

## DOCKETED

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**Duke America Transmission Company Comments on RETI 2.0 Plenary Group Meeting**

*Additional submitted attachment is included below.*

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March 30, 2016

Brian Turner  
California Natural Resources Agency  
*Via e-Comment*

Re: Duke American Transmission Company's Comments on the March 16, 2016 Renewable Energy Transmission Initiative 2.0 Plenary Group Workshop.

Dear Brian,

Duke American Transmission Company ("DATC") appreciates the opportunity to provide these comments as follow-up to the March 16, 2016, Renewable Energy Transmission Initiative 2.0 ("RETI 2.0") Plenary Group Workshop on Renewable Resource Areas and Values ("Workshop").

DATC is a California Independent System Operator ("ISO") Participating Transmission Owner ("PTO"). DATC owns the majority of the transmission service rights for the critical Path 15 Upgrade Project portion of the ISO controlled transmission grid. DATC and its parent entities, including Duke Energy and American Transmission Company, have considerable experience developing, owning and operating major transmission facilities across the country. DATC looks forward to providing its perspective as a PTO, transmission developer, and a stakeholder interested in seeing California achieve its aggressive 2030 Climate Goal.

## **Prudent Transmission Planning Should Be Flexible to Accommodate an Uncertain Future.**

During the Workshop, California Energy Commission ("CEC") staff asked "how do utility resource planners plan to supply electricity in 2030 that is at least 50% renewable, 40% lower in GHG, while also safe, reliable, and as low cost as possible? What types of resources do they expect will be needed by their company to meet their mandates?"<sup>1</sup> An essential element of any critical infrastructure planning process should be the recognition that the future is uncertain. This is especially true for electricity—a commodity essential to the public welfare that must be

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<sup>1</sup> See CEC Introduction to Plenary Meeting Presentation, Slide 7, Question 4, available at: [http://docketpublic.energy.ca.gov/PublicDocuments/15-RETI-02/TN210715\\_20160315T103156\\_Introduction\\_to\\_Plenary\\_Meeting.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/15-RETI-02/TN210715_20160315T103156_Introduction_to_Plenary_Meeting.pdf)

delivered in real time. This is also true for a system that is changing as the state pursues its ambitious greenhouse gas objectives. The price of failure to hedge for uncertainty is particularly great in the context of transmission planning. Major transmission additions take many years to plan and permit; this is particularly true in California. Thus, needed but unplanned transmission cannot be built quickly as circumstances change. The opposite is not the case. Transmission that is planned, but later determined to be unnecessary, can easily be suspended prior to construction. Because the vast majority of transmission costs are incurred in the construction phase, stranded-cost risks are limited during the first 70-80% of the pre-construction portion of a typical transmission project schedule.<sup>2</sup> Stated simply, transmission planning risks are asymmetric: a transmission plan is much more flexible downward than upward.

There is another fact about transmission planning that highlights the need for flexibility. Transmission costs—even assuming construction—are a small percentage of the customer’s overall bill, typically less than 10 percent.<sup>3</sup> The biggest component of the customer’s total bill is generation. As DATC has repeatedly noted in comments filed at the CAISO and at the CPUC, minimizing transmission costs does not necessarily result in lower overall costs, as lack of transmission can raise generation costs that far outweigh the costs of building transmission. A transmission plan that guesses wrong on generation portfolio planning can force reliance on generation that is costly, environmentally harmful, or unreliable, leading to much larger ratepayer costs than the costs of planning for contingency transmission that is ultimately deemed unnecessary. Simply put, a myopic planning focus on a narrow range of scenarios aimed at reducing transmission costs is akin to choosing to fight fires, rather than invest in long-term fire prevention measures. The myopic focus can easily prove “penny-wise and pound foolish.” Thus, resource planners and regulators should plan to supply electricity in 2030 that is *at least* 50% renewable and 40% lower in GHG by developing a flexible transmission plan that can address the inherent uncertainty in generation planning.

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<sup>2</sup> See for example, “Baseline Transmission Costs”, Table 2-1, as reported in *Capital Costs for Transmission and Substations, Recommendations for WECC Transmission Expansion Planning*, B&V Project No. 176322 (October 2012).

<sup>3</sup> See for example, SCE Schedule GS-1 (General Service, Non-Demand, <https://www.sce.com/NR/sc3/tm2/pdf/ce74-12.pdf>), Transmission charge is \$0.01132/kWh/Meter/Day; total Delivery + Generation charges come to \$0.16993/kWh/Meter/Day (Summer rate) = 6.6%, \$0.13982/kWh/Meter/Day (Winter) = 8.1%; SCE Schedule TOU-D-1 (Time of Use Domestic, <https://www.sce.com/NR/sc3/tm2/pdf/ce84-12.pdf>), Transmission charge is \$0.01131/kWh/Meter/Day, total Delivery + Generation charges come to \$0.50518/kWh/Meter/Day (Summer, On-Peak rate) = 2.2%, \$0.19033/kWh/Meter/Day (Winter, Off-Peak) = 5.9%; PG&E Schedule A-6 (Small General Time of Use, [http://www.pge.com/tariffs/tm2/pdf/ELEC\\_SCHEDULES\\_A-6.pdf](http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDULES_A-6.pdf)), Transmission charge is \$0.01274/kWh; total rate (customer charge + energy rate, no counting PDP event) is \$0.36152 (using Winter Part-Peak as example) = 3.5%; PG&E Schedule E-6 (Residential Time of Use, [http://www.pge.com/tariffs/tm2/pdf/ELEC\\_SCHEDULES\\_E-6.pdf](http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDULES_E-6.pdf)), Transmission charge is \$0.01706/kWh, total Winter Part-Peak Baseline rate is \$0.12129 = 14%; total Summer Part-Peak Baseline rate is \$0.17528 = 9.7%; Total Summer Peak Baseline rate is \$0.28719 = 5.9%.

**Multiple Generation Scenarios, Utilizing Resources from Several Geographic Regions Will Add Resiliency to California's Transmission Plan**

Prudent transmission planning strives for flexibility and RETI 2.0 should make recommendations that create a more flexible transmission plan by enabling a broad range of generation scenarios that utilize resources from a range of geographic areas, throughout California and the west.

The generation scenarios resulting from the CPUC's procurement planning proceeding have not always correlated with other state planning process assumptions. One reason is that these scenarios are developed by the CPUC mainly to meet procurement goals and only secondarily for transmission planning. In DATC's view, there is a false consistency in using the same scenarios for both because there is a fundamental difference between procurement and transmission planning. Developing one or a limited number of aspirational scenarios is a reasonable approach to energy procurement, which seeks to incent the most desired mix of resources without significant hedging for uncertainty. But such "hope for the best" procurement planning should be combined with "plan for the worst" transmission planning that does hedge against uncertainty by using a broader range of scenarios. Given the very long-term nature of transmission planning, a prudent transmission plan should be resilient enough to accommodate change in procurement and to meet a reasonable range of future generation scenarios.

DATC is encouraged that several geographic areas are being considered in the RETI 2.0 process and encourages the CEC, the CPUC and the CAISO to focus not only on energy only scenarios but also on a portion of the future renewable supply being developed from full-deliverability scenarios. As the state integrates more renewables into the system and fewer projects are able to retain full capacity deliverability status, curtailment risk will become a growing concern. Generation projects may struggle with financing and ultimately may not get built to the magnitude assumed if wide-spread curtailment is expected – as is the case in the energy-only scenarios. Additionally, it is expected that in order to finance certain new facilities, developers will be required to perform detailed curtailment studies that go beyond a 'simple' planning level PSLF study. It is not atypical for a lender to conduct additional curtailment/deliverability studies to examine additional curtailment risks for Category B and C scenarios when transmission facilities may be out of service (routine or unexpected). In order to fully meet California's ambitious energy goals and actually reduce GHG levels, California will need to consider some level of full-deliverable procurement. DATC encourages procurement from multiple geographic regions that have thus far been eliminated from California's energy planning processes, including the San Joaquin Valley, the Lassen North area and other states, like Wyoming and northern Nevada. A flexible transmission plan that provides early signals about the availability of transmission to these resource areas will enable the diverse RPS portfolio required to achieve at least a 50% RPS and meet the State's 2030 GHG target.

## **I. Conclusion**

Many of the points raised in these comments are ones that DATC has been advocating in California for some time and in a variety of forums including the CEC's IEPR, the CAISO transmission planning process and elsewhere. DATC is therefore encouraged by and strongly supportive of the RETI 2.0 effort as it represents the type of longer term, coordinated transmission planning critical to achieving California's ambitious electric system goals. DATC encourages the consideration of several procurement portfolio options in order to create a robust and resilient transmission plan that is flexible enough to meet California's goals in an uncertain future. The plan should assume that more than 50% renewables will be needed to meet the 2030 GHG targets and include decisions early in the process to facilitate long lead-time, transmission solutions that serve a variety of generation scenarios. DATC appreciates the consideration of these comments.

Sincerely,



Brian S. Biering

Ellison, Schneider & Harris, L.L.P.

Attorneys for Duke American Transmission Company