Pathfinder Renewable Wind Energy, LLC and Zephyr Power Transmission, LLC Comments on the CAISO Draft 2013/2014 Transmission Planning Process Unified Planning Assumptions and Study Plan

Pursuant to the California Independent System Operator's ("CAISO's") February 7, 2013 Market Notice, Pathfinder Renewable Wind Energy, LLC ("Pathfinder") and Zephyr Power Transmission, LLC respectfully submit these comments on the CAISO Draft 2013/2014 Transmission Planning Process Unified Planning Assumptions and Study Plan ("Draft Study Plan").

I. Introduction and Summary

Pathfinder is in the development stages of a large-scale wind generation project that will be located in southeast Wyoming and plans to interconnect to the CAISO Balancing Authority Area ("BAA") at the Eldorado Substation via a high-voltage direct current ("HVDC") transmission line being developed by Zephyr Power Transmission, LLC ("Zephyr").

As with the 2012/2013 Transmission Planning Process ("TPP"), Pathfinder remains concerned with the assumptions used to develop the generation portfolios as part of the CAISO's Draft Study Plan, as well as the narrow focus of scenarios that excludes meaningful consideration of out-of-state renewable resources. Specifically, the Study Plan should seek to accommodate a range of possible future resource development scenarios rather than limiting the CAISO's comprehensive transmission planning efforts to three specific scenarios. Incorporating such flexibility into its transmission planning activities appropriately recognizes the uncertainty that is inherit in generation development and will promote generation options and competition that will reduce total ratepayer costs even if not producing the lowest cost for transmission..

Among the scenarios that the CAISO should plan for is one that assumes a substantial increase in renewable energy imported into California. This is consistent with the Federal Energy Regulatory Commission ("FERC") requirements that require consideration of out-of-state resources in the transmission planning process. The Western Electricity Coordinating Council's ("WECC") 10-Year Study should also be considered by the CAISO in its transmission planning process.

Lastly, in accordance with Section 24.3.4 of the CAISO Tariff, Zephyr requests that the CAISO perform an Economic Planning Study. The request is more fully described below.

II. The CAISO Must Consider At Least One Scenario with Significant Out-of-State Imports and Options

To help ensure that reliability and other policy goals are served at the least overall cost, the CAISO should incorporate in the 2013/2014 TPP generation scenarios that include economical renewable resources from outside of California. In particular, the CAISO should again consider increased out-of-state renewable resources being imported to the CAISO through the Eldorado Valley and delivered to southern California, specifically considering out-of-state wind resources such as wind resources from southeastern Wyoming delivered to California via HVDC transmission. WECC's Transmission Expansion Planning Policy Committee ("TEPPC") findings in its 10-Year Regional Transmission Plan and the Federal Energy Regulatory Commission's ("FERC") Order 1000 further support recognition of out-of-state imports and options as part of the CAISO's transmission planning effort.

A. The WECC Transmission Plan Has Independently Demonstrated the Value of Out-of-State Imports for California and the West

In developing its 2013-2014 Transmission Plan, the CAISO should carefully consider "TEPPC" findings in its 10-Year Regional Transmission Plan – 2020 Study Report ("2020 Study

Report").[1] Among the scenarios considered in the 2020 Study Report were two involving 25,000 GWh increases in Montana and Wyoming wind production and associated transmission to convey the energy to California. The WECC conclusion on the impact of increasing wind production was:

> Based on the capital cost estimates prepared for the aggressive wind cases as shown below in Table 4, all of the aggressive wind cases have a cost benefit compared to the PC1 SPSC reference case. The savings are mostly related to the estimated capital costs of the resources.

A closer review of the 2020 Study Report reveals the magnitude of the identified savings is substantial, in particular for the Wyoming high wind scenario – a scenario that aligns with Pathfinder's proposal to deliver high quality wind energy to California. For that scenario, the Report found a net reduction in regional production costs of $1,556 million per year compared to the base case scenario—the lowest production cost of any of the scenarios studied.[2]

In consideration of the work and findings by WECC and TEPPC, the CAISO should carefully consider one or more scenarios assessing the impact of a significant increase in renewable imports.

B. FERC Order 1000 Provides an Independent Basis for Considering Out-of-State Generation Imports

Another reason for the CAISO to include at least one scenario with significant increases in out-of-state imports (or, more specifically, wind from Wyoming per the WECC 2020 Study Report) is that it may be legally required. FERC Order 1000 requires transmission planning efforts to look beyond a transmission provider's borders and evaluate regional generation and transmission scenarios. The Order "requires each public utility transmission provider to

[1] The 2020 Study Report is available at http://www.wecc.biz/library/StudyReport/Documents/2020%20Study%20Report.pdf.

[2] 2020 Report at Table 25, p. 93.

participate in a regional transmission planning process that produces a regional transmission plan and complies with existing Order No. 890 transmission planning principles."[3] The Order also ensures that:

> …transmission needs driven by Public Policy Requirements are considered in local and regional transmission planning processes…to ensure that public utility transmission providers in every transmission planning region, in consultation with stakeholders, evaluate proposed alternative solutions at the regional level that may resolve the region's needs more efficiently or cost-effectively than solutions identified in the local transmission plans of individual public utility transmission providers."[4]

Order 1000 concludes:

> …that it is necessary to have an affirmative obligation in these transmission planning regions to evaluate alternatives that may meet the needs of the region more efficiently or cost-effectively.[5]

The Order continues that without such a regional approach:

> …transmission providers may not adequately assess the potential benefits of alternative transmission solutions at the regional level that may meet the needs of a transmission planning region more efficiently or cost-effectively than solutions identified by individual public utility transmission providers in their local transmission planning process.[6]

Additionally, Order 1000 describes the importance of a regional plan for meeting renewable procurement requirements. The Order finds that regional transmission planning is vital to identify solutions to cost-effectively integrate "location-constrained renewable energy resources needed to fulfill…the renewable portfolio standards adopted by many states."[7] Order 1000 points out that "some transmission planning processes do not consider transmission needs

[3] FERC Order No. 1000, ¶ 68.

[4] FERC Order No. 1000, ¶ 68, emphasis added.

[5] FERC Order No. 1000, ¶ 80.

[6] FERC Order No. 1000, ¶ 81.

[7] FERC Order No. 1000, ¶ 81.

driven by Public Policy Requirements," resulting in a struggle to "address transmission expansion necessary to…comply with renewable portfolio standards."[8]

Therefore, CAISO's transmission planning process should conform to the intent of Order 1000 by studying and considering generation scenarios with substantial increases of out-of-state renewable resources.

III. The 2013/2014 Plan Should Conduct a Sensitivity Analysis to Model High Out-of-State Imports

The 2012/2013 TPP conducted a sensitivity study for high out-of-state imports of renewable energy, looking specifically imports into California at the Eldorado 500 kV bus.[9] Pathfinder and Zephyr greatly appreciate the CAISO's effort and inclusion of this sensitivity analysis in the 2012-2013 ISO Transmission Plan, and request that the CAISO continue to include this study effort in this current planning cycle. Inclusion of this sensitivity analysis is important as the CAISO should consider a broad range of planning scenarios, versus being confined to a narrow set of scenarios for resource development. Conducting a sensitivity analysis that considers high out-of-state imports is an important effort for building upon the limited set of scenarios developed by the California Public Utilities Commission ("CPUC").

IV. Request for Economic Planning Study

Pursuant to Section 24.3.4 of the CAISO Tariff, Pathfinder and Zephyr are submitting a request for an Economic Planning Study.

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[8] FERC Order No. 1000, ¶ 82.

[9] 202-2013 ISO Transmission Plan, section 4.5.

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This request follows Zephyr's request in the 2012-2013 TPP, which although rejected, was a contributing factor in the CAISO conducting a sensitivity study for a high out-of-state import scenario.[10] One reason given for the rejection was that the prior request did not identify project congestion.[11] However, the sensitivity study conducted as part of the prior planning cycle identifies congestion at the El Dorado 500 kV bus from generation imports from other states, and therefore Zephyr's Economic Planning Study request is renewed as it seeks to have the CAISO assess congestion identified by the CAISO in the prior cycle.[12]

The sensitivity study conducted as part of the 2012-2013 planning cycle used the "Commercial Interest portfolio" as the base case, assumed 3,000 MW of renewable generation importing into California at the El Dorado 500 kV bus, and was conducted on the peak load scenario. The study resulted in overloads over multiple transmission lines as the lines exceeded emergency ratings. "With the assumption that all additional out of state renewable generation would be injected at the El Dorado 500 kV bus, expanding the transmission system from El Dorado to the load centers was found to be needed."[13] An additional option to mitigate congestion includes "[u]pgrades on other branches of the North branch group of West of

[10] 2012-2013 ISO Transmission Plan, Sec. 5.6.
[11] Additionally, the 2012-2013 TPP indicated that Zephyr's request was rejected because it failed to address local capacity requirements. However, that request, did intend to address a potential reduction in the need for Local Capacity Resources in the eastern portion of the Los Angeles Basin. (Pathfinder Renewable Wind Energy, LLC and Zephyr Power Transmission, LLC Comments on the CAISO Draft 2012/2013 Transmission Planning Process Unified Planning Assumptions and Study Plan, March 13, 2012, p. 16.)
[12] CAISO Tariff, Sec. 24.3.1.
[13] 2012-2013 Transmission Plan, Sec. 5.6.

River."[14] Accordingly, it is clear that congestion associated with renewable resource imports has been identified, and this request should qualify as a High Priority Economic Planning Study for consideration in this TPP cycle.

Pathfinder and Zephyr understand the desire of the CAISO to use the recommended generation portfolio developed by the CPUC as one necessary option to study for its planning purposes, but in order to undertake a comprehensive transmission planning effort, the CAISO should study other potential generation portfolios as well. The High Out-of-State Import Sensitivity analysis that was conducted in the 2012/2013 planning cycle was a helpful start and provides the foundation to expand and pursue more meaningful analyses of out-of-state import scenarios in this current 2013/2014 planning cycle. The 2013/2014 TPP is the proper forum to go the next step and evaluate the total cost of delivering cost effective renewable resources to California customers, and reflecting the costs for both generation and transmission. The generation portfolios developed by the CPUC do not allow the CAISO to study the broad range of resource development that may occur over the planning horizon and may not reflect the necessary information to fully evaluate the total cost of energy from out-of-state resources. The TPP provides an opportunity and process for the CAISO to enhance and expand upon the resource portfolios provided by the CPUC, and conduct a more meaningful analysis of the value of out-of-state renewable resources to California. Without this analysis, it is not possible for California to give a fully informed determination on what the lowest cost solution will be for consumers in the state.

Based on the above, Pathfinder and Zephyr hereby request the CAISO to conduct an Economic Planning Study to identify the most cost effective method of relieving the congestion

[14] Id.

between Southern Nevada and the major load centers in Southern California so that queued generation located in the Southern Nevada area or interconnected with the CAISO grid in the area can be cost-effectively delivered to markets in Southern California. This Economic Planning Study request is intended to address the following items:

- The expected increases in transmission congestion over Path 46 (with a particular focus on the Northern System as discussed above) during the planning horizon used in the CAISO TPP; and

- A potential reduction in the need for Local Capacity Resources in the eastern portion of the Los Angeles Basin.

Pathfinder and Zephyr are fully committed to working with the CAISO, as well as WECC and other regional planning groups as necessary, to accurately model this high import scenario, including capital costs, capacity factors, and other relevant information that may be necessary for the CAISO to accurately model out-of-state renewable resources. It is important to note that Pathfinder and Zephyr are not requesting the CAISO to identify or recommend a transmission project for inclusion in the next Transmission Plan; rather, the request is to fully study the economic benefits of cost-effective out-of-state renewable resources to California, so that this information may better inform the stakeholder process.

V. Conclusion

Pathfinder and Zephyr appreciate the opportunity to submit these comments on the CAISO's 2013/2014 TPP and the Draft Study Plan. For the reasons articulated herein, the CAISO should consider generation scenarios that include meaningful out-of-state resources as part of its comprehensive transmission planning efforts. The CAISO is requested to perform an Economic Planning Study to identify the most cost effective method of relieving the congestion between Southern Nevada and the major load centers in Southern California.

Dated: March 14, 2013

Respectfully submitted,

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