LOW INCOME CONSUMER ADVISORY TASK FORCE

FINAL REPORT

DRAFT 10 FOR ACTION ON SEPTEMBER 25, 2015

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Executive Summary

This is the final report of The Low Income Consumer Advisory Task Force, created in November 2014 by the seven member at-large Austin City Council. The focus of the Task Force was directed at making recommendations to improve energy efficiency programs for low and low moderate income households served by Austin Energy.

Over half of Austin Energy's residential customers have low and low moderate incomes. Over a majority of Austin households live in rental property and census data show that renters have lower incomes than homeowners. Therefore, programs for multifamily properties are essential to serving the low and low moderate income community. In our many meetings we never failed to hear comments about the prevalence of high unaffordable utility bills renters struggle to pay.

Low and low moderate income customers contribute to the support and financial stability of our utility to a greater degree than they are credited. At the request of the Task Force Austin Energy estimated the amount paid by Customer Assistance Program (CAP) customers in 2014 to be $52.2 million. CAP customers, a small portion of the low and low moderate income customers and renters served by Austin Energy, paid nearly $1.6 million toward the total costs of energy efficiency and solar programs. The Task Force estimates that together CAP and non-CAP low and low moderate income customers contribute about $11 million a year toward the programs.

In the eleven months the Task Force was convened we did our best to focus on needs and solutions to better serve the broad base of customers we were assigned. Austin Energy has worked diligently with us embracing some of our ideas that are already moving forward while others are still being studied.

Overall, while Austin Energy is making efforts to reach low and low moderate income customers, the information and data reviewed by the Task Force shows that more can be done to deliver energy efficiency benefits to these customer groups. We believe our recommendations would improve the delivery of services and hope the City Council finds merit in them.

The following lists the six directives given in the resolution creating the Task Force and a summary of applicable recommendations adopted by the Task Force. The recommendations are followed by a list of items for further consideration as the Task Force ran out of time before all the ideas could be considered.

Directive 1. Make recommendations regarding the development, design, and implementation of energy efficiency and renewable energy programs to meet the demand reduction goals of low income and low-moderate income residential customer programs.

Recommendations:

- Austin Energy should improve and make more transparent the tracking of its energy efficiency programs.
- Adopt overall program goals and goals specific to low income programs.
- Establish an annual energy efficiency accounting true-up schedule.
- Adopt the triple bottom line used by the City of Austin Sustainability Office for program cost-effectiveness evaluation.
- Conduct a weatherization program cost reduction study.
- Establish a universal application process where city departments use a common application form that is immediately processed by the receiving department and referred to other respective departments.

Directive 2. Explore program options for low income and low-moderate income households such as income-sensitive sliding scale incentives, neighborhood-based energy efficiency programs, low-cost loans, combining community and city resources to effectively deliver programs, program cost-saving measures, and any other alternatives that will improve the effectiveness and cost efficiency of program delivery.

Recommendations:

- Provide low-interest loans for purchase and installation of energy star window units for energy efficient heating and/or cooling.
- Provide low interest loans for comprehensive energy efficiency to low moderate income homeowners to weatherize their homes and purchase energy efficient cooling and/or heating appliances.
- Allow for repayment of energy efficiency retrofits on a customer's monthly bill.
- Provide a contractor rebate pilot program to allow weatherization work to be completed in conjunction with affordable housing projects.
- Create a residential low income energy efficiency program to provide Energy Star window heating and/or cooling units including installation to low income households who are certified by the medically vulnerable registry.

Directive 3. Identifying appropriate funding levels for low-income weatherization programs.

Recommendations:

- All unspent Energy Efficiency Services (EES) low-income weatherization funds should roll over to the next budget year.
- A minimum of 25% of the Energy Efficiency Services budget should be spent on programs that help low and low moderate income residential customers, with at least 10% of the budget dedicated to the free weatherization program.
- At least 15% of the total distributed solar budget for new projects should be dedicated to projects that benefit low and low moderate income customers.

Directive 4. Evaluate air conditioning incentive programs to ensure the programs are promoting the highest equipment efficiency levels to the consumers.

Recommendations:

- In the Low-income Weatherization Program, make Energy Star window unit air conditioners the standard air conditioning measure, and under limited circumstances, include repair and replacement of central air conditioners.

Directive 5. Evaluate incentives or code changes that could encourage energy efficiency measures in rental housing.

Recommendations:

- Utilize at least 50% of the multi-family budget to incentivize energy efficiency retrofits on multi-family properties that receive affordable housing subsidies from the federal, state, city, or county government or properties where, in at least 30 percent of the units, housing choice vouchers are accepted as a form of payment or customers qualify for the Customer Assistance Program bill discount.
- Establish ability within the Austin Energy billing system to allow for fractional division of value of solar credits from a distributed solar system on a multifamily residential property to be divided and applied to multiple residential customer accounts.
- Develop a plan for fully enforcing the entire Energy Conservation Audit Disclosure (ECAD) ordinance, especially for those multi-family facilities whose electric cost is 150% of average electrical cost.
- Amend the ECAD program to provide recognition for energy efficient rental units.
- Make the results of ECAD audits and disclosure forms for multifamily properties available on the city's website.

- Require Austin Housing Finance Corporation to condition financing approval to applicants involved with affordable housing with a requirement that applicant seek energy efficiency services from Austin Energy, including solar for new and/or substantial rehabilitation construction. Higher rebates should be considered for these applicants.

Directive 6. Establish a demand reduction goal for low income and low-moderate income households as a percentage of the energy and demand response goals for 2024.

- Establish a minimum overall energy savings annual target of one percent of total energy sales through energy efficiency and demand reduction programs.
- Set a current demand savings goal for energy efficiency programs targeting low and low-moderate income customers of no less than 5% of the utility's annual peak demand savings and increase that goal 1% per year over the next five years reaching 10%.

Building Codes. The City should continue to improve energy efficiency standards for new construction, for both homes and apartments and continue to make sure new construction is more energy efficient by improving coordination between building code development, inspection and code compliance.

We believe the recommendations included herein are a solid starting point for expanding energy efficiency programs to many customers who need them most. However, there are many solutions we were unable to explore to the extent needed to result in a recommendation. Therefore, we offer our list of proposals that were "left on the table" that we believe deserve further consideration.

Items for Future Consideration.

- Continue the work of the Task Force through a new entity representative of the 10-1 Council.
- Conduct an audit and evaluation of the utility billing system.
- Expand the scope of the ECAD ordinance to cover rental properties with 1 to 4 units.
- Amend the multi-family program to better increase the efficiency of air conditioners in rental properties.
- Dedicate staff time to target owners of small units to personally contact and meet with landlords to explain the benefits of energy efficiency retrofit.
- Providing a free energy audit to renters that experience high bills.
- Create a One Stop Weatherization
- Increase the cap on the cost of incidental repairs in the low income weatherization program

- Utilize energy efficiency and renewable energy programs that serve low-income and low-to-moderate residential customers as a compliance tool for the EPA's Clean Power Plan;
- Investigating how to design Community Solar Projects so that more low-income and low-to-moderate income individuals can participate in solar in Austin.

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I. Introduction

This is the Report of the Low-Income Consumer Advisory Task Force, a nine member task force, created in 2014 by the seven member at-large Austin City Council. This final report is the culmination of an eleven-month effort summarizing the findings and recommendations of the task force.

The Task Force was directed: to look for and recommend improvements to current low and moderate income energy efficiency programs; to consider and recommend new programs and new approaches for low and moderate energy efficiency and renewable energy programs; and to set program funding and demand savings goals for low and moderate income energy efficiency programs.

Over this past year the Task Force has heard from the community and City and County departments. Many of their comments were incorporated into the recommendations provided in this report.

Austin Energy has been the principal partner in this task force effort to find facts and make the best information available. As part of the introduction to this report we present fundamental information about the city's Customer Assistance Program (CAP) customers. During Fiscal Year (FY) 2014 CAP customers were billed by and paid to Austin Energy $52.2 million. An additional $7.3 million was paid by assistance programs other than the utility's Plus 1 program on behalf of CAP customers.[1] Seeing the bottom line revenue paid by CAP customers shows our low income customers add value to the system even in consideration of the cost of special programs needed to make their bills affordable. This report provides background information on the task force composition and its activities, summarizes the recommendations adopted by the task force and identifies outstanding issues that the new City Council should consider assigning to a new task force where all the current council districts are represented.

This report is limited by the facts available to the Task Force. We found the data for the energy efficiency programs and for the energy efficiency rates funding these programs were not consistently reported. Some needed data were not available.

Most of the recommendations in this report are intended to provide bill savings to more low and low-moderate income customers of Austin Energy than are currently being provided. These bill savings will make Austin more affordable for financially struggling customers and will in all likelihood lead to reduced bad debt and collection costs for Austin Energy.

[1] Austin Energy Response to Task Force data request provided September 4, 2015. Also provided in the appendix to this report.

II. Background

The Low Income Consumer Advisory Task Force was created by City Council Resolution No. 20140828-158 to help the City Manager in his directive to "to implement a planning process to evaluate recommendations of the 2009 and 2014 Austin Generation Resource Task Forces and to develop program changes, including increases of the energy efficiency demand reduction goal and establishing energy efficiency programs, and funding levels for equitable, effective program offerings for Austin energy's customers, with particular emphasis on low income and low-moderate income households."

The Task Force was directed to:

1. Make recommendations regarding the development, design, and implementation of energy efficiency and renewable energy programs to meet the demand reduction goals of low income and low-moderate income residential customer programs
2. Explore program options for low income and low-moderate income households such as income-sensitive sliding scale incentives, neighborhood-based energy efficiency programs, low-cost loans, combining community and city resources to effectively deliver programs, program cost-saving measures, and any other alternatives that will improve the effectiveness and cost efficiency of program delivery.
3. Identifying appropriate funding levels for low-income weatherization programs
4. Evaluate air conditioning incentive programs to ensure the programs are promoting the highest equipment efficiency levels to the consumers
5. Evaluate incentives or code changes that could encourage energy efficiency measures in rental housing.
6. Establish a demand reduction goal for low income and low-moderate income households as a percentage of the energy and demand response goals for 2024.

A. Membership

Under the original resolution each of six council members and the mayor appointed one member to the Task Force and one member each was chosen from among the Electric Utility Commission and Resource Management Commission members. On August 6, 2015 City Council adopted Resolution No. 20150806-045 to minimally alter the membership.[2]

The Task Force members include:

Carol Biedrzycki, Chair, Texas ROSE (Ratepayers' Organization to Save Energy)

[2] Task Force Member Kelly Weiss was replaced by Resource Management Commission member Michael Wong.

Tim Arndt, Vice Chair, Energy Efficiency Consultant

Dan Pruett, Meals on Wheels and More

Cyrus Reed, Sierra Club

Lanetta Cooper, Consumer Advocate

Richard Halpin, First Unitarian Universalist Church of Austin Green Sanctuary Ministry

Chris Strand, Stan's Heating and Air Conditioning

Karen Hadden, Electric Utility Commission

Michael Wong, Tom Green & Co. Engineers, Inc., Resource Management Commission

The task force was organized into three committees based on the scope of the task force's work with the following membership:

- Low Income Energy Efficiency Programs -- Programs that serve customers with income under 200% of the Federal Poverty Guideline. This group represents 28% of Austin Energy's residential customers.[3] Chair: Lanetta Cooper, Richard Halpin, Dan Pruett, and Karen Hadden.
- Low-Moderate Income Energy Efficiency Programs – Programs that serve customers with income in the range of 201% to 400% of the FPG This group represents 38% of Austin Energy's residential customers[4]. Chair: Chris Strand, Kelly Weiss, Cyrus Reed. Low moderate income is defined
- Affordable Rental Property – Programs that serve residential customers who rent. Renters are a significant customer group representing 55% of all households. Renters are also more likely to be low income than homeowners. Census data for Austin show that 32.8% of renters had a household income of less than $25,000and 63.9% of renters had a household income of less than $50,000. Only 22.2% of homeowners had a household income of less than $25,000 and 46.8% of homeowners had a household

[3] Memorandum to Low Income Consumer Advisory Task Force from Liz Jambor, EdD, Manager, 01/05/15., p 5
[4] *Ibid*.

income of less than $50,000.[5] Chair: Tim Arndt, Carol Biedrzycki, Cyrus Reed, Lanetta Cooper. [6]

B. Summary of Task Force Activities

The task force held its first meeting on November 5, 2014 and held a total of 23 meetings before October 1, 2015. In addition to the 23 meetings held to discuss the issues, a town hall meeting was held on June 1, 2015 at the South Austin Recreation Center and a community review was held at the Austin Energy Affordable Energy Policy Summit on July 17, 2015. The Task Force chair and vice chair and member Lanetta Cooper also attended the Community Power Forums held by the Sierra Club on February 28, and May 9, 2015 to meet with the public.

The task force began its first two meetings in January by inviting panels of city staff and nonprofit organizations to provide input to the discussions. A third panel was organized specifically on the subject of on-bill financing and repayment.

The January 9, 2015 meeting included a discussion panel for city departments serving the low income community and utilities. Representatives shared information about their low income programs, their funding sources, and how they currently work with Austin Energy and other agencies. Participating departments and individuals included: Letitia Brown, City of Austin Neighborhood Housing and Community Development Office; Cara Welch, City of Austin Neighborhood Housing and Community Development Office; Maria Allen, City of Austin Health and Human Services; Nick Waken, Housing Authority of the City of Austin; Mark Jordan, Austin Water Utility; Elena Rivera, Travis County Health and Human Services; and Julie Hatfield, Texas Gas Service.

The January 16, 2015 meeting included a nonprofit discussion panel. Representatives shared information and thoughts on how to improve energy efficiency for low income people. They discussed their low income programs, funding sources, and how they currently work with Austin Energy and/or other agencies. The discussion included Chantel Bottoms, The United Way for Greater Austin, 211 Service; Susan Peterson, Foundation Communities; Letitia Brown, Neighborhood Housing and Community Development and Austin Housing Finance Corporation; Jesse Porter, Austin Habitat for Humanity; Charles Cloutman, Meals on Wheels and More and Housing Repair Coalition; and Katharine Stark, Austin Tenants Council.

A third panel discussion was held on March 13, 2015 regarding financing options for energy efficiency and solar applications. Participating were: Doug Lewin, Executive Director,

[5] U.S. Census Bureau, American FactFinder, S2503 Financial Characteristics.

Southwest Partnership for Energy Efficiency as a Resource (SPEER); John Hall, Environmental Defense Fund; Janee Briesemeister, former AARP utility specialist; Ruby Roa, Austin Energy Retiree and Lady of Charity; Mark Rogers, Executive Director, Guadalupe Neighborhood Development Corporation.

C. Briefings and Reports

From November 5, 2014 to November 1, 2015 the Task Force provided the following briefings and reports.

04/01/15 Preliminary report submitted to City Manager

04/21/15 Preliminary report presented to Resource Management Commission

05/28/15 Briefing to the City Council Austin Energy Utility Oversight Committee

06/12/15 Interim Report Submitted to City Manager

06/16/15 Report scheduled for Resource Management Commission (Meeting Cancelled)

09/15/15 Report discussed at Resource Management Commission. Final report scheduled for presentation on October 20, 2015

09/21/15 Report discussed at Electric Utility Commission. Final report scheduled for presentation on October 19, 2015

10/01/15 Final Report submitted to City Manager

D. Demographics

Austin Energy provides electrical service to a population of almost one million people spread over 437 square miles of service territory, 277 of which are within the Austin City limits. All but 15 of those square miles are within Travis County.[7] In FY 2014 Austin Energy served an average of436,997 customers of which 391,410 were residential.[8]

Forty-five percent of Austin Energy's customers are homeowners while 55% rent.[9] Overall, customers who rent are more likely to have lower incomes than those who own homes. Data show that 32.8% of renter households in Austin have annual income under $25,000 and another 31.1% have income between $25,000 and $49,999. Thus, 63.9% of renter

[7] See service area map of Austin Energy located in the Appendix of this report.
[8] Elizabeth Jambor, Austin Energy email to Carol Biedrzycki, September 22, 2015.
[9] U.S. Census Bureau, American FactFinder, S2503 Financial Characteristics.

households have income under $50,000 per year.[10] Median household income for renters is $37,538 compared to $85,246 for homeowners.[11]

Austin Energy estimates that 28% (118,241)[12] of its customers have family incomes at or below 200% federal poverty guidelines,[13] the income eligibility cap for the low income weatherization program. Of this amount, up to 43,000 households averaging 35,306 in FY 2014 were customers enrolled in the Customer Assistance Program ("CAP") that provides rate discounts.[14]

An additional 15.2% (64,000)[15] of Austin Energy's customers have family incomes between 201 and 300% federal poverty guidelines. The Center for Public Policy Priorities reports that an Austin family of four needs household income levels of 220% to 280%[16] of the Federal Poverty Guidelines just to get by.[17] This group of customers gets little assistance from Austin Energy. They do not qualify for the CAP program providing bill relief through rate discounts nor do they qualify for the energy efficiency low income weatherization program. Yet this group generally has inadequate resources to be able to participate in many of the electric utility's energy efficiency programs.

Approximately 13% (53,900) of Austin Energy's customers have family incomes between 301 and 400% of Federal Poverty Guidelines.[18] This is the last population segment the Task Force was directed to focus on in carrying out its duties under the Council's resolution. This is an income range of $35,301 to $47,080 for an individual and $72,501 to $97,000 for a family of four. A range of income eligibility up to 400% of the Federal Poverty guidelines is consistent with guideline applied by many nonprofit hospitals in their charity care discount programs. The discounts are provided on a sliding scale with the amount of the benefit decreasing as income increases.[19]

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[10] *Ibid.*
[11] *Ibid*.
[12] See "Update of Energy Burden Tables," (Austin Energy 2015).
[13] Federal poverty guidelines is a federal poverty measure (expressed in annual or monthly dollars starting with a one-person household level and increasing as the number of the household members increase) issued each year in the Federal Register by the Department of Health and Human Services.
[14] Austin Energy, 3rd Quarter Report, Fiscal Year 2014.
[15] See "Update of Energy Burden Tables," (Austin Energy 2015)
[16] The range is dependent upon whether the household pays for all or only a part of the family health care premium.
[17] Better Texas Family Budget, Data Center located at http://familybudget.org. Copies of the budget calculator are included in the appendix.
[18] Memorandum to Low Income Consumer Advisory Task Force from Liz Jambor, EdD, Manager, 01/05/15., p 5
[19] Texas Legal Services Center Hospital Accountability Project , Holding Nonprofit Hospitals Accountable A Report on the Effectiveness of the Texas Charity Care law in Meeting the needs of the Low Income Uninsured and Underinsured, April 2009, pp. 33-4.

The Federal Poverty Guidelines for 2015 for a family of 4 is set at $24,250.[20] Some studies show that in the Austin Round Rock area the real poverty guideline should be about 280% of the guideline set by the Federal government for the 48 contiguous states. The disparity in cost of living in different states or in different cities in Texas is very wide.

In relation to the average U.S. city cost of living score of 100, the Austin/Round Rock area is ranked above the national average at 103 while the Brownsville/Harlingen area is below the national average at 83.[21] In regard to housing, Austin scores above the national average at 132 in comparison to 100 for the average U.S. city. The Brownsville/Harlingen area has housing which are costs ranked at 83 which is below the average U.S. city ranking of 100.[22] Compared to taxes, and health care costs for an average U.S city Austin taxes are ranked at 81 versus 34 for Brownsville/Harlingen and health care is the same for both at 110 in comparison to the average U.S. city.[23] Someone living at 400% of the Federal Poverty Guidelines in Austin would not be considered poor but would certainly not be considered rich. These would be households that have a roof over their heads, food on the table, health insurance, a retirement account, and more. This is a substantial portion of the residential customer population and may be an important segment to tap to realize the utility's energy efficiency goals.

The survey data provided by Austin Energy to the Task Force is unsuitable for drawing any conclusion about the participation of the 301 to 400% of poverty income group in Austin Energy's programs. Many working families are leaving Austin to live in less expensive outlying areas. It is reasonable to assume that this income group may require some more aggressive "marketing" (like landlords) to participate in an energy efficiency program and may require special terms and conditions to be able to afford to invest in energy efficiency. However, it is also reasonable to assume that some Austin Energy customers whose incomes are 301 to 400% of the Federal Poverty Guidelines especially those near the 400% levels are participating in some non-low income energy efficiency programs.

Austin Energy's energy efficiency program is funded with a separate rate combined with two other rates into a community benefit charge for utility billing purposes. Based on an estimate provided by Austin Energy that certain low-income customers used 955 kilowatt-hours of electricity per month in 2014, customers qualifying for the low income weatherization program paid Austin Energy an estimated $5.4 million in energy efficiency rates representing Austin Energy customers whose household income levels are from 0 to 200% federal poverty

[20] http://aspe.hhs.gov/2015-poverty-guidelines
[21] U.S. Bureau of Labor Statistics, http://cost-of-living.startclass.com/
[22] *Ibid.*
[23] *Ibid.*

guidelines.[24] Adding in Austin Energy customers whose family income levels are between 201 and 300% federal poverty guidelines[25] would add an additional estimated $2.9 million in energy efficiency rates collected raising the total Austin Energy recovered to $8.3 million.[26] Continuing these consumption level assumptions to the population segment whose household incomes are between 301 to 400% federal poverty guidelines adds an additional estimated $2.5 million to bring the total estimated energy efficiency rates paid by Austin Energy customers whose household incomes are from 0 to 400% federal poverty guidelines to $10.8 million.[27]

The amount of energy efficiency monies spent on low income weatherization programs does not match the amount of energy efficiency monies collected from Austin Energy's low income customers. In FY 2014, Austin Energy spent $729,547 out of $32.7 million in energy efficiency expenditures[28] on the low income weatherization program while taking in an estimated $5.4 million $from its low income customers, thereby showing a disparity between benefits received (energy efficiency programs) and costs incurred (energy efficiency rates paid). This disparity becomes even more pronounced for Austin Energy's customers whose family income levels are between 200 and 301% federal poverty guidelines. These customers paid an estimated $3.0 million in energy efficiency rates but the amount of direct services they received is unclear from program and survey data.

The amount of money that was budgeted through the Energy Efficiency Service Fee for low-income weatherization in FY 2014 was only $850,000; however, there were other programs that did benefit low-income and low--moderate income ratepayers[29]. The CAP budget includes $1 million annually for low income weatherization for customers enrolled in the CAP bill discount program. This service is funded by a CAP rate[30], with about $3,316,259 in CAP rates

[24]This report used the Customer Assistance Program monthly kWh consumption level as a proxy for low and low moderate income customer average monthly consumption levels. The Task Force had three data points: 1. Monthly average kWh usage of 1,023 determined in the 2009 rate case by Austin Energy's cost of service consultants (Austin Energy 2009 rate case; R.W. Beck, "Customer Classes and Rates Philosophy Public Involvement Committee Meeting #2, p. 26 (February 9, 2011) 2. Monthly average kWh consumption level of 955.2 for calendar year 2014. (Austin Energy response to request for information August 26, 2015) 3. Monthly average kWh consumption level of 987 for FY 2014. (Austin Energy Response to Request for information, August 26, 2015) The relative closeness of the data points despite the increasing Customer Assistance Program customer base suggests the reasonableness of relying upon any of the data points. Nonetheless, the Task Force utilized the lowest monthly average kWh consumption of 955.2. This monthly average was then multiplied by twelve and again by the estimated number of households whose incomes were at this level; and lastly multiplied that total by $0.004, the residential energy efficiency rate.

[25] See footnote No. 7.

[26] See footnote No. 15

[27] *Id.*

[28] Austin Energy response to public information request (June 4, 2015 and May 22, 2015).

[29] Austin Energy response to request for information (June 4, 2015).

[30] The CAP rate is part of the Community benefit Charge.

provided by low and low-moderate income customers in FY 2014.[31] Second, some projects participating in the Green Building program involved buildings in which low and low-to-moderate income families reside. Unfortunately, there are no data available regarding low and low moderate income customers benefitting from the program. The same is true for the Multifamily Energy Efficiency Program. Overall, the low and low-to-moderate income ratepayers appear to be contributing significantly more to the budget than they are receiving in Energy Efficiency Services programs.

Direct access to energy efficiency programs is important because the benefits accruing for the low income customers are lower electric bills and healthier homes. From the utility's perspective, the benefits include energy and demand savings benefits are lower capital costs, reduced fuel and operations and maintenance costs and a savings due to having less bad debt and collection costs. Austin Energy data reported through two color coded zip codes maps of City of Austin—one for the amount of payment arrangements and one for below average incomes and above average poverty. The maps reveal a relationship between Austin Energy's debt and the household incomes of its customers. A higher number of payment arrangements in a zip code shows that zip code to have a higher incidence of poverty. Copies of these two maps are included in the appendix.

E. History of Residential Low Income Energy Efficiency Program and Multifamily Energy Efficiency Program

1. Low-Income Energy Efficiency Program

The history of the low-income energy efficiency program explains the many changes the program has undergone over the past 33 years. This information is important because the Task Force, Austin Energy, and the City Council must be aware of differences in the program at different points in time. The scope of income eligibility and the types of energy efficiency measures installed has not remained constant over the years.

Started in 1982, Austin Energy has had one residential low income energy efficiency program, called the free weatherization program.[32] Since this time, Austin Energy has

[31] This amount was calculated by multiplying the number of customers from 0-400 less the number of CAP customers for FY 2014 multiplied by the monthly average kWh times 12 times $.00145 representing the average of the inside city limits residential CAP rate and the outside city limits residential CAP rate. At 0-300% FPG the CAP funded contribution would have been $2,390,592 and at 0-200% FPG the amount would have been $1,291,469/

[32] AE memo to Task Force, "Questions Concerning Questions Submitted by Lanetta Cooper in July 17, 2015 Low Income Advisory Task Force" (August 14, 2015)("August 14 memo answering Cooper"), See also AE memo to Task Force, "Questions Concerning the Changes of Costs Associated with AE Weatherization Program" (August 14, 2015) ("AE memo on changing costs").

weatherized over 17,000 residential units.[33] In the process of implementing this program Austin Energy has partnered with other city departments, other utilities and non-profit organizations. Currently, Austin Energy is coordinating with Austin Water Utilities, Texas Gas Service, the State of Texas, Neighborhood Housing and Community Development, Travis County and the Austin Home Repair Coalition.

The income eligibility requirements for this program have changed over time. Initially, the programs only covered those AE customers whose household incomes were at 100% of the federal poverty levels. The eligibility was later raised to cover customers at 150% of the Federal Poverty Guidelines, and eventually when Austin Energy implemented the American Recovery and Reinvestment Act's ("ARRA") weatherization assistance program grant, the eligibility was raised to cover customers at 200% or below of the Federal Poverty Guideline. This eligibility continues today.[34] Austin Energy processed customer applications for income eligibility up through the implementation of the ARRA-funded weatherization program. Sometime afterwards, Austin Energy started relying upon referrals by other city departments, Austin Energy divisions, and entities that income qualified their clients. Today, Austin Energy primarily obtains its customer referrals from the customer assistance program ("CAP"), an Austin Energy program that provides a rate discount and funds for billing assistance to low income customers.

The initial weatherization program provided weather stripping around entry doors and attic insulation.[35] In the mid-2000's, Austin Energy expanded its energy service improvement options to include sealing and repairing of ducts, solar screen installations, compact fluorescent light bulbs, carbon monoxide and smoke detectors and minor home repairs to improve the effectiveness of the energy efficiency improvements that were made. Customer eligibility for the program was still limited and a $1,500 cap on per home expenditure was established.[36] Austin Energy provided the energy efficiency improvements to their eligible customers through contractors expending on average $1,300 per house from 1996-2009.[37]

During Austin Energy's expenditure of the American Recovery and Reinvestment Act (ARRA) grant funds (2010-2012)[38] the utility expanded the low income weatherization program

[33] AE memo on changing costs
[34] *Id.*
[35] *Id.*
[36] *Id.,* GDS Associates, Inc., "Weatherization Assistance Program Evaluation of Austin Energy's ARRA-supported Weatherization Assistance Program ("WAP") FINAL REPORT, p. 40 (January 30, 2015)("GDS Report").
[37] AE memo on changing costs
[38] In FY 2012, Austin Energy successfully met stringent federal funding guidelines to complete the weatherization of 1,886 homes — 77 percent more than the original goal — for customers living in poverty or with low incomes. Despite complex process requirements and a strict schedule that resulted in other award recipients losing awarded funds, Austin Energy's performance was so consistent that the utility received additional funding that ultimately totaled $9.2 million — 60 percent more than the original award. Under this program, each dwelling received, on average, about $5,000 worth of improvements

by providing the same energy efficiency service improvements but removed the expenditure cap thereby allowing all needed energy efficiency service improvements to be made. The program added repair and/or replacement of HVAC (heating ventilating and air conditioning), compact fluorescent lighting and refrigerator replacements as energy efficiency service improvement options. In addition, a budget for minor repair work was also allowed under the program. Eligibility for the program was extended to all customers whose household incomes were at 200% federal poverty guidelines or less with priority given to vulnerable populations and low income customers with high electric bills. An expense limit of $6,500 per household was established.[39] During this time period, Austin Energy continued to utilize contractors expensing $4,339 per participant.[40] This low income weatherization program continued into FY 2014; however material and contractor costs increased such that Austin Energy expensed an average of $5,167 per participant.[41]

Effective in FY 2015 Austin Energy discontinued the HVAC repair or replacement and the refrigerator replacement as energy efficiency service improvement options from its low income weatherization program and replaced this option with the . Installation of window air conditioning units for low income vulnerable customers. Material and contractor costs increased again such that even with the decreased energy efficiency service improvement options (including deleting the most expensive option, central A/C replacement), Austin Energy is expensing approximately $3,800 per participant in this current FY, an average that rises to $4,000 if you include water conservation measures paid for through a separate budget from Austin Water Utilities.[42,43]

Detailed information on number of participants, the amount spent per participant, energy savings and the cost of individual measures covered in the Weatherization program can be found in the appendix.

The current energy efficiency service options are promoting reasonable energy conservation options, health and safety measures, bill relief, and debt and collection cost reduction. Still, the ever increasing material and contractor costs challenge the cost effectiveness of the program and achieving greater energy savings per dollar spent should be a

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including new energy efficient appliances, and air conditioning and heating equipment. AUSTIN ENERGY ANNUAL PERFORMANCE REPORT Year Ended September 2012, Published July 26, 2013.

[39] GDS Report at p. 9

[40] AE memo on changing costs.

[41] AE memo on changing costs.

[42] AE memo on changing costs. See also Austin Energy Weatherization Measure and Labor Cost (2005-2015) in the Appendix that shows the increasing material and contract costs for certain energy efficiency service improvement options.

[43] It should also be noted that only 12 households qualified for widow a/c units in FY 2015. Austin Energy briefing to Task Force on September 18, 2015.

goal shared by the community, Austin Energy and the Council. Toward this end, the Task Force has provided some recommendations such as price discounts by contracting with a sole or a few retailer/manufacturers for materials and leveraging funds from other programs that address this challenge, as well as neighborhood-based pilot projects to better bring synergies between Austin Energy and Neighborhood Housing. More can be done. This challenge will continue going forward and we urge the council to move forward with our recommendation to have the city manager conduct a weatherization program cost study as described in section III. C of this report.

2. Multi-Family Energy Efficiency Programs

The Multi-Family Energy Efficiency program is perhaps the most important program that should be expanded to better serve low and low moderate income customers. Over half-- 55%--of Austin residents live in rental housing.[44] Most housing units –61%--were built before 1990 and 40% were built between 1970 -1989.[45] Census data further indicate that households who rent have lower income than those who own their own homes. Approximately 22% of owners have income below $25,000 compared to 33% of renters.[46] Approximately 47% of owners have income under $50,000 compared to almost 64% for renters.[47] Providing a greater amount of energy efficiency program activity in rental property is highly likely to benefit low and low moderate income customers. Tracking of demographic data for participants is highly encouraged to help determine the distribution of energy efficiency benefits to different income groups.

The inability of many renters to pay their utility bills is is caused by high usage that could be reduced with energy efficiency improvements. Energy efficiency improvements make living in the apartment unit more affordable for the tenant and contribute to Austin Energy's energy efficiency and climate protection goals. The current multi-family program through high rebates (85 to 90% of project costs) to owners of rental properties has been successful in promoting air infiltration measures, duct sealing, insulation, solar screens, pipe wrap, compact fluorescent lighting and low-flow water devices. However, the program does not appear successful in having landlords replace air conditioning units that are the drivers of high bills for many low and low moderate income renter households.

[44] 2014 Comprehensive Housing Market Analysis City of Austin Final Report, July 31, 2014 Prepared for City of Austin Neighborhood Housing and Community Development, 1000 E 11 St. Austin, TX 78702 by BBC Research and Consulting, 1999 Broadway, Suite 2200, Denver, Colorado 80202-9750 p. 9.
[45] Ibid., p. 6.
[46] U.S. Census Bureau, American Fact Finder, S2503 FINANCIAL CHARACTERISTICS, 2009-2013 American Community Survey 5-Year Estimates
[47] *Ibid.*

The Multi-Family Program started as a pilot project that was launched on October 1, 1989.[48] Since then, Austin Energy has provided rebates and other incentives to multifamily building owners for many years. While the exact amounts paid and measures covered have changed over the years, essentially building owners that qualify hire pre-approved contractors through the program. The Table below shows the current measures that are covered by the program, as well as the amount of the rebates offered. The program is aimed at solving the issue claimed by many that building owners don't pay the resident's energy bills and so have little or no incentive to make energy efficiency improvements. This is referred to as the split incentive. The theory of the split incentive has been the mantra of utilities for having more difficulty achieving energy efficiency success in rental properties. However, there are studies that question the split incentive theory citing benefits such as a more marketable rental property because of better overall condition, newer appliances and lower utility bills, fewer maintenance calls and enhanced property values for the owner.[49] The Multifamily Program addresses the split incentive problem by providing financial incentives to reluctant rental property owners to make improvements that will result in energy savings for renters.

In the course of the Task Force meetings, a continual message delivered by members of the public is that Austin Energy needs to do more to make rental properties more efficient. Many residents of older apartment complexes are plagued by air conditioners that are 30 years old. They still work and therefore property owners are under no obligation to replace them. These old air conditioners use high amounts of electricity producing utility bills that many households cannot afford to pay.

Unlike the review of the program elements and costs changes through the years for the low-income weatherization program, the task force ran out of time to obtain the same information for the multifamily program. Having the information would have been effective tools for analyzing the cost efficiency of this program.

F. Equity

Equity is identified as one of the pillars of sustainability.[50] Equity is a concept that would have a publicly owned entity such as Austin Energy provide energy efficiency programs to all customers, assuring that a fair share of the revenue collected from all customers is distributed in an equitable manner. The Generation Planning Task Force Report provide the following guidance:

[48] Austin Energy Response to Task Force data request (September 14, 2015)
[49] Michael Carliner, Reducing Energy Costs in Rental Housing *The Need and Potential*, Joint Center for Housing Studies at Harvard University, December 2013
[50] THE REPORT OF THE AUSTIN GENERATION RESOURCE PLANNING TASK FORCE JULY 2014, p 5.

> Services, programs and policies need to be structured to assure equal access to service and an equitable distribution of benefits to all customers and to prevent subsidies to wealthier customers being paid for by lower-income consumers. Equity places a greater emphasis on economic justice and fairness than on economic efficiency.[51]

A question that arose in the generation planning process carried over to the Task Force. What is the income level of residential households who benefit from Austin Energy's energy efficiency programs? At the onset of the task force process Austin Energy provided limited customer survey data and asked that the data not be used to support a conclusion.[52] Austin Energy cautioned that the survey data was insufficient and could not be used to support a conclusion. Austin Energy provided a statistically valid survey.[53] In terms of access to programs the survey shows that the average income of a customer receiving weatherization is $31,100 compared to $94,000 for residential customers receiving rebates.[54] The survey further shows that 11.9% of the survey respondents receiving rebates had income below $50,001, whereas 67% of weatherization recipients have total household income under $50,000.[55] Austin Energy to provide updated calculation. The customers benefiting from the Multi-Family Energy Reduction Programs and Solar Rebate programs were not included in the survey.

The directives of the Council Resolution, the finding of the demographic survey conducted by Austin, and the needs expressed by the community have been the drivers of many of the Task Force's recommendations.

III. Recommendations

A. Global Recommendations

Many of the issues discussed and recommendations made by the Task Force involved specific programs goals designed to better serve low and low moderate-income Austin Energy ratepayers, while others were more "global" – that is fundamental to how the programs work, are reported and assessed. In addition, some other recommendations and issues go beyond narrow program issues, since they involve wider programs that affect all ratepayers, including low-income consumers. Thus, this section summarizes the issues and recommendations made

[51] *Ibid.* p. 10.
[52] Memorandum to Low income Consumer Advisory Task force from Liz Jambor, EdD, DABI, March 24, 2015, Survey Demographics and Satisfaction Levels.
[53] Memorandum to Low income Consumer Advisory Task force from Liz Jambor, Customer Energy Solutions, August 24, 2015, Survey Results per Resolution No. 20140828-158.
[54] *Ibid*. p. 2.
[55] *Ibid* p. 15 and p 27.

by the Task Force on these "global" issues.

The Task Force discussed and is asking the Council to take action on the following recommendations:

A. Establishing the long-term demand and energy saving goals for Austin Energy for its demand response and energy efficiency programs, as well as a specific demand, energy savings and units weatherized as part of the weatherization goals;
B. Adopting a more expansive "triple bottom line" evaluation such as the Societal Cost Test in considering the benefits and costs of energy efficiency and solar programs, including low-income energy efficiency and weatherization;
C. Improving transparency, reporting and accountability for the energy efficiency, demand response and solar programs supported by Austin Energy and its ratepayers;
D. Allowing for a mid-course "true-up" correction in the annual budgets – with City Council oversight -- for the energy efficiency, demand response and solar programs.
E. Improving building energy performance through continued improvements in building energy codes for new and rehabilitated residential and multi-family buildings, as well as through improved coordination, planning and compliance between Austin Energy, Planning, Review and Development and Code Compliance Departments.

The Task Force understands and supports the need for Austin Energy to assess the cost-effectiveness of its programs. How much on a per-participant or per-kilowatt hour saved or per-kilowatt reduced basis do the programs cost? What is the cost to the utility of the programs? How can costs, be they incentives to contractors, or administrative costs be reduced?

Programs – especially those designed to help our most vulnerable consumers –should be judged on more than narrow utility cost test criteria. Instead, the overall societal benefits should be considered, and toward this end, the Task Force recommended the adoption of a Triple Bottom Line evaluation, similar to that used by the City of Austin Sustainability Office. Thus, issues of environmental improvement, economics and equity should be considered when evaluating the successes of a program like low-income weatherization.

1. Establishing goals for energy savings.

Recommendation**:** Establish a minimum energy savings annual target of one percent of total energy sales through energy efficiency and demand reduction programs. In future updates to the Austin Energy Generation Plan, assess meeting this level or higher energy savings goals, subject to future budgets, affordability and other factors.

Targeted Underserved Group: All customers

Time Schedule: Implement in 2016

Budget Impact: Accomplish within current budget.

Community Need**:** Access to affordable electricity is a basic need for lighting, refrigeration and home cooling and heating. Inability to pay is a growing problem for low income homeowners and renters. The most effective way to provide an affordable supply of electricity for those with low and marginal income is to treat the root of the problem – old energy inefficient buildings and equipment.

Description: While peak energy use – both in the summer and winter – is extremely valuable both to customers and to the utility – the amount of energy (kilowatthours or kWh) used year-round – is equally important. Reduced kWh use can lower customers' bills, reduce operating costs such as fuel and maintenance and is the driver for reducing emissions. Having every customer use less kWh allows a growing utility, like Austin Energy, to defer or eliminate new capital investments in power plants.

While Austin Energy unofficially maintains and reports energy savings goals, a permanent energy savings goal for Austin Energy's energy efficiency and demand reduction programs would establish that energy savings should be targeted in the long term planning process along with reduced demand. Energy savings goals are consistent with industry practice. As an example, the State of Texas requires that Investor-Owned Utilities establish and meet both a demand reduction and energy savings goal. In addition, many states require their utilities to establish an energy savings goal, usually from between a half a percent of use up to three percent of use.[56]

Establishing an energy savings goal is the most effective way to assure that Austin Energy does not focus solely on demand response programs, which have little or no impact on the amount of energy Austin Energy consumers use and therefore for residential customers do little or nothing to reduce their monthly bills. Moreover, energy savings goals contribute directly to the reduction of carbon and other pollutant emissions that are reported to the Texas Commission on Environmental Quality. Energy savings are a key contributor to meeting the City's Climate Protection Plan goals and the planning for energy efficiency programs should maximize the environmental benefits of all programs.

The one-percent goal recommended here should be only a beginning. The current programs appear to have met this target in 2014. The following table shows that over the past four years kWh savings ranged from 0.92 to 1.01% of annual sales.

[56] American Council for an Energy-Efficient Economy, Policy Brief: State Energy Efficiency Resource Standards, April 2015, available at http://aceee.org/sites/default/files/eers-04072015.pdf

Table 1. Current Energy Savings by Year

Year	Total KWh Sales	Total Reported Energy Savings	% of Sales
FY 2011	12,723,303,281	117,298,000	0.92%
FY 2012	12,715,146,231	108,606,000	0.85%
FY 2013	12,270,733,600	117,198,000	0.96%
FY 2014	12,588,000,000	127,649,000	1.01%

Sources: Austin Energy, Customer Energy Solutions, Program Progress Report 2014-2015.

Austin Energy, Annual Report, 2011-2014.

Thus, a one-percent target for energy savings is readily achievable within current budgets. In future Generation Plan updates, Council should examine this one-percent target and consider other appropriate levels ranging from one to two percent of total sales, which many utilities throughout the country are readily achieving.[57]

2. Low and Low Moderate Income Program Demand and Energy Savings Goal

Recommendation: The Council should set a current demand savings goal for Austin Energy's energy efficiency programs targeting low and low-moderate income customers of no less than 5% of the utility's annual peak demand savings and increasing that goal 1% per year over the next five years reaching 10%

Targeted Underserved Groups: Low and Low Moderate Income Customers

Time Schedule: Implement in 2017

Budget Impact: Unknown

Community Need: An estimated 58% (236,141)[58] of Austin Energy's residential customers have incomes below 400% of the Federal Poverty Guideline (FPG) and therefore represent the total population of low and low moderate income customers taking service from Austin Energy.

[57] American Council for an Energy-Efficient Economy, Policy Brief: State Energy Efficiency Resource Standards, April 2015, available at http://aceee.org/sites/default/files/eers-04072015.pdf

[58] Memorandum to Low Income Consumer Advisory Task Force from Liz Jambor, EdD, Manager, 01/05/15., p 5.

Customers living with incomes below 50% of the Federal Poverty Guideline (FPG) spend 37.6% of their household incomes on electricity. Those at 51 to 100% of FPG spend 11.3% and those at 101 to 200% FPG spend 5.9%. Those above 400% of the FPG spend 1.6%.[59]

The majority of Austin Energy's residential customers are low and low moderate income. However, as discussed in the equity section of this report there is little or no data to indicate how large a share of energy efficiency program benefits low and low moderate income customers are receiving. By establishing a measurable demand and energy savings goal the City Council would set a standard that works toward having more equitable programs and reporting data related to the fulfillment of the goals would be incorporated into the Energy Efficiency Services reporting system. Setting a demand savings goal for low and low-moderate income energy efficiency programs is one of the tasks assigned to the Task Force by the City Council.

Description: The 2025 Generation Resource plan adopted by City Council in 2014 set a minimum goal of 900 Megawatts (MW) of demand reduction by 2025, as well as a further goal of 1,000 MWs by 2025 as technologies, budget and programs allow, as well as studying the potential to get to a more ambitious goal of 1,200 MWs by 2025. While Austin Energy has set overall demand savings goals on an annual basis, except for the solar programs it has not done so for specific energy efficiency programs. Under this proposal Austin Energy would also set corresponding demand and energy savings goals associated with the demand and energy savings that would benefit low and low moderate income customers. This is already a practice in investor owned utilities in Texas where 5% of all demand savings must be achieved in programs serving customers with income at or below 200% of the Federal Poverty Guideline.[60] This is the same income group served by Austin Energy's Free Weatherization program. Thus, an initial 5% demand savings goal as well as a 10% demand savings goal for both low and low-moderate income energy efficiency programs within 5 years should be reasonable to achieve.

3. Establishing budget goals.

Recommendation: The City Council should set a goal that a minimum of 25% of the total Energy Efficiency Services budget including administrative expenses should be spent on programs that help low and low-moderate income residential customers, with at least 10% of the Energy Efficiency Services budget dedicated to a free weatherization program. Furthermore, as part of the recommendation to spend at least 25% of the overall Energy Efficiency Services budget, at least 15% of the total distributed solar energy budget for new projects should be dedicated to projects that benefit low and low moderate income customers.

Targeted Underserved Groups: Low and Low Moderate Income and Renter Customers

[59] *Ibid*.
[60] Public Utility Commission of Texas Substantive Rule Chapter 25 Section 183(e)(3)(F).

Time Schedule: Implement in 2017 city budget

Budget Impact: Can be accomplished within current budget levels

Community Need: Please refer to Sections II. D, E, and F on demographics, program history and equity.

Description: The current low and low to moderate income energy efficiency programs consist of a free weatherization program. In addition, a relatively small amount of Austin Energy's energy efficiency expenditures have been made to provide solar incentives on multi-family affordable housing properties. In addition, a relatively small amount of the energy efficiency expenditures have been made to provide solar incentives on multi-family properties. The number of low and low moderate income customers that may be served by other Austin Energy programs is unknown. The Task Force was made aware of solar projects through its community panels from representatives of Foundation Communities and Guadalupe Neighborhood Housing Corporation. The Task Force is also aware of individual "Green Building" projects that benefit low-income and low-moderate income individuals such as the Guadalupe-Saldaña net-zero home energy project. The available data indicate that funding for designated low-income and low-moderate income residents has made up a relatively small part of the energy efficiency budget. The level of funding provided should at least be equal to the contribution made by low and low moderate income customers to the energy efficiency service portion of the community benefit charge.

In budgeting for the future in compliance with these recommendations assuming a total Energy Efficiency Services program budget $42 million the City would consider the following as program and budget options:

- At least $4.2 million for Low Income Weatherization
- $400,000 for emergency window air conditioners for the medically vulnerable
- Increased budget for the multi-family program dedicated to properties renting to low income and low moderate income customers
- New pilot programs to test task force recommendations and other new ideas for serving low and low moderate income customers.
- Green Buildings for low-moderate income customers
- Higher rebates and more generous financing terms for those in the 301 to 400% of the federal poverty guideline income bracket.
- Free energy audits for renters with high bills

An illustrative example of a $42 million dollar budget can be found in the appendix.

4. Program Evaluation Policies

Recommendation: Change the cost effectiveness test for evaluating energy efficiency and renewable energy program incentives that benefit low and low moderate income homeowners and renters the energy and non-energy benefits not included in current calculations.

Community Need: Everyone pays into the Community Benefits Charge energy efficiency rate on their electric bill from Austin Energy based on kWh used[61]. The cost effectiveness test Austin Energy uses only measures peak kW demand reduction based on the cost of building a new power plant. Low income programs cost more because the program pays 100 percent of the costs and they also perform poorly in comparison to other programs. This test measures direct program costs without taking community values and benefits into account.

Other factors should be considered in the cost effectiveness analysis test like kWh reduction that increases affordability, health and safety benefits that improve the quality of life of a resident through better indoor air quality or reduced risk of fire. Energy efficiency also creates local jobs. The City of Austin Sustainability Office uses a Triple Bottom Line for evaluating purchasing recommendations. The graphic below is from a presentation developed to deliver to Council by Zach Baumer (March 2015):

Sustainability Triple Bottom Line

Description: The taskforce recommends that the cost test also consider the energy and non-energy benefits not included in current calculations such as:

[61] Austin Energy industrial and large commercial customers on special contracts have not been paying the energy efficiency rate and proposals are to continue this waiver for some of the special contract customers.

Economic/ Prosperity	Environmental/ Planet	Social/ People & Equity
Cost of energy (kWh and kW) Employment Industry expansion Energy grid purchases and security (ERCOT energy purchases) Market demand Climate resilience Effect on bad debt and collection cost	Greenhouse gas emissions Water use and impact Air quality (including indoor) Land use impacts	Affordability Fair distribution of Community Benefit Charge Funds Health impacts Education opportunities Energy access Safety and security Energy security

We further recommend that funds in the CAP and free weatherization program be used as much as possible during the cooler months (September through April) when the work demand for the Austin Energy contractors is at its lowest. This will keep their employees busy thus maximizing the economic benefit of the use of public funds.

5. Transparency, Reporting, and Accounting

The Task Force believes that as Austin Energy utilizes a rate design that is intended to pay for the "energy conservation" budget through a separate Community Benefit Charge energy efficiency rate, Austin Energy has a duty to act visibly, predictably and understandably to promote participation and accountability in those programs, and make sure the costs and benefits are transparent, easy to locate and understandable.

Simply making information available is not sufficient to achieve transparency. Information should continue to be managed and published and enhanced so that it is:

- Relevant and accessible: Information should be presented in plain and readily comprehensible language and formats appropriate for different stakeholders. It should retain the detail and disaggregation necessary for analysis, evaluation and participation. Information should be made available in ways appropriate to different audiences.
- Timely and accurate: Information should be made available in sufficient time to permit analysis, evaluation and engagement by relevant stakeholders. This means that information needs to be provided while planning as well as during and after the implementation of policies and programs. Information should be managed so that it is up-to-date, accurate, and complete.

In terms of the energy efficiency programs, the Task Force noted that while considerable information is available on Austin Energy's website, and generally reporting has

improved in recent years, a need for more transparent, understandable information remains. Thus, the Task Force approved the following recommendation, while recognizing that improvements had been made.

One key recommendation is requiring an improved annual report that would break out information not only by program but by City Council District. In addition, it should be clear for each program the amount spent on direct rebates or incentives and the amount paid for administrative or other operation and maintenance costs. Finally, reporting clear performance metrics both on energy saved and peak demand reduced should also be required. The numbers in the annual report should be verified and audited. Where there are different sources of funding, such as CAP funds or even federal funds, that should be clearly reported.

Recommendation: Austin Energy should improve and make more transparent the tracking of its energy efficiency programs. Transparency is a cornerstone of efficiency. Without clear and concise information, effective decisions as to program efficiency cannot be made. Inconsistent reporting of program information and/or imprecise information produces obscure decision-making that is contrary to public policy. Community and council support for weatherization, energy efficiency and solar programs should be improved if data are accurate and reported transparently.

a) All Austin Energy programs funded with revenues realized from the energy efficiency rate should be consistently reported to the public, the City's advisory commissions and the Council.

Explanation: Whether customers and the council can determine if they are getting their money's worth for the programs funded with energy efficiency rates can only be addressed if all the programs and therefore costs are consistently and completely reported. In its budget briefing to Council[62] Austin Energy did not include all the programs funded with energy efficiency dollars. As the most recent Austin Energy monthly report[63] to the Resource Management Commission reveals, Austin Energy implements more programs funded with energy efficiency dollars than revealed to the Council. The Council did not have the opportunity to review these other programs and their respective costs in relation to the energy efficiency programs identified to them. And without this opportunity the Council could not and therefore did not review the reasonableness of the complete energy efficiency budget proposed for FY 2015. All programs that are funded with energy efficiency rates should be reported, including commercial, residential, green building, solar and demand response.

[62] Austin Energy, "Budget Briefing FY 2014-15 Proposed Budget" to City Council (June 16, 2014)(
[63] Austin Energy ,"Customer Energy Solutions Program Update as of April 30, 2015".

b) All program costs funded with energy efficiency dollars should be consistently reported and the operations and maintenance costs should be separated out from the rebates and other direct costs of the programs.

Explanation: In the Austin Energy budget briefing[64] provided the Council during last year's budget and therefore rate hearings, the operations and maintenance expenses were not included as costs that are recovered under the energy efficiency rate. As Austin Energy's FY 2014 report[65] shows Austin Energy incurred about $1.622 million in operations and maintenance ("O&M") cost for the residential programs identified to the council and incurred about an additional $3.57 million in O&M costs for commercial programs that had been identified to the Council in the budget presentation. O&M is the administrative cost of the program; that is, the cost incurred by Austin Energy to provide the energy efficiency program. The relation of administrative costs to direct program costs is an indicator of efficiency. The Council was without this information. Consequently, the FY 2015 budget decision could not be and therefore was not based on whether the costs to be recovered by the energy efficiency rate were efficiently incurred. By requiring the consistent reporting of each program's cost with the corresponding O&M costs separately stated, inefficiencies of operations can be more readily identified. Again, rebates and O&M costs should be shown for efficiency, green building, demand response, and solar programs.

c) In any budget presentation to support its energy efficiency rate proposal, Austin Energy should not include any energy efficiency program costs funded with Customer Assistance Program revenues.

Explanation: In the budget presentation to the Council for FY 2015, Austin Energy included the CAP weatherization program in its listing of energy efficiency programs and costs. Although the CAP weatherization funds were separately identified, the funds were added to the total energy efficiency budget. And, because CAP weatherization was proposed to be increased for FY 2015, the decrease in the FY 2015 energy efficiency budget from the FY 2014 budget was understated by $500,000. The co-mingling of the CAP weatherization program and its costs with the energy efficiency rate-funded programs creates confusion. The CAP weatherization program and costs should be identified but not added into the total costs of the energy efficiency program costs funded with energy efficiency rates. Thus, we recommend that CAP weatherization budgets and outcomes be reported along with other energy efficiency programs but be separately tracked so that the monies from the two sources of funding are not co-mingled.

[64] See Attach. 1. Budget Briefing FY 2014-15 Proposed Budget" to City Council (June 16, 2014)
[65] Austin Energy, "Customer Energy Solutions Program Progress Report 2014-2015".

d) Austin Energy should develop better tracking data by energy efficiency program and city council district to: measure energy and demand savings, including consumption data measuring the actual customer usage both before and after the customer benefited from an energy efficiency program; analyze the demographics of program participation while protecting privacy data; and demonstrate coordination with other publically funded programs.

Explanation: The primary purpose of the task force is to make recommendations that will deliver equitable energy efficiency benefits to low and low moderate income households. Program survey data made available to the task force by Austin Energy indicated that energy efficiency programs (except for low-income weatherization which is income qualified) have little participation from households with income under $40,000 per year and participation rates are highest in households earning $100,000 per year or more. Austin Energy discounted the accuracy of its survey data for purposes of tracking the demographics of energy efficiency program participants. Austin Energy has apparently established a process to collect demographic data consistently across all programs; however, Austin Energy has not provided the task force any information about the process or the expectations for the data to be gathered through the new process. Ultimately the task force would like to see a process in place that would provide a better explanation of the success of programs reaching low and low moderate income households.

Tracking energy use and demand before and after energy efficiency improvements are installed by program will ensure all demand and energy savings are captured when Austin Energy leverages its resources with other funds. One example is Austin Energy leveraging its weatherization program with the home repairs funded by the city and implemented through Neighborhood Housing. Energy and demand savings realized from home repairs which are not currently captured would be credited to the energy efficiency program. Data tracked by program can also be used to serve as a check on the reasonableness of energy savings modeling and deemed savings assumptions that are in general use to estimate program savings. For instance, Austin Energy has informed the Task Force that the modeled savings assumptions for its ARRA Multi-Family program overstated actual bill savings.[66] Austin Energy's success of partnership with the city's affordable housing programs should be tracked to ensure that the city and Austin Energy maximize the effect public and utility resources can have when merged.

[66] July 17, 2015 Task Force meeting, Austin Energy response to question on Multi-Family Retrofit Report (Audio at 85:09 minutes)

e) Austin Energy should provide monthly, quarterly and annual reports to the Resource Management Commission, Electric Utility Commission and City Council indicating energy efficiency, CAP Weatherization, Demand Response, Green Building and Solar activities and City Council should establish accountability procedures.

Explanation: While Austin Energy already provides monthly and annual reports to these relevant committees, and the most recent annual reports have been improved, there do not appear to be well-developed accountability and reporting requirements for these programs. Council should develop some. We would suggest, for example, that quarterly reports be added that would include more detailed information than that contained in the monthly reports, such as:

- Tables or charts indicating the number of participants in each program that received rebates or incentives, the amount of the rebates or incentives, the amounts of kilowatts and kilowatt hours saved by customer class and program type, as well as the Operations and Maintenance costs incurred by Austin energy relating to the rebates or incentives;
- Map and table illustrating the allocation of rebates by customer class and program by Council district;
- Map illustrating the location of each rebate recipient with an overlay of socioeconomic income levels, where such information exists. To protect private information, basic census tract data could be used, and where actual survey data of program participants is available, such aggregated survey data could be utilized.

An improved yearly report should be produced that builds on these quarterly reports, but also have information including:

- A brief description of each of the different programs covered in the annual report;
- Allocated and spent funding from both the energy efficiency charge and CAP weatherization program, as well as any other funding that might be available from base rates or federal funding;
- Table indicating total kilowatts saved, kilowatt hours reduced, and money spent in rebates/incentives and O&M by program and customer class;
- Map and table illustrating the allocation of rebates by customer class and program type by Council district;
- Map illustrating the location of each rebate recipient with an overlay of socioeconomic income levels. To protect private information, basic census tract data could be used, and where actual survey data of program participants is available, such aggregated survey data could be utilized;

- Allocation of rebates or incentives including those for demand response programs including those for commercial and industrial recipients grouped by their classification of demand characteristics for rate purposes;
- Where information exists, also indicating which types of commercial or industrial entities received rebates, such as by SIC (Standard Industrial Classification) or other codes.
- Information about collaborations between Austin Energy for energy efficiency, demand response and solar programs with other city departments or entities such as Austin Water Utilities, Neighborhood Housing, Department of Energy, Travis County, Texas Gas Service, and others;
- Information about the number of solar and energy efficiency businesses and employees that participated in rate-funded programs;
- Information about the cost-effectiveness of each program in terms of kilowatts reduced and kilowatt hours saved, as well as the method used to evaluate this cost-effectiveness (i.e. use of deemed savings vs. measurement of actual energy use before and after or a sampling approach);
- Information about emissions reduction such as volatile organic compounds (VOC) nitrogen oxides (NO_x), and carbon dioxide (CO_2) reduced per program.

All of the monthly, quarterly and annual reports should be made available through Austin Energy's website.

6. True-Up Correction for Energy Efficiency Services Budget Implementation

There is a disconnection between the budget process and energy efficiency program development. That is, the City Council approves the budget – developed by City staff – sometime in September for execution during the fiscal year beginning October 1. Oftentimes, the expected outcomes do not occur and adjustments to the programs themselves and their funding levels may be in order. Austin Energy often finds that certain programs have more than enough funds, while others may lack funds. Today, Austin Energy can exercise some flexibility to reallocate money between programs. The problem with the current process is that when it is time to develop the annual budget it is created using unaudited data. A true-up is a formal review that would occur six months into the fiscal year based on audited data. At this time, program budgets can be revised, pilot programs can be considered and Austin Energy could adjust the Energy Efficiency Service Fee that pays for the program through the Community Benefit Charge.

Recommendation: The City Council should establish a true up proceeding for the energy efficiency rates within six months after the close of each fiscal year to reconcile any over or under recovery of Austin Energy's energy efficiency revenues, realized and imputed, attributable to the energy efficiency rate for that recently closed fiscal year with that fiscal year's energy efficiency expenses, including operations and maintenance, incurred by Austin Energy. The true up proceeding may result in no further action, a reduction or increase in the energy efficiency rate, and/or an amendment to the then-current energy efficiency budget, including the transfer of funds from one program to another to increase the effectiveness of the programs.

Reasoning: Energy efficiency rates were separated out of base rates in the last contested rate case based in part on the advocacy of the environmental community. A primary concern from that community was that funding for the energy efficiency program was diverted to other utility operations. A separate rate they argued should promote greater accountability ensuring funds realized from energy efficiency rates would be spent on energy efficiency programs or refunded back to the customers.

This recommendation is responsive to this public policy concern. According to Austin Energy in its response to the Task Force's Interim Recommendations, audited data on the current fiscal year energy efficiency revenues and expenses will not be available until some six months after the close of this fiscal year. This time lag between the end of fiscal year and having audited data available proved to be the case for the FY 2014 energy efficiency data. At last year's budget and rate hearings, Austin Energy informed the council that true ups of the then-current fiscal year should not occur until the data are audited. Consequently, the first opportunity the council has to correct any imbalances between revenues realized and expenses incurred in the energy efficiency program is six months after the close of the fiscal year, mid-way into the next year's fiscal year's operations. A true up proceeding at this time would provide up-to-date adjustments to the then current fiscal year energy efficiency programs and/or rates in a timely manner. Without this true-up the regulatory risk increases that funds collected with energy efficiency rates are spent elsewhere in the utility's operations and not on the energy efficiency programs.

7. Better Building Codes and Planning Review Process

Austin Energy has been one of the leading utilities on achieving more energy efficient buildings through improved energy codes. Thus, not only has Austin as a city consistently adopted advanced energy codes for new homes, multi-family construction and other commercial construction, they have also promoted and implemented a Green Building Program to encourage developers to go beyond these advanced codes. These programs have been successful at a relatively small cost and have helped achieve peak demand and energy savings

since 1992.

In addition, in 2007, City Council adopted a goal of making all single-family homes net-zero energy capable by the end of 2015. In other words, new homes should be built in such a way that by only adding solar to the rooftop, zero energy use could be achieved.

The Task Force met with both developers of affordable housing and multi-family buildings as well as with Austin Energy's Green Building staff in making recommendations on future energy codes and net-zero capable home goals, as well as on how to improve building inspection and compliance with those energy codes. More specifically, the Task Force found that better coordination, inspection and enforcement is needed to assure that buildings are built to more efficient codes and that the plans approved by the City are actually implemented by builders.

Continued improvement in base energy codes to reduce peak and overall energy use is of benefit to low-income and middle-income residents and to Austin Energy overall. Austin Energy has consistently worked with the City and its departments to improve base energy codes every three years, making new homes and remodeled homes and other buildings more energy efficient. By reducing the energy use of new and rehabilitated buildings Austin can lower emissions and water use from existing fossil fuel plants, reduce the need to buy expensive peak power off the market and potentially provide demand response capabilities to meet peak demand or even participate in energy markets. The Task Force reaffirms the goal of making new home construction in Austin, Texas to be net-zero energy capable by the end of 2015, while recognizing the challenges with fully meeting this goal.

We recommend in 2015 that City Council direct the city manager to work with Austin Energy and the relevant advisory committees, and city departments to accomplish the following actions:

1. Adopt the 2015 IECC codes for residential construction, including local amendments to reach the net-zero-energy capable homes approved by City Council in 2007. The net-zero-energy capable home goal is achievable, but certain homes will be unable to meet this goal in 2015 depending on whether the home is all-electric or includes gas heating and gas water heating, the size of the home and other issues like orientation of the design and the behavior of occupants. Assuming Austin Energy recommends and city council approves an updated more energy efficient code for new and remodeled homes, Austin Energy should continue to consider other amendments and programs to fully realize the net-zero capable homes goal beyond 2015;
2. Further the goal of net-zero energy capable homes by considering local amendments to the energy code and suggest amendments to other building codes to encourage the

adoption of new technologies like solar PV, demand response, energy storage and electric vehicle charging technologies as appropriate. As an example, Austin Energy should work with the electrical code to assure that there is sufficient panel capacity to allow for electric vehicle charging stations.

3. Encourage the widespread adoption of solar PV technology by:
    a. Adopting a version of Appendix RB of the 2015 IECC that requires that all new homes be "solar-ready." Austin Energy should work to make sure there are appropriate exceptions to this solar ready requirement for homes that are being built in areas with existing shade trees, in areas where the homes have not been oriented correctly, where there is or will be alternative access to a community solar project provided as part of a development, or where the homes are so small, solar-ready is not cost-effective.
    b. Working as part of Code NEXT to assure that future developments are oriented and designed correctly to take full advantage of solar PV potential.
    c. Work with developers of new homes or remodeled homes or multi-family properties to consider an optional solar package, either on their roofs, or through a programmatic association with Austin Energy's community solar projects. Thus, for new homes, Austin Energy could create an optional community solar option where new homeowners could invest directly in a community solar project, if solar was not available on their own roofs. Austin Energy and City Council should consider creating a "neighborhood" rate for low-income residents to make the community solar affordable to nearby homeowners or apartment renters.
4. Set the appropriate Home Energy Rating Score (HERS) if Austin Energy allows an alternative compliance path through the adoption of a 2015 IECC so as not to undermine the net-zero energy capable goal or overall building envelope performance. We would suggest that Austin Energy look both at the ERI (Energy Rating Index) scores incorporated within the 2015 IECC, which is 52, or to a recent decision by San Antonio to allow no higher than a 59 ERI for new single-family homes.
5. Adopt either the 2015 IECC codes for commercial construction – including larger multi-family units -- or an equivalent code such as the ASHREA 90.1 – 2013 code.
6. Consider local amendments to the commercial codes to incorporate onsite renewable energy, demand response, storage and electric vehicle charging stations as appropriate. Again, for multi-family buildings, Austin Energy should work to create a community solar option for residences where rooftop solar is not available and consider a "neighborhood" rate to make the solar affordable to lower income residents.

7. Consider setting a net-zero energy capable, or net-zero load capable goal for multi-family buildings by 2020 by creating a task force to research and provide recommendations on achieving net zero energy for multi-family buildings.
8. Update our Austin Green Building Programs to inspire builders to go beyond base codes.
9. Improve coordination between the Austin Energy Green Building Program, the Planning, Development and Review Department and Code Compliance so that builders actually comply with energy and related codes. Among our specific recommendations, we would suggest that City Council and the City Manager:
    a. Direct Austin Energy to work with the Planning, Development and Review Department to review building plans to make sure that cooling and heating requirements are met with appropriately sized technology;
    b. Ensure the Planning, Development and Review Department has a planning review process that specifically involves a commercial reviewer that looks at mechanical heating and cooling systems in multifamily buildings to assure they match the building plan and are appropriately sized as required by the energy code in effect at the time of approval;
    c. Increase funding for dedicated energy code plan reviewers and inspectors;
    d. Increase in general the enforcement of the energy code through Code Compliance
    e. Increase general education to builders, particularly of multi-family units, to encourage compliance with and appropriate sizing of heating and cooling equipment.

The Task Force believes that by updating our base energy codes and improving collaboration between building code development, planning, review and compliance, Austin can continue to be a leader on producing carbon-free energy the old fashioned way – not using it in the first place.

B. Program Goals

The City of Austin Sustainability Office uses a matrix of energy and non-energy benefits for evaluating its purchasing recommendations. The Low Income Consumer Advisory Task Force adopted this matrix for evaluating energy efficiency programs for customer households with low and low-moderate incomes. The Task Force included the additional consideration of program impacts to Austin Energy's bad debt and collection costs. As a further refinement the Task Force adopted the goals listed below. The order in which the goals are listed does not indicate their order of importance.

- To evaluate the program in consideration of the triple bottom line of sustainability equity (people), economy (prosperity) and environment (planet).

- To achieve greenhouse gas reductions to support the city's climate protection goals.
- To assure that the programs contribute to Austin Energy's overall peak demand reduction goals of 800 MWs by 2020 and at least 900 MWs by the end of 2024, with increased goals to be considered, as well as to contributing to associated energy saving targets.
- To utilize the low-income energy efficiency programs in a way that helps contribute to compliance with the Clean Power Plan rule, and specifically, take advantage of the opportunities present under the Clean Energy Incentive Program, which gives enhanced credits to utilities and states to implement low-income efficiency and renewable energy programs.
- To fully utilize incentives and opportunities presented by federal and state programs and policies, including the Environmental Protection Agency's Clean Energy Incentive Program.
- To defer or avoid the need for capital investment in new generating facilities and to reduce the burning of fossil fuels for electricity generation and end use applications such as space and water heating and cooking.
- To assure that an equitable level of program benefits is delivered to low-income customers.
- To reduce bad debt and collection costs to the utility.[67]
- To provide for a continuing dialogue within a new task force with a focus on low-income energy efficiency issues and solutions.

In light of the public disagreement over the value of the now completed ARRA program the Task Force recommends that the utility move forward with a program designed to meet specific goals and to evaluate the program in accordance with those goals. In addition to and in accordance with the program goals presented earlier the Task Force adopted the following goals for the low-income weatherization program.

[67] Roger Colton, "The Economic Development Impacts of Home Energy Assistance: The Entergy States," pp. 21-23, Entergy Report (August 2003). See also, Jerrold Oppenheim and Theo MacGregor, "Energy Efficiency Equals Economic Development: The Economics of Public Utility System Benefit Funds," Report to Entergy (Entergy June 2008), and Martin Schweitzer and Bruce Tom, "Nonenergy Benefits From the Weatherization Assistance Program: A Summary of Findings From the Recent Literature." (Oak Ridge National Laboratory April 2002).

- To reduce the energy burden and energy costs for low-income families, particularly for the elderly, people with disabilities and, families with children, by improving the energy efficiency of their homes.
- To assess the energy efficiency needs of individual dwelling units in a holistic manner to identify appropriate energy efficiency measures.
- To provide the program at no out of pocket cost to eligible customers.
- To improve the healthfulness, safety, and affordability of housing.
- To leverage utility and other available program resources to offer seamless home repair and weatherization services.
- To collaborate and partner with local organizations and educational institutions that train and hire residents from disadvantaged communities and increase economic investment in those communities.
- To assure that the customers' long term needs are met for refrigeration, lighting, cooling, and heating.
- To ensure that the measures installed under the program have a useful life that is greater than the amount of time a customer has to wait to requalify for the program (currently 10 years).
- To lower overall program costs including administrative, materials and equipment, labor, quality control, etc. to the maximum extent possible.
- To partner with community organizations and other city departments to deliver programs efficiently and effectively and to educate residents about energy efficiency.
- To explore and maximize opportunities for program expansion such as neighborhood by neighborhood programs that would reduce administrative costs.
- To provide the oversight necessary to assure that the quality of materials and equipment provided under the program and their installation meet equal or better standards than those standards applied to other residential programs.

C. Residential

The Task Force addressed issues of: access to residential energy efficiency programs for low and low-moderate income customers; improving efficiencies of the low income weatherization program; addressing the energy efficiency needs of Austin Energy's vulnerable customers within Austin Energy's low and low moderate income base; adequate funding for the low income weatherization program; and ensuring funding for the low income weatherization program is spent on the low income weatherization program.

The following recommendations are responsive to these issues by; improving and enlarging the application process; rolling over unspent low income weatherization funding from fiscal year to fiscal year until spent; leveraging with the city's affordable housing programs;

providing for the vulnerable population segment of Austin Energy's low income population base; and providing financing alternatives.

1. Rollover of Unspent Weatherization Funds

Recommendation: All unspent Energy Efficiency Services (EES) low-income weatherization funds, specifically reserved to low income customers since the Customer Benefit Charge (CBC) tariff went into effect should roll over to the next budget year, similar to the manner in which Customer Assistance Program (CAP) weatherization funds roll over.

Targeted Underserved Group: Low income customers

Time schedule: Implement in 2016

Explanation: The low-income weatherization program referred to as Free Weatherization by Austin Energy has two funding sources. Both funding sources are part of the fees that make up the Community Benefit Charge (CBC). Prior to the existence of the CBC, weatherization was contained exclusively in the Energy Efficiency Services (EES) budget. When the CBC was adopted, it was decided that at least $1 million would be included in the Customer Assistance Program (CAP) component of the CBC for weatherization. Since the CBC was established the program goals set for the program have not been met and funds have remained unspent at the end of the fiscal years. Unspent CAP weatherization funds roll over to the next budget year under the terms of the tariff. The task force recommends that the unspent EES weatherization funds roll over to the next budget year in the same manner as the CAP funds. These funds should be carried over in subsequent years in addition to the standard budget amount.

Information provided by Austin Energy at the June 5th meeting indicates current carryover in the amount of $549,626 for CAP funds and $744,583 for EES weatherization.

Austin Energy and the Task Force have been working together to monitor production and propose strategies that will increase annual program performance. We have expectations of future years where all weatherization funds are spent on weatherization. In the event that funds do remain unexpended at the end of the year, a standard policy should be in place to automatically roll the funds over to the next budget year.

2. Weatherization Cost Reduction Study

Recommendation: The City Council should direct the City Manager to investigate operating practices that could potentially increase the cost effectiveness of the low income

weatherization program while maintaining all program services and standards and report back to city council in six months with a strategy for implementation.

Targeted Underserved Group: Low income Customers

Time Schedule: Implement in 2016

Budget Impact: Unknown but the task force would like to accomplish through existing contingency consulting contracts.

Community Need: Over one-fourth (118,241) of Austin Energy's residential customers have incomes that qualify for Free Weatherization.[68] Program costs have increased in amounts that seem to be greater than the cost increases experienced outside of the program. This issue was raised early in the process during the nonprofit panel.[69]

According to program data provided by Austin Energy, during the time period 2005 to 2015 the cost of attic insulation for 1,000 square feet of attic insulation increased from $648 to $1,784. Over the same time period the cost of 90 square feet of solar screens increased from $203 to $714, compact fluorescents from $46 to $113, smoke alarms $11 to $49, carbon monoxide detectors, $34 to $49, refrigerators $576 to $813. From 2010 to 2014 central air conditioning replacement cost increased from $3,103 to $4,309.[70]

The costs associated with the weatherization program have been openly criticized at public meetings with requests to reduce the services provided. This recommendation asks that the City Council first make a concerted effort to identify the underlying reason for the cost increases and identify any possible strategies or changes in procurement that could lower the program's costs.

Description: Conduct a study to analyze the total cost of delivering the weatherization program to the City including but not limited to: program operations and support, materials and equipment, labor and administration. The costs should be analyzed looking for all plausible reasons for cost increases such as inflation. The report should also explore opportunities for reducing the program's costs. Suggested cost reduction strategies to include in the report follow.

- Obtaining price discounts by offering to do sole business with a solar screen manufacturer (local to ensure quick delivery) or from a few solar screen manufacturers. This is the same concept recommended in regard to with the window units.

[68] Memorandum from Liz Jambor, EdD, Manager, to Low Income Consumer Advisory Task Force 01/05/15., p 5.
[69] Low-Income Consumer Advisory Task Force Meeting, January 16, 2015, Foundation Communities reported that better deals are available from contractors outside of Austin Energy's programs.
[70] Austin Energy Weatherization Measure and Labor Cost (2005-2015)

- Obtaining price discounts for any materials and equipment and services (solar screens, insulation, duct repair, window units, smoke alarms, carbon monoxide detectors, etc.) that are being purchased for the low income weatherization program;
- Using a geographic approach for program delivery such as neighborhood-by-neighborhood to minimize the travel between jobs;
- Consider whether some or all of the current contract work for the low income weatherization program could be completed by Austin Energy employees.
- Consider the extent to which Austin Energy can leverage its low income weatherization funds with other city departments and other entities engaged in providing funding or services to provide affordable housing and housing repairs.
- Using a "voucher" or "rebate" system with a wider universe of contractors than the current contractor list.
- Consider a pilot project focused on a few contractors installing only one measure – such as LED lighting – with broad scope even as more whole-house measures were handled by other contractors.

3. Universal Application with Automatic Referral Process

Recommendation: The City departments that provide services to low and low-moderate income customers based on income eligibility should use a universal application form that is not only processed by the receiving department but is also immediately referred to the other respective departments and the Health and Human Services Department should be the residual department to screen energy efficiency program applicants for income eligibility. .

Targeted Group: Low and low-moderate income Austin Energy customers. Variations in income eligibility requirements will be considered.

Time Schedule: Implement in FY 2016

Community Need: Various City of Austin ("COA") departments rely upon an income-determinative process for providing services to low and low-moderate income Austin Energy customers. The processes do not readily translate to qualifying criteria for Austin Energy low and low-moderate income energy efficiency programs and other city programs. Nor does that application necessarily get referred to Austin Energy or any other city departments providing services to low and low-moderate income households. Austin Energy does not independently verify income for purposes of qualifying Austin Energy customers for low and low-moderate income energy efficiency programs. Customer Assistance Program (CAP) income verification is carried out by a third party vendor who identifies Austin Energy customers that participate in governmental programs whose eligibilities are household-income based. Consequently, non-

CAP low income customers will also have access to the weatherization and other low-income programs through the universal application process.

The lack of an interdepartmental referral process leaves Austin Energy customers with barriers to accessing the utility's low and low-moderate income programs. Because Austin Energy relies on referrals for its low income energy efficiency program, Austin Energy customers do not have the ability to directly apply for the program. Concern has been expressed by the Council and by groups testifying before the Task Force that there is not enough coordination among the various departments. Variations in income eligibility requirements will be considered.

Program Description: The following steps are recommended:

- A universal application should be created, consistent with confidentiality and privacy concerns, and used by all City of Austin departments that rely upon an income determination process for program eligibility; (Austin Energy reports that there is progress on this recommendation);
- Any completed application involving programs for low and low-moderate income households should be forwarded immediately to all of the City of Austin departments providing services to low and low-moderate income people;
- Austin Energy customers that qualify for one of the City of Austin's programs providing services based on low and moderate income eligibility should be deemed income eligible for Austin Energy's low and low-moderate income energy efficiency programs;
- The City of Austin's Health and Human Services department should provide income verification and identity qualifying services for eligibility in Austin Energy's low and low-moderate income energy efficiency services programs. The department should also include weatherization and other low and low-moderate income energy efficiency referrals among the list of services it provides on its neighborhood center webpage and in its brochures.[71]
- The City of Austin should direct the City Manager to carry out these recommendations.

4. Provision of Air Conditioners in Low Income Weatherization Program

Recommendation: To expand income eligibility to low income customers whose household incomes are 250% of Federal Poverty Guidelines or less as qualified by the City of Austin Health

[71] The COA's Health and Human Services neighborhood center webpage lists form/application assistance as one of its services. It also requires households to provide identity and income proof to establish eligibility. Lastly, the department is already set up to do referrals to non-departmental entities. Consequently, this department is the logical COA department to have residual responsibility for determining income and identification eligibility for AE's low and moderate income energy efficiency programs.

and Human Services Department. Vulnerability should be considered, and priority should be given to customers at or below 200% of the Federal Poverty Guidelines. To make Energy Star window unit air conditioners the standard energy efficiency improvement services option in the low income weatherization program and to include under limited circumstances, repair and replacement of central air conditioners. Criteria should be developed to determine eligibility for window units and limited central air conditioning repair and replacement.

Targeted Underserved Group: Low-income customers.

Time Schedule: Begin implementation in 2016

Budget Impact: Unknown but the intent is to accomplish within current budget.

Community Need: The summer weather in Austin is extremely hot for certain periods of time. When the heat index reaches 102, Austin Energy, is prohibited from disconnecting a customer's service[72] because air conditioning is necessary to protect a resident's health and safety especially the elderly and young children.[73] While it is possible to live through an Austin summer with no air conditioning, people without air conditioning in their homes are encouraged to take shelter in public buildings with air conditioning during the hottest times of the day.[74]

Over one-fourth (118,241) of Austin Energy's residential customers have incomes that qualify for Free Weatherization.[75] Customers living with income below 50% of the Federal Poverty Guideline (FPG) spend 37.6% of household income on electricity. Those at 51 to 100% of FPG spend 11.3% and those at 101 to 200% FPG spend 5.9%. Those above 400% of the FPG spend 1.6%.[76]

As utility bills increase because of higher rates and the pass through surcharges for regulatory costs, community benefit charge and other charges, low income customers are the most profoundly impacted by increases. As utility bills rise, the energy burden becomes an even higher percentage of those households on fixed and low incomes. There are large numbers of households in the Austin Energy service area with low income, high utility bills and income barriers to accessing energy efficiency program resources.

[72] Austin City Code §15-9-109.
[73] Texas Department of Health, Sweating out a Texas heat wave, A guide to preventing hot weather illness.
[74] *Ibid.*
[75] Memorandum from Liz Jambor, EdD, Manager, to Low Income Consumer Advisory Task Force 01/05/15., p 5.
[76] *Ibid*.

In Texas, 26% of all home energy use is attributable to central air conditioning, 11% to the refrigerator, 9% to space heating, 7% to water heating and 2% to room air conditioning.[77] Under the current program, a customer can participate in the low income weatherization program and be left with no source of air conditioning.

Program Description: The program and its components should be continued. This program is intended to help limited funding go further. Provide a recipient of low income weatherization services access to the most cost efficient and technically feasible measures that will meet the basic cooling needs of the low income residents. In many circumstances this will involve the installation of one or two Energy Star window units. Under limited circumstances in homes originally designed with central air conditioning and where the installation of Energy Star window units is uneconomic because of needed structural modifications a central unit may be repaired or replaced.[78]

Other considerations are coordination with the gas company program to acquire additional program resources for customers living in mixed fuel homes.

Future participation in the weatherization program is currently restricted to once every ten years. This time limitation is appropriate for the installation of building performance measures. In regard to installed Energy Star window units and central air conditioning repair, customers should be eligible to reapply at the end of useful life of the Energy Star window unit or repair. Decisions about repair and replacement of equipment should be made to ensure to the best of the evaluator's ability that the repair or replacement will provide reliable service to the eligible customers until the customer and property are eligible to reapply for the program. If a repair or replacement dysfunctions before the end of its expected useful life, the customer should be able to contact the program for the needed repair.

5. On-Bill Repayment

Recommendation: Austin Energy should allow for repayment for energy efficiency retrofits on a customer's monthly utility bill. Financing would come from a third-party not from the utility itself. Rebates should also be provided for qualifying measure~~s~~.

Targeted Group: Mainly Middle and Moderate Income Residential Customers, though some low-to-moderate income residents might be able to qualify.

Time Schedule: Not Determined

[77] GDS Associates, Evaluation of Austin energy's ARRA-Supported Weatherization Assistance Program, September 2012, p. 51.
[78] Additional criteria should be developed to define the limited circumstances.

Budget impact: Unknown

Estimated Cost: Depending on how the financing is structured, the cost effectiveness should be less than or equal to Austin Energy's current financing program for home efficiency. Initial capital must be provided; $500,000 is suggested for a pilot project to be utilized for a loan-loss guarantee or as a guarantor on a vendor note. There could also be some cost involved for the redesign of the bill to include the payment arrangement for repaying the loan. This does not include staff time.

Description: Through on bill repayment, the utility assists customers in attaining cost-effective energy upgrades at customer sites – like better building efficiency, more efficient appliances, HVAC (heating, ventilating and air conditioning) systems and rooftop solar.

The customer pays nothing upfront for the upgrades they choose because the third party lender or vendor pays the installer. Using a payment arrangement, the utility puts a fixed charge on the customer's monthly bill that is less than the estimated savings generated by the upgrade – so the customer enjoys immediate and sustained cash flow. Until the investment is recovered, the payment arrangement for the improvement charge automatically transfers to future customers at that site. Transparency would be assured by requiring building owners to inform future buyers or renters of the property of the on-bill repayment in place.

On-Bill Repayment (OBR) clears the biggest barriers to financing because it does not depend on a traditional consumer loan. Nor is it characterized as a long-term lease, or a lien on the value of the property. Renters and lower-income households have faced barriers to accessing investment capital for cost-effective energy upgrades, and similar financing challenges have stumped credit-strained companies and local governments.

Program Design, Customer Protection and Other Issues: An On-bill Repayment program will require important design characteristics, including program objectives, target market, financial product structuring, program administrator (be it Austin Energy or a third party), capital source, credit enhancements, customer eligibility requirements, project eligibility requirements, installation, marketing and the amount of incentives (i.e., rebates). The projects should be revenue-neutral and aimed at saving at least 10% of total energy use. Both homeowners and renters could be considered. The Task Force believes that the middle-income and moderate-income residential market may be an important target group, since this group does not qualify for free weatherization, but with a combination of rebates and on-bill repayment could enjoy significant savings.

Additional customer protections Austin Energy should consider in the design of any OBR program include:

- Partial payments are applied first to utility bills with any funds left over credited to the repayment of the loan;
- No collection action from Austin Energy except to collect revenue from billing and transfer to vendor;
- If the savings estimated in developing the fixed loan repayment charge are not realized, the fixed charge should be adjusted dollar for dollar in order for the customer to realize the estimated savings;
- No disconnection for failing to pay the fixed loan charge included in the billing for energy efficiency improvements;
- Fixed loan charges should be left out of balance billing and payment arrangements, and handled separately from utility billing arrangements;
- Clear guidelines on contract for services if applied to tenants; and
- Clear guidelines on how tenants are informed about loan charge on their bill before they sign a lease, potentially through the ECAD.

Potential models to look at include Clean Energy Works Oregon, New York On-Bill Recovery Loan Program and Kansas' How$mart program.[79] While some of these programs are On-Bill Financing programs where the utility actually finances the work, the recommendation we are making would utilize third-party financing with repayment on the energy bill.[80] The Task Force reiterates that there should be no disconnection for non-payment of the loan, utilizing more standard collection measures, and utilizing a loan-loss reserve account if payment is not secured.

6. Contractor Rebate Pilot Program in Conjunction with Affordable Housing Projects

Recommendation: In addition to a stand-alone low income weatherization energy efficiency program approach, a residential low income weatherization rebate pilot program should be implemented in conjunction with the affordable housing retrofit programs administered by the City's Neighborhood Housing and Community Development department to obtain efficiencies of scope. Because of the leveraging of the weatherization program into the affordable housing programs, Austin Energy will be able to capture the additional demand and energy savings

[79] American Council on Energy Efficiency Economy, On-Bill Financing for Energy Efficiency Improvements, April 2012, http://aceee.org/files/pdf/toolkit/OBF_toolkit.pdf

[80] Environmental Defense Fund, On-Bill Repayment Fact Sheet, https://www.edf.org/sites/default/files/obr-program-fact-sheet.pdf.

arising from the affordable housing programs. . The provision of energy efficient appliances at discounted prices through Austin Energy's use of commitments to purchase a minimum number of appliances from manufacturer-retailers in the Austin area would be part of this program. The department would serve as a case manager to ensure Austin Energy is brought into the process.

Targeted Underserved Group: Low income Homeowners with Incomes between 0 and 250% of the Federal Poverty Guideline.

Time Schedule: Begin plan to implement in 2016 and implement by 2017.

Budget: There are three funding components to this proposed program:

1. Funding for rebates.
2. Funding for purchases of appliances.
3. One time funding to establish a contingency reserve to provide payment to the retailer if the guaranteed minimum number of appliances is not purchased.

Brief Description: Provide rebates to contractors on Austin Energy's list of eligible energy efficiency contractors for performing weatherization services and installing energy efficiency appliances purchased in bulk by Austin Energy as part of a customer's participation in an affordable housing program.

Community Need: According to the January 2015 Updated Energy Burden Tables for Austin Energy, 28% of all residential customers have family incomes between 0 and 200% of the Federal Poverty Guideline.[81] Low income consumers do not have the disposable income to obtain weatherization services nor to purchase energy efficient appliance that would provide demand and energy savings to Austin Energy as well as bill savings to the low-income households. During the task force process, comments were presented by nonprofit service providers that the current program is cumbersome for the service providers and the clients obtaining home repairs though the providers work with the home repair coalition.[82]

Program Description: When a home is evaluated for participation in an affordable housing program**,** as part of that process, Austin Energy would be contacted to evaluate for the applicant's participation in Austin Energy's weatherization program. If eligible, the residence will also receive an energy audit to identify energy efficiency improvements that can be made through the weatherization program. Instead of referring a client to the weatherization program after the completion of an affordable housing program project, the weatherization

[81] Memorandum from Liz Jambor, EdD, Manager, to Low Income Consumer Advisory Task Force 01/05/15.
[82] Discussion Panel, Low-Income Consumer Advisory Task Force meeting January 16, 2015, Jesse Porter, Habitat for Humanity, Charles Cloutman, Meals on Wheels and More and Housing Repair Coalition.

services and appliance installations provided by the Austin Energy rebate program would be incorporated into the home repair process. This allows for more contractor efficiency and should streamline the permitting process and reduce program cost. Just as in Austin Energy's home performance with energy star program, an Austin Energy employee/agent would certify what weatherization measures qualify for the rebate and would inspect the residence after the repairs are done to ensure the weatherization measures were properly completed before the contractor is paid by rebate.

Rebates would be set to recover the contractor costs in performing the weatherization services and would be paid directly to the weatherization contractors; however, the contractor costs would be standardized consistent with the contractor pricing for plumbing repairs performed as part of the City of Austin's home repair program that is reimbursed by the water department. Contractors certified by Austin Energy to perform weatherization services for the home performance with Energy Star energy efficiency programs would also be eligible to participate in this rebate program.

Energy and demand savings would be calculated based on the condition and energy usage of the home prior to and after the completion of all home repair and weatherization work. This will capture the energy and demand savings not reported today that result from home repairs which make the home "weather tight," a prerequisite for implementation of Austin Energy's low income weatherization, thereby acknowledging the energy and demand savings realized from the home repairs funded with public monies.

This program would have the same components as the low income weatherization program, the difference being the delivery of the services from a greater pool of contractors and making payments to contractors through rebates as opposed to contractual payments. Moreover, to achieve economies of scale, appliances to be purchased for this program would be discounted through an Austin Energy commitment to purchase a minimum number of the appliances with one to three retailers (preferably retailer-manufacturers) in the Austin area.

7. Energy Star Window Heating and Cooling Units for Vulnerable Populations

Recommendation: A residential low income energy efficiency program should be created to provide Energy Star window heating and/or cooling units including installation to low income customers who are certified by the medically vulnerable customer registry of Austin Energy. This program would be implemented through the use of contractor rebates and the provision of Energy Star window cooling and/or heating units purchased by Austin Energy achieving discounts through the use of commitments to purchase appliances from retailers/manufacturers in the Austin area.

Targeted Underserved Group: Homeowners and tenants whose household income is at or below 250% of the Federal Poverty Guideline as verified by the Health and Human Services department and who are medically vulnerable as determined by Austin Energy.

Time Schedule: Implement in 2016.

Budget: There are two funding components to this proposed program:

1. One-time funding to establish a contingency reserve to provide payment to the manufacturer-retailer if the guaranteed minimum level of cooling and/or heating appliances are not purchased; and
2. Funding for rebates.

Brief Description: Provide emergency heating and/or cooling relief to vulnerable populations through the provision of professionally installed Energy Star cooling and/or heating window units.

Program Description: This program would be provided in conjunction with the City of Austin's Emergency Home Repair Program which is part of the City of Austin's Neighborhood Housing and Community Development Department's Client Service's Programs. Contractors certified by Austin Energy would perform the work. Austin Energy would certify that the window unit(s) is (are) needed before the window unit is installed. Once that determination is made, Austin Energy would provide the window unit(s). After installation, Austin Energy would review the household to ensure the window unit was installed properly. A rebate check issued to the contractor to cover the cost of installation would be provided after the final Austin Energy review.

As part of implementing this program, Austin Energy should consider providing the air conditioners through a loan program taking into consideration storage and refurbishing issues involved in a loan program and the experience of other jurisdictions in the loaning of air conditioner units. It is also anticipated that the vulnerable customers served through his program in an emergency will also apply for low income weatherization and/or other appropriate energy efficiency programs.

8. Low Interest Loans for Installation of Energy Star Window Units

Recommendation: Create a residential energy efficiency program to provide low interest financing for Austin Energy customers with low and low moderate family incomes to purchase and install Energy Star window heating and/or cooling units. The loan amount needed under this program would be reduced through the use of rebates that are increased over the current appliance rebate level. The loan amount needed would be further reduced through prices for

the appliances made available at discounted prices through Austin Energy's use of commitments to purchase a minimum number of appliances from manufacturer-retailers in the Austin area. Provided, however, an Austin Energy customer with a low to moderate family income could access the higher rebates and the discounted-priced appliances without accessing the low interest financing.

Targeted Underserved Group: Low to Low Moderate Income Homeowners (household Income between 0 and 400% of the Federal Poverty Guideline.)

Time Schedule: Implement in 2017.

Budget Impact: There are three funding components to this proposed program:

1. One-time funding to either increase or establish another loss reserve to provide an incentive to a lending institution to accept moderate income applicants through either a lower FICO score or through proof of credit worthiness such as a year's timely payment of utility bills;
2. One-time funding to establish a contingency reserve to provide payment to the manufacturer-retailer if the guaranteed minimum level of cooling appliances are not purchased; and
3. Funding for rebates.

Community Need: According to the January 2015 Updated Energy Burden Tables for Austin Energy, 43.2% of all residential customers have income between 0 and 300% of the Federal Poverty Guideline.[83] Low to moderate income consumers have lower credit scores[84] which may be attributable to their inability to obtain financing in the first place. There have been comments made to the task force that when air conditioners are not working in summer even low income families, in desperation, will purchase units with unfavorable financing terms such as high interest credit cards and car title loans.

Program Description: As part of the American Recovery & Reinvestment Act (ARRA), Austin Energy requested and was provided an ARRA grant to lower the cost of financing energy efficiency improvements to residential consumers. Financing costs were lowered by creating a loss reserve with Velocity Credit Union, the bank participating with Austin Energy to provide energy efficiency loans with reduced interest rates to residential customers. This energy efficiency program could increase Austin Energy's customers' access to affordable financing by lowering the credit worthiness standards for borrowing at lower interest rates with longer repayment periods.

[83] Memorandum from Liz Jambor, EdD, Manager, to Low Income Consumer Advisory Task Force 01//5/15.
[84] Question 1: What customer classes and customer groups should be targeted for participation in financing programs? Austin Energy Weatherization Program Low Income Consumer Advisory Task Force April 17, 2015, p. 4.

A commonly applied credit worthiness standard is known as a FICO or credit score. For instance a loan applicant with a FICO score of 300 would generally be viewed as a high risk for a loan; a FICO score of 700 would generally be viewed as a low risk for a loan.[85] The grant money funded a loan loss reserve that would reimburse the financial institution for any defaults.

This recommendation would provide access to discounted-priced Energy Star unit air conditioners with or without heating components to Austin Energy customers whose family incomes are between 0 and 400% federal poverty guidelines. Access would also include installation at a discounted price. Moreover, qualified customers would have access to lower cost financing that Austin Energy has negotiated with a lending institution. Loans made under this program should available at repayment rates as low as $25 per month. Austin Energy would provide for discounted priced unit air conditioners through use of commitments to purchase a minimum number of appliances from manufacturer-retailers in the Austin area would be part of this program. The price offered Austin Energy would be the price paid by the customer. The discount at a minimum should equal the highest discount obtainable from the manufacturer-retailer.

9. Low Interest Loans for Comprehensive Energy Efficiency

Recommendation: A residential moderate income energy efficiency program should be created to provide low interest financing for Austin Energy customers with moderate family incomes to weatherize their homes and to purchase energy efficient cooling and/or heating appliances. The loan amount needed under this program would be reduced through the use of rebates that are increased over the current level for the Energy Star Home Performance program with a loan program. The loan amount needed would be further reduced through prices for the appliances that are discounted through Austin Energy's use of commitments to purchase a minimum number of appliances from manufacturer-retailers in the Austin area. Provided, however, an Austin Energy customer with a moderate family income could access the higher rebates and the discounted-priced appliances without accessing the low interest financing.

Brief Description: Provide access to reduced cost financing for comprehensive energy efficiency measures and for reduced priced cooling and heating appliances.

Targeted Underserved Group: Low Moderate Income Homeowners (household Income up to 400% of the Federal Poverty Guidelines.

Time Schedule: Implement in 2017.

Budget: There are three funding components to this proposed program:

[85] *Ibid.*, p 3.

1. One-time funding to either increase or establish another loan loss reserve to provide an incentive to a lending institution to accept moderate income applicants through either a lower FICO score or through proof of credit worthiness such as a year's timely payment of utility bills;
2. One-time funding to establish a contingency reserve to provide payment to the manufacturer-retailer if the guaranteed minimum level of cooling appliances are not purchased; and
3. Funding for rebates which should be set at a higher level than the current rebate for the Home Performance Loan Program.

Community Need: According to the January 2015 Updated Energy Burden Tables for Austin Energy, 12.8% of all residential customers have income between 301 and 400% of the Federal Poverty Guideline.[86] Low and low moderate income consumers have lower credit scores[87] which may be attributable to their inability to obtain financing in the first place. There have been comments made to the task force that when air conditioners are not working in summer even low income families, in desperation, will purchase units with unfavorable financing terms such as high interest credit cards and car title loans.

Program Description: As part of the American Recovery & Reinvestment Act (ARRA), Austin Energy requested and was provided an ARRA grant to lower the cost of financing energy efficiency improvements to residential consumers. Financing costs were lowered by creating a loss reserve with Velocity Credit Union, the bank participating with Austin Energy to provide energy efficiency loans with reduced interest rates to residential customers. This energy efficiency program could increase Austin Energy's customers' access to affordable financing by lowering the credit worthiness standards for borrowing at lower interest rates with longer repayment periods.

A commonly applied credit worthiness standard is known as a FICO or credit score. For instance a loan applicant with a FICO score of 300 would generally be viewed as a high risk for a loan; a FICO score of 700 would generally be viewed as a low risk for a loan.[88] The grant money funded a loan loss reserve that would reimburse Velocity for any defaults. Austin Energy reported that this program to date has had a fairly good record of customer repayment of the loans.

This recommended program could increase the access of low-moderate income customers to affordable financing for replacement of cooling and heating appliances by

[86] Memorandum from Liz Jambor, EdD, Manager, to Low Income Consumer Advisory Task Force 01/5/15.
[87] Question 1: What customer classes and customer groups should be targeted for participation in financing programs? Austin Energy Weatherization Program Low Income Consumer Advisory Task Force April 17, 2015, p. 4.
[88] *Ibid.*, p 3.

lowering the FICO score needed to qualify for the energy efficiency loan. The financed funds would be used to purchase weatherization services and cooling and heating appliances. Additionally, eligible customers would have access to cooling appliances at a discounted price.

The reduced price would be obtained through Austin Energy entering into a commitment to purchase a minimum number of cooling units (for example, 100 room air conditioners) from a distributor-manufacturer. The price offered Austin Energy would be the price paid by the customer. The discount at a minimum should equal the highest discount obtainable from the manufacturer-retailer.

Standard residential rebates for energy efficiency measures and energy efficient cooling and heating appliances would also be part of this program thereby reducing the total amount of debt incurred and thereby providing greater assurance that moderate income customers will have access to low cost credit and an affordable repayment plan. Use of a rebate will also ensure greater quality control by ensuring a before and after inspection of the Austin Energy customer's residence is made to ensure the energy efficiency measures and goods are properly installed.

Since Austin Energy will rely upon contractors to market the program and since moderate income families will have access to discounted cooling and heating appliances, the application process should include information about the reduced priced cooling and heating appliances to ensure the energy efficiency program applicant is informed of this option. Contractors should also be required to provide cost comparisons with the reduced price cooling and heating appliances for any other purchasing option recommended by the contractor. Additionally only contractors meeting requirements established by Austin Energy may be hired by a customer under this program.

D. Multi-Family

Everyone agrees that Austin needs more energy efficiency programs for multi-family properties and that properties occupied by renters are difficult energy efficiency sells to the owners. In our city where more than half of all households rent, new and better energy efficiency and solar programs remain a challenge. Improving energy efficiency in apartments was also a common theme heard from the public outside of task force meetings. The recommendations included herein include billing improvements to make solar installations on multi-family properties less expensive, dedicating more program funding to properties occupied by low and low moderate income customers, improving the Energy Conservation Audit Disclosure (ECAD) program to include on-line access of disclosure forms, providing an award for properties in the to 20 percent of energy efficiency ratings, better enforcement of ECAD and

requiring properties financed by the Austin Housing Finance Corporation to be more proactive in installing energy efficiency and solar.

1. Fractional (Virtual) Billing

Recommendation: In order to reduce the cost of providing solar energy to multifamily residents, including those in affordable housing, establish a policy and ability within the Austin Energy billing system to allow for the fractional (virtual) value of solar credits from a distributed solar system on a multifamily residential property to be divided and applied to multiple residential customer accounts.

Targeted Underserved Group: Multifamily housing occupants (both renters and homeowners)

Time Schedule: Implement in 2016

Budget Impact: cost of making an update to the Austin Energy billing system

Community Need: Currently, customers can only use solar to offset their electric bills if (1) the solar installation is located on the same property as the customer's electricity usage meter is located and (2) the solar installation is individually wired to connect to a solar production meter that is assigned to that customer. On multifamily housing, it is significantly more cost effective (15-20%) to wire one or a few larger installations than many small installations for each unit.

Foundation Communities, which builds local affordable housing, has already encountered this problem at its Homestead Apartments. In order to allow its tenants to directly benefit from solar, it is having 140 solar installations individually wired and metered because Austin Energy has no policy that allows output from a solar installation to be fractionally divided and applied to more than one customer bill. Because of roof space limitations, these installations will be quite small – 1-1.5 kW each. Compared to the cost of installing 190 kW of solar in 3 large installations, this approach is adding 15-20% to the total cost of the solar project. There is also $100 permit application fee for each of the 140 systems.

Low and low moderate income residents are much more likely to rent than are higher-income residents in Austin. Although most multifamily properties are not designated as affordable housing, many low and low moderate income residents live in this type of housing. Providing access to affordable solar energy for multifamily housing will improve equity.

Program Description: Austin Energy already has a system that could be adapted to allow for fractional billing that connects customer electricity usage meters with solar production meters. This system could be adapted to apply value of solar credits accrued from a solar installation to multiple residential accounts by assigning each account a fraction of the credits accrued.

Solar installations on multifamily residential properties would be treated as any other residential solar installation and the accounts of each of the customers to receive bill credits from such a solar installation would also continue to be treated as residential accounts. This is important both to enable such solar installations to qualify for the Austin Energy residential solar rebate and to avoid demand charges that are applicable to commercial accounts.

No new infrastructure or staff would be needed to enable fractional billing for multifamily solar.

2. Funding from Multi-Family Energy Reduction Program

Recommendation: Utilize at least 50% of Austin Energy's multi-family budget to incentivize energy efficiency retrofits on multi-family properties that receive affordable housing subsidies from the federal, state, city, or county government or properties where at least 30 percent of the rental units are occupied by Customer Assistance Program (CAP) customers or pay a portion of their rent with housing choice vouchers.

Targeted Underserved Group: Low and Low-Moderate Income Renters

Time Schedule: Implement in 2016

Budget: Unknown but the intent is to implement with current budget.

Community Need: The majority of low and low-moderate income households rent and the majority of those households reside in multi-family properties. The quality and maintenance of these rental units are often substandard resulting in high electric consumption for heating and cooling. The resulting high electric bills are borne by those who can least afford it.

Program Description: This an earmarking of the existing budget for multi-family properties to try to extend more energy efficiency benefits to low and low moderate income renters. A major part of the recommendation rests in the definition of qualifying properties. By establishing readily identifiable types of affordable housing as categorically qualifying as low and moderate income the administrative burden is greatly reduced. The City of Austin is home to 186 publicly subsidized apartment properties, providing approximately 18,500 rental units with affordability requirements. These requirements are triggered by federal, state, and/or local funding sources, including Low Income Housing Tax Credits, Project Based Rental Assistance, HUD Direct Loans (Section 202 or Section 811), and HUD insurance.[89] In addition, there are approximately 6,200 housing choice vouchers available.[90] By working with the Housing Authority, the Housing Finance Corporation and other affordable housing

[89] Taking Action: Preservation of Affordable Housing in the City of Austin, July 2014, Prepared by: HousingWorks Austin, Prepared for: Austin Housing Finance Corporation, City of Austin p. 8.
[90] *Ibid.*

administration offices Austin Energy can closely coordinate its energy efficiency programs with affordable housing renovation schedules and reach out to private properties that accept housing choice vouchers.

There are many apartments in the city that are occupied primarily by low income households that receive no subsidies and may or may not accept housing vouchers. This is why recipients of the CAP discount are included in the eligible resident category. Austin Energy can verify numbers of CAP customers through its own records and the Housing Authority of the City of Austin can assist with providing numbers of tenants using housing vouchers as partial payment of rent.

3. Online Access of ECAD Disclosure Form

Recommendation: Make the results of ECAD audits and disclosure forms for multi-family properties available on the city's website.

Targeted Underserved Group: All Renters

Time Schedule: Implementation in 2016

Budget Impact: The budget impact is unknown at this time. It is anticipated that the posting of documents on a website should be achievable at a reasonable cost and may therefore be possible within the current ECAD budget allocation.

Community Need: The ECAD ordinance was adopted in 2008 and amended in 2011. In 2013, 54.9%[91] of all households in Austin were renters. The survey further shows that 32.8% of renter households have annual income under $25,000 and another 31.1% have income between $25,000 and $49,999. Thus, 63.9% of renter households have income under $50,000 per year.[92] Median household income for renters is $37,538 compared to $85,246 for homeowners.[93] As utilities become a more significant part of the affordable housing equation ECAD can provide important guidance to consumers choosing a different apartment to rent. The problem is that the average consumer is unaware of ECAD and the information it provides. At the July 17, 2015 Austin Energy Affordable Energy Summit, and informal poll taken by hand indicated that 4 attendees knew about the program.[94]

[91] U.S. Census Bureau, American Fact Finder , S2503 FINANCIAL CHARACTERISTICS, 2009-2013 American Community Survey 5-Year Estimates.
[92] *Ibid.*
[93] *Ibid.*
[94] Carol Biedrzycki, Summary of Low income Consumer Advisory Task Force Break Out Sessions, Affordable Energy Summit, July 17, 2015 provided in appendix.

Program Description: Under the City's Energy Conservation Audit Disclosure (ECAD) ordinance, apartments with 5 or more units were required to have an energy audit conducted by June 1, 2011. The results are to be made available in three ways. 1) the results must be prominently displayed in facility common areas where public and legal notices are regularly posted, 2) copies of the audit must be available for review at the leasing or manager's office, and 3) the standardized audit disclosure form must be provided to a prospective tenant prior to the tenant's signing of a lease application or if no application is required prior to the signing of a lease. Searching the Internet for information about rental properties is a common practice. Having the ECAD documents posted on the city's website would give consumers the ability to access and compare the documents early in the process of searching for housing.

4. Amend the ECAD Program to Provide Recognition for Efficient Rental Units

Recommendation: The Energy Conservation Audit Disclosure (ECAD) Program should be amended to establish an award or official recognition that the multi-family facility is in the top 20% of energy efficiency based on the energy efficiency rankings.

Targeted Underserved Group: All renters

Time Schedule: Implement in 2015

Budget Impact: None

Community Need: A majority of Austin residents rent and renters disproportionally have lower incomes than homeowners. Rental properties, particularly those with lower rents are often not very energy efficient. Landlords have little incentive to improve energy efficiency at their properties because it's the tenants who pay the electric bills. Consumers should be provided the information they need to make an educated decision about where to live. Providing a marketing tool to landlords showing the facility has very high energy efficiency would provide easily understood information to perspective tenants about the efficiency of the facility.

Program Description: Amend the ECAD program to provide recognition for apartments that are within the top 20% of energy efficiency rankings would allow landlords to market the award. It creates a positive inducement without any real cost to Austin Energy. It should create a marketing opportunity for the landlords and therefore create an incentive to become energy efficient.

5. ECAD Enforcement

Recommendation: Austin Energy should develop a plan for fully enforcing the entire Energy Conservation Audit Disclosure (ECAD) ordinance, especially for those multi-family facilities

whose electric cost is 150% of average electrical cost, and should present that plan to the Electric Utility Commission, the Resource Management Commission and the City Council for approval. Austin Energy should include funding for full enforcement of ECAD, according to the approved plan in its FY 2017 budget proposal.

Targeted Underserved Group: Low and moderate-income renters

Time Schedule: Implement in 2015 (requirement) and 2016 (funding for enforcement)

Budget Impact: cost of enforcement

Community Need: A majority of Austin residents rent and renters as a class have disproportionally lower incomes than homeowners. Rental properties, particularly those with lower rents are often not very energy efficient. Landlords have little incentive to improve energy efficiency at their properties because it's the tenants who pay the electric bills.

Although landlords of multifamily properties (excluding duplexes, triplexes, fourplexes, and units designated as condominiums) are required to have energy audits conducted on buildings that are at least 10 years old and are required to disclose the results. Compliance is spotty at best.

The status quo is that renters are often blindsided by high electric bills after signing a lease. In some cases, a rental property with higher rent, but lower electric bills would be more affordable overall. Consumers should be provided the information they need to make an educated decision about where to live.

Enforcing the ordinance would ensure that prospective tenants would receive the energy guide and audit required under the ECAD ordinance before they decide to rent. Moreover, greater enforcement of the required improvements for multi-family facilities with high electric costs would result in greater energy efficiency, thereby resulting in reduced electric bills.

Program Description: Austin Energy should develop a plan for fully enforcing the entire ECAD ordinance and present that plan to the Electric Utility Commission, the Resource Management Commission and the City Council for approval. Actions recommended include: creating a marketing campaign to educate the community and community activists; investigating the multi-family facilities to verify whether the elements of the ECAD ordinance are being carried out; and establishing a prosecution process to enforce the ordinance including the implementation of a process of investigating anonymous tips and carrying out that investigation to prosecution, if applicable. Funding for full enforcement of ECAD, according to the approved plan should be included in its FY 2017 budget proposal.

6. Condition Austin Housing Finance Corporation's financing on applicant's efforts to install solar and energy efficiency

Recommendation: Austin Housing Finance Corporation should condition financing approval to applicants involved with affordable housing with a condition that applicant seek energy efficiency services from Austin Energy , including solar for new and substantial rehabilitation construction. Higher rebates should be considered for these applicants.

Reasoning: Austin Housing Finance Corporation provides low cost financing to builders and developers who construct affordable housing. For many applicants, the housing corporation requires them to apply for tax credits, which further ensures low and low-moderate income households will have access to the housing being constructed. Adding a requirement that the applicant seek energy efficiency services from Austin Energy, particularly solar will provide greater housing affordability to the tenants. Austin Energy funding of energy efficiency programs to these applicants will provide greater assurance that energy efficiency funding will benefit low and low-moderate income customers.

IV. Items for Future Consideration

A. Continue the work of the Task Force through a new entity representative of the 10-1 Council.

This Task Force was created by the 7 member at-large council that operated through the transition to the new 10-1 council and then for another 12 months. During its brief existence the Task Force was subject to some criticism for its lack of district representation but it was also praised by many as looking at important issues that are relevant to Austin Energy customers whose needs are frequently overlooked. In public meetings and at the Affordable Energy Summit many individuals took the time to comment that there is a need to continue the discussions began by the Task Force.

B. Conduct an audit and evaluation of the utility billing system.

Looking at the billing system is not one of the directives issued to the Task Force in the City Council Resolution 20140828-158. Even though the subject is out of the immediate scope of the Task Force the subject of a troubled billing system was repeatedly brought to our attention by members of the public. Besides the obvious business aspects of this recommendation there is also a need to restore public confidence in the billing system. It seems appropriate that the City Council should take action to audit and evaluate the billing system. The billing system is the work horse for Austin Energy, the Austin Water Utility and Resource Recovery. Besides being the collection mechanism for a substantial amount of city

revenue it is a system that impacts everyone in the city and issues concerning the system deserve top priority.

C. Expand the scope of the ECAD ordinance to cover rental properties with 1 to 4 units.

The Task Force considered briefly and made no decision on a proposed amendment to the ECAD ordinance that would provide the energy audit information to all renters, not just those in large apartment complexes. Because the recommendation could work to improve the efficiency of a large number of small rental properties in the future it is included on the list for future consideration.

Under the proposal, landlords of single-family homes, duplexes, triplexes, fourplexes, and units designated as condominiums won't be required to make energy efficiency upgrades, but will have to get energy audits done on their properties and will have to disclose the results to prospective tenants in advance of their signing a lease, in advance of lease renewals, or upon request.

This is an important idea. In 2013, 54.9%[95] of all households in Austin were renters. According to U.S. census data, 36% of rental units in Austin are single-family, attached, duplex, triplex and fourplex structures.[96] Small rental units represent over a third of the market in Austin and is therefore worth a closer look by a new group. Consumers are often blindsided by high electric bills after signing a lease. After an exhaustive search for an affordable unit or a unit that accepts housing vouchers what appears to be affordable is not because of unexpectedly high utility bills. This is an issue that was brought home in sessions held at the Affordable Energy Summit where many caseworkers expressed concerns over the energy efficiency (and overall condition) of rental properties in Austin where low income households, many with housing vouchers live.

D. Amend the multi-family program to better increase the efficiency of air conditioners in rental properties.

The inability of many renters to pay their utility bills is because of high usage that could be reduced with energy efficiency improvements. These are improvements that make living in the apartment unit more affordable for the tenant and contribute to Austin Energy's energy efficiency and climate protection goals. The multi-family program through high rebates (to owners of rental properties has been successful in promoting air infiltration measures, duct

[95] U.S. Census Bureau, American Fact Finder , S2503 FINANCIAL CHARACTERISTICS, 2009-2013 American Community Survey 5-Year Estimates.

[96] Taking Action: Preservation of Affordable Housing in the City of Austin, July 2014, Prepared by: HousingWorks Austin, Prepared for: Austin Housing Finance Corporation, City of Austin p. 13

sealing, insulation, solar screens, pipe wrap, compact fluorescent lighting and low-flow water devices. However, the program does not appear have success in having landlords replace air conditioning units that are the drivers of high bills for many low and low moderate income renter households. A task force discussion centered on making the multi-family program more comprehensive to achieve:

1. the replacement of old, inefficient air conditioners and water heaters, and
2. the placement of greater emphasis on providing energy efficiency in rental properties with up to 30 units.

Working toward this objective the Task Force briefly examined the following changes to the multi-family program that would tie the eligibility for high rebates for measures typically installed under the program to requirement such as:

- requiring that air conditioners and water heaters be consistent with the current minimum standards to qualify for rebates under the appliance program,
- requiring that 25 percent of all air conditioning units and water heaters are less than 10 years old, or
- requiring that none of the units be cooled with an air conditioner that is more than 25 years old.
- making an exception to allow rebates to be paid for replacement of air conditioners that meet the current energy code because of overly burdensome physical limitations in individual dwelling units that prevent the installation of a unit that meets the appliance standard program energy efficiency standards.
- dedicating staff time to target owners of small units to personally contact and meet with landlords to explain the benefits of energy efficiency retrofit.

E. Provide a free energy audit to renters that experience high bills.

In two of the three breakout sessions held at the Affordable Energy Summit a request was made that a program be created that would provide a free energy audit to renters who have high bill complaints. In many circumstances renters get extremely high bills that they believe are caused by an old air conditioner that is able to blow cold air but is dysfunctional from an efficiency perspective. Housing law merely requires that an air conditioner work. It does not have to be economic to operate. It would be helpful to have an energy audit service that could provide an evaluation of the efficiency of the rental unit for the tenant's information. It would be even more helpful if steps could be taken to increase the efficiency of the dwelling unit in response to the audit results.

F. Increase the cost cap on incidental repairs for the weatherization program.

The Austin Energy weatherization program places a cap of $500 on incidental repairs. As of September 1, 2015 Austin Energy reported to the Task Force that it was unable to serve 2,372 of 3,883 households screened for the program.[97] The Task Force has requested data on the reasons for the utility's inability to serve. The extent of needed repair is one possible reason.

Incidental repairs are repairs that need to be made to properly install an energy efficiency measure. The term incidental repairs is coined by the Federal Weatherization Program. The definition is "those repairs necessary for the effective performance or preservation of weatherization materials". Some examples of incidental repairs are:

- Installation or replacement of attic vents
- Minor roof repair
- Wiring replacement
- Patching openings in walls (more than 1 sheet of sheetrock)
- New trim and clasp for ceiling hatch
- Replacing deteriorated door frame (plus primer and sealer)
- Replace broken window stops
- Replace rotted jambs and wall framing
- Flue repairs
- Construction of a separate CAZ (Combustion Air Zone) per code requirement
- Replace light sockets

Under the Federal program, the cost of incidental repairs is added into the cost effectiveness calculation. The cost test calculates a savings to investment ratio (SIR). The minimum SIR is 1.0 which means the cost is recovered in energy savings over the useful life of the measures.[98]

If incidental repair costs exceeding $500 is a predominant reason for denying program access to Austin Energy applicants for weatherization service there is a need to explore other avenues for reaching customers through the housing programs as discussed previously or to raise the cap on incidental repairs from $500 to a higher number that would reduce the number of applications being denied.

[97] AE Weatherization Program job status as of September 1, 2015 provided at September 4, 2015 Low-Income Consumer Advisory Task Force meeting.
[98] Title 10: Energy PART 440—WEATHERIZATION ASSISTANCE FOR LOW-INCOME PERSONS.

G. Create a One Stop Weatherization Process

Implementing the universal application and contractor rebate recommendations should make the delivery of program services more seamless but falls short of providing what some Task Force embers refer to as "one stop" weatherization where other city programs could be reimbursed for providing Weatherization to their housing repair program eligible clients. At the January 16, 2015 Task force meeting, Letitia Brown, Neighborhood Housing and Community Development and Austin Housing Finance Corporation provided a description of 9 housing repair programs[99] that could also provide weatherization directly instead of referring the client to Austin Energy. Also note that newly constructed affordable housing must meet city's energy efficiency code but there is no such standard for the housing repair programs.

A panel discussion of non-profit organizations was asked to share insight on ways to improve weatherization and utility based programs. A number of organizations participated including Austin Tenants' Council, Home Repair Coalition, Austin Habitat for Humanity, Foundation Communities and The United Way for Greater Austin. Charles Cloutman from The Home Repair Coalition and Jesse Porter, Habitat for Humanity, expressed frustration for clients who receive home repairs and weatherization through two separate programs. Representatives for both organizations recommended that the weatherization funds be made available to the housing programs so that weatherization measures can be installed at the same time other repairs are being made on the client's home.[100] Susan Peterson, Foundation Communities pointed out that weatherization is often piecemeal in an apartment building because of differing housing income eligibility and weatherization income eligibility requirements.[101] She suggested that all subsidized housing units should qualify for the weatherization program.

Further streamlining of program delivery and cost reduction may be possible with a seamless operation that uses all the city's programs to reach low and low moderate income households that would benefit from energy efficiency services.

[99] Architectural Barrier Removal, LeadSmart, Lead Healthy Homes, Private lateral Pipeline Grant, Home Repair Loan Program, Holly Good neighbor, Emergency Home Repair, GO Repair. Distributed to Task Force members January 16, 2015.
[100] Low-Income Consumer Advisory Task Force Meeting Minutes January 16, 2015, p. 2.
[101] *Ibid.*

H. Investigate how energy efficiency and renewable energy programs that serve low-income and low-to-moderate income residential consumers can help Austin Energy comply with EPA's Clean Power Plan

Recently, the US Environmental Protection Agency issued new rules that will require every state to come up with a plan to reduce carbon dioxide emissions from power plants between 2020 and 2030. While the carbon dioxide emission reductions required from the State of Texas and from Austin Energy will be developed over the next several years, the US EPA did add a specific component to its rules that would give early credit to states and utilities that develop specific programs that reduce energy or promote renewable energy development in low-income communities. A future task force should consider how Austin Energy could best take advantage of such a program when developing a compliance plan for the Clean Power Plan. Potentially, such a plan might even be able to take advantage of funding from non-rate payer sources.

I. Consider how to design Community Solar programs to benefit low and low-to-moderate income residential ratepayers

Austin Energy is currently designing and implementing a new Community Solar project in which residential and commercial customers would purchase or lease a portion of the capacity of a community solar project in East Austin, and receive some credit for the energy that portion of the solar plant produces on their monthly bill. The program currently being contemplated would allow anyone to participate in the Community Solar program, but it is not specifically being designed to benefit low or low-to-moderate income residents. A future Task Force could consider program augmentations – such as a more favorable "neighborhood" rate for low-income customers living near the solar farm, the ability of ratepayers to "donate" a panel or more to an organization serving low-income residential customers, or other program design features that would lead to better access of solar to lower-income residential customers.