THE STATE OF CALIFORNIA
BEFORE THE
CALIFORNIA ENERGY COMMISSION

In the Matter of:	)	Docket No. 12-IEP-1D
	)	
2012 Integrated Energy Policy Report	)	WORKSHOP
	)	RE: Interconnection of Renewable
	)	Development in California

POST-WORKSHOP COMMENTS OF THE CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION

Pursuant to the procedures established by the California Energy Commission ("Commission" or "CEC") the California Municipal Utilities Association ("CMUA") respectfully submits these Post-Workshop Comments in response to issues raised at the IEPR Workshop of May 14, 2012. CMUA files these comments to augment the record of the Workshop and answer the factual questions posed by Commissioners during the Workshop. In that regard, CMUA has endeavored to get accurate answers to questions regarding publicly-owned utility ("POU") operations.

CMUA is a statewide organization of local public agencies in California that provide water, gas, and electricity service to California consumers. CMUA membership includes over forty electric distribution systems and other public agencies directly involved in the electricity industry.[1] CMUA members own and operate significant local and interregional transmission facilities for the benefit of their customers and all of

[1] CMUA electric utility members include the Cities of Alameda, Anaheim, Azusa, Banning, Burbank, Cerritos, Colton, Corona, Glendale, Healdsburg, Lodi, Lompoc, Los Angeles, Needles, Palo Alto, Pasadena, Pittsburgh, Rancho Cucamonga, Redding, Riverside, Roseville, Santa Clara, and Vernon, as well as the Imperial, Merced, Modesto, Turlock Irrigation Districts, the Northern California Power Agency, Southern California Public Power Authority, Transmission Agency of Northern California, Lassen Municipal Utility District, Power and Water Resources Pooling Authority, Sacramento Municipal Utility District, the Trinity and Truckee Donner Public Utility Districts, the Metropolitan Water District of Southern California, and the City and County of San Francisco, Hetch-Hetchy.

California. In total, CMUA members provide electricity to approximately one quarter of all Californians.

Questions Posed Regarding POU Interconnection Queues

Question: Status of Large POU Interconnection Queues

Chairman Weisenmiller and Lead Commissioner Peterman asked questions about the interconnection queues of larger POUs and how that compared with the California Independent System Operator Corporation ("CAISO"). CMUA has requested this information and provides the following facts for the record in this proceeding:

Imperial Irrigation District ("IID"). IID presented information on the current status of its generation queue at the Workshop. IID's Transitional Cluster is in a very advanced stage, with 9 generators already signing interconnection agreements totaling 930 MW, some of which have begun construction. In its remaining queue, IID has 26 generators totaling 1690 MW.

Los Angeles Department of Water and Power ("LADWP"). LADWP has generators in its interconnection queue processed according to its open access transmission tariff. LADWP has 26 generators in its queue, totaling approximately 4750 MW. Information on LADWP's interconnection queue can be found at http://www.oatioasis.com/ldwp/index.html.

Sacramento Municipal Utility District ("SMUD"). SMUD has no generators in its transmission interconnection queue. Information on SMUD open access services may be found at http://www.oatioasis.com/smd1/index.html.

Transmission Agency of Northern California ("TANC"). TANC has no generators in its interconnection queue. Information on TANC's OATT can be found at www.tanc.us.

Turlock Irrigation District ("TID"). TID has no generators in its interconnection queue.

Question: Do POUs Have the Same Deliverability Analysis as Performed by the CAISO?

The principle is similar but the application is not. The simple answer is that without the volumes being experienced in the CAISO queue, it is an apple to oranges comparison. However, the question goes to a more fundamental difference in how generation is developed. POUs remain vertically-integrated utilities. No vertically-integrated utility would consider development of utility-owned generation without an assessment of favorable grid locations for the generation at an early step in the development process. Under the current CAISO Generator Interconnection Process ("GIP"), there is little or no consideration of generation siting options with an eye toward minimizing the network upgrades necessary to assure deliverability. The generator simply picks a site and the CAISO is obligated to perform studies and build necessary network upgrades to accommodate the interconnection. The CAISO's reform efforts described by Dr. Kristov with respect to Transmission Planning Process ("TPP")/GIP integration reflect a move toward how POUs view this issue, given that generation and transmission development are inextricably linked. POUs support the CAISO's TPP/GIP integration effort.

Thus, while the end goal of both CAISO and POU processes is the same, *i.e.* to ensure deliverability and protect the overall transfer capability of the grid through the

interconnection process, the key difference is that the CAISO process has unbundled the generation and transmission analyses, while POUs remain vertically integrated.

Consumers, Not Generators, Pay for Transmission under the CAISO Tariff.

There was confusion during the panel discussion about the cost responsibility for transmission upgrade financing, and ongoing transmission revenue requirements. First, with respect to the latter issue, load pays all transmission costs in California under the CAISO Tariff Transmission Access Charge, which is billed to Gross Load. Entities that wheel through or out of California also pay the Wheeling Access Charge.

Second, consumers are also ultimately responsible for network upgrades under the current CAISO Tariff. It is correct that under prevailing practice at the Federal Energy Regulatory Commission, generators are typically responsible for the upfront financing of network upgrades required to interconnect the generation and deliver the output of the generation while not adversely impacting existing grid delivery. In return, the generators receive this money back in the form of credits against transmission service charges. California is slightly different since generators don't pay access charges for transmission. More importantly, for many of the recently approved major transmission facilities to deliver renewables, the investor-owned utilities have up-fronted the money as is their right under the CAISO Tariff, with abandoned plant protection provided by FERC order. Thus, contrary to representations during the panel discussion, the general FERC rule of "generator pays upfront costs" is not the routine practice for major network upgrades in the CAISO. These facilities include the Whirlwind Substation, Colorado River Substation expansion, West of Devers Project, South of Kramer Project, Lugo-Pisgah Transmission Project, Red Bluff Substation, and the Eldorado-Ivanpah Transmission

Project. The final total of these facilities is not determined but will certainly amount to the billions of dollars of new transmission, and accounts for most of the new transmission being developed to interconnect renewable resources. All of this cost, along with the risk of abandoned plant or stranded assets, is being borne by the consumer.

Transmission is No Longer a Small Portion of the Consumer Bill, and Minimizing Cost Impacts to Consumers is a Foundational Component of Proper Transmission Planning.

CMUA is attaching hereto a graphic representation of transmission cost increases experienced by CAISO grid users of the last several years, and transmission access charge projections based on CPUC data. Transmission costs have gone from roughly 1/5 of a cent per kWh on the retail bill, with projections that they will reach nearly 2 cents per kWh by the end of this decade.

California consumers cannot afford any approach to resource planning other than one that seeks to minimize overall costs, including transmission costs. The Commission should reject vague recommendations, mostly from generation developers, that urge California to "overbuild" in order to preserve optionality in RPS procurement. With Distributed Generation goals in part additive to RPS requirements, the diversity of the generation fleet seems assured. This "overbuild" approach also has several other flaws: (1) with rates expected to increase substantially already to achieve RPS requirements, we cannot afford it; (2) it seems highly impractical to develop policy around "overbuilding" of the transmission grid, given how difficult it is to build transmission to begin with; and (3) California law still requires a needs assessment to site and construct transmission, and it is unclear how overbuilding fits into that legal requirement.

The Commission should put to bed at an early stage the concept that we can avoid making hard decisions on renewable resource scenarios because we will overbuild

transmission to maintain several options. In addition to being unsustainable financially, it is unrealistic as well.

Conclusion

The Commission should take away at least two points from the May 14th Workshop. First, transmission costs are increasing at a staggering pace, and no longer represent a *de minimis* portion of the overall electric bill. As such, the transmission planning process must ensure the most cost-effective build out while achieving our renewable policy goals. Second, like many other energy policy issues, it is difficult to compare POUs with IOUs. While POU interconnection objectives with respect to ensuring deliverability mirror those in the CAISO, the vertically-integrated nature of POUs makes the fundamental analysis much different since generation siting and transmission cost considerations are not separated. Indeed, the CAISO's reform efforts described by Dr. Kristov with respect to TPP/GIP integration reflect a move toward how POUs view this issue, given that generation and transmission development are inextricably linked.

Dated: May 31, 2012

Respectfully submitted,

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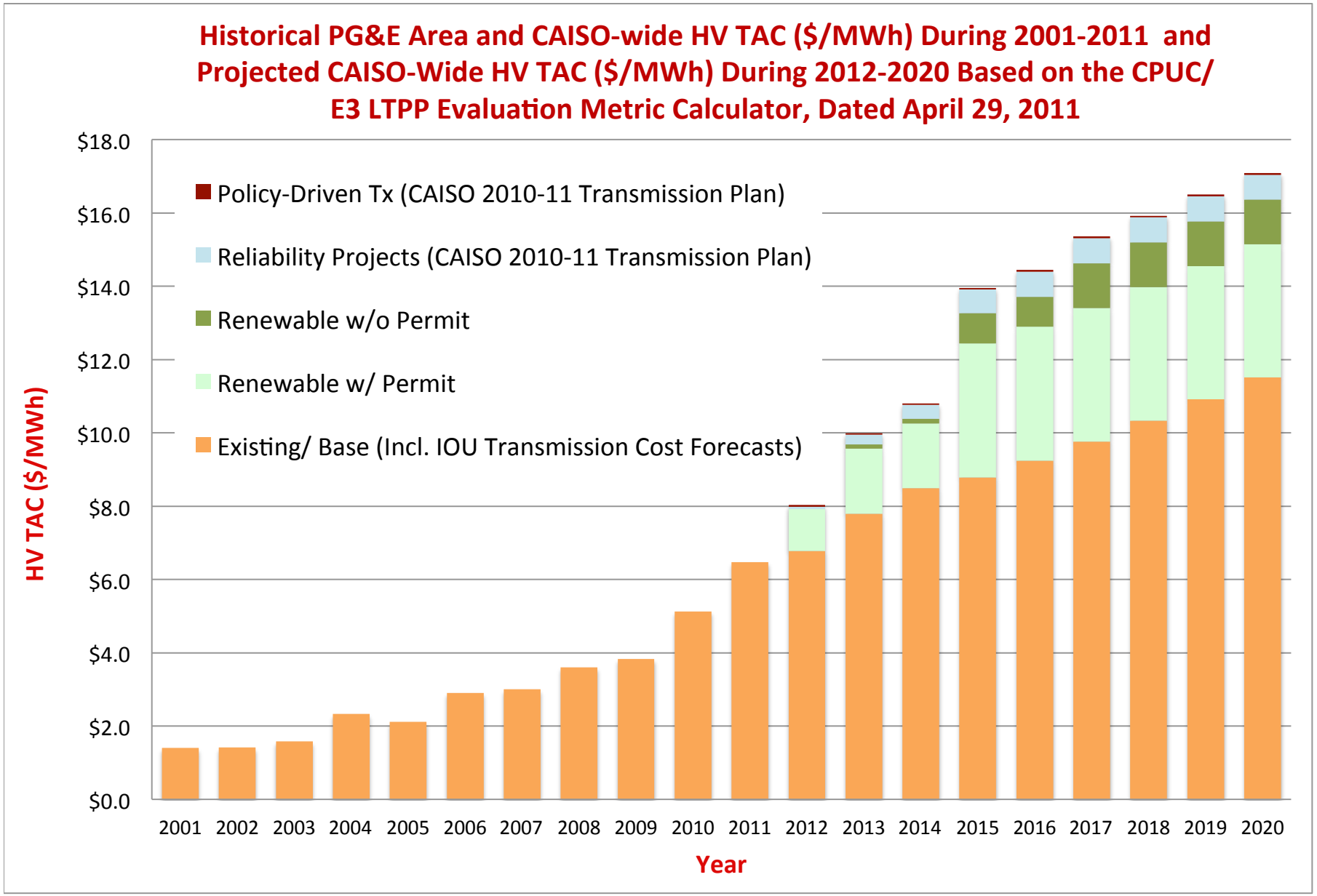
Historical PG&E Area and CAISO-wide HV TAC ($/MWh) During 2001-2011 and Projected CAISO-Wide HV TAC ($/MWh) During 2012-2020 Based on the CPUC/ E3 LTPP Evaluation Metric Calculator, Dated April 29, 2011
HV TAC ($/MWh)
$18.0
$16.0
$14.0
$12.0
$10.0
$8.0
$6.0
$4.0
$2.0
$0.0
Policy-Driven Tx (CAISO 2010-11 Transmission Plan)
Reliability Projects (CAISO 2010-11 Transmission Plan)
Renewable w/o Permit
Renewable w/ Permit
Existing/ Base (Incl. IOU Transmission Cost Forecasts)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year

Table 1: Historical PG&E Area HV TAC ($/MWh) During 2001-2011 and Projected CAISO-Wide HV TAC ($/MWh) During 2012-2020 Based on the CPUC/E3 LTPP Evaluation Metric Calculator

Year	Existing/Base (Incl. IOU Transmission Cost Forecasts)*	Renewable w/ Permit*	Renewable w/o Permit*	Reliability Projects (CAISO 2010-11 Transmission Plan)*	Policy-Driven Tx*	ISO Wide Annual Gross Load (GWH)*	Existing/ Base (Incl. IOU Transmission Cost Forecasts)	Renewable w/ Permit	Renewable w/o Permit	Reliability Projects (CAISO 2010-11 Transmission Plan)	Policy-Driven Tx (CAISO 2010-11 Transmission Plan)
	Annual HV TRR ($)						HV TAC ($/MWh)				
2001						183,046,247	$1.402				
2002						188,976,351	$1.411				
2003						193,759,232	$1.579				
2004						193,945,434	$2.327				
2005						195,361,801	$2.110				
2006						208,665,834	$2.907				
2007						209,790,417	$3.001				
2008						212,566,241	$3.606				
2009						216,388,900	$3.833				
2010						209,509,102	$5.130				
2011	$1,346,892,749					207,973,130	$6.476				
2012	$1,433,168,772	$240,413,598	$0	$14,319,224	$10,000,000	211,362,076	$6.781	$1.137	$0.000	$0.068	$0.047
2013	$1,646,715,740	$375,195,250	$25,963,645	$54,531,965	$10,000,000	211,354,781	$7.791	$1.775	$0.123	$0.258	$0.047
2014	$1,797,751,377	$375,195,250	$25,963,645	$80,093,498	$10,000,000	211,801,528	$8.488	$1.771	$0.123	$0.378	$0.047
2015	$1,866,029,833	$775,753,927	$175,404,661	$137,312,958	$10,000,000	212,382,226	$8.786	$3.653	$0.826	$0.647	$0.047
2016	$1,965,889,689	$775,753,927	$175,404,661	$144,914,308	$10,000,000	212,653,109	$9.245	$3.648	$0.825	$0.681	$0.047
2017	$2,077,262,051	$775,753,927	$260,432,118	$144,914,308	$10,000,000	212,781,264	$9.762	$3.646	$1.224	$0.681	$0.047
2018	$2,197,622,761	$775,753,927	$260,432,118	$144,914,308	$10,000,000	212,790,489	$10.328	$3.646	$1.224	$0.681	$0.047
2019	$2,325,970,221	$775,753,927	$260,432,118	$144,914,308	$10,000,000	213,154,151	$10.912	$3.639	$1.222	$0.680	$0.047
2020	$2,463,797,044	$775,753,927	$260,432,118	$144,914,308	$10,000,000	213,878,188	$11.520	$3.627	$1.218	$0.678	$0.047

*** Source:** *High Voltage Cost by Category* in ***T&D*** tab in the CPUC/E3 LTPP Evaluation Metric Calculator, dated April 29, 2011