Transmission availability and transmission-related costs will be part of the Offer evaluation. Figure F-1 (map) and *Table F.1* identify the substation clusters and associated available transmission capacities that are contained in PG&E's TRCR. These clusters were developed from: a) responses by developers in the CPUC investigation to resolve transmission constraint issues (CPUC I.00-11-001, Transmission Proceeding), b) information on renewable resource potentials developed by the CEC[1], and c) responses to PG&E's annual requests for information to assess development potential. The latest survey was conducted in April 2012. PG&E's proposed TRCR was filed on June 27th, 2012. The TRCR Table provides guidance to Participants on transmission availability and on the cost of potential network upgrades.

It is important to note that PG&E's estimates of transmission costs will be used solely for the purpose of ranking and evaluating Offers. The actual transmission upgrade cost for a specific renewable project may differ from these estimates and PG&E is not responsible or in any way liable for deviations between estimated and actual costs.

Consistent with Attachment A of CPUC D.04-06-013 and D.05-07-040, PG&E has developed Transmission Ranking Costs based on potential transmission congestion, the associated proxy transmission network upgrades, and the associated capital costs that may be needed to accommodate each cluster of renewable resources. The clusters provide a basis for grouping the Offers for evaluation purposes; the Project may physically be connected to points near, but not necessarily at, the cluster from which its Offer is to be evaluated. For each cluster, PG&E has identified various levels of possible additional transmission capacity and the related costs.[2] Accordingly, Level 1 reflects the available transmission capacity after taking into account all approved reliability and economic transmission projects, as well as upgrades planned for generation projects in the CAISO interconnection queue based on their completed Interconnection Studies. The next Level and subsequent Levels reflect the next most cost-effective proxy network upgrade(s). The number of Levels depends on the number of proxy network upgrades to reasonably accommodate the anticipated total amount of renewable resources in each cluster.

Table F. lists PG&E's Transmission Ranking Costs by cluster and by seasonal delivery period. *Table F.1* shows the network upgrade costs for deliveries in: (1) peak and shoulder periods only and (2) Off-peak periods only. The break-out of costs by delivery period may be useful for Projects with the ability to control their dispatch to avoid deliveries during periods that would trigger large upgrade expenses in the evaluation process.

Transmission Ranking Cost(s) published by SCE and SDG&E will be used for projects in SCE and SDG&E territories.

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[1] Including the CEC Preliminary Renewable Resource Assessment, published on July 1, 2003 (100-03-009CR), the CEC Renewable Resource Development Report finalized in November, 2003 (500-03-080F), the CEC Strategic Value Analysis Draft Consultant Report published in June 2005(CEC-500-2005-106) and the CEC Intermittency Analysis Project Report published in July 2007 (CEC-500-2007-081).

[2] Costs are equal to the total capital cost of the proxy transmission network upgrade project and are stated in 2012 constant dollars. Net present value amounts of each alternative would differ.

Figure F-1
PG&E Substations Associated with Renewable Resource Clusters
For 2012 Renewables Bidding

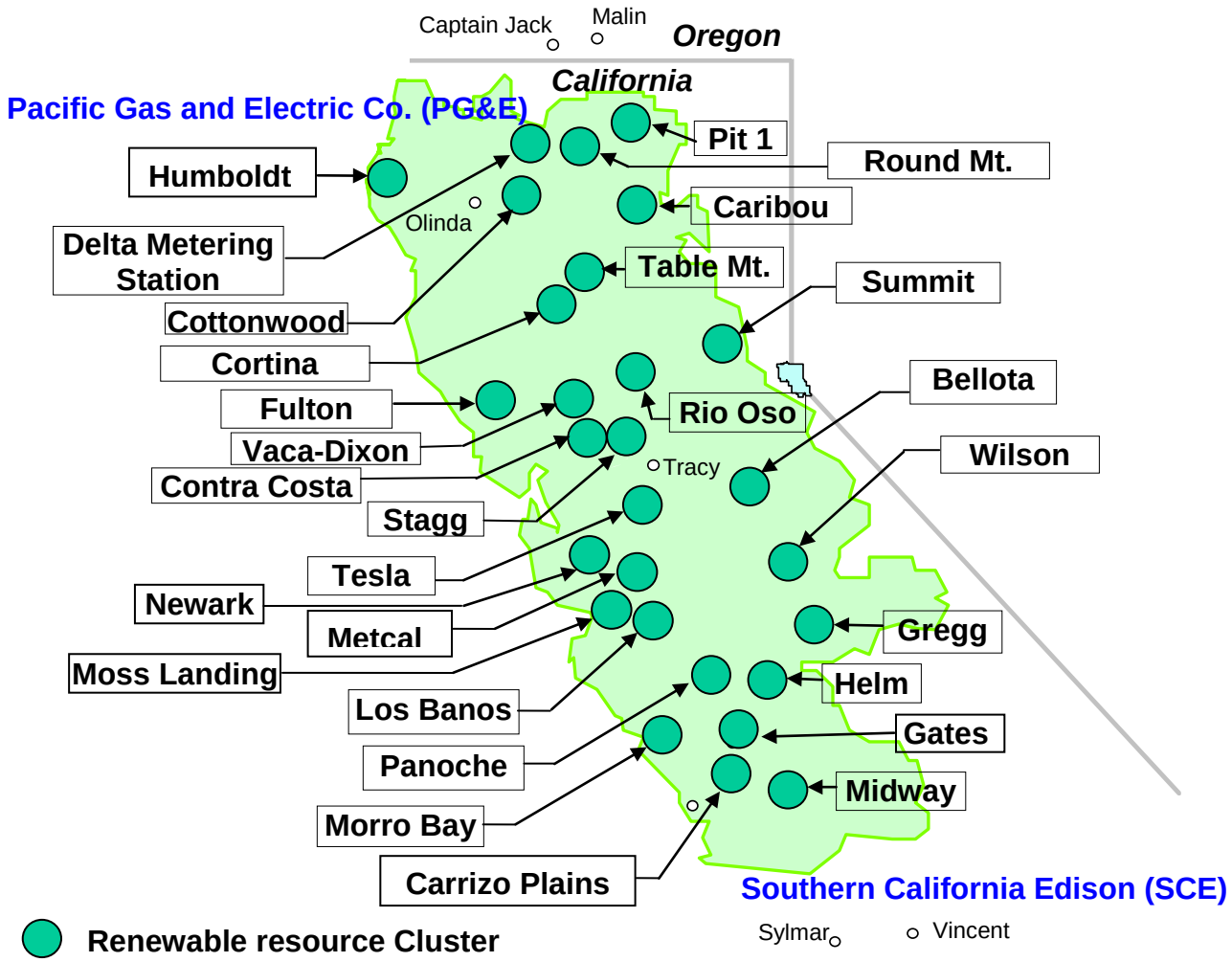

Table F.1: Transmission Ranking Cost

Table F-1: For Potential New Generation for PG&E's 2012 Renewables RFO

Substation Associated With Cluster Of Potential Generation	Level	Peak and Shoulder Year Round			Off Peak Year Round		
		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation ($ millions in 2012 dollars)		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation ($ millions in 2012 dollars)	
			Proxy Voltage Support Devices*	Other Proxy Transmission upgrades		Proxy Voltage Support Devices*	Other Proxy Transmission upgrades
Bellota 230 kV	1	1000	70	0	1000	70	0
Caribou 230 kV	1	100	7	0	100	7	0
	2	500	35	131	500	35	131
	3	400	28	654	400	28	46
Carrizo Plains 115 kV	1	0	0	0	0	0	0
	2	500	35	173	200	14	173
	3				300	21	356
Contra Costa Sub 230 kV	1	0	0	0	650	46	0
	2	100	7	189	350	25	42
	3	550	39	78			
	4	350	25	236			
Cortina 230 kV	1	0	0	0	450	32	0
	2	600	42	169	550	39	139
	3	400	28	220			
Cottonwood 230 kV	1	0	0	0	0	0	0
	2	500	35	703	1000	70	46
	3	500	35	220			
Delta Metering Station 115 kV	1	0	0	0	0	0	0
	2	500	35	1049	500	35	346
Fulton 230 kV	1	900	63	0	300	21	0
	2	100	7	151	300	21	82
	3				400	28	151
Gates 230 kV	1	0	0	0	200	14	0
	2	1000	70	15	100	7	59
	3				450	32	189
	4				750	53	620
	5						
Gregg 230 kV	1	0	0	0	200	14	0
	2	400	28	15	300	21	59
	3	300	21	42	250	18	189
	4	200	14	18	750	53	620
	5	100	7	137			
Helm 230 kV	1	0	0	0	150	11	0
	2	1000	70	15	400	28	59
	3				200	14	189
	4				750	53	620
	5						

Substation Associated With Cluster Of Potential Generation	Level	Peak and Shoulder Year Round			Off Peak Year Round		
		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation ($ millions in 2012 dollars)		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation ($ millions in 2012 dollars)	
			Proxy Voltage Support Devices*	Other Proxy Transmission upgrades		Proxy Voltage Support Devices*	Other Proxy Transmission upgrades
Humboldt 115 kV	1	0	0	0	0	0	0
	2	100	7	369	500	35	369
	3	400	28	703			
Los Banos 230 kV	1	0	0	0	100	7	0
	2	1000	70	15	650	46	59
	3				750	53	324
	4						
Metcalf 230 kV	1	1000	70	0	1000	70	0
Midway 230 kV	1	0	0	0	0	0	0
	2	1400	98	15	300	21	59
	3	1100	77	46	450	32	297
	4	500	35	88	750	53	1403
	5				1000	70	765
Morro 230 kV	1	0	0	0	0	0	0
	2	600	42	15	250	18	59
	3	200	14	218	200	14	189
	4	700	49	330	550	39	218
	5				500	35	845
Moss Landing 230 kV	1	1000	70	0	350	25	0
	2				650	46	88
Newark 230 kV	1	1000	70	0	1000	70	0
Panoche 230 kV	1	0	0	0	100	7	0
	2	1000	70	15	250	18	59
	3				400	28	40
	4				750	53	809
	5						
Pit1 230 kV	1	0	0	0	50	4	0
	2	150	11	693	250	18	72
	3	450	32	62	350	25	46
	4	400	28	220	350	25	82
Rio Oso 230 kV	1	0	0	0	1000	70	0
	2	375	26	6			
	3	225	16	134			
	4	400	28	635			
Round Mt 230 kV	1	0	0	0	400	28	0
	2	500	35	693	600	42	46
	2	500	35	220			
Stagg 230 kV	1	0	0	0	1000	70	0
	2	750	53	32			
	3	250	18	21			

Substation Associated With Cluster Of Potential Generation	Level	Peak and Shoulder Year Round			Off Peak Year Round		
		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation ($ millions in 2012 dollars)		Maximum MW of Potential Generation In each Level	Cost of Proxy Network Upgrades to accommodate MW Level of Potential Generation ($ millions in 2012 dollars)	
			Proxy Voltage Support Devices*	Other Proxy Transmission upgrades		Proxy Voltage Support Devices*	Other Proxy Transmission upgrades
Summit	1	0	0	0	0	0	0
115 kV	2	400	28	263	500	35	263
	3	100	7	134			
Table Mt	1	100	7	0	500	35	0
230 kV	2	200	14	435	500	35	46
	3	700	49	220			
Tesla	1	1000	70	0	1000	70	0
230 kV							
Vaca Dixon	1	0	0	0	1000	70	0
230 kV	2	100	7	95			
	3	900	63	220			
Wilson	1	750	53	0	0	0	0
	2	250	18	64	350	25	59
	3				350	25	112
	4				300	21	189

Notes: * Static Var Compensator (SVC) is used as a proxy for voltage support devices required. The size of the SVC at each level assumes the capacity in each level will be fully utilized. However, since addition of voltage support devices is less "lumpy" than other transmission facilities, it is separately listed so that the size, and hence, cost can be prorated based on the size of the resource bid.

The transmission projects approved by CAISO in 2012 were included in the PG&E study used to generate these Transmission Ranking Costs. PG&E will continue to identify transmission projects that are needed for multiple purposes (for example, transmission reinforcements that would be needed to maintain system reliability and to accommodate renewable resources).