

**STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION**

California Energy Commission

DOCKETED

13-IEP-1B

TN # 70017

MAR. 21 2013

In the Matter of:

2013 Integrated Energy Policy Report
(2013 IEPR)

)
) Docket No. 13-IEP-1B
)

) WORKSHOP RE: Cost of New Renewable
) and Fossil-Fueled Generation in California
)

**PATHFINDER RENEWABLE WIND ENERGY AND
ZEPHYR POWR TRANSMISSION, LLC COMMENTS ON
THE STAFF WORKSHOP ON THE COST OF NEW RENEWABLE AND
FOSSIL-FUELED GENERATION IN CALIFORNIA IN THE 2013 INTEGRATED
ENERGY POLICY REPORT**

Christopher T. Ellison
Chase B. Kappel
Ellison, Schneider & Harris, L.L.P.
2600 Capitol Avenue, Suite 400
Sacramento, CA 95816
Telephone: (916) 447-2166
Facsimile: (916) 447-3512

March 21, 2013

Attorneys for Pathfinder Renewable Wind Energy
and Zephyr Power Transmission, LLC

**STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION**

In the Matter of:	)	
	)	Docket No. 13-IEP-1B
	)	
2013 Integrated Energy Policy Report	)	WORKSHOP RE: Cost of New Renewable
(2013 IEPR)	)	and Fossil-Fueled Generation in California
	)	

**PATHFINDER RENEWABLE WIND ENERGY AND
ZEPHYR POWR TRANSMISSION, LLC COMMENTS ON
THE STAFF WORKSHOP ON THE COST OF NEW RENEWABLE AND
FOSSIL- FUELED GENERATION IN CALIFORNIA IN THE 2013 INTEGRATED
ENERGY POLICY REPORT**

Pathfinder Renewable Wind Energy (“Pathfinder”) and Zephyr Power Transmission, LLC (“Zephyr”) respectfully submit these comments on the Staff Workshop in the 2013 Integrated Energy Policy Report (“2013 IEPR”) addressing the Cost of New Renewable and Fossil-Fueled Generation in California, held at the California Energy Commission (“Commission”) on March 7, 2013.¹ Pathfinder and Zephyr are submitting these comments in addition to their public comment given during the workshop, during which Pathfinder and Zephyr stated concern with the exclusion of consideration of out-of-state renewable resources in the 2013 IEPR proceeding, and as shown by the in-state scope of this workshop. In order to represent the contributions that comparatively lower-cost renewable energy production located outside of California will have on the State’s progress to satisfy the Renewables Portfolio Standard (“RPS”), the 2013 IEPR analysis should be expanded to recognize out-of-state new renewable resources.

¹Notice of Staff Workshop on the Cost of New Renewable and Fossil-Fueled Generation in California, available at: http://www.energy.ca.gov/2013_energy_policy/documents/2013-03-07_workshop/2013-03-07_Cost_of_Generation_Workshop_Notice.pdf.

I. INTRODUCTION AND BACKGROUND

Zephyr is a Delaware limited liability company established for the purpose of developing and financing the Zephyr transmission project, a proposed 975 mile, 3,000 MW high voltage, direct current merchant transmission line project that will originate near Chugwater, Wyoming and terminate south of Las Vegas, Nevada in the Eldorado Valley (“Zephyr Project”) with an interconnection to the California Independent System Operator controlled grid. Pathfinder is in the development stages of a 3,000 MW wind generation project and associated mitigation land proposal in Wyoming and has contracted with the Zephyr Project for delivery to California. The Zephyr Project is being developed to enable extremely high quality wind generation resources to be delivered to the California markets.

The Commission held a workshop on March 7, 2013 to discuss preliminary cost estimates of a wide range of utility-scale new renewable and fossil-fueled generation in California. As shown by the narrow in-state focus of this workshop, and without an apparent opportunity for consideration of a more location inclusive portfolio, the 2013 IEPR detrimentally focuses only on in-state resources, when the economic and environmental interests of California are best served where the Commission considers the contribution and costs of economical renewable resources from outside the state.

II. COMMENTS

A. The Commission Should Estimate the Costs, Capacity Factors, and Multi-year Trends for Utility-Scale Out-of-State Renewable Resources Delivering to California in the IEPR Proceeding

The schedule of workshops for this proceeding does not include consideration of resources that are not located in California, or provide any opportunity to recognize and consider the valuable contributions of developing out-of-state renewable projects. In addition to estimating costs, capacity factors, and multi-year per-unit cost trends for new in-state resources,

the 2013 should pursue the same analyses for location diverse new renewable projects.

Estimation of these characteristics for out-of-state new renewables is entirely possible, as shown by E3's report on renewable resource cost and performance performed for the Western Electricity Coordinating Council ("WECC").²

Incorporation of out-of-state renewable projects is essential because these projects increase the reliability of California's intermittent resource portfolio.³ For example, where a wind corridor in California has a low production period, the same is not necessarily true for a wind corridor located outside the state. Additionally, wind generation from Wyoming is a cost effective option for California, even when taking into account the cost of long-distance transmission, because a project with a highly economical cost of generation may outweigh the costs of integration and interconnection.⁴ Accordingly, Pathfinder and Zephyr believe that the Commission should consider and recognize the importance of out-of-state energy resources in the 2013 IEPR, and that the cost analyses presented at the workshop be supplemented to further consider the costs and characteristics of out-of-state, utility-scale, new renewable resources.

B. Incorporation of Utility-Scale Renewable Energy Projects from Outside California is Supported by the Wind Energy Research Center's Report on Wind Location Diversity

The University of Wyoming's Wind Research Center recently issued a report, *Wind Diversity Enhancement of Wyoming/California Wind Energy Projects* ("Wind Diversity Report"), focused on the importance of diversity in wind resources, and specifically considering

² Cost and Performance Review of Generation Technologies Recommendations for WECC 10-and 20-Year Study Process, Prepared by Energy and Environmental Economics, Inc. (E3) for the Western Electric Coordinating Council, October, 2012, available at:

http://www.wecc.biz/committees/BOD/TEPPC/External/E3_WECC_GenerationCostReport_Final.pdf

³ The benefits of incorporating geographically diverse of renewable projects are discussed in subsection II.B, herein.

⁴ Support for the overall cost benefits of remotely located renewable projects is discussed in subsections II.B and II.C, herein.

the benefits of combining Wyoming and California wind resources.⁵ The Wind Diversity Report analyzes multiple Wyoming-California wind production scenarios, and in each case finds that combining Wyoming wind resources with California wind resources decreases the variability of power production with variability reductions ranging from one-third to one-half when up to only four wind assets (two California and two Wyoming) are combined.⁶

The report also conducts a simple cost-benefit analysis of the impact of reducing wind asset variability through incorporation of geographically diverse wind projects into the California wind portfolio, finding savings in the range of \$10 million to \$100 million. More specifically, where makeup power is priced at only \$50/MWh, annual savings resulting from a combination of both California and Wyoming wind resources is estimated to be \$100 million.⁷

In summary, the report concludes that its analyses have the following implications:

Decrease in variability and increase in correlation with demand that can occur when diverse renewable resources are used should make it easier to integrate these resources within the limitations of the existing grid. In addition, the reduction of ramping events will not only reduce the costs associated with purchasing backup power, but has the potential to reduce greenhouse gas emissions assuming the backup power is provided by fossil fuels. Finally, diversification has the potential to allow California to develop its own indigenous renewable resources further as the variability and ramping issues that are present today will only grow greater as the amount of power supplied by California renewable resources increases.

To ensure that the most economical and environmentally advantageous mix of resources are encouraged and planned for California, the Commission should closely consider the analyses and conclusions of the Wind Diversity Report, and, at a minimum, include in this IEPR update

⁵ The Wind Diversity Report, issued January 2013, is the first in a series of four studies on geographic diversity. It is available at <http://wyia.org/wp-content/uploads/2013/01/final-report-wy-ca-geo-diversity-study1.pdf>.

⁶ See Wind Diversity Report, p. 24.

⁷ Wind Diversity Report, p. 24-25

the costs and benefits of location diverse, utility-scale, new renewable resources delivering into California.

C. The 2013 IEPR Should Consider WECC’s Conclusions that there is a Total Cost Savings in Using Long-Distance Transmission to Access Out-of-State Renewable Resources

The Commission should carefully consider the WECC 10-Year Study conducted by the WECC’s Transmission Expansion Planning Policy Committee (“TEPPC”). The 10-Year Regional Transmission Plan – 2020 Study Report (“2020 Study Report”),⁸ which was prepared with the objective to provide information to stakeholders for use in decision-making processes. The 2020 Study Report considers two scenarios involving 25,000 GWh increases in Montana and Wyoming wind production and associated transmission to convey the energy to California. The WECC’s concludes the following in regards to the impact of increasing wind production:

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.⁹

In consideration of the work and findings by WECC’s TEPPC, the CAISO should carefully consider the impact of a significant increase in economical renewable resources from outside California.

⁸ The 2020 Study Report is available at <http://www.wecc.biz/library/StudyReport/Documents/2020%20Study%20Report.pdf>.

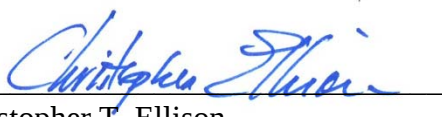
⁹ 2020 Report at Table 25, p. 93.

III. CONCLUSION

Pathfinder and Zephyr appreciate this opportunity to provide these comments on the 2013 IEPR Workshop on the costs of new renewable and fossil-fueled generation in California. For the reasons described above, the 2013 IEPR proceeding should recognize the contribution and cost-effectiveness of out-of-state renewable generation, and the University of Wyoming and WECC studies discussed herein.

Dated: March 21, 2013

Respectfully submitted,

By: 
Christopher T. Ellison
ELLISON, SCHNEIDER & HARRIS L.L.P.
2600 Capitol Avenue, Suite 400
Sacramento, California 95816
Telephone: (916) 447-2166
Facsimile: (916) 447-3512

Attorneys for Pathfinder Renewable Wind Energy
and Zephyr Power Transmission, LLC