Austin Energy Customer Energy Solutions Budget – Fiscal Year 2019

Overview

Austin Energy has led the nation in customer distributed energy resource (DER) and renewable energy program offerings for over 35 years. As defined herein, DER refers to energy efficiency and demand response (demand side management or DSM) programs, distributed solar, electric vehicles, and storage. Austin Energy's renewable energy offerings also include GreenChoice® and Community Solar programs.

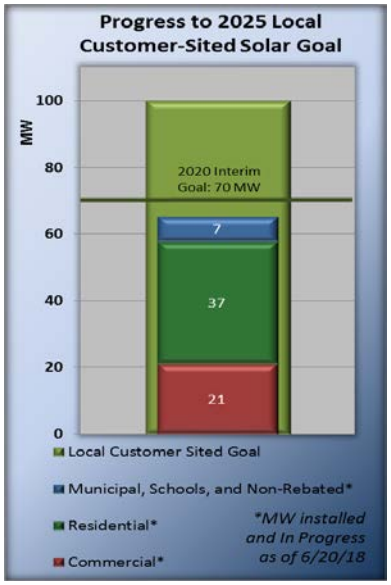
The purpose of these programs is to:

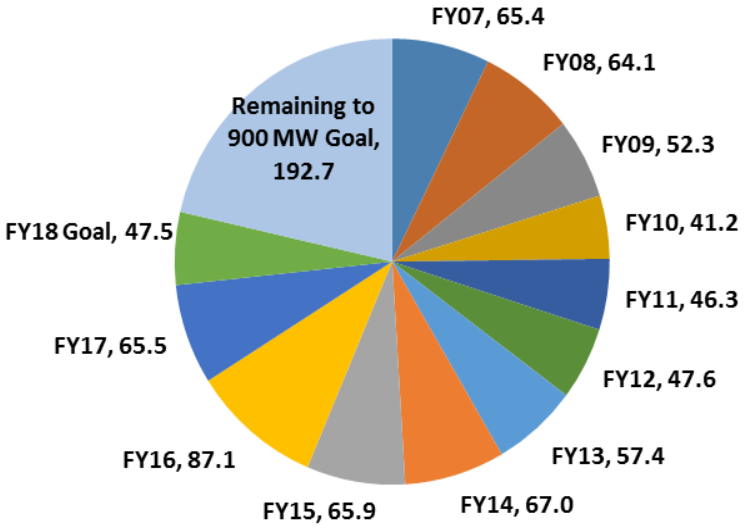
1. Save all Austin Energy customers energy and money, deferring the need to acquire and deliver more 'supply side' resources.
2. Enhance customer satisfaction and customer collaboration by reducing barriers to installing cost-saving measures (appliances, highly efficient lighting, solar etc.). The programs reach all customer demographics and geographic areas.
3. Achieve Council-established goals:
    a. Efficiency: City Council set a goal that the utility achieve a 900 MW demand reduction goal by 2025, with at least 200 MW coming from demand response programs subject to affordability limits. Council also directed Austin Energy to assess the potential to achieve even more ambitious goals of 1000 MW of aggregate demand savings by 2027. While working to achieve these MW demand reduction goals, Austin Energy needs to dedicate 2.5% of their gross revenue budget to Demand Side Management. Austin Energy has also committed to achieving at least 1% of energy savings (as compared to energy sales) on an annual basis.
    b. Solar: Council established a 200 MW goal for local solar by 2025 with 100 MW customer sited, with an interim goal of 110 MW of local solar by 2020, with at least 70 MW customer-sited. The Resource & Generation Plan set a local solar budget of $7.5 million per FY 2018 and FY 2019, followed by $5 million per year for FY 2020 through FY 2027, and a commitment to enhanced incentives and/or programs for affordable housing projects by FY 2018.
    c. Renewables: Council has also set a goal of achieving at least 55% renewable energy as a share of customer consumption by 2025, and 65% by the end of 2027.
    d. Storage: Complete the Austin SHINES project by FY 2019 that includes assessing the value and business case for integrating stationary distributed energy storage. Leverage findings to determine applicability to electric vehicle (EV) batteries.
    e. Electric Vehicles
        i. Initiate private public partnerships that promote, market, and provide electric vehicle support that will increase utility revenue while reducing air pollution and greenhouse gases.
        ii. Expand current efforts and, as possible, utilize these vehicles as a valid distributed storage technology.
        iii. Support the City of Austin Fleet Services' electrification plan through: Support the deployment of EV charging infrastructure, including at least 330 new charging stations by 2020 and deployment of at least 8-10 Austin Energy owned and operated DCFast stations by FY 2018, Transitioning 65 Austin Energy retired internal combustion engine vehicles to new electric vehicles by 2020.
        iv. Support growth of public and private charging station deployments by offering rebates, operational support, outreach, and special public charging rates to include support for low income populations.

v. Complete the Austin SHINES project by FY 2019 that includes assessing the value and business case for integrating stationary distributed energy storage. Leverage findings to determine applicability to electric vehicle (EV) batteries. Before the FY 2019 generation plan update, Austin Energy should do an analysis of potential value streams for energy storage that may include demand charge reduction, peak load reduction, energy arbitrage, price responsive opportunities, voltage support, and congestion management and evaluate open standards and business cases that could be applied to a future state of feasible and affordable EV distributed storage. Additionally, identify potential load and storage resulting from aggressive EV development.

vi. Leverage the residential EV time-of-use rate pilot "EV360" launched in 2017 to develop lessons learned.

This document provides an overview of projected year end performance for FY18 and the assumptions underlying the proposed FY19 budget.





FY 2018 Results

Goal Status: Austin Energy is on track to post demand reduction savings of about 47.5 MW for FY18, or cumulatively 707 MW (79% of the goal) since 2007. To reach the 900 MW goal by 2025, Austin Energy will need to achieve a remaining savings of approximately 193 MW, or about 28 MW per year, while adhering to the affordability criteria.

As of June 2018, 65 MW of customer-sited solar is installed or in progress, leaving 5 MW to meet the 2020 interim customer-sited solar goal, and 35 MW to meet the 2025 goal**.** The Webberville and Community Solar projects add another 33 MW of local solar, leaving 12 MW to meet this 2020 local solar goal, and 102 MW to meet the 2025 local solar goal. The proposed FY 2019 solar incentives budget is in line with the Generation & Resource Plan commitment of $7.5 million. Austin Energy provides enhanced performance based incentives to non-profits that install solar, and has three Multifamily Affordable Housing Shared Solar projects expected to be installed in September 2018 that will receive enhanced incentives as part of the program pilot.

CES Program Funding Sources

For FY18, the Customer Energy Solutions (CES) budget is a little over $43M. Of this, the rebate budget totals slightly more than $22 million, in addition to $1 million of CAP weatherization funds. Approximately $28 million is collected in the Energy Efficiency Services (EES) tariff and $1 million is collected from the Customer Assistance Program (CAP) tariff, the latter earmarked for low income weatherization. The rest of CES budget derives from other AE funds.

The CES Operations & Maintenance (O&M) budget, collected in the base rates, CAP and EES tariffs, totals approximately $20M (of this, $8.5 million is collected in the EES tariff related to solar and demand side management program execution while the remaining comes from base rates. Costs included in base rates include Key Accounts, Electric Vehicles and Data Analytics **Key Program Accomplishments in 2018**

Noteworthy highlights for FY18 are as follows:

1. Since program inception, the Instant Savings program has grown with 90 locations of 21 participating retailers throughout AE's service territory. This program offers point of sale discounts on Energy Star LED bulbs, Energy Star appliances and do-it-yourself (DIY) products including entry door top and side seals, heat control window film and air filters. Wi-Fi thermostat and heat pump water heater program promotions are also provided at these locations.
2. For low income weatherization, the program has expanded to include an air conditioner (AC) tune-up, with CES and Customer Care (CC) contacting over 7,000 potential customers. For those wanting a new AC unit, there is a rebate and loan for qualified homes. In Washington DC – Environmental Protection Agency (EPA) and Department of Energy (DOE) recognized Austin Energy as a Partner of the Year for Sustained Excellence due to AE's leadership in energy efficiency and the Energy Star Program.
3. The Thought Leader Award was accepted at the Peak Load Management Alliance for integrating demand response requirements in new construction properties.
4. The Multifamily Weatherization Assistance Program (MF WAP) for low income focused properties was featured in Public Utilities Fortnightly as being a Top Forty Innovator.
5. The MF WAP rebate on attic insulation and LED lamps were increased to encourage the properties to perform the upgrades on these measures when applying for rebates.
6. Houses of Worship (HOW) continue to be high priority with multiple energy assessments, energy workshop for HOW sustainability group, and rebates for 39 HOWs totaling $375k and 941 kW.
7. The Home Performance with Energy Star® (Home Performance) program has expanded to include an AC tune-up measure and new rebate and loan interest rates as low as 1.99% for qualifying customers.
8. New Appliance Efficiency Program (AEP) guidelines and contractor handbook were issued to the AEP registered contractors. Lowered AEP heating ventilation and air conditioning (HVAC) rebate levels assisted the program to be in better alignment with the FY18 rebate budget and MW goals.
9. The Home Performance and AEP program teams increased training efforts to improve contractor and internal staff awareness and understanding of the program guidelines and technical requirements.

10. The Power Partner Thermostat program has grown to 37 different types of participating thermostats. Smart Thermostats were added to the multifamily efficiency program, this will increase the access tenants have to the Power Partner Thermostat program and the ability to earn incentives for demand response participation. The commercial and industrial Load COOP program has over 500 participating service points which represent about 60 customers. In 2018 additional facilities were added and several previous participants-joined the program for 2018 after a 1 year hiatus.
11. Over 16,700 rebates were processed in Fiscal Year 2017 by Energy Efficiency Services and Solar departments. ToTo date for Fiscal Year 2018, over 1313,500 rebates have been processed
12. Over 10,000 phone and email inquiries in Fiscal Year 2017 were responded to by the Energy Efficiency Shared Services department. To date, for Fiscal Year 2018, over 9,000 phone and email customerc inquiries have been responded to.
12. Customer Energy Solutions has provided over 7,000 community outreach and education touches in the form of outreach events – these such events such as Earth Day, training, or special events.
13. Over 860 quality control and quality assurance site inspections were completed for Energy Efficiency Services rebate programs.
14. Energy Conservation Audit and Disclosure administration compliance to date is 186,885,947 or 86% for Commercial square footage, 122,982,685 or 87% for Multifamily square footage and over 2,300 audits received for Single Family homes.
13. Over 900 customers have installed solar to-date (through June) this year through the solar incentive program. The capacity-based ramp down of residential solar rebates concluded in April, 2018, and in May was replaced by a Solar Education program targeted at upfront consumer education for prospective solar customers, and a $2,500 rebate per qualifying residential installation with streamlined processing and decreased installation timelines.
14. The Commercial Solar performance based incentive (PBI) continues the planned ramp down, with roughly 12 MW available at incentive levels ranging from 2-5 cents/kWh, with non-profit customers eligible for higher incentives. Remaining capacity can be tracked at www.austinenergy.com/go/currentsolar.
15. As requested by stakeholders in the 2017 Rate Case, Austin Energy studied and implemented a commercial Value of Solar rate, which took effect January 1, 2018.
16. Austin Energy's Community Solar Program expanded significantly with the addition of La Loma community solar project. The 2.6 MW project came online in early 2018, enabling 440 households to subscribe to 100% renewable, local solar – with no upfront cost, no contracts, and no maintenance for the customer, and a fixed rate for 15 years. Council also approved a discounted Community Solar rate for half of La Loma's production for low-income participants. Two-hundred and twenty CAP customers are now enrolled in Community Solar and seeing bill reductions each month.
17. The US Conference of Mayors awarded Austin with the 2018 Mayors' Climate Protection Award for Austin Energy's community solar program which encompasses the key themes of Austin Energy's vision – customer value, expanded customer offerings, innovative technology and environmental leadership.

18. Austin Energy commenced a Shared Solar pilot for individually-metered multifamily affordable housing properties, with 3 participating properties expected to install solar by the end of the fiscal year, and 177 low-income tenants to begin receiving Value of Solar credits for their share of the system production starting in FY19.
19. Austin Energy was named to the Smart Electric Power Alliance (SEPA)'s Top 10 Utility 2018 list, recognizing Austin Energy as the #4 utility in the country for most solar capacity added, with 285.9 megawatts (MW) installed in 2017 .
20. Austin Energy was named 2018 Public Power Utility of the Year by SEPA, recognizing Austin Energy for thought leadership on renewable energy and Distributed Energy Resources, including the Austin SHINES program, which integrates solar and energy battery storage; the Community Solar Program; and the utility's Electric Vehicle Program.
21. Austin Energy was presented with a Grid Edge Innovation Award for the Austin SHINES project at Greentech Media's Grid Edge Innovation Summit. This honor recognizes their advancements in deploying a progressive distributed energy resource management system (DERMS) and recently vehicle to grid (V2G) new scope was approved by the US Department of Energy SHINES grant program.
22. Smart Cities Connect, Smart 50, award went to the Austin Energy's SHINES Project, recognizing cities for global smart cities projects and honoring the most innovative and influential work.
23. Smart Cities Connect, Smart 50 award, went to the Austin Energy's Electric Drive Sustainable Transportation Showcase, recognizing cities for global smart cities projects and honoring the most innovative and influential work.
24. There are over 26,000 app subscribers utilizing functionality for usage alerts, proper PV system production and in-store rebates. Residential app users are experiencing about 1% savings by using the features and tools within the free app.
25. Effective April, 2017, energy code savings from building permits for Commercial, Residential and Multifamily Green Building projects will be reported in the corresponding month one year post permit. Prior to the change, savings were reported upon issuance of the permit. This change was made to better align the claimed savings with building occupancy rather than the initiation of construction. Therefore, projected energy code savings for FY18 reflect the time lag caused in the change in reporting methodologies.
26. Pursuing a cost/benefit tool for teams to use to develop new program strategies.
27. Provide online survey services to AE and several other City of Austin departments.
28. Created a database which combines billing data with tax appraisal, Census and psychographic data for a broader view of current and prospective customers.
29. Developed tools for Customer Service Reps (CSRs) to use when discussing billing issues with customers.
30. GreenChoice was ranked #4 in the nation for green power sales on an MWh basis, and #8 on a participant basis, among utility green power pricing programs.
31. Launched a new EV outreach campaign featuring stEVie the "EV loving t-Rex" to include bi-lingual videos and online adverts.
32. Successfully attracted General Motor's Maven "gig economy" fleet to Austin and is the first city to receive a 100% electric fleet (Bolts) for this innovative service.

33. In collaboration with the Austin Transportation Department, launched an innovative electric e-Pedicab pilot.
34. The program for low and low moderate income (LMI) communities "EVs are for EVeryone" with support from the 11th Hour Project is in market to include a "EVs are for Schools" pilot with AISD is underway.
35. We are expanding EV Readiness in collaboration with the AE Green Building team and other City departments to include posting online case study with the "Fifth & West Residences" on EV Readiness. Texas Commission on Environmental Quality (TCEQ) Alternative Fueling Facilities Program (AFFP) notified Austin Energy of acceptance of up to $1.6M in grant-funding for the installation of DC Fast Charging Stations along the IH-35 corridor.
36. Plug-In EVerywhere Home Charging Station Rebate Program went live on the EECP Online Application platform allowing for a better customer experience and includes a new rebate pricing structure to help "future-proof" demand response initiatives.

FY19 Program Budgets

The FY19 proposed program budget for CES programs is shown in the chart below. As noted, most costs are recovered via the Energy Efficiency Services component of the Customer Benefit Charge (CBC). The CAP weatherization program costs are recovered in the CAP component of the (CBC) and other expenses are recovered in base rates. The proposed FY19 EES recoverable budget represents approximately aa $578k increase for rebates over the FY18 amended budget and $300k from areas collected from the base rate.

Customer Energy Solutions FY2018 Amended vs FY2019 Proposed Budgets*			
COMPONENT		**FY 2018**	**FY 2019**
CBC-CAP Recoverable	CAP Weatherization Program	1,000,000	1,000,000
CBC-CAP Recoverable Total		**1,000,000**	**1,000,000**
CBC-EES Admin	Outreach and marketing	889,789	792,186
	Green Building Prgm	434,637	478,298
	Green Building - Res	823,370	890,095
	Green Building -Com	862,733	899,817
	Green Building -Evaluation & Dev	760,691	767,747
	DSM Management	532,072	449,161
	DSM Program Mgmt.	1,948,055	1,710,058
	DSM Program Support	2,445,994	2,847,204
	DSM Solar Program	1,185,006	1,361,014
	EES Technical Support	1,123,722	1,171,264
	DSM Commercial/MultifamilyPrgm Mgmt	1,256,268	1,102,048
CBC-Energy Efficiency Admin Total		**12,262,337**	**12,468,892**
CBC-EES Incentives	AE Weatherization	1,427,000	1,277,000
	AC Tune Up	50,000	0
Customer Energy Solutions FY2018 Amended vs FY2019 Proposed Budgets*			
COMPONENT		**FY 2018**	**FY 2019**

	Loan Options	250,000	300,000
	Commercial-Existing Construction	2,400,000	3,100,000
	Small Businesses	1,700,000	1,900,000
	Green Building	0	0
	Commercial Power Partner	52,000	90,400
	Res. Solar Program	5,000,000	5,000,000
	Comm Solar Performance Based Incentive	2,500,000	2,500,000
	Residential Power Partner-Aggr	1,158,000	1,483,000
	School Based Education	200,000	200,000
	Load Coop	1,237,000	1,270,000
	Thermal Energy Storage	28,000	28,000
	Water Heater Timers	688,000	494,800
	Home Performance w Energy Star	1,500,000	1,650,000
	Appliance Efficiency Program	1,300,000	1,500,000
	Direct Install Partners and Events	150,000	0
	Point of sale discounts -SPUR	800,000	875,000
	Municipal Conservation Program	60,000	60,000
CBC-EES Incentives Total		**22,350,000**	**22,928,200**
Base Rate Recoverable	Key Accounts Management	1,787,219	1,822,783
	Data Analytics & Business Intelligence	3,619,218	3,740,083
	CES Admin	458,083	467,377
	Electric Vehicles	1,020,171	1,029,798
	Emerging Technologies	484,421	491,532
	Electric Vehicles Incentives	315,000	450,000
	CES Corporate	35,273	39,269
Base Rate Recoverable Total		**7,719,385**	**8,040,842**
Grand Total		**43,331,722**	**44,437,934**

* CES FY18 Budget as of June 2018; excludes $557K CAP low income weatherization carryover from FY17

Staff developed the proposed FY19 budget after extensive review of opportunities and challenges within each market sector, with the objective of ensuring Austin Energy reaches our 900 MW DSM and 200 MW local solar targets in a manner that is cost effective, while providing benefits to all sectors of the residential and commercial customer classes we serve. With respect to comparisons between FY18 and FY19, following are key adjustments:

1. The demand response, energy efficiency, and green building programs continue to collaborate through cross promotion and new offerings. The low income direct install programs in single and multifamily homes is further complemented by the addition of the Partners and Events DI proof of concept for FY18. Also, smart thermostats and promotion of Auto DR was further emphasized in the commercial sectors. Specifically, the code requirement for smart thermostats has increased the number of new homes that are eligible for the Power Partner program. In addition, the Home Performance, AEP and multifamily efficiency program has added smart

thermostats to the list of rebate eligible measures which is intended to encourage property managers to consider smart thermostats for their residence.

2. Increased the Solar O&M budget by almost $186,000 which is reflected in the Energy Efficiency Services O&M due to the move of 1 FTE from Data Analytics & Business Intelligence (DABI) to Solar to manage the GreenChoice program, GreenE certification fees for GreenChoice and Community Solar, seasonal temp support for solar inspections, and consultant support for solar studies as required in the Resource & Generation Plan.
3. Solar Residential and Commercial incentive budgets reflect expected expenditures, including residential rebates, multifamily affordable housing incentives, and commercial performance based incentive (PBI) payments for existing commercial projects, and are in line with the $7.5M budget set in the Resource & Generation Plan.
4. Green Building Incentives budget was adjusted to reflect the status of the project pipeline for the next 12 months for this recently initiated program, which pays incentives after project completion and verification of savings from the project. At this time, no projects are anticipated to be due rebates over the next 12 months.
5. Decreased budgets for the Multifamily Rebates and Multifamily Weatherization programs due to properties becoming more saturated that have participated in our rebate programs. Since inception, AE has provided energy efficiency measures for over 1,000 multifamily properties and 150,000 units.
6. Additional focus will be on Commercial Rebates and Small Business rebates for FY19.
7. Green Building and EES has added three FTEs to the Commercial group and the Shared Services group.
8. DABI supports a number of business units within and outside of CES. An FTE was reassigned to Solar to assume Green Choice responsibilities and consolidate all customer subscription programs in one group.
9. Emerging Technologies is shifting services funds (net zero impact to overall budget) to support 1 new contracting staff to help manage new Council directives under the Austin Energy Resource, Generation, and Climate Protection Plan to 2027.