Supplemental Comments of Pacific Gas & Electric Company

Real-Time Market Neutrality Settlements –
Straw Proposal/Issue Paper Workshop

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) offers the following supplemental comments on the California Independent System Operator's (CAISO) Real-Time Market Neutrality Settlement straw proposal, based on the supporting workshop on May 21, 2019.

PG&E thanks the CAISO for presenting its concern regarding the appropriate allocation of real-time neutrality charges. After having participated in the workshop, we think that aspects of the proposal may have merit. However, we are concerned that the consequences of removing the existing Transfer Adjustment from charge code 6477: Real-Time Imbalance Energy Offset (RTIEO) have not been fully considered in the context of all the Real-Time charge codes.

Once each resource's final Real-Time charge position has been established (i.e. after calculating charge codes 6460, 6470, and 6475), the CAISO needs to determine any physical Unaccounted for Energy (UFE) imbalances for each CAISO Utility Service Area (CC 6474) and EIM BAA (CC 64740) and associated financial settlements. To do this the CAISO first sums all physical generation, load, imports, and exports to determine each area's overall net energy position for each 5-minute interval of the day. Any difference between total physical supply and demand is then settled in the UFE charge code at the corresponding Utility Service Area Settlement Interval Locational Marginal Price. This ensures that energy is physically balanced, with supply equaling demand, in each region before moving on to reconciling any necessary Real Time Financial Neutrality.

The key difference between this and the subsequent RTIEO calculations is that UFE is based on actual physical energy, while RTIEO is based on the financial outcome of both UFE and market schedules. If a physical, metered Import/Export flow between BAAs is not equal to the financial market value of the scheduled transfers, this will result in a shift of costs and benefits between the different regions, as shown in the example presented in Appendix 1.

The Real Time Congestion and Loss Offset calculations are not impacted by this because all relevant calculations are contained within the specific BAA and removed from the RTIEO calculation to leave only energy neutrality. Since energy is flowing between BAAs however, it is necessary to ensure that any cost transfers between these entities follow the actual physical flows involved. Since the explicit Total Financial Value Transfer does not do this and is instead limited to FMM and RTD schedule transfers, there remains a need to address this gap, as was

attempted through the aforementioned Transfer Adjustment. Because of this, we feel that the CAISO has not presented a complete or accurate assessment of the problem and believe that the current proposal overlooks critical cost causation principles, as outlined in the spreadsheet below.

PG&E is unsure if the existing Transfer Adjustment is the most effective mechanism for this transfer of costs, but believes that a holistic review of the Real-Time Neutrality process has merit and may identify more effective and/or efficient cost allocation methodology. We look forward to working with CAISO and other stakeholders in this review.

Appendix 1: RTIEO Cost Transfer due to unscheduled flows

Specifics						
All non-energy components are $0						
Positive Quantities = Supply						
Positive Amounts = Payments to Resource						
Negative Quantities = Demand						
Negative Amounts = Charge to Resource						
SMEC	$ 100.00					
CONG	$ -					
LOSS	$ -					
GHG	$ -					
BAA1	QTY	AMT		**BAA2**	QTY	AMT
Scheduled Gen (IIE)	200	$ 20,000.00		Scheduled Gen (IIE)	100	$ 10,000.00
Metered Gen (IIE + UIE)	205	$ 500.00		Metered Gen (IIE + UIE)	100	$ -
Scheduled Load	0	$ -		Scheduled Load	0	$ -
Metered Load	-100	$ (10,000.00)		Metered Load	-205	$(20,500.00)
Scheduled Import	0	$ -		Scheduled Import	0	$ -
Metered Import	0			Metered Import	105	
Scheduled Transfer In	0	$ -		Transfer In	100	$ 10,000.00
Scheduled Export	0	$ -		Scheduled Export	0	$ -
Metered Export	-105			Metered Export	0	
Scheduled Transfer Out	-100	$ (10,000.00)		Transfer Out	0	$ -
Virtual MW	0	$ -		Virtual MW	0	$ -
Transmission Loss	0	$ -		Transmission Loss	0	$ -

CC 6474						
UFE QTY (3.6.6)	0			UFE QTY (3.6.6)	0	
UFE AMT (3.6.5)	$ -	Charge to Load		UFE AMT (3.6.5)	$ -	Charge to Load
CC 6477						
Total RTIEO (3.6.12)	$ 500.00	**Charge to BAA1 Load**		Total RTIEO (3.6.12)	$ (500.00)	**Paid to BAA2 Load**
Transfer	$(10,000.00)			Transfer	$10,000.00	
IIE	$ 20,000.00			IIE	$10,000.00	
FMM	$ -			FMM	$ -	
UIE	$ (9,500.00)			UIE	$(20,500.00)	
UFE	$ -			UFE	$ -	
CONG	$ -			CONG	$ -	
LOSS	$ -			LOSS	$ -	
Virtual	$ -			Virtual	$ -	