affected system." I inquired with CAISO personnel who were involved in the Hyder interconnection process, and found no communications, written or oral, in which APS indicated that the CAISO should evaluate the impacts of the Hyder projects on the CAISO controlled grid as an affected system in conjunction with APS's studies. The CAISO reviewed and provided comments to APS on the System Impact Study report for APS's Hyder Valley Generation cluster study which included the Hyder projects. This study, however, did not perform a comprehensive evaluation of the impacts of the Hyder projects on the non-jointly owned portions of the CAISO's transmission system. Moreover, the communication between APS and the CAISO reflects the CAISO's expectation that the Hyder projects would be participating in the CAISO's interconnection process.
5. NRG also asserts that it plans to sell the output of the Hyder facilities solely into the APS markets in support of its argument that it is only seeking interconnection service from APS, and not the CAISO. I do not recall NRG ever informing the CAISO of such plans, and I was unable to find any communications from NRG to the CAISO regarding such plans.

I declare, under penalty of perjury, that the foregoing statements are true and correct.

Executed this 4th day of September, 2014, in Folsom, California.

A handwritten signature in blue ink, appearing to read "Deborah A. Le Vine". The signature is written in a cursive style with a horizontal line underneath the name.

Deborah A. Le Vine

## **CERTIFICATE OF SERVICE**

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Washington, D.C., this 4<sup>th</sup> day of September, 2014.

/s/ Michael Kunselman  
Michael Kunselman