



Commercial Value of Solar

AEUOC – April 24, 2017





2017 Solar Rates & Incentives Review

- Solar stakeholders requested review of commercial Value of Solar (VOS) in 2016 rate case 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 (3/21), EUC (4/17), AEUOC (4/24)
 - Calculate & present 2018 VOS values to EUC, RMC (May), AEUOC (June)
 - Include rate changes in FY18 budget package (June)





Current Commercial Solar Rates & Incentives

Rates

- Commercial customers with solar systems $<20\text{kW}$ receive net metering.
 - Excess generation at end of month credited at the PSA.
- Commercial customers with solar systems $\geq 20\text{ kW}$ 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.

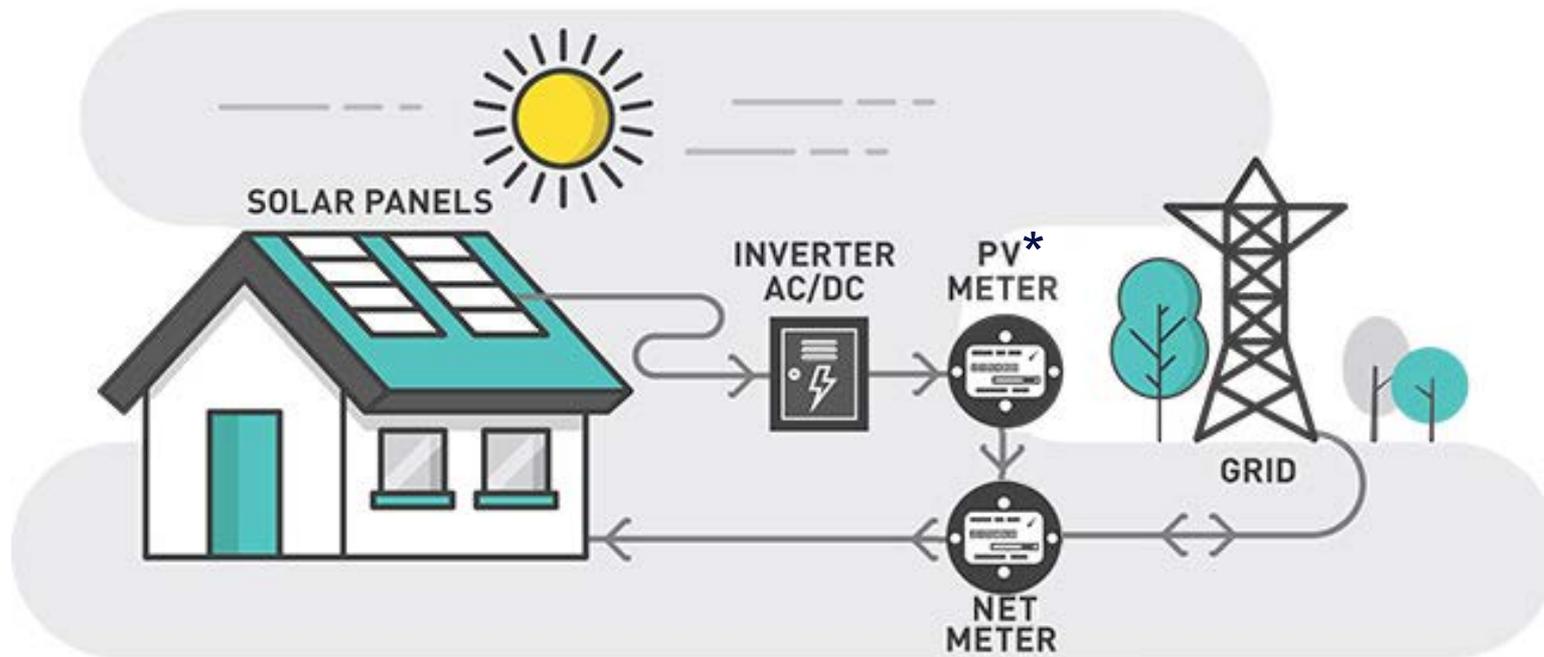
Incentives

- 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 $<1\text{ MW}$ per project.



How the Value of Solar Tariff Works

- VOS and PBI credits based on solar generation (PV meter)
- Customer billed for all on-site electric use (Net + PV)



- Demand rate customers would receive commercial VOS
- Non-demand rate customers would receive residential VOS

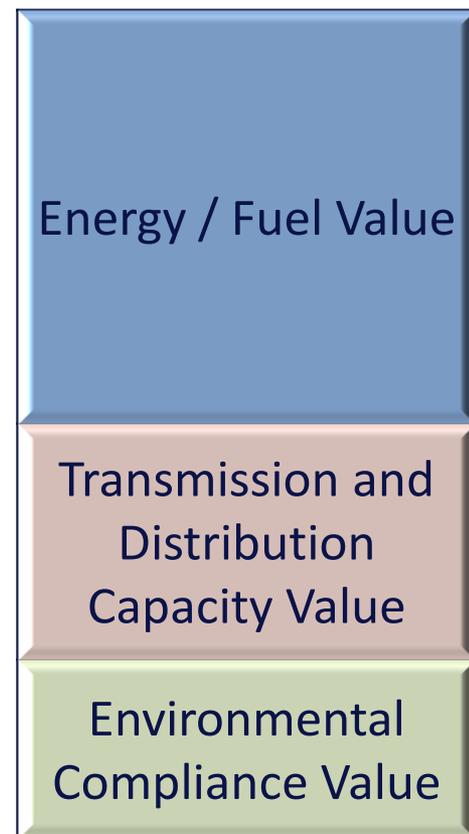


Proposed Commercial Value of Solar (VOS)

- **Market-based methodology**

- More transparent, reflects utility’s avoided costs and ERCOT* nodal market better than current residential “hybrid” approach
- Three value components:
 - Energy Value based on forecasted avoided market prices at time of production
 - Transmission & Distribution Value based on reduced ERCOT transmission costs
 - Environmental Compliance Value
- Values calculated using commercial solar fleet data
 - Capacity installed, production profile, load match coincidence factors

Commercial VOS Value Components



*The Electric Reliability Council of Texas (ERCOT) operates the electric grid for 75% of the state as the independent system operator (ISO), schedules power, and performs financial settlement for the competitive wholesale bulk-power market.

- Positive bill impact for all commercial solar customers
 - VOS higher than current volumetric rates
 - Compensated for excess generation
 - Solar can reduce customer’s peak demand and demand charges
 - Opportunity to use storage with solar to further manage loads
 - VOS updated with cost of service study
 - Better stability
 - Easier for contractors to communicate

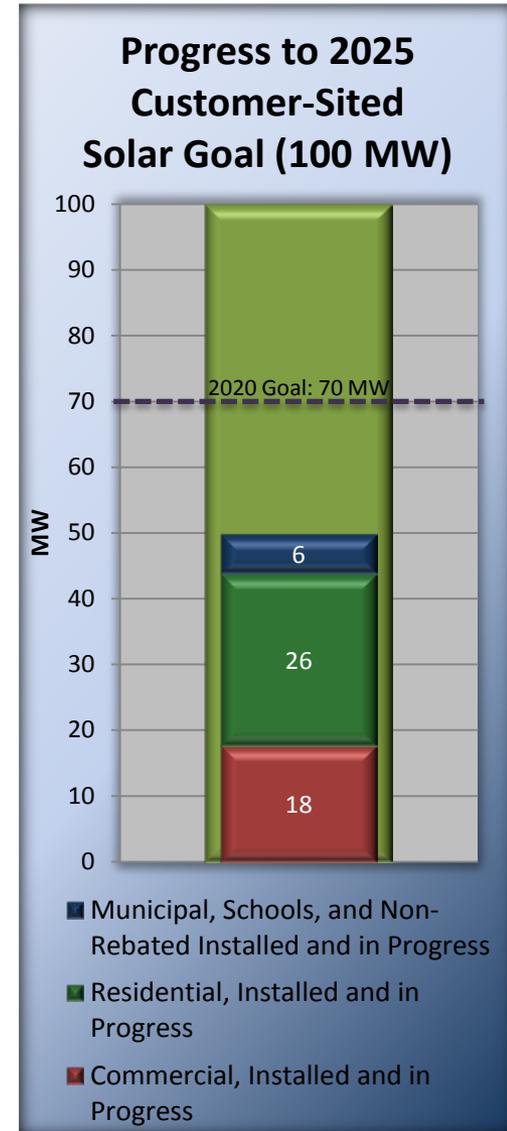
- No net impact to other customers
 - Commercial VOS will reflect avoided cost to the utility
 - Keeps utility indifferent as to whether energy is purchased from ERCOT or produced by customer





Commercial Solar Incentives & VOS

- Incentives are separate from VOS rate
 - Allows incentives to have their own justifications and budget source
- AE will honor all existing PBIs
- AE will continue Council-approved capacity-based incentive ramp down
 - As market grows and prices drop, customers need less incentive to go solar
 - Current incentives at: www.austinenergy.com/go/currentsolar
- On track to meet 70 MW customer-sited solar goal by 2020



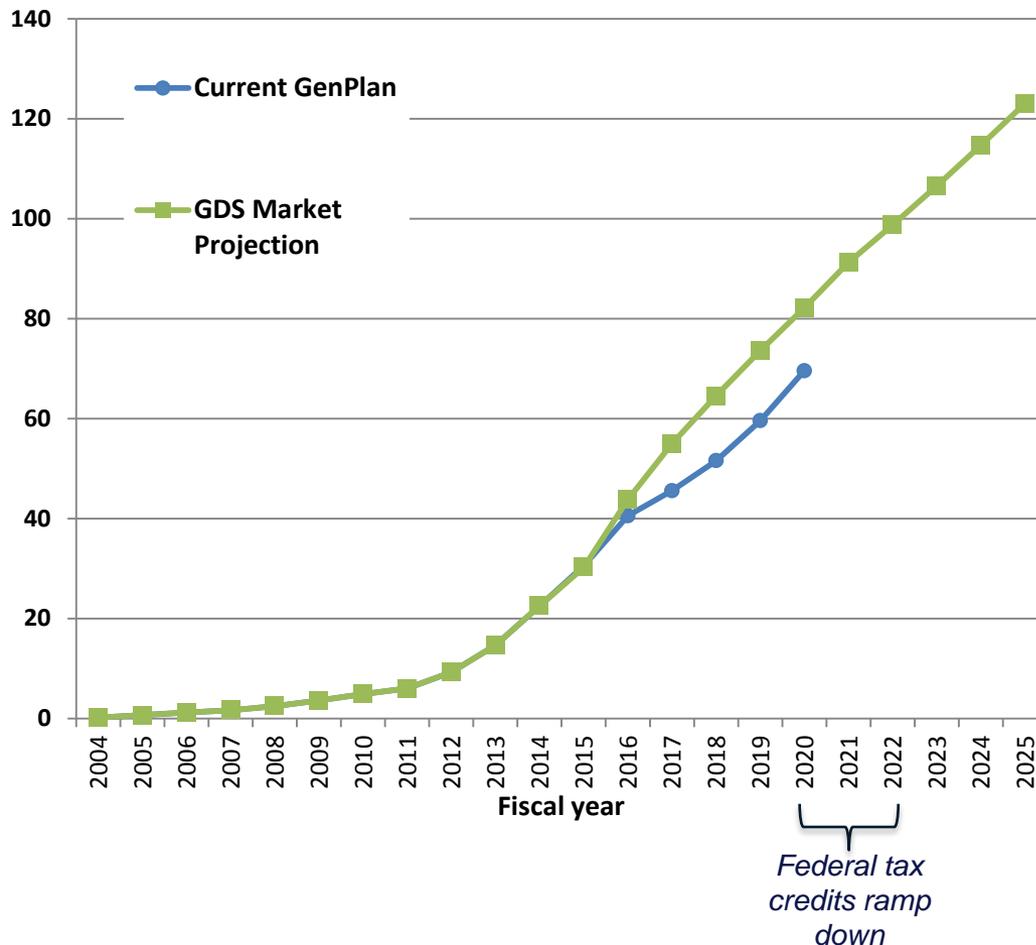


GDS Local Solar Growth Projections

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

Customer-Sited Local Solar Projections (MW)





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Thank you

