Commercial Value of Solar

RMC – March 21, 2017

2017 Solar Rates & Incentives Review

- Solar stakeholders requested commercial VOS in 2016 rate case. AE agreed to study as part of settlement agreement.
- Hired consultant, GDS Associates, to review residential VOS methodology and recommend changes for commercial application. Study completed Feb 2017.
- Stakeholder engagement and public vetting timeline:
  - Commercial solar installers roundtable (Nov)
  - Commercial customers solar roundtable (Nov)
  - RMC solar working group check-in (Jan)
  - Present findings to RMC solar working group and Solar Austin (Feb)
  - Present recommendations to RMC (March 21)
  - Calculate and present 2018 VOS' to EUC, RMC, AEUOC (April-May)
  - Include rate changes in FY18 budget package (June)

Current Commercial Solar Rates & Incentives

Rates

- Commercial customers with solar systems <20kW receive net metering.
  - Excess generation at end of month credited at the PSA.
- Commercial customers with solar systems ≥20 kW are billed only on energy delivered from grid.
  - Level of benefit differs depending on commercial rate class, since each has different volumetric rates & demand charges.
  - No benefit for excess generation fed back to grid.

Incentives

- 2004-2010: Capacity-based incentives, paid upfront. Projects capped at 20 kW.
- 2010-2016: Performance-based incentives (PBIs), paid for every kWh produced for the first 10 years of system operation. Projects cap increased to 200 kW in 2012.
- 2016-present: Three PBI levels, tiered by system size. Capped at <1 MW per project.

Commercial VOS Recommendations

- Move to market-based VOS for commercial demand rate customers in 2018.
  - Current commercial fleet data used for all commercial VOS inputs (capacity, production profile, Load Match coincidence factors)
  - Market-based approach is more transparent and better reflects ERCOT nodal market than current "hybrid" approach with residential
  - Plant O&M and Capacity values will be removed, but Energy Value will increase with incorporation of "nodal premium" for capacity scarcity
  - No change to Distribution Value currently, but will continue to monitor costs and benefits of DG on the distribution grid, and may further incorporate in the future.
  - Environmental compliance value based on actual known market price for Texas RECs
- Apply "residential" VOS to non-demand rate (SEC-1) commercial solar customers in 2018

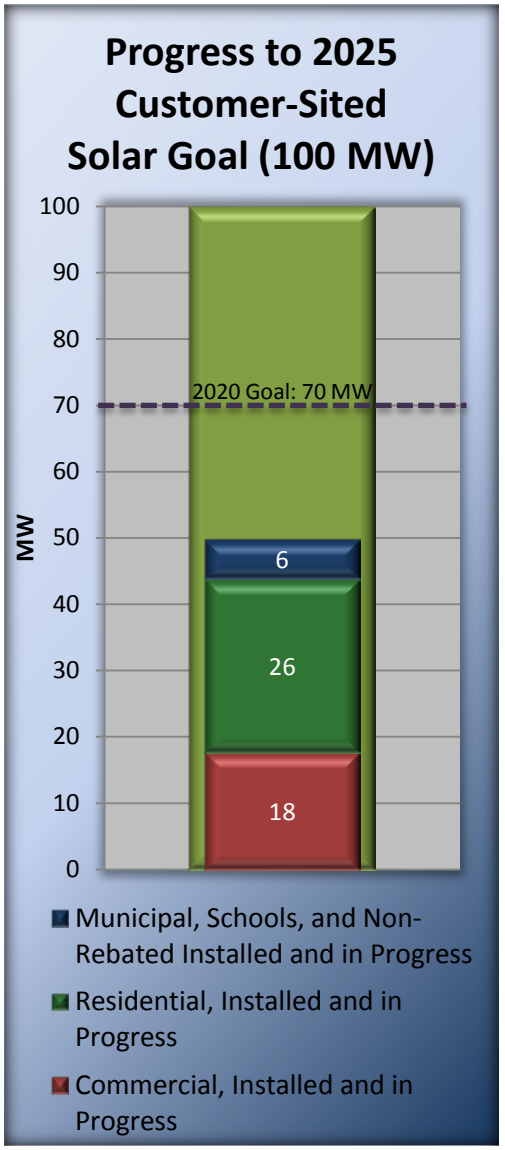
Impact of Commercial VOS to Customers

- Positive bill impact for all commercial solar customers
  - Expect commercial VOS value to be slightly higher than commercial demand customers' current volumetric rates
  - Those who push back onto the grid will now be compensated for that generation
  - Commercial customers will continue to pay regular volumetric rates for all energy used (whether from the grid or their solar system)
  - Behind-the-meter solar can reduce customer's peak demand and thus demand charges
    - Can further use storage with solar to manage loads and reduce their peak demand
  - VOS updated every 5 years with cost of service study
    - Provides enough stability for commercial customers to make large investment

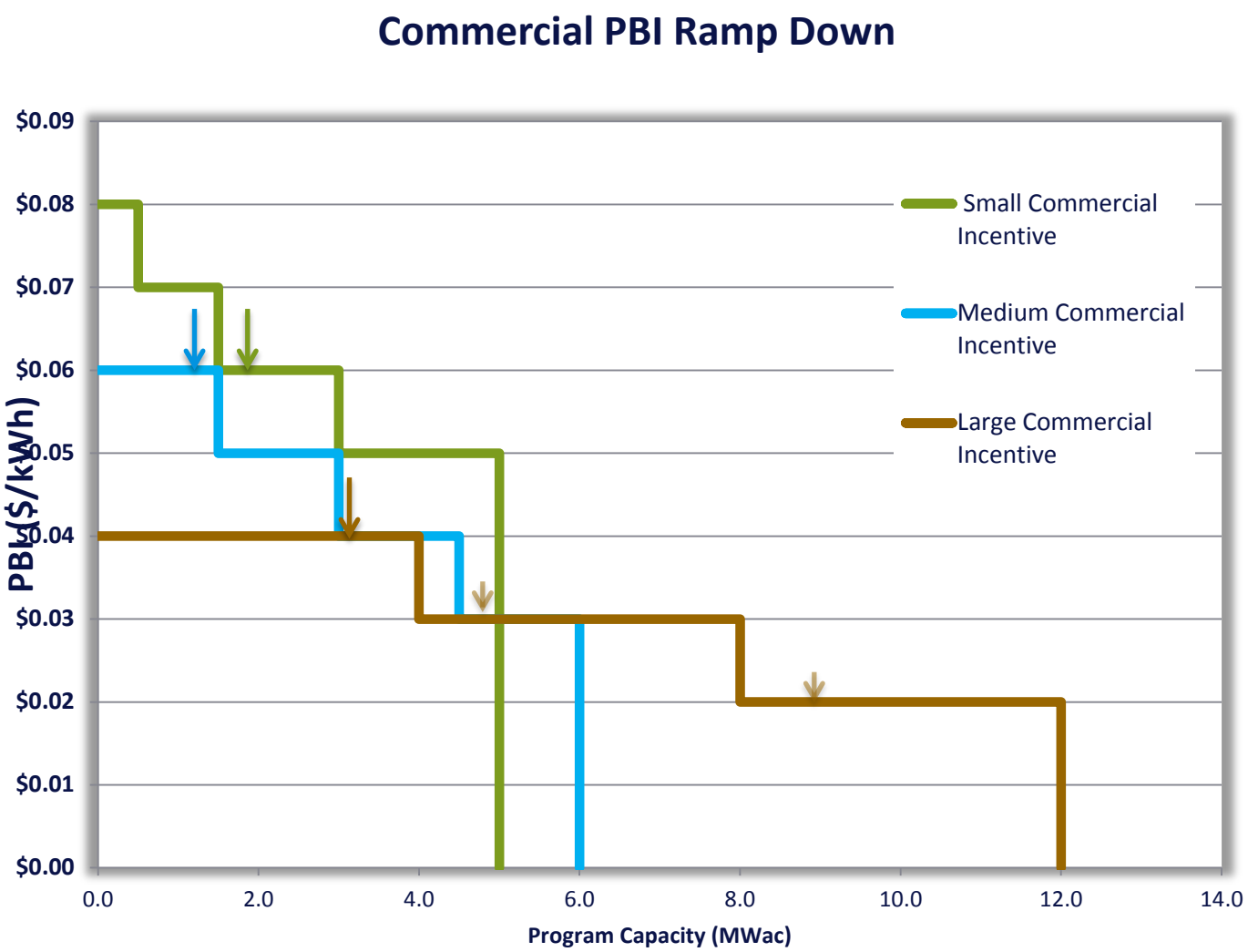
- No net impact to other customers vs AE buying power from ERCOT
  - Commercial VOS will reflect avoided cost to the utility, making AE indifferent as to whether energy is purchased from ERCOT or produced by customer

Commercial Solar Incentives Recommendations

- Honor all existing incentive PBIs through end of 10 year term
- Continue Council-approved phase out of incentives under published Capacity-Based Ramp Down schedule (see austinenergy.com/go/currentsolar)
- As adoption grows, solar costs drop and systems become economic, no longer need to subsidize
  - Mid-large commercial systems are already seeing paybacks <8 years before AE incentives



Commercial PBI Incentive Levels



Small Commercial & Non-Profit

Step #	PBI ($/kWh)	Capacity (MW-ac)
1	$0.08	0.5
2	$0.07	1.0
3	$0.06	1.5
4	$0.05	2.0

Medium Commercial

Step #	PBI ($/kWh)	Capacity (MW-ac)
1	$0.06	1.5
2	$0.05	1.5
3	$0.04	1.5
4	$0.03	1.5

Large Commercial

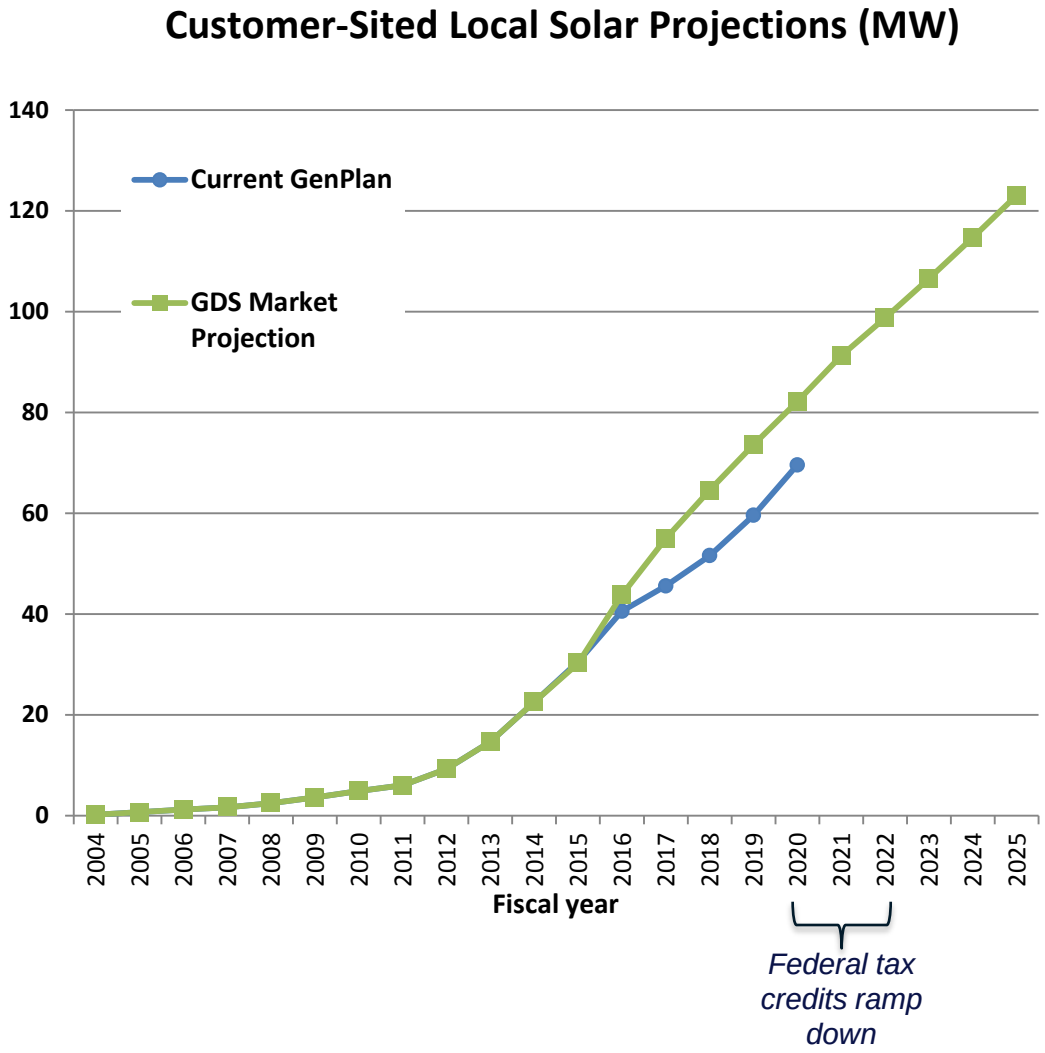
Step #	PBI ($/kWh)	Capacity (MW-ac)
1	$0.04	4.0
2	$0.03	4.0
3	$0.02	4.0

Subject to change due to budget limitations or market changes that warrant incentive level review.
See www.austinenergy.com/go/currentsolar for current levels.

GDS Local Solar Growth Projections

Cumulative Customer-Sited Solar Capacity Installed/Projected (MW-ac)

FY	Residential	Commercial	Total
2004	0.0	0.2	0.2
2005	0.3	0.4	0.7
2006	0.7	0.5	1.2
2007	1.0	0.7	1.7
2008	1.6	1.0	2.5
2009	2.4	1.3	3.6
2010	3.2	1.7	4.9
2011	4.2	1.9	6.1
2012	6.2	3.1	9.3
2014	13.6	9.0	23
2015	18.8	11.5	30
2016	25	19	44
2017	31	24	55
2018	36	29	65
2019	40	33	73
2020	46	36	82
2021	51	40	91
2022	55	43	98
2023	60	47	107
2024	64	51	115
2025	**69**	**55**	**124**



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Thank you