

Stakeholder Comments Template

Submitted by	Company	Date Submitted
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INTRODUCTION

Duke American Transmission Company (“DATC”) provides the following comments on the California Independent System Operator’s (“CAISO”) 2013 -2014 Transmission Planning Process Draft Plan (the “Draft Plan”) and the Stakeholder Meeting held on February 12th, 2014.

DATC and its two parent entities, Duke Energy and American Transmission Company, have substantial experience and expertise in electric transmission from their many decades of ownership and operation of major transmission facilities in multiple states. In California, DATC Path 15 LLC, a subsidiary of DATC, owns 72 percent of the transmission service rights to the Path 15 Upgrade transmission project, an 84 mile, 500 kV transmission line in Central California. In addition, DATC is the sponsor of the proposed Zephyr Power Transmission Project (the “Zephyr Project”), a high-voltage direct current (“HVDC”) line, which will run from southeast Wyoming and interconnect to the CAISO balancing authority area at the Eldorado substation. The Zephyr Project will deliver wind generation being developed in southeast Wyoming by Pathfinder Renewable Wind Energy, LLC to communities in the Southwestern United States.

DATC is filing comments on behalf of its two subsidiaries, DATC Path 15 LLC and Zephyr Power Transmission LLC, as well as making general comments about the Transmission Planning Process (“TPP”). DATC, and its subsidiaries, appreciate the opportunity to participate in the TPP and believe wholeheartedly that an open, transparent, and consistent process is essential to properly plan for the needs of the electricity system.

These comments address three topics. First, we request that the CASIO emphasize two essential facts that should inform the current and future transmission planning effort. These facts are: (1) the actual mix of future generation scenarios is uncertain; and 2) the economic and environmental cost of planning for too much transmission is far less than the cost of planning for

not enough transmission. Prudent transmission planning should err on the side of flexibility and include hedges against generation and load uncertainty, rather than creating risks for the State's economy and environment by minimizing the planned-for transmission.

Second, the Draft 2013-2014 TPP fails to account for these planning principles by considering an overly narrow set of generation scenarios and an incomplete list of policy objectives. As a result, the Draft 2013-2014 TPP puts California ratepayers at risk by planning for the minimum transmission necessary to meet a too narrow range of scenarios and policy objectives.

Third, the Draft 2013-2014 TPP should account for the aforementioned planning principles by undertaking five measures: (i) the CAISO should expand the policy objectives to include California's greenhouse gas goals; (ii) the CAISO must consider a broader range of renewable and low carbon portfolios; (iii) the CAISO should adopt policies that support contingency transmission planning; (iv) the TPP should address benefits of projects such as the Zephyr Project; and (v) the TPP should address the potential to expand or "right-size" the San Luis Transmission Project.

DISCUSSION

I. Prudent Transmission Planning Should Be Flexible To Accommodate an Uncertain Future.

Like the CAISO, DATC's parent entities, Duke Energy and American Transmission Company, are entities responsible to millions of ratepayers for reliable and cost-efficient electric power services. As such, DATC appreciates the difficulty and competing priorities involved in planning and maintaining a high-voltage transmission grid, which supports the economy and public welfare of a large portion of the United States. The most important lesson DATC has learned in this business is the importance of flexibility and the ability to respond to change. An essential element of any critical infrastructure planning process should be the recognition that the future is uncertain. This is especially true when applied to electricity - a commodity essential to the public welfare that must be delivered in real time.

The price of failure to hedge for uncertainty is particularly great in the context of transmission planning. This is due to two fundamental facts regarding transmission. The first fact is that major transmission additions take many years to plan and permit. This is especially true in California. Thus, needed but unplanned for transmission cannot be built quickly as circumstances change. The failure to plan for needed transmission cannot be remedied cheaply or easily, if it can be remedied at all. The opposite is not the case. Transmission that is planned, but later determined not to be needed, can be quickly suspended prior to ultimate construction. As the vast majority of transmission costs are in the physical construction of facilities, a decision to cancel planned transmission is not expensive. Stated simply, transmission planning risks are asymmetric: a transmission plan is much more flexible downward than upward.

These indisputable facts translate into two specific policies for the TPP: (1) multiple scenarios should be considered to determine a set of transmission projects, and (2) the CAISO should investigate and institute processes and procedures to create multiple options that can prepare for an uncertain future. To expand on the first point, the CAISO currently only evaluates a future that is determined by stakeholders in an open process to be the most likely to occur. While DATC agrees that this has historically been the preferred approach, the future energy system Californians face today is much different and much more uncertain than in the past. Therefore, it makes sense to evaluate multiple potential future scenarios and determine a set of high value transmission projects that meet the need over a range of potential outcomes.

These policies are also supported by another basic fact: transmission costs—even assuming construction—are a small percentage of the customer’s overall bill, typically less than 10 percent.¹ By far the major driver of the customer’s total bill is generation. As Zephyr and Pathfinder have repeatedly noted in comments filed at the CAISO and at the CPUC, minimizing transmission costs does not result in lower overall costs, as generation costs far outweigh the costs of building transmission. But transmission, while relatively inexpensive to construct, can have a major impact on generation costs.

A transmission plan that guesses wrong on generation can force reliance on generation that is costly, environmentally harmful, unreliable, and lead to stranded costs. Thus, the price of planning for, or even building, too much transmission is relatively small, while the price of having too little can be very large. A myopic planning focus on reducing transmission costs can easily prove “penny-wise and pound foolish.”

In sum, California should plan for transmission that accommodates a reasonable range of possible generation futures, rather than a singular focus on a plan that minimizes transmission costs. As shown next, the proposed TPP does just the opposite.

¹ 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_SCHEDS_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_SCHEDS_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%.

II. The CAISO TPP Puts California Ratepayers at Risk by Planning for the Minimum Transmission Necessary to Meet a Too Narrow Range of Scenarios and Policy Objectives.

Section 24.4.6.6 of the CAISO Tariff establishes the procedures for identifying and evaluating policy-driven transmission solutions that are needed to meet state, municipal, county or federal policy requirements or directives as specified in the CAISO’s Study Plan.² In Section 3.1 of the Study Plan, the CAISO identified “the state’s mandate for 33% renewable energy by 2020” as the “overarching public policy objective” in the current planning cycle.³ This high-level public policy objective has been further broken down into two sub-objectives:

First, to support the delivery of 33% renewable energy over the course of all hours of the year, and second, to support Resource Adequacy (RA) deliverability status for the renewable resources outside the CAISO balancing authority area that are needed to achieve the 33% RPS goal. Either of these sub-objectives could lead to the identification and approval of policy-driven transmission elements in the CAISO’s 2013-2014 comprehensive transmission plan.⁴

These two sub-objectives are described and detailed in Sections 3.1.1 and 3.1.2 of the 2013-14 Study Plan. The criteria identified in Section 24.4.6.6 of the Tariff are also relevant to the CAISO’s determination of need and designation as Category 1 or 2 for policy-driven transmission upgrades and additions. These criteria include planning level costs, environmental evaluation, resource integration requirements and needs, and the resource planning priorities of the CPUC and other regulators.⁵

The process briefly summarized above is data-driven and analytical, but also allows the CAISO to exercise discretion in order to align its prioritization of policy-driven transmission projects with the resource planning processes of regulatory agencies, and to use its judgment and experience in making decisions about public policy-driven project priorities.⁶ This flexibility and discretion is important, because for the reasons discussed above, efficient and effective

² CAISO Tariff Section 24.4.6.6; FERC Order No. 1000 requires transmission providers “to establish procedures for identifying those transmission needs driven by Public Policy Requirements for which potential transmission solutions will be evaluated in the local or regional transmission planning processes.” Furthermore, “[a]s part of the process..., such procedures must allow stakeholders an opportunity to provide input, and offer proposals regarding the transmission needs they believe are driven by Public Policy Requirements.” (FERC Order No. 1000 para. 207).² Pending tariff changes to implement FERC Order 1000 would require the CAISO to “evaluate transmission solutions needed to meet state, municipal, county, or federal policy requirements or directives...” (August 20, 2013 compliance filing, Section 24.4.6.6).

³ Final Transmission Planning Process Unified Planning Assumptions and Study Plan for 2013-2014 (April 1, 2013)

⁴ CAISO Tariff §24.4.6.6

⁵ Id. (a) through (j).

⁶ For example, the CAISO uses scores and rankings in processes such as the California Renewable Energy Transmission Initiative (“RETI”) and the CPUC long-term procurement planning process, but “may also seek to modify such assessments for particular locations as appropriate.” (Transmission Planning BPM p. 38). Similarly, information “including but not limited to the estimated cost, permitting and construction time period, and need date” is considered in classifying a transmission solution as Category 1 or 2. (Id. p. 39).

transmission planning requires both pragmatic consideration of a spectrum of planning assumptions *and* the ability to balance long and short term options and priorities.

As the Draft Plan acknowledges, “[t]he primary policy directive for the last three years’ planning cycles and the current cycle is California’s RPS that calls for 33 percent of the electric retail sales in the state in 2020 to be provided from eligible renewable resources.”⁷ DATC believes there are multiple policy objectives that the CAISO must take into account during its planning process.

The CAISO assessment for the 2013-2014 TPP did not identify any “new major transmission projects needed to support achievement of California’s 33% RPS...”⁸ In part, the negligible amount of policy-driven projects were the result of the narrow range of renewable portfolios used in the 2013-2014 TPP (see discussion of broadening the portfolios in the next section). The limited number of policy-driven projects was also a result of the CAISO’s focus on a single policy issue: the 33% RPS.

This narrow focus causes, and is exacerbated by, the reliance upon a narrow range of generation scenarios. Pursuant to a May 2010 Memorandum of Understanding (“MOU”), the CAISO relies upon input from the CPUC and the CEC to develop the renewable resource portfolios that the CAISO uses in the TPP. There continues to be a great deal of uncertainty about which areas of the grid will actually realize most of this new resource development.”⁹ In order to address this uncertainty, the CAISO applies what it refers to as a “least regrets” principle, in order to balance the need to develop needed transmission in time to meet public policy requirements, while at the same time avoiding “the risk of building transmission in areas that do not realize enough new generation to justify the cost of such transmission.”¹⁰

Despite the Draft Plan’s concession that “there continues to be a great deal of uncertainty about which areas of the grid will actually realize most of this new resource development,” the number of alternate portfolios have been reduced in this TPP, and there is less variability between those scenarios.¹¹ For this TPP, the CPUC and the CEC recommended the use of only three scenarios: a “commercial interest” scenario, an “environmental” scenario, and a “high-distributed generation” portfolio.¹² The CAISO used only these limited scenarios to determine policy-driven need. Use of only a few scenarios, with little variability, results in the development of a less flexible transmission plan that runs the risk of failing to provide transmission access to least cost generation assets.

⁷ Draft Plan at 15.

⁸ The Draft Plan identifies only two policy-driven projects: a 300MVAR SVC at Suncrest, and a Lugo-Mohave series capacity and related terminal upgrades. (Draft Plan at 9.)

⁹ Draft Plan at 16-17.

¹⁰ Draft Plan at 17.

¹¹ Draft Plan at 9.

¹² See February 7, 2013 letter from the CPUC and CEC to the CAISO.

That risk is further exacerbated by the continued use by the CPUC of the flawed RPS Calculator to develop the renewable portfolios it transmits to the CAISO. The Draft Planning Assumptions and Scenarios for the 2014-2015 TPP (the “Draft Assumptions”), circulated by CPUC Energy Division staff on December 11, 2013, concedes that “some of the cost and performance assumptions embedded in the calculator have become somewhat outdated, which limits its usefulness.”¹³ Among the specific problems noted by the Energy Division staff, “the RPS Calculator does not adjust the portfolios for the changes in a technology’s value related to its increased penetration and uses outdated fossil benchmarks that create a significant error in the value of portfolios.”¹⁴ In addition to these problems, parties to the CPUC’s LTPP have noted numerous other problems, including underestimating the costs of distributed resources by failing to include distribution system upgrade costs, and errors in how environmental scoring is handled for out-of-state projects.¹⁵

The Energy Division staff intends to fundamentally redesign the RPS Calculator “so that resource options will be added to a portfolio based not on their individual value-vs.-cost, but based on how they impact the value-vs.-cost of the entire portfolio....”¹⁶ However, a final ruling on this fundamental redesign will not occur until the third quarter of 2014.¹⁷ Moreover, for the 2014-2015 TPP, the CPUC has published only two versions of the RPS Calculator, a “commercial interest” version and a “high DG” version. While the Draft Assumptions contain six different proposed RPS portfolios based on those two versions, that proposal represents yet a further narrowing of the variability between the portfolios used in the TPP. This narrow focus puts California ratepayers at risk by planning for the minimum transmission necessary to meet a too narrow range of scenarios and policy objectives.

III. The CAISO Should Take Five Steps to Develop a More Prudent and Flexible Plan.

A. The CAISO TPP Should Expand the Policy Objectives to Include California’s Greenhouse Gas Goals.

The 2013-2014 TPP ignores what is likely to be one of the key policy drivers for transmission development: California’s greenhouse gas reduction goals.¹⁸ Assembly Bill 32, the California Global Warming Solutions Act of 2006 declared that global warming posed a serious threat to the economic well-being, public health, natural resources, and environment of

¹³ See Draft Assumptions at p. 15.

¹⁴ *Id.*

¹⁵ See DATC Comments on Draft Assumptions.

¹⁶ *Id.* at 15-16.

¹⁷ See Third Amended Scoping Memo and Ruling issued by Commissioner Ferron on January 13, 2014.

¹⁸ Despite the requirements of Order 1000, the broad language contained in the CAISO’s August 20, 2013 compliance filing that would require consideration of “state, municipal county, or federal policy requirements or directives,” and the CAISO’s assurances in its Draft Final Proposal concerning its Order 1000 compliance that it would not limit public policy requirements to the 33% RPS, for the last three TPP cycles the CAISO has done exactly that.

California. It set an initial target of reducing California’s GHG emissions to 1990 levels by 2020. It further tasked the California Air Resources Board (“CARB”) with “monitoring and regulating sources of emissions of greenhouse gases that cause global warming in order to reduce emissions of greenhouse gases.”¹⁹ Pursuant to Executive Order S-3-05, California has a GHG goal of 80% below 1990 levels by 2050, and CARB is currently developing a broad framework for measures to meet this goal.²⁰ CARB calls for significant energy-related emission reductions, coupled with electrification of the transportation sector. Moreover, a recent study by Lawrence Berkeley National Laboratory (and supported by CARB’s Research Division) showed that in order to reach California’s 2050 GHG goal, the state would need to achieve greater than 40% renewable generation by 2020, or 51% by 2030.²¹

Rather than a singular focus on California’s 33% RPS, the CAISO should consider the policy-driven impacts of the much higher levels of renewable generation required to achieve California’s GHG goals. A recent E3 report, “Investigating a Higher Renewable Portfolio Standard in California,” (“E3 Report”) highlights the problems with focusing on individual costs of each resource, rather than looking at the portfolio as a whole.²² Those impacts will be mitigated by considering a more diverse set of renewable portfolios than the ones used by the CAISO in the Draft Plan. Those portfolios must include out-of-state wind, including resources such as Pathfinder’s Wyoming projects, to ensure renewable integration at least cost. As Order 1000 emphasizes, “evaluating proposed alternative solutions at the regional level may resolve the region’s needs more efficiently or cost effectively.”²³ Ignoring California’s GHG goals and the benefits that can be provided by out-of-state resources in reaching California’s GHG goals will not only inhibit the State’s ability to reach those goals, it will significantly increase the ultimate costs to ratepayers of complying with those policies.

B. The CAISO Must Consider a Broader Range of Renewable and Low Carbon Portfolios.

The limitations of the narrow set of portfolios provided by the CPUC are illustrated by two reports that highlight the need to account for a broader range of portfolios. First, the E3 Report cited above, notes that one of the largest integration challenges would be over generation, consistent with concerns that the CAISO has raised through its ubiquitous “duck curve.” The study explored various methods of addressing that projected over generation, including studying the effects of various RPS resource portfolios. The study considered four RPS

¹⁹ Health and Safety Code section 38510.

²⁰ See Draft AB 32 Scoping Plan Update, available at: <http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>

²¹ Jeffery Greenblatt, “Policy-Driven Greenhouse Gas Emissions Trajectories in California: The California Greenhouse Gas Inventory Spreadsheet (GHGIS) Model,” at 25.

²² *Investigating a Higher Renewables Portfolio Standard in California*, Energy and Environmental Economic, Inc. (January 2014) (“E3 Report”), available at: http://www.ethree.com/documents/E3_Final_RPS_Report_2014_01_06_with_appendices.pdf

²³ Order 1000 at para. 68.

portfolios under a 50% RPS: portfolios emphasizing large solar, small solar, rooftop solar, and a diverse resource portfolio. Integration costs were lowest under the diverse resource portfolio (including 4,985 GWh of out-of-state wind), even though the transmission costs associated with that portfolio were higher than for the other three portfolios.²⁴ The study emphasizes the need for enhanced regional coordination to allow for access to out-of-state renewable resources that can reduce integration costs and provide lower rate impacts than overreliance on in-state solar resources.

Second, the University of Wyoming’s Wind Research Center released a report in January 2013, entitled “Diversity Enhancement of Wyoming/California Wind Energy Projects.” That study found that combining Wyoming and California wind resources reduced the variability of power production from one-third to one-half when two California wind projects were combined with two Wyoming projects.²⁵

Both reports provide strong support for the view that the CAISO needs to consider a broader range of renewable portfolios, especially portfolios that include a diverse mix of resources, such as Wyoming wind supplied by the Zephyr Project. Failure to do so will only increase integration costs and ratepayer impacts. Though the CPUC and CEC, pursuant to the May 2010 MOU, assist the CAISO by preparing renewable generation portfolios in the LTPP, the CAISO is not obligated to rely solely on those portfolios in the TPP. Indeed, as Zephyr and Pathfinder have noted in the past, FERC Order No. 890 requires the CAISO to provide its own transparent stakeholder process that ensures that the appropriate study assumptions and scenarios are used in the TPP.

C. The CAISO Should Adopt Policies That Support Contingency Transmission Planning.

The CAISO should have the ability to allow an entity to permit high value transmission projects and recover the costs of doing so through transmission rates. In fact, this is exactly what occurred in the past under the vertically integrated model. A utility would determine that value exists in having multiple alternatives available in the future by permitting routes that were determined to be of high value. The cost of this was then passed through rates. One specific example of how valuable these options can be is the Path 15 Upgrade, which relied on a route that had been permitted by Western in the 1980’s and allowed for the project to be operational within three years of conception at a significantly reduced cost.

D. The TPP Should Address the Benefits of Projects Such as the Zephyr Project.

The Zephyr Project is an HVDC transmission line which will run from southeast Wyoming and interconnect to the CAISO balancing authority area at the Eldorado substation. It will deliver wind generation being developed in southeast Wyoming by Pathfinder Renewable Wind Energy, LLC to communities in the Southwestern United States. In the previous and

²⁴ E3 Report at 24.

²⁵ Report at 24.

current 2013-2014 TPP cycle, the CAISO declined to study the Zephyr Project.²⁶ DATC understands that the CAISO will not recommend for approval transmission needed to support generation that the CPUC currently assumes will not be built. However, failure to complete at least some planning for such potential future scenarios will result in an incomplete plan and could be very costly to California ratepayers.

In light of this history, DATC continues to have serious concerns about the development of the RPS portfolios at the CPUC and the CAISO's determination to rely exclusively on those portfolios in developing its transmission plans, including the Draft 2013-2014 Plan (See Discussion Section I(c) above). The RPS portfolios increasingly rely on significant solar generation, including distributed solar, to meet California's current 33% RPS. The E3 Report illustrates that there is a significant risk that overreliance on solar resources will exacerbate renewable integration costs and potentially lead to significant over generation.²⁷ This is the same concern the CAISO has understandably emphasized for years through its publication of its "duck curve."²⁸ As noted above, the CAISO needs to consider, either on its own or in conjunction with the CPUC's development of the RPS portfolios, a wider range of potential resources to meet California's RPS, including out of state wind that can ameliorate costs of renewable integration. In addition, as discussed above, the CAISO should consider higher levels of renewable penetration that will be necessary to meet the State's greenhouse gas objectives. The Zephyr Project would satisfy both of these needs.

²⁶ In the 2012-2013 Transmission Planning Process ("TPP") DATC timely submitted a request for an Economic Planning Study on behalf of Zephyr Power Transmission LLC ("Zephyr"). In its final Transmission Plan for 2012-2013, the CAISO noted that it did not act on that request, in part on the ground that the "renewables portfolios developed by the CPUC with the assistance of the CEC and ISO... do not reflect the generation proposed by Zephyr Power Transmission LLC... and accordingly those resources were not modeled exploring the benefits of further reinforcements into the Desert Southwest." (2012-2013 Transmission Plan at 318.) In comments submitted on March 14, 2013 concerning the draft Study Plan for this 2013-2014 TPP, DATC reiterated its request for an Economic Planning Study on behalf of Zephyr. In its responses to stakeholder comments, the CAISO again declined to act on the request, stating, "as the CAISO has discussed on previous occasions the current Renewable Portfolio Standard ("RPS") portfolios do not support the renewable resources at the sending end of the proposed transmission line." (CAISO Responses to Stakeholder Comments, Draft 2013-2014 Study Plan at 50.)

²⁷ *Investigating a Higher Renewables Portfolio Standard in California*, Energy and Environmental Economic, Inc. (January 2014) ("E3 Report"), available at: http://www.ethree.com/documents/E3_Final_RPS_Report_2014_01_06_with_appendices.pdf

²⁸ California ISO Flexible Resources to Help Renewables – Fast Facts, dated October 22, 2013: What the duck curve tells us about managing a green grid, available at: http://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

E. The 2013-2014 Draft Plan Should Include Expansion of the San Luis Transmission Project.

DATC Path 15 provided comments on December 5, 2013 urging the CAISO to take advantage of the opportunity to support a 500 kV Alternative to Western’s proposed 230 kV transmission line between Western’s Tracy and San Luis Substations. The comments described the Western project, and noted that Western had initiated environmental review of both the 230 kV San Luis Transmission Project and a 500 kV alternative that would allow CAISO to address a weak link in the 500 kV backbone of the CAISO grid between Tracy-Tesla and Los Banos (“San Luis 500 kV Alternative”). The comments below provide a more detailed discussion of why the San Luis 500 kV Alternative can and should be designated a public policy-driven transmission solution. Specifically, CAISO should approve the additional capacity (approximately 1000 MW of transfer capability between Los Banos and Tracy) created by the San Luis 500 kV Alternative.

i. The San Luis 500 kV Alternative Qualifies as a Policy-Driven Transmission Solution.

The San Luis 500 kV Alternative is consistent with the CAISO’s 2013-14 public policy objectives and provides significant public policy benefits under the criteria set forth in CAISO Tariff Section 2.4.6.6. The project offers an “efficient and cost effective” approach to supporting delivery of 33% (or more) renewable energy over all hours of the year.

As established in the 2013-2014 Study Plan, a proposed transmission solution’s ability to support the delivery of 33% renewable energy over the course of all hours of the year could lead to the project’s designation as a policy-driven transmission element in the CAISO’s 2013-2014 comprehensive Transmission Plan. The San Luis 500 kV Alternative clearly qualifies as a policy-driven transmission solution under this requirement. It will improve the transfer capability between Southern California and the Bay Area, and enable delivery of wind energy from the Tehachapi region and solar energy from projects in the San Joaquin Valley to serve load in the Bay Area.

While the Study Plan specifically identifies meeting the state’s 33% RPS over all hours of the year as the CAISO’s primary public policy objective, it is important to recognize that the San Luis Transmission Project can help achieve other Public Policy goals, such as the AB 32 goals and the higher levels of renewable penetration that will be necessary to meet the state’s 2050 GHG goal (see Discussion above under Section I(B)). This broader view of the state’s policy needs should be taken into consideration in developing the 2013-2104 Transmission Plan (and subsequent transmission planning processes) and is specifically relevant when considering the benefits of including the San Luis 500 kV Alternative as a policy-driven project.

ii. *The San Luis 500 kV Alternative Is Efficiency and Cost Effectiveness Compared to Alternatives Constitute a Compelling Public Policy Consideration.*

The process established in CAISO Tariff section 2.4.6.6 expressly requires consideration of both a policy-driven project’s inherent efficiency and effectiveness and its cost as compared to “other transmission solutions”.²⁹ The consideration of efficiency and cost overwhelmingly favor identifying the San Luis 500 kV Alternative as a policy-driven transmission solution in the 2013-2014 Transmission Plan.

As described in previous DATC Path 15 comments, the opportunity to “right size” the San Luis Transmission Project to 500 kV now provides a unique one-time opportunity to avoid significant foreseeable costs in the future, and to develop transmission capacity in the Tracy/Tesla – Los Banos corridor more effectively and efficiently than would otherwise be the case. Even leaving other benefits aside, the efficiency and cost effectiveness considerations alone strongly support identifying the San Luis 500 kV Alternative as a policy-driven transmission solution.

Siting and permitting new and upgraded transmission is complex, time-consuming and costly. Thus, any efficiencies, cost savings and avoided environmental impacts that can be achieved by sizing transmission to meet foreseeable future system requirements is a clear benefit to California ratepayers. This is reflected in both federal and California state policies mandating the efficient use and planning of transmission in existing transmission Rights of Way (“ROW”).

For example, The Bureau of Land Management’s Corridor Policy states that “in order to minimize adverse environmental impacts and proliferation of separate ROWs, the utilization of rights-of-way in common (corridors) shall be required to the extent practical . . .”³⁰ Similarly, in adopting Senate Bill 1059, the California legislature found that “to promote the efficient use of the existing transmission system, the state should . . .: (1) *encourage the use of existing rights of way*, the expansion of existing rights of way, and the creation of new rights of way in that order [and] (2) promote the efficient use of new rights-of-way when needed, to improve system efficiency and the environmental performance of the transmission system.”³¹ Further, California Public Utilities Code Section 399.26(b)(1) requires the CAISO to “work cooperatively to integrate and interconnect eligible renewable energy resources to the transmission grid *by the most efficient means possible with the goal of minimizing the impact and cost of new transmission needed* to meet both reliability needs and the renewables portfolio standard procurement requirements.” (emphasis added) Federal, state, and local policies dictating the

²⁹ See ISO Tariff §2.4.6.6 (“The CAISO will determine the need for, and identify such policy-driven transmission solutions that *efficiently and effectively* meet applicable policies...”) and 24.4.6.6(c) (requiring CAISO to consider “the expected planning level cost of the transmission solution as compared to the potential planning level costs of other transmission solutions.”)

³⁰ Federal Land Policy and Management Act, Section 503

³¹ Cal. Stats, Ch.638 (2006)

efficient and effective use of rights of way necessitate that the CAISO consider and evaluate and the San Luis 500 kV Alternative.

By authorizing the San Luis 500 kV Alternative now, the CAISO will avoid the more inefficient and costly alternative of building iterative upgrades over time to improve the transfer capability between Southern California and the Bay Area. Easements for a 500 kV project will be far easier to acquire in one attempt and in the context of a project that has strong federal support. Construction of a 500 kV project in existing rights-of-way will minimize environmental and land use issues. “Right-sizing” the project will avoid all of the predictable (and unpredictable) impacts and costs of upgrades and replacement of transmission facilities in the near future. From an efficiency standpoint, the 500 kV Alternative is justifiable under the CAISO’s mandates and consistent with state and federal policies favoring optimal use of existing ROW, along with long-term planning to avoid unnecessary cost and environmental impacts.

Plainly, the CAISO should look at efficiency and cost in the context of long-term planning and with a realistic assessment of the alternatives. This project offers an unusual opportunity to avoid inefficiencies and future costs by providing transmission capacity that clearly is consistent with the future needs of the system.

iii. The San Luis 500 kV Alternative Will Contribute to Meeting Resource Integration Needs and Priorities.

The state’s ambitious RPS goals and the expansion of renewable resource development both within and outside of California require consideration of current and future resource integration requirements. This is reflected in CAISO Tariff §2.4.6.6(g) and (h), which require the CAISO to consider “resource integration requirements and the costs associated with these requirements in particular resource areas designated pursuant to policy initiatives” and “the potential for a particular transmission solution to provide access to resources needed for integration....”

The San Luis 500 kV Alternative will help the state meet forecast resource integration challenges by improving backbone 500 kV facilities used for conventional as well as renewable resources. This function will be particularly beneficial over the longer term as intermittent generation increases and integration needs become a system priority between the load centers in Southern and Northern California.

iv. *The San Luis 500 kV Alternative Offers a Unique Opportunity to Avoid Future Environmental Impacts*

CAISO Tariff section 2.4.6.6(e) authorizes the CAISO to consider, in deciding whether a transmission solution offers public policy benefits:

...the environmental evaluation, using best available public data, of the zones that the transmission is interconnecting as well as analysis of the environmental impacts of the transmission solutions themselves;

The potential environmental benefits of the 500 kV Alternative as compared with forgoing the opportunity are significant. Construction of a “right-sized” 500 kV line on existing ROW will avoid the impacts created by first building a 230 kV line and later upgrading or replacing it.

v. *The San Luis 500 kV Alternative Compliments the Results and Identified Priorities of the California Public Utilities Commission’s and California Local Regulatory Authorities’ Resource Planning Processes.*

CAISO Tariff section 2.4.6.6(b) requires consideration of “the results and identified priorities of the California Public Utilities Commission’s or California Local Regulatory Authorities’ resource planning processes” in considering the need for and categorization of policy-driven transmission solutions.

As discussed above, the CPUC and Local Regulatory Authorities have adopted resource planning priorities focused on meeting targets of 33 percent or more renewable generation by 2020. The CPUC has also committed to goals related to GHG reduction and to the Loading Order prioritization of preferred resources, including renewable resources, over fossil-fuel resources. In doing so, the CPUC has emphasized that LTPP plans should focus on exceeding rather than simply meeting public policy targets:

[W]e will require that subsequent LTPP filings for our regulated utilities not only conform to the energy and environmental policies in place, but aim for even higher levels of performance. We expect the utilities to show a commitment to not only meet the targets set by the Legislature and this Commission but to try on their own to integrate research and technology to strive to improve the environment, without compromising reliability or our obligation to ratepayers.³²

³² Decision 07-12-052 at 3-4. In the CPUC Proposed *Decision Modifying Long-Term Procurement Planning Rules* pending approval in Docket R.12-03-014 the CPUC states again that: “We reiterate this exhortation to the utilities and continue to expect every reasonable effort to meet or exceed environmental goals, consistent with reliability and cost.” (Proposed Decision at 12)

Thus, while the Study Plan focuses on the 33 percent statutory RPS target, the CPUC's long-term procurement planning process is broader and more ambitious in its scope and mandate. In considering policy-driven transmission solutions, the CAISO may take these broader goals into consideration, along with the resource planning priorities of the Local Regulatory Authorities that regulate public-owned utilities in California.

vi. The San Luis 500 kV Alternative Provides Insurance Value Against High Costs Imposed on Customers During Challenging Market Conditions.

In addition to the policy considerations cited above, the San Luis 500 kV Alternative provides significant economic benefits that deserve careful consideration. First and foremost, increased transfer capability provided by the San Luis 500 kV Alternative will help to mitigate the cost impact of a low hydro year by allowing for more generators in southern California to serve load in northern California. Additionally, providing another facility will mitigate the cost of generation and transmission outages, which can be significant.

For all of the above reasons, the San Luis 500 kV alternative meets the CAISO's tariff requirements and should be included in the Plan as a policy-driven project.

CONCLUSION

DATC submits these comments in order to help the CAISO focus its planning efforts on high value opportunities in the TPP. In general, the CAISO should account for the fact that the actual mix of future generation scenarios is uncertain and the economic and environmental cost of planning for too much transmission is far less than the cost of planning for not enough transmission. Prudent transmission planning should err on the side of flexibility and include hedges against generation and load uncertainty rather than creating risks for the State's economy and environment by minimizing the planned-for transmission. The Draft 2013-2014 TPP does not account for these planning principles and as a result, it puts California ratepayers at risk by planning for the minimum transmission necessary to meet a too narrow range of scenarios and policy objectives. In order to incorporate these planning principles into the TPP, the CAISO should recognize a broader set of public policy goals and address a broader set of generation scenarios. The CAISO should also address the need for both the Zephyr Project and the 500 kV Alternative to the San Luis Transmission Project. DATC appreciates the opportunity to participate in the transmission planning process and provide these comments.