NEM 2.0 Proposals

August 13, 2015 Ben Airth, CSE



Our Mission:

Accelerate the transition to a sustainable world powered by clean energy



NEM 2.0 Pursuant to AB 327

- AB 327 directs the CPUC to develop a replacement NEM contract or tariff by 12/31/2015
- 16 different proposals were submitted 8/3
- Party comments on proposals are due 9/1





Office of Ratepayer Advocates:

- Installed Capacity Fee
- Fixed fee starting at \$2 per nameplate rating (kW)
- Ratcheted to \$5/kW and \$10/kW as adoption of rooftop solar increases
- Expected fixed fee increase in roughly 2020 and 2022, respectively
- Fees and adoption of solar are in lock step
- Allow projects greater than 1 MW with no interconnection fees exemptions or waivers





ORA Public Tool Scenarios

 Table 2: Comparison of base case public tool scenarios to \$2/kW/Month ICF scenarios.

		ED Base Case Scenarios		ORA \$2 ICF Scenarios	
Renewable DG Case	Default Residential Rate	Forecasted Installations 2017-2025 (MW)	Average Implied Payback of Renewable DG systems (Years)	Forecasted Installations 2017-2025 (MW)	Average Implied Payback of Renewable DG systems (Years)
High	2-Tiered	16,047	5.01	16,775	5.18
Low	2-Tiered	11,985	7.13	12,581	7.40
High	TOU1	14,707	4.77	15,313	4.96
Low	TOU1	11,771	6.72	11,951	6.99
High	TOU2	15,622	5.05	16,778	5.25
Low	TOU2	12,098	7.18	12,398	7.51



San Diego Gas and Electric: Residential

Table 4: Illustrative Rates for Residential Default Unbundled Rate Option

System Access Fee (\$/month)			
Customer Costs (Transformer, Service Lines, Meters, Customer Accounts and Services)	14.34		
PPP (Low Income, Energy Efficiency, EPIC)	6.20		
Total	20.54		
Grid Use Charge	(\$/NCD-kW)		
Distribution Demand Costs (Feeders and Local Distribution, Substation)	9.19		
Delivered Energy (Transmission, Reliability Services, CSI, SGIP, ND, CTC, LGC, DWR-BC, GHG, commodity costs)	(¢/kWh)		
TOU Periods	2015 RDW	Current ^{66/}	
Summer			
On-Peak	33.4	23.8	
Semi-Peak	13.1	18.0	
Off-Peak	10.0	13.8	
Winter			
On-Peak	12.7	14.0	
Semi-Peak	11.1	12.5	
Off-Peak	10.2	10.5	
Exported Energy (wholesale energy – DLAP) ^{67/}	(¢/kWh)		
	4.0		



San Diego Gas and Electric: Small Commerical

Table 5: Illustrative Rates for

Small Commercial Default Unbundled Rate Option

System Access Fee	(\$/month)	
Customer Costs (Transformer, Service Lines, Meters, Customer Accounts and Services)	48.09	
PPP (Low Income, Energy Efficiency, EPIC)	20.69	
Total	68.78	
Grid Use Charge	(\$/NCD-kW)	
Distribution Demand Costs (Feeders and Local Distribution, Substation)	12.00	
Delivered Energy (Transmission, Reliability Services, CSI, SGIP, ND, CTC, LGC, DWR-BC, GHG, commodity costs)	(¢/kWh)	
TOU Periods	2015 RDW ^{<u>70</u>/}	Current
Summer		
On-Peak	20.7	22.1
Semi-Peak	16.5	17.8
Off-Peak	14.1	13.8
Winter		
On-Peak	12.5	13.5
Semi-Peak	10.9	12.1
Off-Peak	9.3	10.2
Exported Energy (wholesale energy – DLAP) ^{21/}	(¢/kWh)	
	4.0	



SDG&E: Commercial

Table 6: Illustrative Rates for

M/L C&I Default Unbundled Rate Option

System Access Fee	(\$/month)	
	<500kW	>500kW
OAT basic service fee	116.44	465.74
PPP (Low Income, Energy Efficiency, EPIC)	441.69	441.69
Total	558.13	907.43
Grid Use Charge	(\$/NCD-kW)	
OAT NCD Demand Charge	24.43	
OAT On-Peak Demand Charges (Transmission, Distribution and portion of Generation capacity included in Commodity rates)	(\$/peak-kW)	
TOU Periods	2015 RDW	Current
Summer	22.19	21.40
Winter	8.04	7.66
Delivered Energy - OAT energy rate excluding PPP	(¢/kWh)	
TOU Periods	2015 RDW ⁷²	Current
Summer		
On-Peak	11.2	11.3
Semi-Peak	10.0	10.3
Off-Peak	6.2	7.2
Winter		
On-Peak	10.2	10.1
Semi-Peak	8.2	8.5
Off-Peak	6.1	6.3
Exported Energy (wholesale energy - DLAP) ^{23/}	(¢/kWh)	
	4.0	



SDG&E: Public Tool Runs

 Table 9: Comparison of PCT Results and Average Implied Payback and Forecasted

 Adoptions for Post-2017^{78/}

Renewable DG Case	Compensation Structure (Full Scenario Name)	Average Participant Benefit/Cost Ratio	Average Implied Payback of DER Systems (Years)	Forecasted Installations Post-2017 (MW)*
		No Change		
Low	2-Tiered	1.51	6.5	1,374
High	2-Tiered	2.76	3.6	1,511
Low	TOU-Bookend-1	1.57	6.3	1,305
High	TOU-Bookend-1	2.9	3.7	1,345
Low	TOU-Bookend-2	1.48	6.6	1,430
High	TOU-Bookend-2	2.73	3.6	1,552
SDG&E's Proposed Default Option				
Low	2-Tiered-Default	1.26	7.8	632
High	2-Tiered-Default	2.66	3.7	535
Low	TOU-Bookend-1-Default	1.25	7.9	631
High	TOU-Bookend-1-Default	2.58	3.8	539
Low	TOU-Bookend-2-Default	1.2	8.2	620
High	TOU-Bookend-2-Default	2.52	3.9	535
SDG&E's Proposed Sun Credit Option				



SDG&E: Other Components

- Option 2 for Customer Generators:
 - Buy all, sell Feed in Tariff
 - Compensation at \$0.11/kWh
- Other components of their proposals:
 - Close DR-SES, Close DG-R except public K-12 schools
 - Replace NEM credits for VNEM and NEMA tariffs based on the FiT rate of \$0.11/kWh





The Alliance for Solar Choice

Table 1. DEG Growth Statistics (2016-2025)

Case	Ave. DEG Capacity Growth, %/year	Ave. DEG Capacity Growth, MW/year	Total DEG Capacity in 2025 ⁸¹ , MW
TASC Proposal	11.1%	871	12,022
NBC Sensitivity	11.1%	873	12,035
\$15 Min. Bill Sensitivity	10.9%	854	11,865
High Renewables	11.5%	925	12,503
2012-2016 (per Public Tool)	46%	764	n/a





Sustainable Growth

• PU Code 2827.1(b)(1):

 "Ensure that the standard contract or tariff made available to eligible customer-generators ensures that customer-sited renewable distributed generation continues to grow sustainably and include specific alternatives designed for growth among residential customers in disadvantaged communities."





Sustainable Growth

- CPUC Definition:
 - "Preserving and fostering sufficient market conditions to facilitate robust adoption while minimizing potential cost impacts to nonparticipants gradually over time."





Thank You

Ben Airth <u>benjamin.airth@energycenter.org</u> 858-244-1194

We work nationally in the clean energy industry and are always open to exploring partnership opportunities.

