Close Form | Next | Print Page | About

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:	* 2. Type of Application:	* If Revision, select appropriate letter(s):
☐ Preapplication	☒ New	
☒ Application	☐ Continuation	* Other (Specify)
☐ Changed/Corrected Application	☐ Revision	

* 3. Date Received:	4. Applicant Identifier:
12/11/2009	TX-City-AUSTIN

5a. Federal Entity Identifier:	* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:	City of Austin/Austin Energy
* b. Employer/Taxpayer Identification Number (EIN/TIN):	1-74600085
* c. Organizational DUNS:	152601209

d. Address:

* Street1:	721 Barton Springs Road
Street2:	
* City:	Austin
County:	Travis
* State:	TX: Texas
Province:	
* Country:	USA: UNITED STATES
* Zip / Postal Code:	78704

e. Organizational Unit:

Department Name:	Division Name:
Austin Energy	Distributed Energy Services

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:	Ms.	* First Name:	Drusilla
Middle Name:			
* Last Name:	Saenz		
Suffix:			

Title:	Chief of Staff, Distributed Energy Services
Organizational Affiliation:	Austin Energy
* Telephone Number:	512-322-6272
Fax Number:	512-322-6037
* Email:	drusilla.saenz@austinenergy.com

Close Form | Previous | Next | Print Page | About

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

9. Type of Applicant 1: Select Applicant Type:

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Environmental Management Consolidated Business Cen

11. Catalog of Federal Domestic Assistance Number:

81.128

CFDA Title:

Energy Efficiency & Conservation Block Grant Program

*** 12. Funding Opportunity Number:**

DE-FOA-0000148

* Title:

Recovery Act: Energy Efficiency and Conservation Block Grants: Competitive Solicitation: Retrofit Ramp-up and General Innovation Fund Programs

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

*** 15. Descriptive Title of Applicant's Project:**

The Austin Climate Protection Retrofit Program

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Close Form | Previous | Next | Print Page | About

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant: 25 * b. Program/Project: TX-025

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 04/01/2010 * b. End Date: 03/31/2013

18. Estimated Funding ($):

* a. Federal	20,467,388.00
* b. Applicant	34,254,803.00
* c. State	0.00
* d. Local	0.00
* e. Other	1,710,000.00
* f. Program Income	0.00
* g. TOTAL	56,432,191.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

☐ Yes ☒ No Explanation

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name: Roger

Middle Name:

* Last Name: Duncan

Suffix:

* Title: General Manager

* Telephone Number: 512-322-6157 Fax Number: 512-322-6037

* Email: roger.duncan@austinenergy.com

* Signature of Authorized Representative: michael osborne * Date Signed: 12/11/2009

Authorized for Local Reproduction

Standard Form 424 (Revised 10/2005)
Prescribed by OMB Circular A-102

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location(s)

Project/Performance Site Primary Location ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: City of Austin/Austin Energy

DUNS Number: 1526012090000

* Street1: 721 Barton Springs Road

Street2:

* City: Austin County: Travis

* State: TX: Texas

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 78704-1194 * Project/ Performance Site Congressional District: TX-025

Project/Performance Site Location 1 ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project Narrative

The Austin Climate Protection Retrofit Program will accelerate energy and water efficiency and integrated renewable energy improvements made to private properties in the City of Austin (the City) and Austin Energy (AE) service territory by offering a menu of financing options to property owners, including a new Property-Assessed Clean Energy (PACE) financing mechanism that allows participants to repay installation costs through a special assessment.

Austin Energy, a municipally-owned electric utility and Department of the City, is uniquely positioned to launch this program rapidly in 2010 because it already has developed and maintained nationally recognized energy efficiency and conservation programs. AE was awarded the ENERGY STAR® leadership in Energy Efficiency in 2005, ENERGY STAR® Partner of the Year in 2006, and ENERGY STAR® Award for Sustained Excellence in 2007, 2008, and 2009. The Texas Legislature recently passed legislation allowing municipalities to offer property tax financing for energy improvements, and the Austin City Council subsequently passed a resolution supporting this approach and directing AE to move expeditiously to report on an implementation design by early 2010. The City has implemented some of the highest building code standards in the nation including a recent Energy Conservation Audit and Disclosure (ECAD) ordinance requiring energy audits for existing residential homes at the point-of-sale, energy audits, and mandatory retrofits for high energy use multi-family properties, and energy ratings for all commercial buildings. AE has administered a highly successful solar rebate program that has grown the base of solar installers by more than 600% over the past five years, and now is fully integrated with AE's whole-house energy efficiency retrofit program.

The proposed ramp-up retrofit program will create hundreds of jobs and institute a sustainable approach to financing energy efficiency and integrated renewable energy improvements to private properties for many years beyond the federal funding period. AE has a strong and experienced management team that will work with non-profit, private, and public entities to ensure program success, and will develop a regional consortium that will share best practices statewide and nationally.

Project Objectives

Since 1982, AE has developed and maintained an extensive and comprehensive demand-side management (DSM) program that has reduced over 800 megawatts (MW) of load demand and prevented the construction of a new baseload power plant. AE and the City know that cost-effective energy efficiency and conservation strategies are the fastest, cheapest, most effective way to meet new load growth requirements, reducing the utility's greenhouse gas emissions, and lowering customer electric bills. As a demonstration of the City's commitment to this philosophy, the Austin Climate Protection Plan (passed in 2007) set a goal to achieve an additional 700 MW of savings through energy efficiency and conservation by 2020. In August 2009, AE recommended to increase this goal to 800 MW of energy savings by 2020, further demonstrating the utility's commitment to maximizing the potential of demand-side resources. These are ambitious goals, and AE knows it must design new DSM programs and develop innovative approaches to accelerate participation in existing programs. For example, AE is currently studying market-sensing innovations like auctions, is updating its efficiency potential study, and has begun "carbon-tuning" its DSM portfolio, integrating carbon emissions reductions tracking and goals into program design.

In its analysis of PACE-type programs, AE has concluded that the program can be most successful:

1. Where it builds on a strong, multi-year base of program measurement, validation and operation.
2. Where a strong, closely aligned contractor community is in place.
3. Where the electric utility works closely with other utilities, including gas and water providers.
4. Where there is a clear policy direction and strong public and regulatory support.

5. Where the implementing organization has a strong record of innovation, problem-solving, and commitment to aggressive pursuit of energy efficiency opportunities.
6. Where the program enhances and expands existing energy efficiency opportunities, advances building code objectives, stimulates economic development, and meets needs in underserved communities and market sectors.

This program will help overcome two of the barriers to customer participation in energy efficiency programs: 1) the inability to afford the up-front costs and 2) consumer confidence in the performance and associated benefits of the improvements. A menu of financing options, with emphasis on the PACE financing mechanism, provides an opportunity for AE to educate property owners about the value and importance of energy efficiency improvements and promote community-wide retrofitting. Through innovative and aggressive marketing and outreach, AE will design and implement an invigorated and sustained program that will serve as an example for other electric utilities and municipalities nationwide.

The following *objectives* will be met by this program:

- Identify, promote, and successfully offer diverse financing options for deep retrofits of Austin's existing building stock.
- Develop and implement a successful financing mechanism and process that allows property owners to pay for energy efficiency and integrated renewable energy improvements through an assessment secured by the underlying property.
- Develop best practices for financing energy efficiency and renewable energy improvements.
- Develop, test, and report on unique approaches to marketing financing options for energy efficiency and integrated renewable energy improvements.
- Achieve significant participation from all customer types including owner-occupied residential, residential rental properties, multi-family properties, and small and large commercial buildings.
- Contribute to the City's energy efficiency and conservation, solar, and other climate protection goals.
- Demonstrate program success and encourage regional and national program replication.

The following *goals* will be achieved by this program:

- Develop an integrated, deep dive approach to offering customers financing options for making energy efficiency and integrated renewable energy improvements on their property.
- Enroll thousands of applicants in the program, contributing to over $150 million in energy efficiency and integrated renewable energy improvements over the first three years of the program.
- Create or retain over 350 jobs over the first three years of the program.
- Engage customers, even those who have participated in past programs as well as the traditionally hardest to reach customers, in deep dive retrofits.
- Increase participation in AE's DSM rebate programs and City water conservation programs.
- Publish a best practices manual for financing energy efficiency by 2011.
- Achieve the energy and demand savings, emissions avoided, water conserved, jobs created, and cost savings projected in the project impact analysis included in this application.

Merit Review Criteria Discussion

This section of the project narrative discusses how the above goals and objectives of the program will be achieved. Each criteria and sub-criteria is addressed herein and, when necessary, material within the application that addresses different criteria is cross-referenced.

Project Approach (Merit Review Criterion 3)

The following discussion addresses the project management strategy of the Austin Climate Protection Retrofit Program. The City believes that this project approach will allow for successful program

development, deployment, evaluation and improvement, and promotion both regionally and nationally. The "Project Plan" section of this application provides greater detail on the major tasks, milestones, decision points, and deliverables of the program.

Implementation and Delivery Plan

The City and AE have developed an expeditious implementation and delivery plan for the retrofit program to stimulate energy efficiency and integrated renewable energy improvements in Austin, and thus quickly create jobs in the community. AE has built a solid foundation for rapid implementation and delivery through its diverse and highly-recognized DSM programs. This program will build upon AE's existing programs to encourage new, innovative mechanisms for promoting and financing energy efficiency and integrated renewable energy improvements. This program will promote community-wide retrofitting as a major step toward developing a sustainable city as supported by Austin's Climate Protection Plan. The City is committed to begin enrollment in the retrofit program six months after award (approximately October 2010). The City is already engaged in an evaluation of the PACE financing mechanism and plans to highlight this approach in its retrofit program.

The first six months of the program will involve a multitude of tasks associated with program development, program design, and completing the legal steps necessary for making PACE financing available to City property owners. The program development tasks are detailed in the "Project Plan" of this application. A third party may be contracted to administer the enrollment of applicants into the retrofit program. The process for contracting with and the role of the third-party administrator are discussed as a key task during Year 1 in the "Project Plan."

The program proposed for development under this funding opportunity will offer a menu of financing options for energy efficiency and integrated renewable energy improvements that will leverage AE's existing rebate programs to promote deep retrofitting of existing Austin buildings. AE currently offers a unique financing option called the Home Performance with ENERGY STAR® Loan program that provides zero and low-interest loans for residential properties through a partnership with a local financial institution. These loans are based on the creditworthiness of the property owner and AE buys down the interest. AE will continue to offer this program to residential customers along with new financing opportunities such as PACE that will be more readily accessible and thus more attractive to some customers. New financing opportunities such as PACE will be promoted to other customer bases such as multi-family and commercial property owners. By offering diverse financing options, customers will be able to determine the most appropriate mechanism for financing retrofits given their unique situation.

The following financing options will be offered through a comprehensive, integrated and streamlined program:

- PACE Financing Mechanism – new approach
- Home Performance with ENERGY STAR® Loan Program – existing program
- Solar Photovoltaic Loans – existing program
- Third-Party Private Financing – currently available, but will work with lenders for new program development
- Energy Savings Performance Contracting – currently available, but will develop new program for marketing and outreach
- Energy Efficient Mortgages – will develop a marketing and outreach program
- On-bill Repayment – will be available once AE's new Customer Billing System is completed
- Feed-in-Tariff – will be developed by AE as an incentive for solar PV

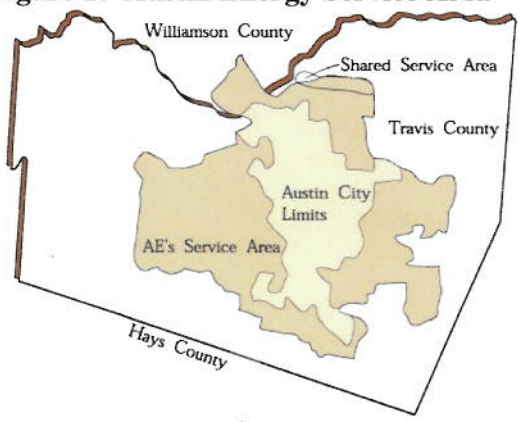
Additionally, a process for developing and reviewing new financing mechanisms will be managed by AE's Finance and Corporate Services Department.

The enrollment process is based on AE's and other's past program experiences and includes:

1. Information and Education – Marketing and outreach will be conducted that is specific to different customer bases. An interactive website will provide information on different financing options and benefits to conducting energy efficiency retrofits.
2. Application – Potential applicants will be able to apply via the program's website, a program administrator, or information sessions with program staff and other in-person opportunities. The online application process is intended to take less than 15 minutes to complete.
3. Notification – Applicants will be notified of their status. Approved applicants will be required to conduct an in-person information session or online tutorial while denied applicants will be informed of the reason for denial and of other potential options for financing improvements.
4. Contractor Selection and Energy Audit – Program participants will select a contractor from an approved list who will then conduct an energy audit of the property. The energy audit will identify measures for improvement, eligibility for financing, and the expected benefit-cost ratio for each measure. The owner selects measures based upon eligibility criteria. The contractor provides a written "not to exceed" estimate to the program administrator. The program administrator approves measures selected by the property owner and provides a "notice to proceed" to the contractor.
5. Installation – The contractor has 180 days after the notice to proceed is issued to perform the installations and is paid upon completion by the program administrator. Rebates from the utility and information on eligible federal tax credits are provided to lower repayment costs.
6. Repayment - Repayment of the loan is attached to the financing mechanism selected by the applicant. For PACE financing, a special assessment will be collected by either the Travis County Tax Assessor-Collector through the property tax bill or AE through the electric bill.

The implementation of the PACE financing mechanism will be the cornerstone of the retrofit program and is expected to encourage the greatest number of participants and the greatest amount of energy efficiency investment. It is anticipated that a PACE financing option will attract middle-class property owners in Austin that would not typically perform retrofits through AE's existing DSM programs. House Bill 1937, passed by the Texas Legislature in May 2009, enables municipalities to finance energy efficiency and renewable energy improvements using the PACE approach. The Austin City Council supported the PACE financing approach by Resolution in October 2009, and the City is currently working with the Travis County Tax Assessor-Collector to determine the process for collecting the special assessment for such improvements. The expanded retrofit program will be available to all AE customers, while the PACE financing mechanism initially will be limited to properties within the city limits and AE's service territory. The majority of the City is included in AE's service area. All market segments will be eligible for financing under this program. Figure 1 shows AE's service area in relation to Travis County. The City will coordinate with several smaller municipalities located within City Limits and served by AE to potentially expand availability PACE financing to those jurisdictions. Characteristics of the City's building stock are detailed in the "Project Impact" section of this application.

Figure 1: Austin Energy Service Area



The City intends to build upon two other recent EECBG program awards, one for municipal facility retrofits and the other for low-income weatherization, which will showcase the benefits of retrofits. AE's free weatherization program provides an opportunity to finance additional energy efficiency and integrated renewable energy improvements for lower-income customers to significantly reduce electric bills. AE will look into developing income-qualified loans with lower interest rates to make improvements more affordable for those traditionally least able to pay their electric bills. Interest rates may be bought down by the City through funding requested for a loan support fund. While AE has been fortunate to obtain authority to spend up to $6,500 per household under ARRA funding over the next two years, PACE is a vehicle for continuing deep dive weatherization and energy efficiency work beyond the enhanced ARRA weatherization program. A key output of the ARRA weatherization effort is to identify and validate measures and combinations of measures that will be most efficacious in low-income households, including multi-family dwellings, mobile homes, rental properties, and other typically hard to reach homes.

Commercial customers located in the Central Business District will be targeted through special marketing and outreach strategies. AE has a unique and innovative district cooling system in the high-growth downtown core area that provides cooling services to many of its customers, including the Whole Foods Market home office, a new high-rise residential tower, and Austin City Hall. Participants in this system improve reliability, reduce energy costs, and increase the efficiency of their large buildings. The retrofit program provides a synergistic opportunity to promote new interconnections to AE's district cooling system in conjunction with deep retrofits of large commercial and multi-family residential buildings located in downtown Austin.

Municipal financing instruments or other private capital sources will be used to finance the PACE component of the retrofit program for residential and small commercial customers (under 100 kilowatt summer peak demand). A loan support fund will be established for the retrofit program that will be used to reduce interest rates for the PACE program. This will help to mitigate mortgage defaults and foreclosures, increase the attractiveness of the program, and help lower-income property owners participate in the program. Financing options that will be explored by the City include short-term municipal financing vehicles such as commercial paper, private financing through banks and/or local investors, municipal bonds or other public vehicles, and grants. A program that uses the PACE financing mechanism, but secures private, owner-arranged financing will be developed for large commercial and industrial customers. The City will determine eligibility requirements for PACE financing under the retrofit program by following best practices identified and established in the White House's "Policy Framework for PACE Loan Programs." Eligible improvements will be determined based upon evaluation by the City. Expected eligible improvements include energy and gas efficiency, water conservation, and integrated renewable generation such as solar PV systems. A comprehensive, high-volume energy efficiency financing program will allow economies of scale to be reached, reducing overhead and transaction costs while securing reasonable interest rates.

AE's established project management methodology includes the analysis of both qualitative and quantitative risks. Risks are evaluated based on probability and impact. Risk response actions include shifting responsibility to a third party, changing the project management plan to lessen risk, using lessons learned or best practices, and creating contingency reserves for time, money, and/or resources. If a risk materializes into an issue that threatens to affect cost, schedule, scope or quality, it will be evaluated in AE's change control process. Five key risks identified with the proposed project are:

1. Over-supply – the City dedicates more public financing funds than are demanded.

Mitigation Strategy: Rolling application process and stakeholder engagement allows for continued assessment of current and projected program demand prior to the issuance of bonds or other financing mechanisms. Alternatively, a micro-bond process using private financing is a risk mitigation option.

2. Over-demand – more demand for the program than financial and staff resources can meet.

Mitigation Strategy: Same as for over-supply.

3. Scheduling/resource conflicts. *Mitigation Strategy*: Fully leverage the AE executive team to properly prioritize this program and its elements. AE also will leverage City staff and strategic partners to ensure that the proper quantity and skill set of resources are available. AE has strong relationships with contractors, installers and others as a result of decades of program execution.

4. Ability to deliver on time, on budget, and to scope/quality. *Mitigation Strategy*: AE is not new to successfully implementing large programs and projects. AE will deploy strict change control processes and fully leverage its people, processes, tools, and partners

5. Safety risks. *Mitigation Strategy:* AE will work with its approved contractors to ensure all safety, environmental, and health risks are mitigated and all associated compliance requirements are met. Again, the history of strong relationships with the contractor community and others will mitigate this risk.

Outreach and Marketing Strategy

AE's Marketing and Outreach Department has extensive experience promoting DSM programs to different customer types through a multitude of marketing and outreach efforts. Marketing of this new program will be critical to its success as different types of property owners hold different attitudes and values toward energy efficiency and conservation. For instance, the property owner-occupant relationship is a driving factor that influences the willingness of the owner to agree to make energy efficiency improvements. Ensuring that the property owner will benefit from the improvements is necessary to overcome this barrier. Since non-occupant property owners do not typically pay for electricity consumed, there is no direct incentive for the owner to make energy efficiency improvements. Thus, rental properties and non owner-occupied commercial properties tend to be the hardest-to-reach customers. Tailored marketing and outreach programs will address all customer types and will include:.

- Public information sessions
- Face-to-face, one-on-one meetings
- Information booths
- Direct mail
- Web portal/interactive website
- Recognition for participating properties
- Stakeholder meetings
- Key accounts personal outreach
- Community/neighborhood meetings
- Radio and television communication
- Web clips
- Social media (i.e. Facebook, twitter, etc.)

AE's marketing and outreach approaches will be linked to enrollment in the retrofit program and tracked to determine the most effective strategies. This will reduce costs in out-years and provide valuable information to the Department of Energy (DOE) and other utilities and municipalities. AE will report annually on the performance of different approaches.

Funding Structure

Funding of the Austin Climate Retrofit Protection Program, including the PACE component, will be managed jointly by the City's Finance Department and AE's Corporate and Finance Services Department. Funds provided by the DOE will be spent in accordance with their budgeted intent and all reporting of expenditures and program spending will be provided to the DOE in quarterly and annual progress reports. Any deviations from the proposed budget of the project will be discussed and approval will be obtained from the DOE and the retrofit program's management team. Funds identified for leveraging including loans, rebates, in-kind contributions, and other mechanisms that stimulate economic activity also will be reported with explanations of how the leveraged funds are tied to the retrofit program. Annual program spending beyond the three-year DOE funded period will be publicly reported.

Monitoring and Verification Plan

AE will use a replicable methodology to determine energy and water savings and the associated impacts on the utility's load and emissions profile which, in turn, will determine the value of the retrofit program to the City, the electric and water utilities, and program participants. AE currently uses a standardized process to predict and verify energy savings, water savings, and avoided emissions attributed to its energy efficiency and conservation programs.

AE will measure the impact of energy efficiency and conservation programs through utility bill analysis, monitoring consumption before and after the installation of efficiency improvements to determine savings and emissions avoided. Control groups will be used to determine if variables such as weather, occupancy, and electricity prices are attributing in part to future energy use of program participants. Identified adjustments based on those variables will be included in the calculation of energy savings. Expected savings for different measures will be compared to actual savings achieved to determine customer behavior changes after efficiency improvements are installed. For customers unable to achieve anticipated savings, follow-up visits will verify the measures were installed properly, and will inform customers about the potential for additional energy savings through behavior changes.

A team of engineers in the DSM division of AE, working with AE's Energy Market Analysis group, currently monitor DSM program participation and associated impacts on the utility's load and emissions profiles. Current program monitoring and verification processes will provide the basis for developing reporting guidelines for the retrofit program. AE will work with program partners to monitor and verify the impacts of measures adopted to improve the efficiency of applications that directly use water and gas. For large commercial customers, energy-saving companies (ESCOs) may assist in monitoring energy savings. Program performance measures will be reported to DOE quarterly and annually and program staff will work with DOE for research purposes as needed. Program participants will be annually provided with information on the cost and environmental benefits of their improvements.

Program Review and Improvement Plan

The program review and improvement plan is intended to encourage program success. Risk management strategies were previously identified in the "Implementation and Delivery Plan." Market, regulatory, and institutional barriers also will be evaluated to ensure program goals and objectives are met.

Potential *market barriers* include unwillingness of customers to participate in the program due to reluctance to incur debt on a property they may not intend to own very long, high loan interest rates, inability to acquire necessary public financing to support the PACE program, and inability for workforce to meet demand. Mitigation strategies for overcoming these barriers include establishing a debt service reserve fund and a loan support fund, using aggressive outreach and marketing strategies to educate property owners on the benefits of energy efficiency and encourage program enrollment, and holding workforce education and training sessions to build up the retrofit industry in Austin.

Potential *regulatory barriers* are primarily legal issues related to the use of PACE financing in Texas. Although enabling legislation has been passed in Texas that allows for PACE financing adoption, no city has yet done so. Mitigation strategies for overcoming regulatory barriers include involving all interested parties including City and AE lawyers, the City's Finance Department, and the Travis County Tax Assessor-Collector in the program team, working with the State Attorney General and Comptroller offices, and coordinating with other cities nationally that have adopted similar programs.

Potential *institutional barriers* include difficulty coordinating inter-departmental involvement, institutional resistance to DSM program re-design, and inability to manage increased DSM program demand. Mitigation strategies for overcoming these institutional barriers include designating clear project responsibilities to the City's Chief Financial Officer and AE's Vice President of Distributed Energy Services, active coordination and communication with Distributed Energy Services staff, acquiring collective buy-in from all involved departments and staff, and retaining outside parties to help administer the program and coordinate outreach and marketing efforts.

Quarterly and annual reports to DOE will provide the basis for a continuous improvement plan. Quarterly program review will include: (1) Distribution of quarterly reports to all program development and implementation team leads, City and Travis County, program support services, members of the regional

consortium, and implementation partners; (2) Execution of an open feedback process managed by the project director to discuss program improvements; (3) Continuous program review based on program goals, objectives, and expected impacts (actual impacts will be benchmarked against similar programs); (4) Actions to amend project plan, develop and update best practices, and update expected impacts; and (5) Distribution of an amended project plan to DOE and all program team members.

Project Compliance

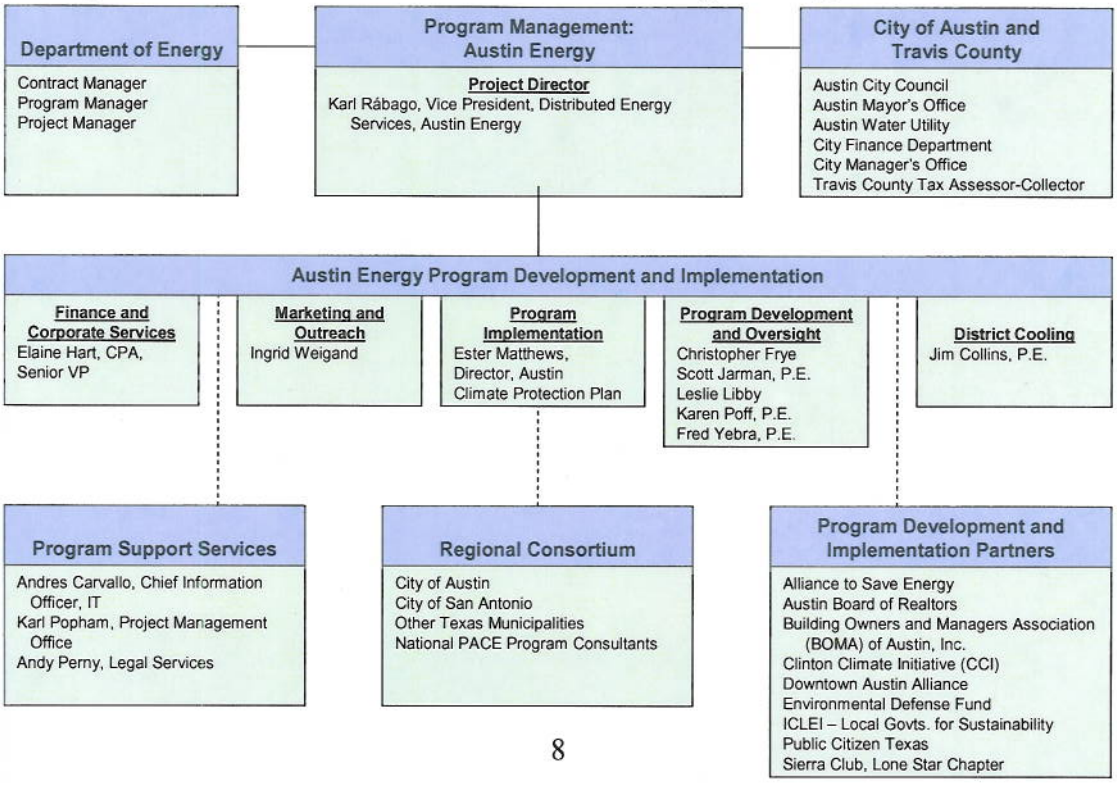
The project management team will ensure that all environmental, health, safety, and permitting requirements are met at all stages of the retrofit program. All approved retrofit contractors also must meet these compliance requirements. As indicated in the application's NEPA form, AE does not believe significant environmental and health issues will be associated with this program since all projects under this program will be retrofits of existing buildings. Asbestos exposure is an identified risk associated with building retrofits and the program management team will ensure that all contractors comply with the requirements of the Texas Department of State Health Services to ensure that building occupants and workers are not harmed by asbestos exposure. AE will report on compliance issues in its quarterly and annual reporting.

Partnership Structure and Capabilities (Merit Review Criterion 4)

Austin's strategic energy vision and aggressive climate protection goals have been described previously in this application. The City's confidence in achieving those goals is due in large part to the successful record the City and AE have had in implementing effective large-scale energy and water conservation and efficiency programs. As a result, Austin has an experienced cadre of retrofit contractors, as well as strong collaborative relationships with a variety of organizations that will be partners in program development and implementation. The program will build on the City's personnel and service delivery infrastructure already in place and will supplement those resources with third-party contractors selected through a rigorous competitive process. With its supportive community culture, existing program infrastructure, and history of success, Austin is well-positioned to move quickly to launch the next generation of energy efficiency retrofit initiatives spurred by PACE financing.

Project Management Plan

Figure 2: Austin Climate Protection Retrofit Program Organizational Chart



The Austin Climate Protection Retrofit Program will be implemented under the jurisdiction of the **City of Austin**. Austin City Manager Marc Ott, reporting to the Austin City Council, will have ultimate responsibility on behalf of the City for the administration of the DOE grant funds and the programs they support. Mayor Lee Leffingwell sponsored the City's October 22, 2009 resolution to pursue a PACE-type financing program in Austin, with unanimous Council support.

The City staff team will include senior executives and experienced managers from City departments who share a deep commitment to supporting Austin's aggressive climate protection goals. AE General Manager **Roger Duncan** reports directly to **City Manager Ott**, and he will have overall responsibility for AE's activities as lead agency in coordinating and executing the program. Mr. Duncan has more than two decades of experience in City government including two terms as a City Council Member. He also serves on the DOE State Energy Advisory Board as well as the Board of the Alliance to Save Energy. In 2005 he was named by *BusinessWeek* as one of the "Top 20 Individual Carbon Reducers in the World."

The project will be managed by **Karl Rábago**, Vice President of Distributed Energy Services (DES) for AE. Rabago will lead the inter-departmental Austin team and manage coordination with project partners and community stakeholders. Mr. Rábago serves as AE Executive Sponsor for Austin's "Project Energize," an inter-departmental project to develop property-assessed clean energy financing, and the Pecan Street Project Electricity Internet Demonstration Project, a comprehensive, regionally integrated smart grid project awarded under ARRA. Rábago will be the single point of contact with the DOE contract manager and with the Austin City Manager. He directs the Energy Efficiency Services, Green Building, Marketing Research and Product Development, Key Accounts, and Austin Climate Protection Plan Divisions within the DES group. In this capacity, Rábago will be able to provide unified, coordinated, and integrated oversight of the core AE programs related to the proposed project. Rábago is an industry leader in sustainable energy policies and the development of renewable energy technologies. He has served in executive positions in both the public and private sectors, including service as a Deputy Assistant Secretary at DOE for Utility Technologies, and he now is leading Austin's enhanced climate protection program. He will direct the activities of assigned AE managers and will coordinate with other City officials and the DOE.

Upon notification of DOE funding, the project team will be chartered by the City Manager. Rábago will be supported by certified project managers in **AE's Project Management Office.** They will ensure that the program capitalizes on AE's mature institutional project management system with well-defined policies and practices and a strong governance structure to guide oversight and facilitate decision-making. A project reporting system will track progress and be reviewed by the program team at least monthly.

The structure for the PACE program will be developed under the direction of the **City's Finance Department**, and **Elaine Hart**, Senior Vice President and Finance Officer for AE. Ms. Hart has extensive experience in public finance and bond financing. Financial advisors and bond counsel for the City are already engaged in researching financing options available to the City. **AE Legal Services** under **Andy Perny**, will oversee legal issues and assure compliance with recent Texas legislation allowing municipalities in Texas to offer PACE financing, coordinating with the Travis County Tax Assessor-Collector's Office to establish the appropriate mechanism and process for collecting payments.

The **Austin Climate Protection Plan Team**, headed by **Ester Matthews**, will lead outreach and community communications in conjunction with staff from AE, AWU, and program partners. The Climate Protection Plan Team has responsibility for the City's Climate Protection Plan, with a focus on integrating the City's environmental and energy programs. Ms. Matthews has extensive knowledge of central Texas local and state government, and has served in local government for over 20 years.

AE's Energy Efficiency Services Division has responsibility to provide the portfolio of energy efficiency, demand response, and load management customer offerings. This group will coordinate marketing and program offerings with Texas Gas Service, AWU, and local municipalities served by AE. Program development and oversight will be carried out by AE's most experienced senior managers under the direction of **Fred Yebra**, P.E., Director of DSM. Mr. Yebra has over 25 years of experience in designing, implementing, and evaluating successful DSM and renewable energy programs throughout Texas in both private and public sector positions.

AE's Information Technology & Telecommunications group will support technical aspects of program implementation including software integration, data integrity, cyber security compliance, and operational support. The ITT team is directed by **Andres Carvallo**, CIO, an experienced IT executive who has been recognized nationally for his innovative work in developing the "utility of the future."

To ensure collaboration and sharing of best practices among Texas cities that will be offering PACE financing and other energy efficiency financing programs, Austin will work to establish a **Regional Consortium on Energy Efficiency Financing Best Practices** with representatives of interested Texas cities. **ICLEI** – Local Governments for Sustainability – has a Houston office and has already volunteered to participate and to assist other local governments in Texas in institutionalizing PACE financing mechanisms. Their network will provide an immediate forum for information sharing and recognition that will encourage consistency and effectiveness in approach throughout the state.

The U.S. Department of Energy will provide overall project oversight to ensure that the project meets ARRA and DOE goals and requirements. DOE will facilitate coordination with other institutions with mutual interests, advise on best practices, and review project changes and quarterly and annual reports.

Program design and marketing **partners** representing public and private interests will provide resources to encourage participation from different customer bases. Letters of support from these partners are provided with this application and their role is briefly discussed in the "Role of Participants" section.

Project Impact (Merit Review Criterion 2)

The Austin Climate Protection Retrofit Program will achieve unprecedented participation by building upon AE's existing energy efficiency programs, enabling new financing mechanisms, using aggressive marketing and outreach, and taking advantage of Austin's ECAD ordinance that requires thousands of energy audits and ratings to be conducted over the project period. ECAD was approved by the Austin City Council to improve the energy efficiency of homes and buildings that are served by AE. It requires energy audits of existing residences at the point-of-sale and all multi-family properties by June 1, 2011. It also requires energy ratings for all commercial buildings by June 1, 2011. This ordinance guarantees that a significant number of energy audits and ratings will be conducted during the three-year DOE-funded project period. A provision requiring mandatory retrofits of multi-family units deemed to have excessive energy use also will ensure a supply of retrofit opportunities. AE will use the audits and rating results to promote the retrofit program and provide options for property owners to complete retrofits. Additionally, the City has committed by Resolution passed in 2007 to make all City facilities carbon-neutral by 2012.

The retrofit program is intended to expand and complement AE's overall DSM program to achieve community-wide energy savings and greatly surpass the utility's achievements to date, establishing the critical mass necessary to develop a sustainable retrofit industry locally and regionally. This program will benefit from economies of scale as the program is ramped-up and those economies will reduce overhead and transaction costs for AE's DSM programs and ensure a sustainable program. Program staff will work with contractors and construction-related retailers to achieve cost savings for program participants by establishing a program participant discount program. The increase in retrofits will stimulate the energy efficiency and renewable energy installation business in Austin, increase competition, and thus lower

program and participant costs. Additionally, the increased scope of work for this program will allow marketing and administration costs to be allocated over more savings, thus achieving lower unit costs for program inputs. The initial funding for program development will increase the quality of program design, accelerate development, and thus achieve cost savings in the long run. Implementing more energy efficiency measures through deep retrofits and increasing funding volume will achieve economies of scale and scope and will exploit the synergies created when multiple measures are implemented at one time.

The analysis below projects the impact of the program by number of building retrofits, energy use, utility costs, and air pollutant emissions and water usage. The projected number of building retrofits expands upon the number of participants in AE's current DSM programs. Acknowledging that widespread participation enabled by PACE financing holds some risk for increased mortgage default, the City proposes to mitigate risks by gradually scaling-up the program, establishing a debt service reserve fund for late or non-payments, establishing a loan support fund to lower interest rates, and setting requirements that will prevent persons who may be at risk of default from participating in the program. The program participation requirements identified above in the "Project Plan" will protect the lender and borrower. Development of the program will follow the best practice guidelines established in the "Policy Framework for PACE Loan Programs" document released by the White House. Homeowners will be required to read and sign disclosures on applicable federal and state consumer laws and identified risks to the property owner from participating in the program. Energy retrofits will be required to "pay for themselves" by requiring an overall average savings to investment ratio from energy efficiency and integrated renewable energy improvements of greater than one. Thus, the expected average monthly utility savings to the property owner will be greater than the expected repayment. All program participants will be required to have an energy audit conducted that will include the benefit-cost ratio for each eligible improvement. The most cost-effective improvements will be encouraged with certain energy efficiency improvements required to be selected prior to the eligibility of renewable energy improvements for financing. The monitoring and verification process outlined in this application will ensure that the improvements achieve the expected outcomes. A quality assurance program will require qualified raters to follow-up on improvements done by different approved contractors to ensure improvements were installed properly. If the follow-up does not meet set standards the contractor will be required to fix the work at no cost. Payment will be withheld until the work is completed and approved. Since AE will require an approved contractor to be selected, the threat of disqualification from the program will create an incentive for contractors to meet the program's standards.

Quantitative Analysis

AE measures the performance of its DSM programs by evaluating annual program participation, annual peak demand reduction (MW), annual energy savings (MWh), and emission reductions attributed to its programs. Annual reporting also includes an evaluation of goals vs. outcomes, program expenditures, benefit-cost analysis, net present value analysis, and expenses for demand reduction ($/kW). Table 1 projects the number of retrofits during the three-year project period and an expected annual enrollment in the program in the out-years by customer type. Assumptions related to expected enrollment by customer type are included with the Project Impact Table included separately with this grant application. Assumptions for project impact are considered reasonable given current participation in AE's rebate programs, projected impact of the ECAD ordinance, and aggressive marketing and outreach proposed.

Table 1: Projected Program Enrollment by Customer Type

				Number of Buildings Retrofitted				
Customer Type	# in City of Austin	Avg. Square Footage	# of ECAD Audits or Energy	Year 1	Year 2	Year 3	Total	Annual Post Project Period
Single-Family	144,659	1,779	12,000	1,808	1,808	1,808	5,425	1,808
Multi-Family (units)	84,620	701	62,041	1,058	1,058	1,058	3,173	1,058
Small Commercial	5,420	7,786	4,806	68	136	203	407	203
Large Commercial	834	77,468	652	10	21	31	63	31
Total	235,533	1,798	79,499	2,944	3,022	3,101	9,067	3,101

Table 2 shows the projected annual energy and demand savings, annual cost of retrofits, and projected annual cost savings based on program enrollment by customer type and the assumptions identified in the Project Impact Table included separately with this grant application. Again, these estimates are consistent with the current performance of AE's energy efficiency programs considering the additional measures that will be eligible under the retrofit program. Demand savings are consistent with expected impacts from retrofits under AE's Home Performance with ENERGY STAR® program.

Table 2: Projected Energy and Cost Impacts

Impact	Year 1	Year 2	Year 3	Total	Annual Post Project Period
Annual Energy Savings (MWh)	34,496	53,949	73,402	161,846	73,402
Annual Peak Demand Savings (MW)	10	16	22	48	22
Cost of Retrofits ($)	42,751,641	50,276,641	57,801,641	150,829,922	57,801,641
Utility Rebates ($)	8,550,328	10,055,328	11,560,328	30,165,984	11,560,328
Pace Financing ($)	27,361,050	32,177,050	36,993,050	96,531,150	36,993,050
Annual Utility Bill Savings ($)	3,273,822	5,043,381	6,812,940	15,130,143	6,812,940

Table 3 summarizes the projected environmental savings attributed to the retrofit program including water conservation and nine environmental impacts related to the release of air pollutants and toxic metals. AE has developed a pollution calculator that is updated annually to determine the environmental savings from its DSM programs. AE's pollution calculator was used in this analysis to determine a baseline for the potential environmental savings of the retrofit program. The AE pollution calculator evaluates the load shapes and program participation for each DSM program for a given year to determine the generation displaced by the program based on an hourly dispatch model of AE's generation facilities. The cumulative impacts of all of AE's DSM programs are used to determine the average impact of a kilowatt-hour (kWh) of energy savings.

Table 3: Projected Environmental Benefits

Environmental Benefit	Measure	Year 1	Year 2	Year 3	Total	Annual Post Project Period
CO2 Emissions Avoided	Metric Tons	20,352	31,830	43,307	95,489	43,307
SO2 Emissions Avoided	Metric Tons	13	20	27	60	27
NOx Emissions Avoided	Metric Tons	14	22	30	66	30
VOC Emissions Avoided	Metric Tons	0.5	0.7	1.0	2.2	1.0
PM Emissions Avoided	Metric Tons	1.7	2.7	3.7	8.1	3.7
CO Emissions Avoided	Metric Tons	10	33,988	46,243	80,241	46,243
Mercury Emissions Avoided	Grams	272	426	579	1,277	579
Cadmium Emissions Avoided	Grams	0.001	0.002	0.003	0.005	0.003
Lead Emissions Avoided	Grams	403	630	857	1,890	857
Water Conserved	Gallons	15,523,040	24,276,896	33,030,752	72,830,687	33,030,752

Replication

The City intends to design the retrofit program in a manner that can be replicated regionally and nationally. By developing a program that provides a comprehensive menu of financing options any municipality can arrange for similar financing mechanisms to be made available to members of their community, independent of the relationship of the electric utility or utilities serving the community with the municipality. Since the City owns its electric utility, AE, it is easily able to coordinate the integration of PACE financing into AE's existing DSM program offerings. The PACE financing component of the retrofit program can be implemented by any municipality that has the authority to establish an energy financing district, or similar mechanism for PACE financing adoption.

The State of Texas only recently passed enabling legislation for the PACE approach and no municipality has yet to formally establish a mechanism for implementation. The City intends to be one of the first, if

not the first, municipality in Texas to establish this financing mechanism. As an early adopter, the City believes it has a responsibility to coordinate with other major cities in Texas in implementing best practices. Austin intends to work with other Texas cities to establish the Regional Consortium on Energy Efficiency Best Practices. This consortium will initially meet monthly as similar programs are being developed around the state. The City plans to take the lead through its Austin Climate Protection Retrofit Program to release a Best Practices Manual before the third year of the project. The regional consortium will provide a forum for information sharing and recognition that will encourage consistency and effectiveness in approach throughout the state. The City will work closely with ICLEI and the Clean and Efficient Energy Program, a partnership of the Alliance to Save Energy, the American Public Power Association, and the Large Public Power Council to share best practices and information on the performance of its retrofit program. With offices nationwide, these partnerships will have the ability to promote similar programs to be developed nationwide and encourage enabling government action to develop energy financing districts.

AE annually publishes performance measures on its DSM programs, and will work to produce quarterly and annual reports on the retrofit program. Information approved by the DOE to be released publicly will be available on the program's website so that other municipalities and utilities nationwide can access the information. Additional program promotion will be enabled by participation from program staff in national conferences and seminars on the findings of the retrofit program. AE is very actively engaged in regional and national organizations and participates regularly in conferences and other opportunities for collaboration. A conference will be organized at the end of the three-year funded project term to provide information to interested municipalities and other entities on the experiences of the retrofit program.

Leveraging Funds and Program Sustainability (Merit Review Criterion 1)

The Austin Climate Protection Retrofit Program would be established with ARRA stimulus funding through the Retrofit Ramp-up Program. By developing a host of new financing options, particularly the PACE mechanism, property owners in the City will have new opportunities to save energy and thus reduce their electric bills. These financing mechanisms will accelerate participation in deep energy efficiency retrofits in Austin, projected to amount to over $150 million in retrofit costs over the three-year DOE-funded project period. The City is requesting $20.43 million in funding from DOE to develop the program, boost marketing and outreach, establish a debt service reserve fund and loan support fund, and launch a PACE financing program. The bulk of leveraged funds will come from the total cost of retrofits financed through the program. Other leveraged funds will include in-kind contributions from the City, AE, and partners, utility rebates, federal tax credits, energy audits performed under ECAD, and other EECBG funds already awarded to the City. Table 4 shows the leveraged funds by type. The leveraged funds included in this estimate would result in 8.78 dollars leveraged for every dollar of federal funding.

Table 4: Leveraged Funds (in $millions)

Leverage Fund Type	Year 1	Year 2	Year 3	Total
PACE Loan Amonts (Public)	18.73	19.79	20.86	59.38
PACE Loan Amonts (Private)	2.11	4.22	6.33	12.67
In-Kind Contributions	1.39	1.36	1.36	4.10
Non-PACE Financed Retrofits	8.84	10.04	11.25	30.13
Rebates	8.55	10.06	11.56	30.17
Federal Tax Credits	6.52	8.16	9.80	24.49
ECAD Energy Audits and Ratings	1.48	1.48	1.20	4.17
Previously Awarded EECBG Funds	6.65	6.65	0.00	13.30
Total	54.27	61.77	62.36	178.39
Ratio (EECBG to Leveraged)				8.78 : 1

AE has been stimulating energy efficiency market transformation for the last two decades through its innovative and aggressive DSM programs (not counted here, but critical to the success of AE's efforts is the approximately $200 million spent on energy efficiency programs over the last 20 years in the City, and $23 million annual DSM budget). AE intends to develop a sustained program that builds upon its

existing programs and leverages staff expertise and experience. Building the retrofit program into AE's existing DSM program portfolio will keep administrative costs low. To accelerate program participation and rapidly create jobs and reach economies of scale, the City intends to use DOE funding to fund up-front application costs for potential program applicants. The City intends to continue the retrofit program beyond the three-year project period, passing on administrative costs to program applicants. The experience gained over the first three years of PACE financing will reduce overhead and transaction costs and minimize applicant costs after the initial DOE-funded project period is completed. The City and AE are committed to creating a program that can be sustained indefinitely and change the market for retrofitting in Austin. Through its Green Building Program, aggressive building code standards, commitment to carbon-neutrality for all municipal buildings, and innovative city regulations such as ECAD, the City has already developed a sustainable new local building industry. The City's commitment to making every new residence or major retrofit project zero-energy capable through the addition of rooftop solar PV by 2015 demonstrates a sustained commitment to developing the codes to transform the market, reduce energy demand, and benefit the environment.

Project Plan

Project Year 1 (2Q 2010 – 1Q 2011)

During the first three months of the project, market research will be conducted by AE's Market Research & Product Development Department to assess the financial market and potential demand from customers for participation in the retrofit program. This research will provide a knowledge base for program design and development and it will lower risks associated with the uncertainty of initial and continued interest in the program. Components of this phase include surveying customers to determine demand, analyzing financial market conditions including bond markets, conducting work sessions and focus groups with different customer types, assessing the state of the retrofit workforce in Austin, and other forms of stakeholder engagement to assess interest, knowledge, and potential participation in the program from AE customers by market segment. Additional research tasks will include analysis of secondary data such as appraisal district data, existing construction stock, and economic data to assess current and anticipated labor supply. The City Finance Department and AE will analyze options to establish the PACE mechanism in coordination with the Travis County Tax Assessor-Collector. Program staff coordinated by the Austin Climate Protection Program will engage with other municipalities in Texas to develop a regional consortium that will share information learned from the development of the City's retrofit program and other energy efficiency programs being developed statewide.

Within four months, the previous work will have formed the basis for rapid implementation of the retrofit program. Rules will be adopted establishing the PACE financing mechanism and recognizing eligible improvements. A televised public hearing will provide information to customers about the retrofit program and will allow the public to ask questions, offer suggestions, and actively engage in the final development of the program. This will serve as the first major *decision point* of the program.

The program initiation/development will be completed within six months to enable the first round of customer enrollment to commence in October 2010. Program development staff will include the following AE departments: the City's Climate Protection Plan, Demand-Side Management, Finance and Corporate Services, Green Building, Key Accounts, Marketing and Outreach, and Market Research & Product Development. All of these departments are managed by AE's Project Director other than Finance and Corporate Services. Managers of these departments will be key project team members and will meet regularly during the six-month program design and development period to coordinate roles.

A *potential key task* will be solicitation of a third-party administrator for certain program tasks, including development of a program website, intake and processing of applications, and development of unique measurement and verification tools. An experienced third-party administrator will be able to efficiently

manage the program and thus reduce program costs. The City will issue a Request for Proposals to administer certain tasks of the retrofit program and will aim to execute a contract within four months of grant award. The project team will provide the third-party with the information obtained through market research and stakeholder engagement allowing the third-party to anticipate program demand and develop online and in-person tools. Program staff also will work with the third-party administrator to implement best practices and design an effective program to ensure success once the program is launched.

The first major *goal* of the program is to begin enrollment by October 2010, six months from project initiation. During the previous three months, project staff will conduct initial marketing and outreach and workforce development. The City and AE financial teams will oversee development of the program loan funding mechanisms. An interactive website will be launched that will link to AE information on its rebate programs as well as the launch of a state-of-the-art website already in development for managing participation in AE's DSM programs. Other marketing approaches are discussed in the "Outreach and Marketing Strategy" discussion above. The purpose of the initial marketing and outreach is to make all customer types aware of the new program offering, stimulate interest, and engage stakeholders. Program staff will assess the workforce supply and ensure that the retrofit workforce is prepared to handle the initial increase in jobs created by this program. AE already has strong relationships with construction-related retailers and contractors and will build on these to coordinate outreach. Workshops and training for contractors will be conducted to reduce risks of under-supply once the program is launched.

Quarterly and annual *deliverables* will be provided to the DOE that include reporting on program impact, monitoring and verification results, program review and improvement plans, and information obtained through the regional consortium and other partnerships. Annual review of the program will serve as *decision points* for determining if the program proceeds as planned or needs to be re-designed.

Project Year 2 (2Q 2011-1Q 2012)

The program will be fully developed during the first six months of the project, culminating in project launch. In Project Year 2 a key focus will be on anticipating and securing the necessary amount of financing necessary for program applicants. The first project year's annual report will provide an initial assessment of the program's successes and challenges. All program team members, project partners, and members of the regional consortium will be involved in the development of the annual report and the subsequent improvement plan. The annual report will be used for the first stage of program improvement. The second year of the project will primarily consist of continued program administration, but with a higher expected number of commercial participants. Therefore, marketing and outreach efforts will likely be more aggressive during the second year of the project. A *major deliverable* that will conclude the second year of the project will be the development and release of a Best Practices Manual for municipal energy efficiency financing programs. This manual will be coordinated by the retrofit program team, but will also involve private and public partners and members of the regional consortium. This manual will first be provided to the DOE for review and then released to the public by the end of the second project year.

Project Year 3 (2Q 2012-1Q 2013)

By project year 3 the program staff will have obtained much experience with the process of financing and administering the program, and working with customers to ensure satisfaction. The *major task* associated with this project year is a major review and improvement of the plan based on the experiences of high intake of applicants which will have occurred during the second year of the project. Ensuring that all risks associated with the program are addressed and mitigated will be a key component of this evaluation. The third year of the project will continue tasks that occurred during the second year. A *major task and deliverable* that will conclude the third, and final year of DOE-funding, will be a conference on program results. This conference will be managed by Austin staff and will provide a forum for representatives of municipalities and utilities to learn from the results of the Austin Climate Protection Retrofit Program.

This will be helpful for municipalities and utilities that have or are in the process of developing similar programs.

Out-years (2Q 2013–indefinitely)
After the DOE-funded period of the project ends, AE will continue to manage the program through its operating budget and it is anticipated that the third-party administrator will be retained. It is likely that program costs will be transferred on to applicants through an application fee.

The following milestones are designed to ensure the timely completion of project objectives and goals:
Milestone 1: Adoption of PACE Financing Mechanism by City Council Resolution; Completion: Within 6 months of the initiation of the project.
Milestone 2: Launch Interactive Website to inform public of financing mechanisms; Completion: Within 6 months of the initiation of the project.
Milestone 3: Program Launch through a fair and equitable enrollment process; Completion: Within 6 months of the initiation of the project.
Milestone 4: 1st Year Program Performance; Implementation and Completion: 1 year from the initiation of the project.
Milestone 5: Release Best Practices Manual to facilitate program replication; Completion: Within 2 years of the initiation of the project.
Milestone 6: 2nd Year Program Performance; Completion: 2 years from the initiation of the project.

Expected *outcomes* of the program are addressed in the "Project Impact" analysis provided with this application. These will be used as benchmarks to assess annual program performance.

There are several reasons the proposed project organization detailed in the "Project Management Plan" section of this application will facilitate success:

1. All affected departments within the City and Travis County will be involved with the program.
2. AE's experienced Vice President of Distributed Energy Services will direct the project with significant staff support. AE has extensive experience developing effective energy efficiency programs, and assigned program staff have previously worked together on other major programs.
3. The Austin Climate Protection Plan staff has a community-wide scope and will coordinate with City and County staff and work with the community to enhance program effectiveness.
4. An experienced third-party administrator could increase program effectiveness and lower transaction costs.
5. Contracted marketing and outreach staff will allow new and innovative approaches to program marketing to address specific needs and demand of the retrofit program.
6. The Regional Consortium of Energy Efficiency Financing Best Practices will provide a forum for sharing information and developing best practices for energy efficiency financing programs.
7. Diverse project partners will provide critical insight into the needs of different customer types and will provide a bridge between the program staff and the customers to facilitate success.

Spending Plan

Table 5 shows the requested funding relative to projected leveraged funds. This project is expected to leverage $8.78 for every federal dollar received during the three-year DOE funding period.

Table 5: EECBG Funds v. Leveraged Funds (in $millions)

Project Year 1		Project Year 2		Project Year 3		Total		Ratio	
EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged
14.66	54.27	2.75	61.77	3.05	62.36	20.46	178.39	8.72	1.00

Table 6 is a more detailed high level quarterly spending plan for the Austin Climate Protection Retrofit Program distinguishing between EECBG grant funds and leveraged funds.

Table 6: High Level Quarterly Spending Plan (in $millions)

Project Year 1

	2Q 2010		3Q 2010		4Q 2010		1Q 2011		Total	
Task/Leverage	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged
Market Research	0.10	0.01	-	-	-	-	-	-	0.10	0.01
Financing Option Analysis and Evaluation	0.10	0.06	-	-	-	-	-	-	0.10	0.06
Integrated Audit, Monitoring and Verification Tools	0.38	-	0.38	-	-	-	-	-	0.75	0.00
Program Design	0.21	0.10	0.21	0.10	-	-	-	-	0.42	0.20
Marketing and Outreach	0.46	0.03	0.16	0.03	0.16	0.03	0.16	0.03	0.95	0.10
Workforce Development	0.04	0.02	0.04	0.02	0.04	0.02	0.04	0.02	0.17	0.07
ITT and Technical Support	0.05	0.01	0.05	0.01	0.05	0.01	0.05	0.01	0.21	0.05
Regional Consortium/Best Practices	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01
Website Development	-	-	0.10	-	-	-	-	-	0.10	0.00
Debt Service Reserve Fund	-	-	4.68	-	-	-	-	-	4.68	0.00
Loan Support Fund	-	-	4.00	-	-	-	-	-	4.00	0.00
Applicaton Intake and Processing	-	-	0.08	-	0.21	-	0.21	-	0.49	0.00
Initial Legal and Financing Expenses	-	-	1.80	-	-	-	-	-	1.80	0.00
Tax Service Expenses	-	-	-	-	0.10	-	0.10	-	0.21	0.00
Program Administration and Reporting	-	-	-	-	0.21	0.10	0.21	0.10	0.42	0.20
Residential/Small Comm. PACE Retrofits	-	-	-	-	-	9.36	-	9.36	0.00	18.73
Large Commercial PACE Retrofits	-	-	-	-	-	1.06	-	1.06	0.00	2.11
Other Retrofits	-	-	-	-	-	3.42	-	3.42	0.00	6.84
Rebates	-	-	-	-	-	4.28	-	4.28	0.00	8.55
Federal Tax Credits	-	-	-	-	-	3.26	-	3.26	0.00	6.52
Energy Star® Loan Program	-	0.50	-	0.50	-	0.50	-	0.50	0.00	2.00
ECAD Energy Audits and Ratings	-	0.37	-	0.37	-	0.37	-	0.37	0.00	1.48
Partner Contributions (In-Kind)	-	0.13	-	0.13	-	0.13	-	0.13	0.00	0.52
Previously Awarded EECBG Funds	-	1.66	-	1.66	-	1.66	-	1.66	0.00	6.65
Fringe Benefits	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.21	0.17
Total	1.44	2.93	11.55	2.86	0.83	24.24	0.83	24.24	14.66	54.27

Project Year 2

	2Q 2011		3Q 2011		4Q 2011		1Q 2012		Total	
Task/Leverage	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged
Marketing and Outreach	0.12	0.03	0.12	0.03	0.12	0.03	0.12	0.03	0.50	0.10
Workforce Development	0.04	0.02	0.04	0.02	0.04	0.02	0.04	0.02	0.17	0.07
ITT and Technical Support	0.05	0.01	0.05	0.01	0.05	0.01	0.05	0.01	0.21	0.05
Regional Consortium/Best Practices	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Application Intake and Processing	0.12	-	0.12	-	0.12	-	0.12	-	0.48	0.00
Legal Expenses	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.10	0.04
Tax Service Expenses	0.06	-	0.06	-	0.06	-	0.06	-	0.24	0.00
Program Administration and Reporting	0.21	0.10	0.21	0.10	0.21	0.10	0.21	0.10	0.84	0.40
Residential/Small Comm. PACE Retrofits	-	4.95	-	4.95	-	4.95	-	4.95	0.00	19.79
Large Commercial PACE Retrofits	-	1.06	-	1.06	-	1.06	-	1.06	0.00	4.22
Other Retrofits	-	2.01	-	2.01	-	2.01	-	2.01	0.00	8.04
Rebates	-	2.51	-	2.51	-	2.51	-	2.51	0.00	10.06
Federal Tax Credits	-	2.04	-	2.04	-	2.04	-	2.04	0.00	8.16
Energy Star® Loan Program	-	0.50	-	0.50	-	0.50	-	0.50	0.00	2.00
ECAD Energy Audits and Ratings	-	0.37	-	0.37	-	0.37	-	0.37	0.00	1.48
Partner Contributions (In-Kind)	-	0.13	-	0.13	-	0.13	-	0.13	0.00	0.52
Previously Awarded EECBG Funds	-	1.66	-	1.66	-	1.66	-	1.66	0.00	6.65
Fringe Benefits	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.21	0.18
Total	0.70	15.44	0.69	15.44	0.69	15.44	0.69	15.44	2.75	61.77

Project Year 3

	2Q 2012		3Q 2012		4Q 2012		1Q 2013		Total	
Task/Leverage	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged	EECBG	Leveraged
Marketing and Outreach	0.12	0.03	0.12	0.03	0.12	0.03	0.12	0.03	0.50	0.10
Workforce Development	0.04	0.02	0.04	0.02	0.04	0.02	0.04	0.02	0.17	0.07
ITT and Technical Support	0.05	0.01	0.05	0.01	0.05	0.01	0.05	0.01	0.21	0.05
Regional Consortium/Best Practices	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Application Intake and Processing	0.14	-	0.14	-	0.14	-	0.14	-	0.54	0.00
Legal Expenses	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.10	0.04
Tax Service Expenses	0.07	-	0.07	-	0.07	-	0.07	-	0.27	0.00
Program Administration and Reporting	0.21	0.10	0.21	0.10	0.21	0.10	0.21	0.10	0.84	0.40
Residential/Small Comm. PACE Retrofits	-	5.21	-	5.21	-	5.21	-	5.21	0.00	20.86
Large Commercial PACE Retrofits	-	1.58	-	1.58	-	1.58	-	1.58	0.00	6.33
Other Retrofits	-	2.31	-	2.31	-	2.31	-	2.31	0.00	9.25
Rebates	-	2.89	-	2.89	-	2.89	-	2.89	0.00	11.56
Federal Tax Credits	-	2.45	-	2.45	-	2.45	-	2.45	0.00	9.80
Energy Star® Loan Program	-	0.50	-	0.50	-	0.50	-	0.50	0.00	2.00
ECAD Energy Audits and Ratings	-	0.30	-	0.30	-	0.30	-	0.30	0.00	1.20
Partner Contributions (In-Kind)	-	0.13	-	0.13	-	0.13	-	0.13	0.00	0.52
Conference on Program Results	-	-	-	-	-	-	0.20	-	0.20	0.00
Fringe Benefits	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.21	0.18
Total	0.72	15.59	0.71	15.59	0.71	15.59	0.91	15.59	3.05	62.36

Austin Climate Protection Retrofit Program Project Timetable

		Year 1				Year 2				Year 3				Post DOE Funding Period
Task Number	Tasks	2Q 2010	3Q 2010	4Q 2010	1Q 2011	2Q 2011	3Q 2011	4Q 2011	1Q 2012	2Q 2012	3Q 2012	4Q 2012	1Q 2013	2Q 2013 and beyond
1	**Preliminary Tasks**													
1.1	Market Research													
1.1.1	Customer polling													
1.1.2	Financial market analysis													
1.1.3	Customer sessions and behavior analysis													
1.1.4	Stakeholder engagement													
1.1.5	Workforce assessment													
1.1.6	Release market research report		◆											
1.2	Financing Option Analysis and Evaluation													
1.2.1	Finalize financing options		◆											
1.3	Austin City Council Commitment to Program		◆											
1.4	Establish Debt Service Reserve Fund		◆											
1.5	Develop Regional Consortium													
1.5.1	Formally Establish Regional Consortium		◆											
1.6 (Milestone 1)	Austin City Council Resolution Establishing PACE financing mechanism and eligible improvements		◆											
1.7 (Decision Point)	Public hearing on program		◆											
2	**Program Development**													
2.1	Program Design													
2.1.1	Program design for each customer type													
2.2	Develop financing plan for progam													
2.3	Marketing and Outreach Design													
2.3.1	Marketing and outreach program for each customer type													
2.4	Stakeholder engagement													
2.5	Third-Party Administration													
2.5.1	Issue RFP	◆												
2.5.2	Execute contract		◆											
3	**Program Deployment**													
3.1	Establish Loan Support Fund		◆											
3.2	Initial Marketing and Outreach													
3.2.1 (Milestone 2)	Launch interactive website		◆											
3.2.2	Promotion via traditional media													
3.2.2	Face-to-face customer meetings													
3.2.3	Community information sessions													
3.2.4	Social media development													
3.2.5	Stakeholder engagement													
3.2.6	Outreach by project partners													
3.3	Workforce Development Plan and Outreach													
3.3.1	Workshops and Training for Contractors													
3.4 (Milestone 3)	**Program Launch - October 1, 2010**			◆										
3.5	Application Intake and Processing													
3.6	Continued Marketing and Outreach													
3.7 (Milestone 4)	1st Round of Applicants													
3.8 (Milestone 5)	2nd Round of Applicants													
3.9 (Milestone 7)	3rd Round of Applicants													
3.1	Continued Program													
4	**Program Evaluation and Improvement**													
4.1	Measurement and Verification													
4.2	Quarterly and Annual Reporting													
4.3	Quarterly Regional Consortium Meetings													
4.4 (Milestone 6)	Release Best Practices Manual									◆				
4.5 (Decision Points)	Annual Program Review and Redesign				◆				◆				◆	
5	**Program Promotion**													
5.1	Conference on Program Results												◆	
5.2	State and National Promotion of Program to Encourage Replication and Promote Best Practices													

Relevance and Outcomes/Impacts

The previous merit review discussion demonstrates that the proposed program will achieve the objectives of the Retrofit Ramp-up Program and the EECBG Program. These programs are consistent with the City's recognition of energy efficiency as the cheapest, cleanest, and most reliable energy option and with Austin's leadership in clean energy technologies and climate change policies. The proposed retrofit program is intended to open up new opportunities for financing energy efficiency improvements for all types of customers. It will transform the local energy efficiency and clean energy market, consistent with the City's involvement with transformational public-private projects such as the Pecan Street Project, a non-profit corporation with the goal of advancing smart grid and clean energy technologies. Innovative marketing strategies coupled with partnerships with non-profit organizations and private sector institutions will drive accelerated and sustained growth in the energy efficiency market that will reach even the traditionally hardest-to-reach customers. Having a municipally-owned utility enables Austin to expedite new programs that require coordination with the electric service provider, and Austin's recent commitment to the PACE financing mechanism indicates this program is ready for implementation.

Austin is deeply committed to the objectives of this program and sees the development of this retrofit program as both exciting and necessary. The projected impacts of this program demonstrate measurable and deep impacts on the local economy. The proposed program aligns with the strategic plan of AE and the climate protection goals of the City and enables new opportunities to reduce energy demand and climate impact. Austin continues to develop policies and business practices that encourage energy efficiency first, and clean energy thereafter. Austin's 2007 Climate Protection Plan directs staff to "update building codes for new buildings to be the most energy-efficient in the nation." For commercial buildings, this means increasing energy efficiency in commercial buildings by 75 percent. For residential construction, Austin is aiming for all new single-family homes to be zero energy-capable by 2015, meaning that the home is efficient enough that adding on-site generation is cost-effective. To achieve these goals, Austin will update its energy code every three years. The newest energy code, which should be adopted in early 2010, will be the 2009 IECC with local amendments, including mandatory building commissioning for commercial buildings and adoption of ANSI/ASHRAE/IESNA Standard 90.1. AE's Green Building Program focuses on code development and enforcing code compliance in new buildings. Encouraging energy efficiency improvements in existing buildings can be more challenging, but the city's innovative ECAD ordinance will spur awareness of the importance of energy efficiency. The proposed program complements the ECAD ordinance, providing new mechanisms to finance potential energy efficiency improvements identified by required audits and energy ratings.

Roles of Participants

As demonstrated by the letters of support provided with this grant application, Austin is bringing together diverse non-profit and private partners to develop outreach strategies and best practices for the retrofit program. Program design and marketing partners include the Alliance to Save Energy, the Austin Board of Realtors, the Building Owners and Managers Association (BOMA), the Clinton Climate Initiative (CCI), the Downtown Austin Alliance (DAA), Environmental Defense Fund, ICLEI, Public Citizen, and the Sierra Club. BOMA, the Downtown Austin Alliance, and the Clinton Climate Initiative will focus on the commercial market, actively participating in program design and outreach to both their membership and to the financial community. BOMA and the Clinton Climate Initiative have an ongoing partnership designed to help overcome market barriers to energy retrofits in the commercial sector; they have agreed to help support Austin in marketing and implementing the enhanced deep retrofit program. The Austin Board of Realtors and the mortgage lending community will focus on outreach to the residential sector, using Austin's aggressive ECAD as a motivational tool to encourage deep retrofits. Regional environmental groups have committed to actively providing policy support and marketing assistance to the program. Their communication networks will be valuable in spreading the word initially and in recognizing participant success as the program progresses.

American Recovery and Reinvestment Act Information

The Austin Climate Protection Retrofit Program will significantly promote and enhance the objectives of the American Recovery and Reinvestment Act (ARRA) by using DOE funds for project initiation and development while leveraging private financing and other sources of funding. Austin has developed an aggressive project plan and timetable that will allow for enrollment in the retrofit program to begin within six months of project award. AE will continue to promote its existing portfolio of DSM programs while developing new staff and the resources necessary for successful program launch. City jobs, contract opportunities, and build-up of the workforce will all occur immediately upon announcement of award. The City believes that it is uniquely positioned to rapidly move forward with the retrofit program and quickly stimulate the local, regional, and national economies. Establishment of the retrofit program will provide new financing opportunities for Austin property owners that will stimulate rapid growth in the green jobs industry in Austin. By providing information on the retrofit program's learning experience, developing best practices, and engaging partners to promote similar program development around the State of Texas and the United States, this program can create increased awareness and renewed interest from all types of property owners in the economic and environmental benefits of energy efficiency retrofitting and clean energy technologies. To ensure adequate development of the workforce necessary to achieve the goals and objectives of the retrofit program, workforce development outreach is budgeted in this grant application. AE has strong relationships with local contractors through its existing DSM programs and will use those relationships to inform and prepare the green job workforce for a new market in energy efficiency services. Indeed, AE has already begun job training and contractor certification programs under the EECBG Weatherization grant program.

This program will create and preserve jobs while increasing the value of homes, reducing the electric bills of homes and businesses, conserving water, and reducing greenhouse gas emissions and other harmful pollutants. The retrofit program builds upon EECBG formula-based grant funding received to date by developing a sustained approach to accelerating deep retrofitting that will cut across electric customer types and property owner arrangements. This program is expected to result in over $150 million in energy efficiency and integrated renewable energy improvements during its first three years and over $50 million in annual retrofit investments in project out-years.

It is estimated that 381 jobs will be created or retained by the retrofit program. Estimates of job impacts are based on results provided by IMPLAN, an impact modeling software program. The IMPLAN model utilizes input-output matrices to approximate the dollar value and distributive effects of transactions between industries, government units, and households. IMPLAN provides estimates for three types of economic impacts: direct, indirect, and induced. Direct impacts represent those resulting from direct spending (for example, salaries of weatherization agents or the purchase of materials); indirect impacts represent those resulting between industries related to linkages between firms and suppliers; and induced impacts would be attributable to an increased level of spending within the study area such as demand occurring as a result of increased spending among households. This may also be thought of as some level of spending attributable to energy savings as a result of efficiency investments. Cost estimates for energy efficiency investments and program development and administration expenses were used in the IMPLAN model to produce the job impact estimates in Table 7.

Table 7: Projected Job Creation and Retention

Customer Type	Year 1	Year 2	Year 3	Total	Annual Post Project Period
Single-Family	88	86	84	258	64
Multi-Family	3	3	3	9	3
Small Commercial	8	15	22	45	17
Large Commercial	12	23	34	69	26
Total	111	127	143	381	110

DE-FOA-0000148 Project Summary/Abstract:
Austin Climate Protection Retrofit Program
Applicant: City of Austin, Austin, TX
Project Director: Karl Rábago

The City of Austin is proposing a comprehensive strategy called the Austin Climate Protection Retrofit Program. The program will accelerate energy and water efficiency improvements made to private properties in the City of Austin and within the service territory of Austin's municipally-owned electric utility, Austin Energy, by offering a menu of financing options to property owners. A new option will include a Property-Assessed Clean Energy (PACE) financing mechanism that allows participants to repay installation costs through a special assessment. Directed by Austin Energy under the leadership of Karl Rábago, Vice President of Distributed Energy Services, the program will bring together several City Departments and a diverse group of partners from the non-profit and private sectors to develop new financing mechanisms and marketing and outreach strategies to enhance the attractiveness of energy efficiency investments by residential and commercial building owners and promote community-wide retrofitting. The proposed program will help overcome two of the barriers to customer participation in energy efficiency programs: 1) the inability to afford the up-front costs and 2) consumer confidence in the performance and associated benefits of the improvements.

The *purpose* of the retrofit program is to invigorate the local energy efficiency market, promoting the goals of the Austin Climate Protection Plan while creating over 300 local jobs and new economic opportunities locally, regionally, and nationally. The *scope* of the program is to provide a menu of financing options for efficiency improvements for all property owners in the City of Austin and the Austin Energy service territory. Commitments to regional and national partnerships will help spread similar strategies around Texas and the United States. The program *objectives* include:

- Identify, promote, and successfully offer a diversity of financing options for deep retrofits of Austin's existing residential and commercial building stock.
- Develop and implement a successful financing mechanism and process that allows property owners to pay for energy efficiency and integrated renewable energy improvements (i.e., solar PV systems) through an assessment secured by the underlying property.
- Develop best practices for financing energy efficiency and renewable energy improvements.
- Develop, test, and report on unique approaches to marketing financing options for energy efficiency and integrated renewable energy improvements.
- Achieve significant participation from all customer types including owner-occupied residential, residential rental properties, multi-family properties, and small and large commercial buildings.
- Contribute to the City's energy efficiency and conservation, solar, and other climate protection goals.
- Demonstrate program success and encourage regional and national program replication.

This program will leverage roughly $20 million in federal funds to achieve over $150 million in retrofits during the three-year federal funding period, with expected annual economic stimulation of about $60 million a year during the project period and thereafter. This program will directly result in retrofits to an estimated 9,000 properties, providing significant energy and peak demand savings, utility bill savings for customers from all income levels, water conservation, and avoided emissions of all types of pollutants. During the first three years of the program over 95,000 metric tons of avoided carbon dioxide emissions will be attributed to this program. The City of Austin will help develop and participate in a Regional Consortium on Energy Efficiency Financing Best Practices to ensure the development and success of similar programs around the state and nationwide.

The Austin Climate Protection Retrofit Program
Resume File

Application for funding on behalf of the City of Austin under
Funding Opportunity Announcement: DE-FOA-0000148

Energy Efficiency and Conservation Block Grants:
Retrofit Ramp-Up Program

Resumes

The following resumes for key persons involved in the Austin Climate Protection Retrofit Program, which has applied for funding under the Department of Energy's Retrofit Ramp-up Program (Funding Opportunity Announcement Number DE-FOA-0000148) by the City of Austin, are provided:

1. Karl R. Rábago, Vice President, Distributed Energy Services, Austin Energy, and identified Director of the Austin Climate Protection Retrofit Program
2. Andres E. Carvallo, Chief Information officer, Information Technology & Telecommunications Division, Austin Energy
3. Jim Collins, P.E., PMP, Director, On-Site Energy Resources, Austin Energy
4. Roger Duncan, General Manager, Austin Energy
5. Christopher Frye, Senior Manager, Market Research & Product Development, Austin Energy
6. Elaine Hart, CPA, Senior Vice President, Finance & Corporate Services, Austin Energy
7. M. Scott Jarman, P.E., CEM, Consulting Engineer, Distributed Energy Services/Energy Efficiency Services, Austin Energy
8. Leslie J. Libby, Project Manager, Solar Rebate Program, Austin Energy
9. Ester Matthews, Director, Austin Climate Protection Program, Austin Energy
10. Andrew J. Perny, Assistant City Attorney, Division Chief, Austin Energy Legal Services
11. Karen Poff, P.E., LEED AP, Product Development Coordinator, Austin Energy
12. Karl Popham, PMP, ITT Director, Project Management Office, Austin Energy
13. Ingrid Weigand, Senior Manager Marketing Communications, Austin Energy
14. Fred Yebra, P.E., MBA, Director, Demand-Side Management, Energy Efficiency Services Division, Distributed Energy Services, Austin Energy

Karl R. Rábago – Austin Climate Protection Retrofit Program Principal Investigator
Vice President, Distributed Energy Services
Austin Energy

Education and Training

- Minnesota Management Institute, Univ. of Minnesota Carlson School of Mgmt., 2003
- LL.M., Environmental Law, Pace University School of Law, 1990
- LL.M., Military Law, U.S. Army Judge Advocate General's School, 1988
- J.D. with Honors, University of Texas School of Law, 1984
- B.B.A., Business Management, Texas A&M University, 1977

Professional Experience

Austin Energy – April 2009 to Present

- Vice President, Distributed Energy Services
    - Responsible for management and oversight of energy efficiency and conservation programs, distributed solar and other renewable energy technologies, green buildings program, citywide climate protection plan, key accounts relationships, and market research and product development. Lead and manage staff of 100.

The AES Corporation – June 2006 to December 2008

- Director, Government & Regulatory Affairs
    - Government and regulatory affairs manager for AES Wind Generation, one of the largest wind companies in the country.
    - Also served as Managing Director, Standards and Practices, for Greenhouse Gas Services, LLC, a GE and AES venture committed to generating and marketing greenhouse gas credits to the U.S. voluntary market.

Houston Advanced Research Center – December 2003 to May 2006

- Group Director, Energy and Buildings Solutions
    - Responsible for developing, maintaining and expanding upon technology development, application, and commercialization support programmatic activities, including a testing and evaluation center for fuel cell generators; the Gulf Coast Combined Heat and Power Application Center; and the High Performance Green Buildings consulting practice. Launched neighborhood-based weatherization initiative in Houston neighborhoods of Pleasantville and Sunnyside.

Cargill Dow LLC (NatureWorks, LLC) – April 2002 to December 2003

- Sustainability Alliances Leader.
    - Founded in 1997, NatureWorks, LLC is based in Minnetonka, Minnesota.
    - Integrated sustainability principles into all aspects of a bio-based polymer manufacturing venture, including full supply chain and agricultural producer practices.

Rocky Mountain Institute – October 1999 to April 2002

- Managing Director/Principal
    - Co-authored "Small Is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size," Rocky Mountain Institute (2002)," a comprehensive analysis of the benefits of distributed energy resources.
    - President of the Board, Texas Ratepayers Organization to Save Energy, a non-profit organization advocating low-income consumer issues and energy efficiency programs.

- Co-Founder and Board Chair, Renewable Energy Policy Project-Center for Renewable Energy and Sustainable Technology, a national non-profit research and internet services organization.

CH2M Hill – July 1998 to August 1999

- Vice President, Energy, Environment and Systems Group. Produced comprehensive analyses of electric sector restructuring issues and opportunities for state legislatures of Colorado and Alaska.

Planergy – January 1998 to July 1998

- Vice President, New Energy Markets
  - Responsible for developing and managing new business opportunities for the energy services market. Assisted utilities in design of green power products.

Environmental Defense Fund – March 1996 to January 1998

- Energy Program Manager
  - Managed renewable energy, energy efficiency, and electric utility restructuring programs for a not-for-profit environmental group with a staff of 160 and over 300,000 members.

United States Department of Energy – January 1995 to March 1996

- Deputy Assistant Secretary, Utility Technologies
  - Manager of the Department's programs in renewable energy technologies and systems, electric energy systems, energy efficiency, and integrated resource planning.
  - Supervised technology research, development and deployment activities in photovoltaic, wind energy, geothermal energy, solar thermal energy, biomass energy, high-temperature superconductivity, transmission and distribution, hydrogen, and electric, and magnetic fields.
  - Managed $365 million budget, direct and indirect staff of more than 700.

Public Utility Commission of Texas – May 1992 to December 1994

- Commissioner, Public Utility Commission of Texas.
  - Regulated electric and telephone utilities in Texas.
  - Laid the groundwork for legislative and regulatory adoption of integrated resource planning, electric utility restructuring, and significantly increased use of renewable energy and energy efficiency resources.
  - Co-chair and organizer, Texas Sustainable Energy Development Council, a public/private council that crafted a blueprint for Texas' development of renewable energy, energy efficiency, and other sustainable energy resources.

Synergistic Activities

- Austin Energy Executive Sponsor, Pecan Street Project Electricity Internet Demonstration Project (FOA '036), a comprehensive, regionally integrated smart grid project awarded under ARRA to be conducted 2010-2013.
- Austin Energy Executive Sponsor, City of Austin "Project Energize," an inter-departmental project to develop property-assessed clean energy program for the City of Austin (on-going).
- Extensive experience engaging and working with financial community at all levels as regulator, DOE senior executive, power company executive, project developer, and consultant.
- Consultant in development of sustainability plans for 7 major U.S. Army installations.
- Contributing author for "An Energy Resource Investment Strategy for the City of San Francisco: Scenario Analysis of Alternative Electric Resource Options." Prepared for the San Francisco Public Utilities Commission, Rocky Mountain Institute (2002).

Andres E. Carvallo
Chief Information Officer
Information Technology & Telecommunications Division
Austin Energy

Education and Training

- University of Kansas B.S., Mechanical Engineering
- University of Idaho, Utility Executive Course
- Stanford University, Completed Executive Management Programs
- University of Pennsylvania, Completed Executive Management Programs

Professional Experience

Austin Energy – February 2003 to Current

- Chief Information Officer
    - Responsible for the technology vision, planning, development, and operations across the enterprise.
    - Since February of 2003, have been driving a wireless and SOA transformation to deliver a fully-integrated and self-healing enterprise. Our current strategic plan is to deliver the first smart grid in the US by 2009.
    - In addition to responsibilities as CIO, member of the 8 person executive team, and member of the Innovation and Opportunity Development executive board.
    - Outside of Austin Energy, board member for the Center for Commercialization of Electric Technologies, past chairman for the Large Public Power Companies', CIO Task Force, Chair of the Operations, Systems Integration and Modeling Team for the Pecan Street Project, and an advisor to several companies.

Other Professional Experience

- CEO at agentGo.com (AGEA)
- Executive Vice President at iMark.com

Synergistic Activities

- Named Technical Chair for NIST's Smart Grid Standards process in 2009.
- Highly recognized including, Computerworld Honors Laureate, Finalist, and 21st Century Achievement Award in 2009, Top 12 Green IT Company by Computerworld in 2008 and 2009, InformationWeek 500 in 2007 and 2008, CIO 100 Award by CIO Magazine in 2006, Premier 100 IT Leader and Best in Class of Premier 100 by Computerworld in 2006, and IT Executive of the Year by AITP in 2005.
- Frequently requested speaker on Smart Grid, CleanTech, Green IT, SOA, Wireless and Running IT as a Business.
- Great knowledge of the Energy, Wireless, Software, and Computer industries
- Entire body of work related to Austin Energy's overall smart grid effort includes smart meters since 2003, smart thermostats since 2003, distribution automation, Data One, software integration, fiber work, wireless work, SCADA/EMS work, QSE work, ERCOT connectivity work, power plant controls and connectivity work, PHEV and EV connectivity to grid work, power and storage electronics to grid work, data storage work, data center and server work to host the products, mobile applications and connectivity.

Jim Collins, P.E., PMP
Director, On-Site Energy Resources
Austin Energy

Education and Training

- The University of Texas at Austin, B.S. Mechanical Engineering,1979
- Registered Professional Engineer in Texas,1993
- Certificate: UT Institute for Managerial Leadership,1999
- Certified Project Management Professional (PMP) by Project Management Institute, 2005
- Charter Member – Austin Chapter of the Association of Energy Engineers, 2005

Professional Experience

Austin Energy – September 2000 to Present

- Director, On-Site Energy Resources: March 2007–Present
    - Responsible for the management, direction and day-to-day oversight of the On-Site Energy Resources business unit.
    - Establish and maintain business structure processes around three silos of activities: Sales and Marketing, Project Management and Plant Operations.
    - Create and manage new Sales and Marketing process with focus on growing revenues while increasing profitability.
    - Establish and maintain short and long-term spending plans: CIP for FY2009 - $20 million; O&M for FY2009 - $17 million.
    - Oversee plant compliance with all safety and environmental regulatory requirements.
    - Manage positive, on-going relationships with external customers, other City departments and Austin Energy business units.
- Process Manager, On-Site Energy Resources: September 2000 – March 2007
    - Provided leadership and day-to-day oversight for both CIP and on-going facility/plant operations for Austin Energy's Downtown District Cooling Business.
    - Managed processes for construction, startup, commissioning and on-going operation and maintenance of the $15 million Paul Robbins Plant with 8,000 tons of water and ice chillers, 26,200 ton hours of ice storage and 100% redundant, dual electric feeds.
    - Managed processes for design, construction, startup and commissioning of the $29 million District Cooling Plant 2 with 52,400 ton hours of ice storage and 100% redundant, dual electric feeds.
    - Managed the installation of over 14,000 trench-foot of distribution piping and associated communication conduits under right-of-way in the congested Downtown Austin Central Business District to connect new customers to the district cooling system.
    - Managed ongoing customer care relationships before, during and after connection to district cooling system.
    - Sponsor of the Reliability Centered Maintenance (RCM) analysis for the City of Austin's new "Mission Critical" Combined Transportation and Emergency Call Center (CTECC) facility.
    - Developed staffing and on-going facility management processes to insure (required) 99.999% reliability of the CTECC facility.

Securecom, Inc. – October 1999 to August 2000

- Operations Manager
    - Acted as a consultant to a small, fast growing company. Documented processes and made recommendations with regard to operational policies and procedures to provide structure and support business growth projections.

- Developed formal project delivery process for technical functions and personnel actions.
- Managed installation projects of residential and commercial alarm, surveillance and access control systems.
- Established training program addressing technical issues, customer service and safety for 25 employees.

University of Texas at Austin – April 1997 to October 1999

- Assistant Director, Physical Plant
  - Managed the Building Maintenance Organization (190 employees) with responsibility for planning, organizing, controlling, performing, reporting and evaluating processes.
  - Administered annual $12 million department budget, consisting of $9 million in base funding and $3 million in earned departmental credits.
  - Re-engineered the building maintenance service delivery system from centralized, craft specific shops to decentralized, multi-crafted shops for improved efficiency and customer satisfaction.
  - During campus expansion period, participated in design reviews for all new construction projects with emphasis on reliability and maintainability.

3M Corporation – April 1989 to October 1997

- Senior Engineer
  - Provided strategic planning and generated funding for co-generation power plant, mechanical and electrical projects for 3M Austin Center and associated manufacturing sites. Developed project scope and schedule documents. Coordinated installations and managed costs for multiple projects. Responsible for the development, implementation and coordination of site-wide energy conservation measures and continuous improvement programs.
  - Led project for commissioning of $4 million thermal storage system (chilled water) for Columbia, Missouri magnetic media plant.
- Plant Engineering Supervisor
  - Supervised start-up, commissioning and daily operations of mechanical and electrical systems of 1.3 million square foot facility and associated six megawatt co-generation power plant in Austin.
  - Supervised staff and monitored contractor personnel.
  - Developed annual O&M spending forecasts and reduced total maintenance costs by 12%.

Johnson Controls – January 1980 to April 1989

- Service Sales Engineer
  - Provided consultation to owners and managers of existing facilities in the areas of HVAC operation, energy management and fire and security systems.
  - Performed energy audits.
  - Made recommendations for energy conservation methods.

Synergistic Activities

- Led process improvement team to reduce construction costs of distribution piping installed under right of way.
- Implemented strategies for sales process improvement.
- Directed master planning for phased build out of plant assets.
- Assisted chilled water customers in identifying and prioritizing energy conservation measures within their facilities.

Roger Duncan
General Manger
Austin Energy

Education and Training

- University of Texas at Austin, B.A. in Philosophy

Professional Experience

Austin Energy – 1996 to Present

- General Manager: 2008 to present
  - Responsible for all business aspects of the Municipal Utility for Austin, Texas. Austin Energy is the 9th largest public power utility in the country with 388,000 customers and serving a population of 880,000. The utility provides low-cost, reliable power and is nationally recognized for some of the most advanced and comprehensive energy efficiency and Green Building programs in the nation.
- Deputy General Manager, Distributed Energy Services: 2004-2008
  - In charge of Distributed Energy Services (district cooling and combined heat and power), Strategic Planning, Green Building, Governmental Relations, Energy Conservation, and Air Quality.
- Vice President, Conservation, Renewables, and Environmental Policy: 1998-2004
- Director, Planning, Environmental and Conservation Services Department: 1996-1998
- Managed Austin Energy Services, Sustainable Communities Initiative, Mueller Airport Redevelopment, Economic Development Division, Long Range Planning, Neighborhood Planning and Water Conservation.

City of Austin – 1989 to 1996

- City Environmental Officer: Assistant Director for National Resources
  - Managed four divisions – Environmental Planning, Environmental Code, Water Conservation, and Energy Services.
  - Oversaw the development, implementation and operation of water quality programs, air quality programs, environmental reviews, energy and water conservation programs, hazardous spill response, home chemical collection, and other environmental issues addressed by the City

College Houses, Inc. – 1985 to 1989

- General Administrator
- Consultant , Austin Mutual Housing Association
- Chief staff person for a non-profit student housing cooperative.

Austin City Councilmember (two terms) – 1981 to 1985

- Passage of Lake Austin water quality ordinance, landscape ordinance, expansion of environmental department, and established energy conservation programs.

City of Austin – 1975 to 1976

- Aide to Councilmember Margaret Hofmann - 1975-1976

Reimer, Kaplan, Duncan and Young – 1976 to 1981

- Partner

Synergistic Activities

- Named by Business Week as one of top 20 "carbon reducers" in world, 2006.

- Has received the following awards: American Public Power Association – James D. Donovan Individual Achievement Award, 2006; Energy Efficiency Award – Unites States Energy Association, 2005; Public Technologist of the Year Award – Public Technology Institute, 2004.
- Serves on the Board of Directors for the Alliance to Save Energy, Public Sustainability Partnership, DOE State Energy Advisory Board, American Solar Energy Society, Electric Drive Transportation Association, Environmental and Energy Study Institute.
- Has served as chairman of the, National Urban Consortium Energy Task Force, City of Austin Resource Management Commission, and Texans for Aquifer Protection.
- Has served as a member of the State of Texas Sustainable Energy Development Council.

Christopher Frye
Senior Manager, Market Research & Product Development
Austin Energy

Education and Training

- University of Texas at Austin, Austin, Texas - M.S., Community and Regional Planning (Economic Development), May 2004
- University of Wisconsin, Madison, Wisconsin - B.A., Sociology (Concentration in Analysis & Research) & Latin American Studies, May 1994

Professional Experience

Austin Energy – January 2005 to 2009

- Market Research & Product Development – Senior Manager: April 2009-Present
    - Supervise Market Research, Planning, and Development department and manage one-off and ongoing projects.
    - Specific Tasks include: identify market research projects based on needs assessment of business units throughout Austin Energy; direct staff to manage research projects and delegate assignments as appropriate; coordinate product development efforts with business units within Distributed Energy Services division; analyze, evaluate, and procure market research products; and conduct long-term planning efforts related to product development and climate protection goals.
- Market Research & Product Development - Product Development Coordinator: January 2005-March 2009
    - Develop new products, services, business processes, and associated tariffs and policies as required.
    - Specific tasks included: lead efforts related to the development of new products & services; direct investigation of market potential, develop marketing plans, and budget for new products/programs; identify key target market segments for potential products based on primary and secondary research; develop financial forecasts related to the introduction of potential products; present relevant findings from research efforts to management personnel, including recommendations.
    - Other duties included: assess economic impacts of prospective economic development projects; advanced economic analysis of utility service territory (industrial profiling); and research regulatory activity at state and national level, identifying risks to utility performance.

NuStats Partners, LP, Austin, Texas - August 2000 to December 2004

- Statistician/Project Manager
    - Lead cross-functional teams for planning-based survey research firm engaged in identifying new products & services.
    - Specific tasks included: responsible for providing recommendations to clients for new products/services based on primary market research; manage multiple research projects; monitor schedules/deliverables and serve as main client liaison; development of sampling plans for primary research using census-based estimates; tabulation and advanced analysis of survey data including significance testing; identify and evaluate business opportunities and produce proposals for solicitations; develop project budgets, work breakdown structures and monitor project progress; make recommendations to management regarding methodology innovations or potential market opportunities; interact with staff and/or clients regarding methodology and findings including; detailed explanation of statistical concepts and procedures for final reports or proposals; and

survey results and recommendations on new products/services.

Wisconsin Department of Workforce Development, Madison, Wisconsin - November 1996 to November 1997

- Project Leader
  - Responsible for leading research projects with staff of eight regional economists, including but not limited to: business feasibility studies for prospective out-of-state employers interested in locating in Wisconsin; develop software tools for economic development professionals to better understand their local labor markets; regional labor market analysis including employment trends, demographic projections, and wage estimates; presentation of economic conditions to private employers and community service agencies; creation of economic development strategic plans for small areas throughout Wisconsin.; coordinating state-led efforts to mitigate effects of labor shortages in competitive industries.
  - Specific project examples included: detailed analysis of personal income flows between counties in the Milwaukee metropolitan area; spatial analysis of manufacturing & retail employers in Milwaukee region to assist occupational training programs; site location analysis for Blue Cross/Blue Shield of Wisconsin in evaluating site expansion and relocation; evaluation of tax revenue forecasts based on employment projections (5-10 year horizon); estimation of sub-state industry staffing patterns using OES and Census Current Population Survey data; cluster & shift/share analysis for Kenosha area ED personnel to identify competitive industries.
- Lead project manager for publication of workforce profiles at state, regional, and county level.
  - Specific duties included: compilation of key indicators - population, employment, wages, personal income, and commuting patterns; narrative supplementing estimates focusing on regional strengths and competitive economic sectors; and editing of all publications and preparation for dissemination via the Internet, updated on an annual basis.

Texas Workforce Commission, Austin, Texas - Labor Market Analyst - December 1994 to August 1996

- Labor Market Analyst
  - Estimated monthly industry employment levels for State of Texas based on BLS-sponsored establishment surveys. Other duties included: creation of written documentation of statistical procedures, and annual benchmarking activities; project member with BLS national staff in evaluation of probability-based sample design; assisted with creation of Texas Labor Market Review, a publication for disseminating labor market indicators; and evaluation of seasonal model specifications for statewide industry employment at 2-digit SIC level.

Synergistic Activities

- Considerable experience in the area of market research and analysis, including market sizing and segmentation and advanced statistical analysis;
- Working knowledge of Austin's industrial structure and an understanding of industrial processes and their impacts on energy use and potential for energy efficiency;
- Extensive background in labor economics and occupational staffing patterns among area industries;
- Keen understanding of the impact of messaging on motivating behavior and aligning the most effective message medium with customer segments;
- Fifteen years of experience working with individual level census data and intimate knowledge of census geography;

Elaine Hart, CPA
Senior Vice President, Finance & Corporate Services
Austin Energy

Education and Training

- University of Texas at Arlington, Bachelor of Business Administration in Accounting, 1974
- Certified Public Accountant (CPA), State of Texas, 1979
- Annual continuing education to maintain CPA license

Professional Experience

Austin Energy - June 1998 to Present

- Senior Vice President: February 2002–Present; Finance & Corporate Services October 1998-January 2002;
    - Vice President of Finance and Chief Financial Officer of an electric utility with over $1 billion annual revenue, five year capital plan over $1 billion and over $3 billion total assets with 1,700 employees serving about 400,000 retail customers.
    - Responsible for financial accounting and reporting, long-range financial planning (economic and load forecasts, revenue estimates, pro forma financials, scenario analysis), annual operating budget, five year capital improvements spending plan, debt management, bond sales, cost of service studies, rate analysis, accounts payable function, distribution warehouse operations and reclamation, contract management services, internal audit, energy hedging financial compliance and regulatory support related to transmission filings with Public Utility Commission of Texas (PUCT) and Electric Reliability Council of Texas (ERCOT) settlement process.
    - Serve as Chief Risk Officer on Risk Oversight Committee that oversees energy hedging program.
- Manager Budget and Financial Planning: June 1998-September 1998
    - Responsible for long-range financial planning, annual operating budget and five year capital improvements spending plan.

Self-Employed Consultant - June 1990 to June 1998

- Consultant for commercial construction company (excavation, water and wastewater lines, underground utilities, streets, curbs, and general contracting).
- Evaluated, implemented, and supported accounting software.
- Managed network services related to accounting software.
- Served as Controller for two years.

City of Austin, Texas - March 1980 to February 1990

- Director Financial Services Department: January 1989-February 1990; Acting Director Financial Services Department: November 1988-January 1989
    - Chief Financial Officer for City of Austin responsible for the City's financial accounting and reporting, annual audit, payroll and accounts payable functions, budgeting for operations and capital improvements, debt management and bond sales, cash and investment management, pension fund administration, purchasing and contract administration, utility customer services (meter, billing, collections) and financial policy analysis.
    - Prepared and presented reports to City Council, management, rating agencies and other public audiences.
    - City budget (1990) over $972 million and 10,000 employees.
    - Department budget (1990) $18.7 million and 400 employees.

- Assistant Director Financial Services Department: January 1986-November 1988
    - Directed three Department units including Controller, Pension, and Utility Customer Services.
- City Controller Financial Services Department: January 1982-December 1985; Acting City Controller Financial Services Department: October 1981-January 1982
    - Managed financial accounting and reporting for all City funds and two pension funds, payroll and accounts payable functions.
    - Coordinated City's annual audit/financial reports and bond sale Official Statements. Budget of $2.2 million and 60 employees.
- Deputy City Auditor Internal Audit Department: October 1980-October 1981
- Audit Manager Internal Audit Department: March 1980-October 1980
    - Developed project schedules, staffing plans, audit objectives, scope and approach. Performed quality control reviews.
    - Presented reports to management and Audit Committee of City Council.

Coopers & Lybrand, CPAs, Austin, Texas - February 1978 to February 1980

- Auditor

Seidman & Seidman, CPAs, Austin, Texas - August 1975 to January 1978

- Auditor

Bailey, Tole, Burcham, Tole, CPAs, Irving, Texas - January 1975 to May 1975

- Auditor

Synergistic Activities

- Led team that achieved AE's bond rating upgrades in spring 2006 (three rating agencies) and summer 2004 (two rating agencies). Improved ratings signal better credit quality and allow future debt issuance at lower interest rates, thus reducing costs.
- Led team that developed AE's Strategic Reserve Fund establishing cash reserves for emergency, contingency, and competitive purposes.
- Developed AE's recommended Financial Integrity Objective for AE's Strategic Plan which includes a target of **"AA"** (S&P) credit rating by 2010 on separate lien revenue bonds.
- Implemented new relaxed bond covenants to maximize financial flexibility following passage of Texas electric restructuring legislation. Separate lien revenue bond ordinance developed and debt issued under new covenants since January 2001. Combined utility revenue bond lien closed.
- Developed first ever City Financial Policies and gained City Council approval.

M. Scott Jarman, P.E., CEM
Consulting Engineer
Distributed Energy Services / Energy Efficiency Services
Austin Energy

Education and Training

- Master of Science in Mechanical Engineering - Specialization in Energy Management, 1989
- Texas A&M University, College Station, Texas - Bachelor of Science in Mechanical Engineering, 1985
- Texas A&M University, College Station, Texas - Registered Professional Engineer (Texas License number 77802)
- Certified Energy Manager (#005791)

Professional Experience

Austin Energy – December 1997 to Present

- Consulting Engineer: December 2007–Present; Supervising Engineer: December 1997–2007
    - Manage and consult with program managers, project managers, and energy engineers who evaluate and implement Demand Side Management (DSM), Energy Efficiency (EE), and solar PhotoVoltaic (PV) projects and programs.
    - Provide technical consulting including impact reviews, program design and budgeting recommendations, for AE residential and commercial Demand Response (DR) programs.
    - Responsible for commercial DR implementation by managing staff who review commercial facilities, recommend technical solutions, recommend program designs including incentive recommendations.
    - Provide technical integration and program consulting within AE for MDMS, AMI, HAN, and PHEV, as it impacts consumer behavior to varying rate designs.
    - Make rate and rate rider recommendations to encourage, EE and DSM through TOU, CPP, and other available rate designs.
    - Present EE and DSM programs, project, and budgets to of City of Austin boards and Commissions as necessary.
    - Manage performance contracts implementing conservation projects in COA buildings.
    - Consult with and present DSM impacts that influence Austin Energy's load forecasting.
    - Manage Photovoltaic projects for COA. This includes managing staff, monitoring and preparing budgets, purchasing documents, and cost estimates.
    - Installed over 20 PV systems on various building totaling approximately 250 KW.
    - Work with design teams to incorporate PV systems in new building designs.
    - Model various PV options to determine to determine the most cost-effective installations.
    - Collaborate with staff that monitors and repairs PV Systems. repairs,
    - Negotiate project scope and fees for performance contracting and photovoltaic installations.
    - Procure and cause to be installed 21 pole mounted demonstration PV systems at ISD facilities in and around Austin. This total approximately 70 KW.
    - Evaluate new and innovative energy saving technologies for applicability to Austin Energy's residential and commercial incentive programs as well as implication to the long-term load forecast.
    - Review DR, DSM, and PV Programs for cost effectiveness using standard Benefit Cost analysis.
    - Develop, implement, and evaluate, DSM technology demonstration projects and agreements

- Promote energy efficiency in City of Austin buildings be identifying, quantifying, budgeting, purchasing, and managing implementation of conservation projects.
- Total amount of actual budgets and/or contract authorization for past 3 years exceeds 5 million per year.

City of Austin, Environmental & Conservation Services Department - November 1993 to December 1997

- Engineer I, Energy Services Division
  - Responsible for approximately $200,000 annual operating budget and a FY 96-97, $3.9 million energy conservation retrofit budget.
  - Calculate savings and rebate amounts for commercial customers requesting energy services through the Commercial Program.
  - Conduct design reviews of new City of Austin Buildings for the Department of Public Works. Review building plans and specifications and recommend Energy Conservation Measures (ECMs).
  - Install metering equipment and analyze resulting data to determine building loads, HVAC efficiencies, operating hours, and operating sequences.
  - Prepare equipment specifications, prepare bid documents, review bid documents, bid construction projects, analyze bids, make recommendations for award, review equipment submittals, review in field construction, prepare punch lists, and approve contractor payments.
  - Manage utility tracking database which is used to verify actual energy savings resulting from implementation of recommended ECMs.

Synergistic Activities

- Responsible for implementation of $7.5 Million in Energy Efficiency Community Block Grants.
- Manage and consult with program managers, project managers, and energy engineers who evaluate and implement Demand Side Management (DSM), Energy Efficiency (EE), and solar PhotoVoltaic (PV) projects and programs.
- Provide technical consulting including impact reviews, program design and budgeting recommendations, for AE residential and commercial Demand Response (DR) programs.
- Develop DR program for commercial customer that leverage energy management systems owned by customers as well as utility IDR data.
- Contributor to the Pecan Street Project for distributed solar and managed other staff who are contributors in DR and EE areas.

Leslie June Libby
Project Manager
Austin Energy

Education and Training

- B.S. (1984), Mechanical Engineering, Montana State University
- M.S. (1992), Mechanical Engineering, University of Texas at Austin

Professional Experience

Austin Energy – 1991 to Present

- Solar Program Manager
    - Managed the installation and maintenance of dozens of solar PV projects for the utility including grid-connected and off-grid systems.
    - Currently, manages the Solar PV Rebate Program with over 1000 residential and commercial systems installed.
    - Developed a Solar Domestic Hot Water rebate and manages this program.

Synergistic Activities

- In 2004 lead in a stakeholder process to develop the Solar PV Rebate Program. This program has resulted in over 1000 PV systems installed over the 5 years.
- Project Manager for the Solar America Cities - Department of Energy Grant. This grant was designed to perform 4 tasks: 1) education outreach, 2) Solar/Wind study with both technologies collocated in west Texas and interconnected on the same transmission line, 3) evaluation of the solar rooftop potential in Austin and 4) perform outreach to Austin Energy customers regarding Austin Energy efficiency and solar programs.
- Published *Comparison of Modeled NSRDB and Perez Solar Radiation Data with Measured University of Texas Solar Radiation Data*, L. Libby, Proceedings of the 1995 Annual Meeting of the American Solar Energy Society, Minneapolis, Minnesota, July 1995.
- Published *Solar Power-up Takes Off*, K. Farley, W. Halverson, J. Hoffner, K. Ragsdale, L. Libby, Proceedings of the 1994 Annual Meeting of the American Solar Energy Society, San Jose, California, June 1994.
- Published *Photovoltaics vs. Utility Line Extension in Austin, Texas*, J. Hoffner, K. Ragsdale, L. Libby, Proceedings of the 23rd IEEE Photovoltaic Specialists Conference, May 1993.

Ester Matthews
Director, Austin Climate Protection Program
Austin Energy

Education and Training
The University of Texas at Austin, B. S. Elementary Education, Math Minor, 2004

Professional Experience
Austin Energy – October 2000 to Present

- Director, Austin Climate Protection Program: March 2007 to Present
  - Direct implementation of carbon reduction policy across all City of Austin departments and facilities:
    - Establish training programs;
    - Provide coordination with all Department Directors;
    - Direct greenhouse gas (GHG) Inventory development;
    - Manage the reporting of City of Austin (COA) emissions;
    - direct development of departmental carbon footprints and climate protection plans;
    - Establish targets for reduction of emissions city-wide;
  - Direct outreach to the Austin community on the issue of climate change and GHG reduction strategies;
  - Direct development of website with carbon calculator to portray carbon footprints and mitigation projects;
  - Publish annual updates;
  - Direct Air Quality and Urban Heat Island program implementation;
  - Manage three budgets and grant funding.
- Director, Local Government Issues: August 2005 to March 2007
  - Primary liaison to City Council and City Manager for Austin Energy;
  - Manage Council directed special projects;
  - Direct postings of Austin Energy items for Council action;
  - Support Deputy General Manager of Distributed Energy Services;
  - Manage six budgets.
- Senior Management Analyst: October 2000 to August 2005
  - Support Deputy General Manager of Governmental Relations, Environmental Policy, and Distributed Energy Services;
    - Project Management, Contract Development, Purchasing;
    - Manage National and Local communications;
  - Develop and Implement Urban Heat Island Program;

City of Austin – April 1987 to October 2000

- Contract Compliance Officer, City Purchasing Office: October 1998 to October 2000
  - Contract development, negotiation and compliance for Parks and Solid Waste departments;
  - Liaison to Council Sub-Committee, Advisory Commissions, and Assistant City Managers;
- Program Manager, Austin Music Network: October 1995 to October 1998
  - Managed staff, budget, on-air programming, and media for 24 hour music channel;
  - Primary liaison to Council Sub-Committee, Council Committee Chair, Council appointed advisory commissions, and Assistant City Manager;

- Executive Assistant, Austin City Councilmember/ Mayor Pro-Tem Nofziger: May 1987 to October 1995
  - Constituent relations with environmental emphasis;
  - Research and project management;
  - Administrative liaison services with other council offices and City Management offices;

Campaign to Elect Max Nofziger January to June 1990

- Campaign Manager for incumbent councilmember

Campaign to Elect Max Nofziger September 1986 to May 1987

- Campaign Manager and Treasurer for environmental candidate

.

Synergistic Activities

- 22 years of explaining and supporting AE's energy efficiency programs as council policy, political deliberation, and utility spokesperson.
- 24 years of community organizing in Austin.
- 8 years on Energy/Sustainability Council of PTI (Public Technologies, Inc), organization of local government officials who share best practices and lessons learned on efficiency programs.
- Directing community roll-out of Austin Climate Protection Plan.
- Personal experience with AE's energy efficiency programs with two personal residences.

Andrew J. Perny
Assistant City Attorney
Division Chief, Austin Energy Legal Services
Austin Energy

Education and Training

- B.A., Indiana University at Bloomington
- J.D., *magna cum laude*, Indiana University at Bloomington (top 11%)
- Admitted to State Bar of Texas, 1994
- Admitted to U.S. District Court, Western District of Texas, 1995
- Member, College of the State Bar of Texas

Professional and Research Experience

Austin Energy - 1999 to Present

- Division Chief, Austin Energy Legal Services
    - Currently serves as general counsel to Austin Energy and manages a staff of seven lawyers and four claims and support staff.
    - Provides advice and legal oversight regarding a broad range of matters relating to the operations of a large municipal electric utility, including state and federal regulatory matters, construction and real estate, contract negotiation and compliance, software and information technology, rates, open government and general municipal law, power production and delivery, power purchase agreements, and records management.
- Staff/Senior Attorney
    - Served first as staff attorney and then senior attorney for Austin Energy.
    - Area of practice primarily included matters relating to utility infrastructure, construction and real estate, right-of-way and utility relocation, litigation, and state and federal telecommunications law.

Michael E. Grimes, P.C., Round Rock, Texas – 1994 to 1999

- Associate Attorney
    - Worked as an associate attorney for a small general practice law firm, concentrating primarily in personal injury and business-tort litigation, as well as contract law.

Synergistic Activities

- Providing legal guidance to the City of Austin regarding PACE-type financing of residential and commercial energy efficiency and renewable energy retrofits.
- Provided legal advice and services relating to the drafting and implementation of the City of Austin's Energy Conservation and Audit Disclosure ordinance.
- Providing general legal advice to the City of Austin's Climate Protection Plan.

Karen Poff, P.E., LEED AP
Product Development Coordinator
Austin Energy

Education and Training

- Humboldt State University, Arcata, CA, Master of Science in Environmental Systems, 2000.
- University of California, Davis, Bachelor of Science in Mechanical Engineering, 1989.
- Licensed Professional Environmental Engineer.
- LEED Accredited Professional.

Professional Experience

Austin Energy, Austin, TX, September 2009 – Present.

- Product Development Coordinator
  - Evaluate current energy efficiency and renewable energy programs as well as conduct market analysis to identify potentially new products or services for Austin Energy customers.

Green Living, LLC, Austin TX, August 2008 to September 2009.

- Senior Design Manager
  - Managed project teams in facility design and construction processes to ensure compliance with the United States Green Building Council's (USGBC) standards and achieve LEED certification.
  - Identified feasible energy efficiency technologies and practices and worked with design team to incorporate technologies/practices into project design and construction documents.
  - Identified green building marketing strategies.

EarthTech, Austin, TX, May 2003 to August 2008.

- Senior Project Manager
  - Managed the design, bidding, and construction of sanitary sewer system and stream bank restoration projects for the $350 million Austin Clean Water Program (ACWP), recognized in Forbes magazine as one of the top 10 infrastructure projects completed in the last 75 years.

American Refugee Committee (ARC), Uganda/Southern Sudan, May 2006 to July 2006.

- Construction Supervisor
  - Managed the construction of health centers and other construction projects in Southern Sudan for returning refugees.

Texas Water Development Board (TWDB), Austin, TX, March 2000 to May 2003.

- Project Manager
  - Managed the development of state and federally funded water and wastewater treatment projects in economically distressed areas located in the Lower Rio Grande Valley region and other rural areas of Texas.
  - Analyzed community participation data for state programs and identified methods of increasing community participation in TWDB funded projects.

Texas Commission on Environmental Quality (TCEQ), Austin, TX, June 1999 to August 1999.

- Intern
  - Co-authored a report for the Texas Secretary of State's office entitled Mandatory Hook-up Policies for Colonia Wastewater Projects: Overview of Current Situation and Strategies for Improving Connection Rates. Published the report in the LBJ Journal of Public Affairs.

Western Area Power Administration, US Department of Energy, Folsom, CA, May 1997 to July 1998.

- Public Utilities Specialist
  - Prepared, negotiated, and administered contracts relating to the marketing and delivery of federal hydroelectric power.
  - Prepared power marketing studies to determine market potential.

Resource Management International (RMI), Sacramento, CA, January 2007 to May 2007.

- Associate Professional
  - Provided technical assistance to municipalities and public utility districts to assess the impacts of California's deregulated energy market on service, conservation and renewable energy programs, and utility rates.

United States Peace Corps, Ghana, West Africa, July 1994 to August 1996.

- Community Forestry Volunteer
  - Fostered partnerships between the government, NGOs and members of the local community to develop a long-term solution to deforestation and the depletion of natural resources in the Upper East Region of Ghana.

NEOS Corporation, Lafayette, CA, March 1992 to June 1994.

- Associate Engineer
  - Provided technical assistance to the U.S. Department of Energy Western Area Power Administration's (Western) Conservation and Renewable Energy Program.
  - Analyzed energy efficiency strategies and programs for inclusion in utility resource plans.

California Public Utilities Commission, San Francisco, CA, August 1989 to March 1992.

- Assistant Utilities Engineer
  - Performed engineering work in connection with the regulation of Northern California electric utilities.

Synergistic Activities

- Managed over $71 million in federal and state grant and loan funds for TWDB projects.
- Evaluated various Austin Energy energy efficiency and renewable energy programs to identify new products or services for Austin Energy customers.
- Conducted market analysis and identified marketing strategies to increase customer participation in energy efficiency, renewable energy and green building programs.

Karl Popham, PMP
ITT Director, Project Management Office (PMO)
Austin Energy

Education and Training

- ITIL Foundations III & IV Certified, 2006/2009
- University of Texas at Austin – Energy Technology & Policy course, 2008
- Project Management Institute – Project Management Professional (PMP), 2006
- Project Server Certificate (Orange &: Blue Belts), 2006
- US Army Engineer School – Engineer Officer Course, 1991
- University of Texas at Austin – Bachelor of Business Administration, 1990

Professional Experience

Austin Energy - March 2006 to Present

- ITT Director (Division Mgr) – ITT-PMO Office
    - Develop and execute project management methodology and best practices; Provide portfolio management for over 100 Utility projects; Manage a team of project managers and BSAs in support of programs and projects that include; CIS, Data Warehouse, Maximo, FileNet, Oracle, NERC/FERC support, Workforce Planning, PowerSaver Online, CEPEX Online, Web Portal, Green Building Online, Mobile Mapping, Mobile Workforce, Network Monitoring, IP Phone, Project Server.

Hewlett-Packard Services, Austin, TX - December 2002 to September 2005

- Client Executive, HP eCenter
    - Management of a $20M/year, 50 person IT outsourcing business to include Profit and Loss (P&L) responsibility, strategic and tactical decision making, contract negotiations, and program control. Program resulted in high customer satisfaction, high uptime (service levels of 99.98% uptime over 12 months), and achieved 143% of revenue and 200% of margin goals.

Trapdoor Net Systems, Austin, TX - July 2001 to July 2002

- Vice President
    - Define project/business requirements and negotiate contracts. Speak at trade shows and conferences in regards to industry best practices.

Cap Gemini Ernst & Young (CGE&Y) - Nov 1997 to May 2001

- London, New York, Houston, and Austin, Director
    - Manage Level 5 projects and programs (level 5 is the most complex & high risk projects). Manage Fortune 500 clients to communicate operational metrics, align customer needs with IT Services, identify needs/demand, and develop strong working relationships. Responsible for performance reviews and training programs of a team of Senior and Principal Consultants.

Catapult Systems, Austin, TX - January 1997 to October 1997

- Project Manager / Solution Architect (Microsoft Certified Systems Engineer and Trainer)
    - Manage projects and technical teams

State of Texas-Adjutant General's Department - February 1992 to January 1997

- IT Manager

- Prepare, plan, and execute program IT budget. Responsible for vendor selection, negotiations, and management. Managed a team in support of facility-wide IT Systems and Networking.

U.S. Army Corps of Engineers, Austin, TX - February 1991 to February 1992

- Project Manager
  - Project Management of construction and land acquisition projects up to $20M in scope

Texas Army National Guard – (Part Time) February 1987 to December 1997

- Captain (Highest Rank Attained)
  - Instructor to future officers via Officer Candidate School. As a Company XO, was accountable for over $50M in assets, all equipment maintenance, and the training of 135 combat engineers.

Synergistic Activities

- Sponsor and SME for the implementation of the PMO 2.0 Program; Included the launch of a web based portal "PMOLive", Adoption of project management best practices for the utility, implementation of a new lean project methodology as well as enhancements to complex project management, real-time portfolio & project reporting, and implementation of over 30 PMO best practices.
- Lehman Brothers Investment Bank – London/New York: Concurrently managed the successful implementation of the "Lehman Live" Internet portal and "Lehman Warrants" for European based clients. Project spanned multiple corporate entities, 5 countries, and 3 languages. Budget was approximately $10M and 30 personnel and resulted in an on-time execution of a high volume trading system.
- Exxon - Houston: Managed the implementation of Internet security and best practices for 75,000 globally deployed desktops. Follow-on project included a mail messaging implementation. Project scope $9M and 15 personnel.
- USAA – San Antonio: As a project manager and a consultant to the Strategic PMO implemented several cross-business projects to include desktop management of 25,000 PCs and implemented an online customer care system.
- Compaq - Houston: Managed a team of business analysts to perform a company audit and recommend supply-chain best practices to senior management.

Ingrid Weigand
Senior Manager Marketing Communications
Austin Energy

Education and Training

- University of Cologne, Germany, undergraduate studies in Literature, History, 1977
- Washington University, St. Louis, MO, MA Literature, 1979

Professional Experience

Austin Energy – November 1998 to present

- Manager, Marketing Communications: October 2005–present; Acting Manager, Marketing Communications: December 2004–October 2005
  - Supervise group of 13 employees, including graphic designers, account executives, community and educational outreach coordinators.
  - Oversee marketing and outreach campaigns, manage work load, quality check products, maintain budget. Work with clients to develop individual marketing master plans and budgets.
  - Work with other AE departments to ensure correct representation of AE logo and other branding materials to the public. Coordinate AE video and photography needs.
  - Act as AE liaison to the film industry.
- Management Analyst August 2000–December 2004
  - Research and writing for Director of Communications
  - Coordinated AE video and photography needs
  - Special projects and assignments.
  - AE liaison to the film industry.
- Video Technician November 1998–August 2000
  - Responsible for producing, shooting, and editing videos for Austin Energy: corporate messages, promotional programs, training, and documentation.
  - Created and maintained video library
  - Provided general AV support.

City of Austin - January 1994 to November 1998

- Video Operations Director, Austin Music Network
  Hired at the start of pilot project. Initial responsibilities included:
  - Defining, implementing, and overseeing procedures regarding video production, editing, finances and legal issues;
  - Establishing technical and aesthetical standards;
  - Representing the Austin Music network in the community;
  - Developing strategies to brand the station and market services.

  On-going responsibilities included:
  - Coordination of all aspects of preproduction, production, and post-production;
  - Managing contractors, equipment maintenance and budget planning.

Self-employed 1980 to 1994

- Video Producer, Editor, 1980-1994

- Produced corporate and promotional videos for Vignette Corporation, Austin Center for Battered Woman, Austin/Travis County MHMR; UT Law School Foundation, Ballet Austin, The Junior League, Lone Star Girl Scouts Council, and others.
- Worked with non-profit and arts organizations to devise marketing strategies that met their outreach goals.
- Developed video ideas that fulfilled those goals without exceeding the clients' budgets. Supervised projects from script stage through production and editing to distribution.

- Film Journalism, 1980-1986
  - Contributed various articles on films for national and local publications, such as Film Comment Magazine, New York N.Y.; The Austin Chronicle, Austin, TX; Pulse Magazine, Dallas, TX. Kölner Stadt-Anzeiger, Cologne Germany.

Synergistic Activities

- Developed uniform procedures and fee structures for use of Austin Energy plants by Creative Industry (Film, Video, Photography companies) in 2002, including processes for criminal background checks, legal contracts, insurance verification and on-site supervision.
- Since 2005 lead teams that design and implement successful marketing plans for the Power Saver Programs, Austin Energy's residential, commercial and multi-family energy conservation programs; Green Building; GreenChoice, Austin Energy's renewable energy offering; Austin Energy Customer Care; Austin Climate Protection Plan; Plug-In Hybrid Electrical Vehicle (PHEV), a pilot project developed by Austin Energy.
- Since 2005 lead Austin Energy Regional Science Festival team: coordinate science event with more than 4,000 students; supervise outreach, education; logistics; fundraise; recruit more than 500 judges and volunteers; responsible for overall success of event.
- Led logistics for managing an 800 bed temporary shelter facility during Hurricane Katrina evacuation efforts in September 2005. Helped design intake processes, provide general care for evacuees, manage volunteers, coordinate resources and interagency efforts.

Fred Yebra, P.E., MBA
Director, Demand-Side Management, Energy Efficiency Services Division
Distributed Energy Services
Austin Energy

Education and Training

- The University of Texas at Austin, Bachelor of Science in Mechanical Engineering, 1981
- Registered Professional Engineer – Texas, License #64565
- University of Phoenix, Master of Business Administration (MBA), 2002
- President of the Association of Energy Engineers, Austin Chapter, 1995, Founding Member
- Board Member, Texas Solar Energy Society, 2007-present.
- Texas Public Power Association, Energy Efficiency Working Group, 2008.

Professional Experience

Austin Energy – 1998 to Present

- Director, Demand-Side Management (DSM): 2005-Present
    - Direct the operations to implement Austin's DSM programs including energy efficiency, peak load management, and renewable energy programs. The annual DSM budget is $23 million.
    - Austin's DSM program is recognized for taking a leading edge position to identify, evaluate and deploy energy efficiency and renewable technologies. Austin's energy efficiency programs are now recognized as successful models and have won numerous state and national awards.
    - Directs technical and planning process elements for evaluating new alternative energy efficiency and utility demand-side management programs, including energy efficient smart grid technologies.

- Energy Services Unit Manager: 1998-2004
    - Managed the work of 57 employees including engineers, energy analysts, project managers, conservation specialists and customer service representatives, tasked with delivering energy efficiency customer services to residential and commercial accounts.
    - Responsible for developing the new and expanded role of energy efficiency and other DSM programs described in Austin Energy' 2004 Strategic Plan.
    - Responsible for achieving 15% of AE's energy supply from energy efficiency efforts by 2020. Contributing member of six utility cross-functional teams including Energy Resource Planning Team, Decision Framing Committee, Diversity Steering Committee, Peak Performers, and Information Technology Steering Committee.

City of Austin Planning, Environmental and Conservation Services Department – 1992 to 1998

- Energy Services Division Manager: 1996-1998
    - Managed a staff of 55 energy professionals, with a $13 million annual budget
    - Responsible for developing policies, budgets and performance measures for utility DSM and renewable energy programs.
    - Responsible for re-engineering the energy efficiency division and for merging the division with the electric utility department to address competitive issues of Austin Energy. Through this endeavor, flexibility in DSM programs were maintained to response to customer changes in customer demand, energy markets, and technologies.
- Energy Engineering Manager: 1992-1996
    - Supervised the Division's technical support engineers and activities associated with DSM, on-site consultations, and departmental technical cost-effectiveness evaluations.

- Managed the commercial energy efficiency programs, governmental partnerships in energy management, municipal capital improvement projects, and the Ozone Depleting Chemicals ordinance, to achieve strategic environmental objectives.
- Lead engineer to develop the DSM savings potential in the 69KV electric service area served by the Holly Street Power Plant. Lead engineer in the development of Sustainable Building Guidelines for municipal facilities, including the new Austin Bergstrom International Airport.

Texas Energy Engineering Services, Inc., Austin, TX – 1990 to Present

- Senior Consulting Engineer
  - Provided services in the fields of energy management and energy efficient design to Texas school districts, municipal and county governments, and Texas State agencies.
  - Responsible for delivering client-oriented energy management training workshops under contract to the State of Texas Governor's Energy Office.

City of Austin Resource Management Department – 1988 to 1990

- Senior Engineer of Planning & Evaluation Division
  - Supervised the engineering staff and was responsible for evaluating the cost-effectiveness of DSM programs and their impact on Austin's energy resource requirements.
  - Responsible for implementing techniques for least-cost utility planning, integrated resource planning, utility DSM saving forecasts, standard cost-benefit analyses, and preparing annual program performance measures report.

State of Texas Governor's Energy Management Center, Governor's Office – 1987 to 1988

- Energy Program Manager
  - Designed and implemented new state-level energy management and technical assistance programs for state agencies and Texas school districts.
  - Performed on-site energy audits for school districts and conducted school energy management workshops throughout Texas.

Public Utility Commission of Texas – 1985 to 1987

- Energy Engineer

Central Power & Light Company, Corpus Christi, TX – 1981 to 1985

- Commercial Applications Engineer

Synergistic Activities

- Responsible for implementation of Austin's ordinance requiring energy conservation audits and disclosure at point-of-sale of homes, multi-family, and commercial buildings.
- Responsible for implementation of Austin's strategic goal to achieve 800 MW of savings through energy efficiency by 2020 as part of Austin's Climate Protection Plan.
- Direct and manage the performance of energy audits and engineering feasibility studies; review and evaluate recommendations of building design reviews and studies, and cost-effectiveness comparisons of end-use technologies.
- Manage promotional and outreach efforts to establish partnerships with contractors, vendors and trade allies to enhance customer services and participation to meet Austin Energy's energy efficiency goals.
- Develop conservation program measurement and verification reporting procedures to evaluate the operation and performance of energy conservation measures.

Applicant Name: City of Austin - Austin Climate Protection Retrofit Program Award Number: _____ Summary-Cumulative

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Retrofit Program	DE-FOA-0000148	$0	$0	$20,467,388	$34,254,803	$54,722,191
2.						$0
3.						$0
4.						$0
5. Totals		$0	$0	$20,467,388	$34,254,803	$54,722,191

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity (1)	(2)	(3)	(4)	Total (5)
a. Personnel					$0
b. Fringe Benefits					$0
c. Travel					$0
d. Equipment					$0
e. Supplies					$0
f. Contractual					$0
g. Construction					$0
h. Other					$0
i. Total Direct Charges (sum of 6a-6h)	$0	$0	$0	$0	$0
j. Indirect Charges					$0
k. **Totals** (sum of 6i-6j)	$0	$0	$0	$0	$0
7. Program Income	$0	$0	$0	$0	$0

Previous Edition Usable

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Section C - Non-Federal Resources

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) **Totals**
8. Retrofit Ramp-up Program (EECBG)	$32,544,803	$0	$1,710,000	$34,254,803
9.				$0
10.				$0
11.				$0
12. **Total** (sum of lines 8 - 11)	$32,544,803	$0	$1,710,000	$34,254,803

Section D - Forecasted Cash Needs

	Cumulative Total	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	$0				
14. Non-Federal	$0				
15. **Total** (sum of lines 13 and 14)	$0	$0	$0	$0	$0

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
(a) Grant Program	(b) First	(c) Second	(d) Third	(e) Fourth
16. Retrofit Ramp-up Program (EECBG)				
17.				
18.				
19.				
20. **Total** (sum of lines 16-19)	$0	$0	$0	$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

City of Austin
Austin's Municipally Owned Electric Utility
Town Lake Center 721 Barton Springs Road • Austin, Texas 78704-1194 • (512) 322-9600

December 10, 2009

The Honorable Secretary Steven Chu
U.S. Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585

RE: Notice of Intent to file an Energy Efficiency and Conservation Block Grants: Competitive Solicitation: Retrofit Ramp-Up Grant Application (DE-FOA-0000148)

Dear Mr. Chu:

This letter certifies that Austin Energy and the City of Austin are committed to ensuring that all laborers and mechanics on projects funded directly by or assisted in whole or in part by and through funding appropriated by the American Recovery and Reinvestment Act of 2009. P.L. 111-5 shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by subchapter IV of Chapter 31 of title 40, United States Code (Davis-Bacon Act).

Roger Duncan
General Manager
Austin Energy

(Authorized Representative, City of Austin)

The Austin Climate Protection Retrofit Program
Budget Justification

Application for funding on behalf of the City of Austin under
Funding Opportunity Announcement: DE-FOA-0000148

Energy Efficiency and Conservation Block Grants:
Retrofit Ramp-Up Program

Austin Climate Protection Retrofit Program - Budget Justification - Year 1

Budget Category

a. Personnel	Position Title	Purpose	Time (Hours)	Pay Rate ($/Hr)	Total Cost ($)	Rate Basis	Justificiation of Need
New Full-Time Employee	Conservation Program Specialist, Senior / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage single-family residential customer involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage multi-family housing property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage small commercial property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage large commercial property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage quarterly and annual Retrofit Program reporting and partner participation.
New Full-Time Employee	Financial Planner Utility / AE	Program Design / Program Administration and Reporting	2,080	47.2	98,176	AE Market Rate	To manage financial impact of Retrofit Program, program budget, and coordination with City Finance Dept. and Travis Co. Tax Assessor.
New Full-Time Employee	Engineer C / AE	Program Design / Program Administration and Reporting	2,080	54.16	112,653	AE Market Rate	Monitoring and verification, program impact analysis, and audit monitoring software integration.
New Full-Time Employee	Inspector C / AE	Program Design / Program Administration and Reporting	2,080	31.3	65,104	AE Market Rate	Inspection of installations for residential property owner program participants.
New Full-Time Employee	Inspector C / AE	Program Design / Program Administration and Reporting	2,080	31.3	65,104	AE Market Rate	Inspection of installations for commercial property owner program participants.
New Full-Time Employee	Customer Care Program Manager / AE or Travis Co. Tax Assessor-Collector	Program Design / Program Administration and Reporting	2,080	37.38	77,750	AE Market Rate	Coordinate collection of loans, billing of administration and finance expenses, and non-payment notification.
New Full-Time Employee	Customer Care Program Manager / AE or Travis Co. Tax Assessor-Collector	Program Design / Program Administration and Reporting	2,080	37.38	77,750	AE Market Rate	Coordinate collection of loans, billing of administration and finance expenses, and non-payment notification.
New Full-Time Employee	Marketing Communications Consultant / AE	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Coordinate, design and implement marketing and outreach services for Retrofit Program.
New Full-Time Employee	Marketing Communications Consultant / AE	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Provide individual outreach to potential small commercial customer program participants.
New Full-Time Employee	Marketing Communications Consultant	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Provide individual outreach to potential large commercial customer program participants.
New Full-Time Employee	Conservation Program Specialist, Senior / AE	Workforce Development	2,080	32.87	68,370	AE Market Rate	Coordinate workforce development for Retrofit Program.
New Full-Time Employee	Information Technology Project Coordinator / AE	ITT and Technical Support	2,080	47.2	98,176	AE Market Rate	Work on development of website and integrated software for program management, administration, and reporting.
New Full-Time Employee	Information Technology Data Architect / AE	ITT and Technical Support	2,080	54.16	112,653	AE Market Rate	Develop and maintain database for program participants and provide technical support for system.
Total					1,320,384		

b. Fringe Benefits	Rate Applied	Basis of Cost	Total Cost ($)
Total	15.65%	City of Austin Standard	206,640

c. Travel	No. of Travelers	Purpose	# of Days	Cost per Trip ($)	Total Cost ($)	Basis for Estimating Costs	Justification of Need

	1	Regional Consortium/Best Practices	4	250	1,000	Estimate	Project Director will coordinate the Regional Consortium and provide information and promote best practices regionally (Texas).
	1	Regional Consortium/Best Practices	1	500	500	Estimate	Coordinate Regional Consortium and provide information and promote best practices nationally.
Total	1		5		1,500		

d. Equipment	Item	Purpose	Quantity	Unit Cost ($)	Total Cost ($)	Basis of Cost	Justification of Need
Total					0		

e. Supplies	Category	Purpose	Quantity	Unit Cost ($)	Total Cost ($)	Basis of Cost	Justification of Need
	Mailers / Information Materials	Marketing and Outreach	8,000	5	40,000	Estimate based on AE experience	To provide information to large commercial customers on the Retrofit Program and encourage participation.
	Mailers / Information Materials	Marketing and Outreach	30,000	0.87	26,100	Estimate based on AE experience	To provide information to small commercial customers on the Retrofit Program and encourage participation.
	Mailers / Information Materials	Marketing and Outreach	200,000	0.71	142,000	Estimate based on AE experience	To provide information to residential customers on the Retrofit Program and encourage participation.
	Brochures	Marketing and Outreach	3,000	5	15,000	Estimate based on AE experience	To provide information to residential customers on the Retrofit Program and encourage participation.
Total					223,100		

f. Contractual	Sub-Recipient Name/Org.	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	To Be Determined through RFP process	Market Research			50,000	Estimate	Third-party market research; will include report.
	To Be Determined through RFP process or will be done by AE	Market Research			35,000	Estimate	Polling and telephone surverying to assess potential demand and assist in program design.
	To Be Determined through RFP process or will be done by AE	Market Research			15,000	Estimate	Focus groups with different customer types and contractors to assess potential demand and assist in program design.
	To Be Determined through RFP process	Financing Option Analysis and Evaluation			50,000	Estimate	Third-party analysis of potential financing options; will include report.
	To Be Determined through RFP process or will be done by AE	Financing Option Analysis and Evaluation			50,000	Estimate	Internal work to determine financing options to be included in the retrofit program.
	To Be Determined through RFP process	Integrated Audit, Monitoring and Verfiication Tools			750,000	Estimate	To develop integrated audit, monitoring and verification software to track program participation and impacts and develop best practices.
	To Be Determined through RFP process or will be done by AE	Marketing and Outreach			450,650	Estimate Based on AE Experience	Advertising through multiple media types to provide information on the Retrofit Program and encourage participation.
	To Be Determined through RFP process or will be done by AE	Marketing and Outreach			75,000	Estimate	Web-based video production to provide information on the Retrofit Program and encourage participation through different media.
	To Be Determined through RFP process or will be done by AE	Workforce Development			100,000	Estimate	Informational materials and training sessions with retrofit-related workforce to provide information on the retrofit program for potential contractors, discuss potential demand, and ensure adequate workforce needs are available.
	To Be Determined through RFP process	Website Development			100,000	Estimate	Develop website for program information and on-line application process.

	To Be Determined through RFP process	Application Intake and Processing			80,000	Estimate	Application processing system set-up and integration with program website, program database, and audti and monitoring and verification tools.
	To Be Determined through RFP process	Application Intake and Processing			416,777	2% of PACE-financed amount for project year	Third-party review and processing of applications, customer service, education and marketing, and printing, reproduction and shipping for applicant notification, coordination with program management, and monitoring and verification.
Total					2,172,427		

g. Construction	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
Total					0		

h. Other	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	Develop Regional Consortium on Energy Efficiency Financing Best Practices	Regional Consortium/Best Practices			50,000	Estimate	Costs to establish the Regional Consortium.
	Loan Support Fund	Loan Support Fund			4,000,000	Approx. 20% of Project Ask	A loan support fund would be established to buy-down interest rates and support loans for shorter payback periods to keep interest rates reasonable and participation high.
	Assessment Reserve Fund	Debt Service Reserve Fund			4,682,865	6.5% of projected PACE-financed projects in three-year project period	Establish a debt service reserve fund to protect the investor against late payment or non-payment of the assessment.
	Fixed Financing Expenses	Initial Legal and Financing Expenses			1,801,114	2.5% of total PACE-financed Amount in three-year project period	Bond underwriting and placement, legal counsel, financial modeling and payment schedule expenses as well as PACE financing mechanism development by Tax Assessor-Collector.
	Variable Financing Expenses	Tax Service Expenses			208,388	1% of PACE-financed amount for project year	Bond paying and transfer agent, lien recordation, and county tax collection expenses
Total					10,742,367		

i. Total Direct Charges					Total Cost ($)		
					14,666,418		

j. Indirect Charges	General Description	Purpose			Total Cost ($)		
No Indirect Charges					0		

k. Totals					Total Cost ($)		
					14,666,418		

Program Income							
(No Program Income)							

Non-Federal Resources

a. Personnel	Position Title / Department	Purpose	Time (Hours)	Pay Rate ($/Hr)	Total Cost ($)	Rate Basis	Justificiation of Need
Existing Personnel (in-kind)	Market Research & Product Development Sr. Mgr. / AE	Market Research	130	39	5,032	Actual Salary	Program development and potential demand assessment.
Existing Personnel (in-kind)	Market Research Analyst / AE	Market Research	130	26	3,348	Actual Salary	Program development and potential demand assessment.
Existing Personnel (in-kind)	Chief Financial Officer / AE	Financing Option Analysis and Evaluation	20	80	1,600	Actual Salary	To determine financing options to be included in the retrofit program and analyze impacts.
Existing Personnel (in-kind)	Chief Financial Officer / City of Austin	Financing Option Analysis and Evaluation	20	80	1,600	Actual Salary	To determine financing options to be included in the retrofit program and analyze impacts.
Existing Personnel (in-kind)	Financial Planner / Travis Co. Tax Assessor-Collector	Financing Option Analysis and Evaluation	520	35	18,200	Actual Salary	Implement and process PACE financing mechanism.
Existing Personnel (in-kind)	Financial Planner Utility / AE	Financing Option Analysis and Evaluation	520	37	18,990	Actual Salary	To determine financing options to be included in the retrofit program and analyze impacts.
Existing Personnel (in-kind)	Financial Manager / City Finance Dept.	Financing Option Analysis and Evaluation	520	37	18,990	Actual Salary	To determine financing options to be included in the retrofit program and analyze impacts.
Existing Personnel (in-kind)	Financial Planner Utility / AE	Program Design / Program Administration and Reporting	520	47	24,544	Actual Salary	Current employee to manage financial impact of Retrofit Program, program budget, and coordination with City Finance Dept. and Travis Co. Tax Assessor.
Existing Personnel (in-kind)	Distributed Energy Services Vice President / AE	Program Design / Program Administration and Reporting	520	75	39,000	Actual Salary	Direct project.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Austin Climate Protection Plan staff for community organization and inter-departmental interaction with City offices.
Existing Personnel (in-kind)	Energy Services Unit Manager / AE	Program Design / Program Administration and Reporting	520	50	26,016	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Consulting Engineer / AE	Program Design / Program Administration and Reporting	520	62	32,245	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Demand-Side Management Director / AE	Program Design / Program Administration and Reporting	520	71	36,915	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Austin Climate Protection Plan Director / AE	Program Design / Program Administration and Reporting	520	62	32,245	Actual Salary	Community organization and management of inter-department interaction with City offices.
Existing Personnel (in-kind)	Austin Energy Green Building Program Manager / AE	Program Design / Program Administration and Reporting	520	62	32,261	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to potential residential customer program participants.
Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to potential small commercial customer program participants.

Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to large commercial residential customer program participants.
Existing Personnel (in-kind)	Conservation Program Specialist, Senior / AE	Workforce Development	520	33	17,092	AE Market Rate	Coordinate workforce development for Retrofit Program.
Existing Personnel (in-kind)	Chief Information Officer / AE	ITT and Technical Support	52	75	3,900	AE Market Rate	Oversee support services for ITT.
Existing Personnel (in-kind)	Information Technology Project Manager / AE	ITT and Technical Support	1,040	44	46,093	AE Market Rate	Current employee to work on integration of software programs and database for Retrofit Program.
Existing Personnel (in-kind)	Distributed Energy Services Vice President / AE	Regional Consortium/Best Practices	100	75	7,500	Actual Salary	Role in Regional Consortium.
Partner Personnel (in-kind)	Various Position Titles / AE	Partner Contributions (In-Kind)	20,800	25	520,000	10 partners committing an average of 2080 staff hours each	Many parters are willing to commit staff for marketing and outreach efforts as well as program coordination.
Total					1,111,210		

b. Fringe Benefits	Rate Applied	Basis of Cost			Total Cost ($)		
Total	15.65%	City of Austin Standard			173,904		

h. Other	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	Free Marketing and Outreach Services	Marketing and Outreach			50,000	Estimate	Free marketing and outreach services include the use of social media (facebook, twitter, etc.), employee events, community events, and public education through government access channels.
	Partnerships for Workforce Development	Workforce Development			50,000	Estimate	In-kind contributions from partnerships with Austin Community College, AmeriWorks and others for green jobs development.
	Utility Rebates	Rebates			8,550,328	20% of Project Cost	Program participants will be able to take advantage of AE's existing and potentially enhanced rebates.
Total					8,650,328		

Additional Leveraged Funds

Retrofit Costs	General Description	Purpose			Total Cost ($)	Basis of Cost	Assumptions
	Residential/Small Commercial PACE-Financed Retrofit Costs	Residential/Small Comm. PACE Retrofits			18,727,432	Assumptions in Project Impact Analysis	1% Single-Family Residential Penetration at $18,750 avg. project cost; 1% Multi-Family Housing Property Penetration at $1,250 avg. project cost; 1% Small Commercial Penetration at $43,750 average project cost
	Large Commercial PACE-Financed Retrofit Costs	Large Commercial PACE Retrofits			2,111,396	Assumptions in Project Impact Analysis	1% Large-Commercial Penetration at $350,000 avg. project cost
	Retrofits Using Non-PACE Financing Options or Up-Front Capital Expenditures	Other Retrfoits			6,840,263	Assumptions in Project Impact Analysis	20% Spillover effect for retrofits using other financing options or owner paying for up-front costs
	Energy Audits and Ratings Required Through the Austin Energy and Conservation Disclosure Ordinance	ECAD Energy Audits and Ratings			1,483,650	Estimate	$300 per Single-Family Residential Audit (4,000 audits expected), $100 per multi-family property audit, $100 per Commercial Energy Ratings

	Federal Tax Credits	Federal Tax Credits			6,522,222	Current tax credit rates	Assume 20% of project costs are solar PV or solar hot water heaters for residential and 10% for small commercial; residential customers will get to use $1,500 federal tax credit for energy efficiency improvements; commercial customers will get $1 per square foot for their energy efficiency improvements.
	Home Performance with Energy Star® Loan Program Retrofits	Energy Star® Loan Program			2,000,000	Current Participation	Expected continued participation in loan program in which AE buys down the interest of the loan.
	Other Federal Grant Funding	Previously Awarded EECBG Funds			6,650,000	Awarded Amount	Half of awarded amount will be spent during Project Year 1. Funds are for free weatherization for low-income customers and municipal building retrofits.
Total					44,334,963		

Forecasted Cash Needs in $		
Federal	14,666,418	
Non-Federal	9,935,442	
Total	24,601,860	
Forecasted Economic Activity in $ (Leveraging plus Forecasted Cash Needs)		
Federal	14,666,418	
Non-Federal	54,270,405	
Total	68,936,823	

Austin Climate Protection Retrofit Program - Budget Justification - Year 2

Budget Category

12,500

a. Personnel	Position Title	Purpose	Time (Hours)	Pay Rate ($/Hr)	Total Cost ($)	Rate Basis	Justificiation of Need
New Full-Time Employee	Conservation Program Specialist, Senior / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage single-family residential customer involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage multi-family housing property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage small commercial property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage large commercial property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage quarterly and annual Retrofit Program reporting and partner participation.
New Full-Time Employee	Financial Planner Utility / AE	Program Design / Program Administration and Reporting	2,080	47.2	98,176	AE Market Rate	To manage financial impact of Retrofit Program, program budget, and coordination with City Finance Dept. and Travis Co. Tax Assessor.
New Full-Time Employee	Engineer C / AE	Program Design / Program Administration and Reporting	2,080	54.16	112,653	AE Market Rate	Monitoring and verification, program impact analysis, and audit monitoring software integration.
New Full-Time Employee	Inspector C / AE	Program Design / Program Administration and Reporting	2,080	31.3	65,104	AE Market Rate	Inspection of installations for residential property owner program participants.
New Full-Time Employee	Inspector C / AE	Program Design / Program Administration and Reporting	2,080	31.3	65,104	AE Market Rate	Inspection of installations for commercial property owner program participants.
New Full-Time Employee	Customer Care Program Manager / AE or Travis Co. Tax Assessor-Collector	Program Design / Program Administration and Reporting	2,080	37.38	77,750	AE Market Rate	Coordinate collection of loans, billing of administration and finance expenses, and non-payment notification.
New Full-Time Employee	Customer Care Program Manager / AE or Travis Co. Tax Assessor-Collector	Program Design / Program Administration and Reporting	2,080	37.38	77,750	AE Market Rate	Coordinate collection of loans, billing of administration and finance expenses, and non-payment notification.
New Full-Time Employee	Marketing Communications Consultant / AE	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Coordinate, design and implement marketing and outreach services for Retrofit Program.
New Full-Time Employee	Marketing Communications Consultant / AE	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Provide individual outreach to potential small commercial customer program participants.
New Full-Time Employee	Marketing Communications Consultant	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Provide individual outreach to potential large commercial customer program participants.
New Full-Time Employee	Conservation Program Specialist, Senior / AE	Workforce Development	2,080	32.87	68,370	AE Market Rate	Coordinate workforce development for Retrofit Program.
New Full-Time Employee	Information Technology Project Coordinator / AE	ITT and Technical Support	2,080	47.2	98,176	AE Market Rate	Work on development of website and integrated software for program management, administration, and reporting.
New Full-Time Employee	Information Technology Data Architect / AE	ITT and Technical Support	2,080	54.16	112,653	AE Market Rate	Develop and maintain database for program participants and provide technical support for system.
Total					1,320,384		
b. Fringe Benefits	Rate Applied	Purpose			Total Cost ($)		
Total	15.65%	City of Austin Standard			206,640		

c. Travel	No. of Travelers	Purpose	# of Days	Cost per Trip ($)	Total Cost ($)	Basis for Estimating Costs	Justification of Need

	1	Regional Consortium/Best Practices	6	250	1,500	Estimate	Project Director will coordinate the Regional Consortium and provide information and promote best practices regionally (Texas).
	1	Regional Consortium/Best Practices	2	500	1,000	Estimate	Coordinate Regional Consortium and provide information and promote best practices nationally.
Total	1		8		2,500		

d. Equipment	Item	Purpose	Quantity	Unit Cost ($)	Total Cost ($)	Basis of Cost	Justification of Need
Total					0		

e. Supplies	Category	Purpose	Quantity	Unit Cost ($)	Total Cost ($)	Basis of Cost	Justification of Need
	Mailers / Information Materials	Marketing and Outreach	4,000	5	20,000	Estimate based on AE experience	To provide information to large commercial customers on the Retrofit Program and encourage participation.
	Mailers / Information Materials	Marketing and Outreach	15,000	0.87	13,050	Estimate based on AE experience	To provide information to small commercial customers on the Retrofit Program and encourage participation.
	Mailers / Information Materials	Marketing and Outreach	100,000	0.71	71,000	Estimate based on AE experience	To provide information to residential customers on the Retrofit Program and encourage participation.
Total					104,050		

f. Contractual	Sub-Recipient Name/Org.	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	To Be Determined through RFP process	Application Intake and Processing			480,297	2% of PACE-financed amount for project year	Third-party review and processing of applications, customer service, education and marketing, and printing, reproduction and shipping for applicant notification, coordination with program management, and monitoring and verification.
	To Be Determined through RFP process or will be done by AE	Marketing and Outreach			188,825	Estimate Based on AE Experience	Advertising through multiple media types to provide information on the Retrofit Program and encourage participation.
	To Be Determined through RFP process or will be done by AE	Workforce Development			100,000	Estimate	Informational materials and training sessions with retrofit-related workforce to provide information on the retrofit program for potential contractors, discuss potential demand, and ensure adequate workforce needs are available.
Total					769,122		

g. Construction	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
Total					0		

h. Other	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	Annual Regional Consortium on Energy Efficiency Financing Best Practices Fees	Regional Consortium/Best Practices			10,000	Estimate	Costs to establish the Regional Consortium.
	Variable Financing Expenses	Tax Service Expenses			240,148	1% of PACE-financed amount for project year	Bond paying and transfer agent, lien recordation, and county tax collection expenses
	Legal Expenses	Legal Expenses			100,000	Estimate	Legal expenses associated with delinquency and other issues requring legal remedies.
Total					350,148		

i. Total Direct Charges					Total Cost ($)		
					2,752,845		

j. Indirect Charges	General Description	Purpose			Total Cost ($)		
No Indirect Charges					0		

k. Totals					Total Cost ($)		
					2,752,845		

Program Income							
(No Program Income)							

Non-Federal Resources

a. Personnel	Position Title / Department	Purpose	Time (Hours)	Pay Rate ($/Hr)	Total Cost ($)	Rate Basis	Justificiation of Need
Existing Personnel (in-kind)	Financial Planner Utility / AE	Program Design / Program Administration and Reporting	520	47	24,544	Actual Salary	Current employee to manage financial impact of Retrofit Program, program budget, and coordination with City Finance Dept. and Travis Co. Tax Assessor.
Existing Personnel (in-kind)	Distributed Energy Services Vice President / AE	Program Design / Program Administration and Reporting	520	75	39,000	Actual Salary	Direct project.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Austin Climate Protection Plan staff for community organization and inter-departmental interaction with City offices.
Existing Personnel (in-kind)	Energy Services Unit Manager / AE	Program Design / Program Administration and Reporting	520	50	26,016	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Consulting Engineer / AE	Program Design / Program Administration and Reporting	520	62	32,245	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Demand-Side Management Director / AE	Program Design / Program Administration and Reporting	520	71	36,915	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Austin Climate Protection Plan Director / AE	Program Design / Program Administration and Reporting	520	62	32,245	Actual Salary	Community organization and management of inter-department interaction with City offices.
Existing Personnel (in-kind)	Austin Energy Green Building Program Manager / AE	Program Design / Program Administration and Reporting	520	62	32,261	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.

Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to potential residential customer program participants.
Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to potential small commercial customer program participants.
Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to large commercial residential customer program participants.
Existing Personnel (in-kind)	Conservation Program Specialist, Senior / AE	Workforce Development	520	33	17,092	AE Market Rate	Coordinate workforce development for Retrofit Program.
Existing Personnel (in-kind)	Chief Information Officer / AE	ITT and Technical Support	52	75	3,900	AE Market Rate	Oversee support services for ITT.
Existing Personnel (in-kind)	Information Technology Project Manager / AE	ITT and Technical Support	1,040	44	46,093	AE Market Rate	Current employee to work on integration of software programs and database for Retrofit Program.
Existing Personnel (in-kind)	Distributed Energy Services Vice President / AE	Regional Consortium/Best Practices	100	75	7,500	Actual Salary	Role in Regional Consortium.
Existing Personnel (in-kind)	City Legal Counsel	Legal Expenses	520	75	39,000	Market Rate	Legal issues associated with Retrofit Program.
Partner Personnel (in-kind)	Various Position Titles / AE	Partner Contributions (In-Kind)	20,800	25	520,000	10 partners committing an average of 2080 staff hours each	Many parters are willing to commit staff for marketing and outreach efforts as well as program coordination.
Total					1,082,449		

b. Fringe Benefits	Rate Applied	Basis of Cost			Total Cost ($)		
Total	15.65%	City of Austin Standard			169,403		

h. Other	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	Free Marketing and Outreach Services	Marketing and Outreach			50,000	Estimate	Free marketing and outreach services include the use of social media (facebook, twitter, etc.), employee events, community events, and public education through government access channels.
	Partnerships for Workforce Development	Workforce Development			50,000	Estimate	In-kind contributions from partnerships with Austin Community College, AmeriWorks and others for green jobs development.
	Utility Rebates	Rebates			10,055,328	20% of Project Cost	Program participants will be able to take advantage of AE's existing and potentially enhanced rebates.
Total					10,155,328		

Additional Leveraged Funds

Retrofit Costs	General Description	Purpose			Total Cost ($)	Basis of Cost	Assumptions
	Residential/Small Commercial PACE-Financed Retrofit Costs	Residential/Small Comm. PACE Retrofits			19,792,056	Assumptions in Project Impact Analysis	1% Single-Family Residential Penetration at $18,750 avg. project cost; 1% Multi-Family Housing Property Penetration at $1,250 avg. project cost; 1% Small Commercial Penetration at $43,750 average project cost
	Large Commercial PACE-Financed Retrofit Costs	Large Commercial PACE Retrofits			4,222,792	Assumptions in Project Impact Analysis	1% Large-Commercial Penetration at $350,000 avg. project cost
	Retrofits Using Non-PACE Financing Options or Up-Front Capital Expenditures	Other Retrfoits			8,044,263	Assumptions in Project Impact Analysis	20% Spillover effect for retrofits using other financing options or owner paying for up-front costs

	Energy Audits and Ratings Required Through the Austin Energy and Conservation Disclosure Ordinance	ECAD Energy Audits and Ratings			1,483,650	Estimate	$300 per Single-Family Residential Audit (4,000 audits expected), $100 per multi-family property audit, $100 per Commercial Energy Ratings
	Federal Tax Credits	Federal Tax Credits			8,162,202	Current tax credit rates	Assume 20% of project costs are solar PV or solar hot water heaters for residential and 10% for small commercial; residential customers will get to use $1,500 federal tax credit for energy efficiency improvements; commercial customers will get $1 per squa
	Home Performance with Energy Star® Loan Program Retrofits	Energy Star® Loan Program			2,000,000	Current Participation	Expected continued participation in loan program in which AE buys down the interest of the loan.
	Other Federal Grant Funding	Previously Awarded EECBG Funds			6,650,000	Awarded Amount	Half of awarded amount will be spent during Project Year 1. Funds are for free weatherization for low-income customers and municipal building retrofits.
Total					50,354,963		

Forecasted Cash Needs in $		
Federal	2,752,845	
Non-Federal	11,407,180	
Total	14,160,025	
Forecasted Economic Activity in $ (Leveraging plus Forecasted Cash Needs)		
Federal	2,752,845	
Non-Federal	61,762,143	
Total	64,514,988	

Austin Climate Protection Retrofit Program - Budget Justification - Year 3

Budget Category

a. Personnel	Position Title	Purpose	Time (Hours)	Pay Rate ($/Hr)	Total Cost ($)	Rate Basis	Justificiation of Need
New Full-Time Employee	Conservation Program Specialist, Senior / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage single-family residential customer involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage multi-family housing property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage small commercial property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage large commercial property owner involvement in Retrofit Program.
New Full-Time Employee	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	2,080	32.87	68,370	AE Market Rate	To manage quarterly and annual Retrofit Program reporting and partner participation.
New Full-Time Employee	Financial Planner Utility / AE	Program Design / Program Administration and Reporting	2,080	47.2	98,176	AE Market Rate	To manage financial impact of Retrofit Program, program budget, and coordination with City Finance Dept. and Travis Co. Tax Assessor.
New Full-Time Employee	Engineer C / AE	Program Design / Program Administration and Reporting	2,080	54.16	112,653	AE Market Rate	Monitoring and verification, program impact analysis, and audit monitoring software integration.
New Full-Time Employee	Inspector C / AE	Program Design / Program Administration and Reporting	2,080	31.3	65,104	AE Market Rate	Inspection of installations for residential property owner program participants.
New Full-Time Employee	Inspector C / AE	Program Design / Program Administration and Reporting	2,080	31.3	65,104	AE Market Rate	Inspection of installations for commercial property owner program participants.
New Full-Time Employee	Customer Care Program Manager / AE or Travis Co. Tax Assessor-Collector	Program Design / Program Administration and Reporting	2,080	37.38	77,750	AE Market Rate	Coordinate collection of loans, billing of administration and finance expenses, and non-payment notification.
New Full-Time Employee	Customer Care Program Manager / AE or Travis Co. Tax Assessor-Collector	Program Design / Program Administration and Reporting	2,080	37.38	77,750	AE Market Rate	Coordinate collection of loans, billing of administration and finance expenses, and non-payment notification.
New Full-Time Employee	Marketing Communications Consultant / AE	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Coordinate, design and implement marketing and outreach services for Retrofit Program.
New Full-Time Employee	Marketing Communications Consultant / AE	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Provide individual outreach to potential small commercial customer program participants.
New Full-Time Employee	Marketing Communications Consultant	Marketing and Outreach	2,080	32.5	67,600	AE Market Rate	Provide individual outreach to potential large commercial customer program participants.
New Full-Time Employee	Conservation Program Specialist, Senior / AE	Workforce Development	2,080	32.87	68,370	AE Market Rate	Coordinate workforce development for Retrofit Program.
New Full-Time Employee	Information Technology Project Coordinator / AE	ITT and Technical Support	2,080	47.2	98,176	AE Market Rate	Work on development of website and integrated software for program management, administration, and reporting.
New Full-Time Employee	Information Technology Data Architect / AE	ITT and Technical Support	2,080	54.16	112,653	AE Market Rate	Develop and maintain database for program participants and provide technical support for system.
Total					1,320,384		
b. Fringe Benefits	**Rate Applied**	**Purpose**			**Total Cost ($)**		
Total	15.65%	City of Austin Standard			206,640		

c. Travel	No. of Travelers	Purpose	# of Days	Cost per Trip ($)	Total Cost ($)	Basis for Estimating Costs	Justification of Need

	1	Regional Consortium/Best Practices	6	250	1,500	Estimate	Project Director will coordinate the Regional Consortium and provide information and promote best practices regionally (Texas).
	1	Regional Consortium/Best Practices	2	500	1,000	Estimate	Coordinate Regional Consortium and provide information and promote best practices nationally.
Total	1		8		2,500		

d. Equipment	Item	Purpose	Quantity	Unit Cost ($)	Total Cost ($)	Basis of Cost	Justification of Need
Total					0		

e. Supplies	Category	Purpose	Quantity	Unit Cost ($)	Total Cost ($)	Basis of Cost	Justification of Need
	Mailers / Information Materials	Marketing and Outreach	4,000	5	20,000	Estimate based on AE experience	To provide information to large commercial customers on the Retrofit Program and encourage participation.
	Mailers / Information Materials	Marketing and Outreach	15,000	0.87	13,050	Estimate based on AE experience	To provide information to small commercial customers on the Retrofit Program and encourage participation.
	Mailers / Information Materials	Marketing and Outreach	100,000	0.71	71,000	Estimate based on AE experience	To provide information to residential customers on the Retrofit Program and encourage participation.
Total					104,050		

f. Contractual	Sub-Recipient Name/Org.	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	To Be Determined through RFP process	Application Intake and Processing			543,817	2% of PACE-financed amount for project year	Third-party review and processing of applications, customer service, education and marketing, and printing, reproduction and shipping for applicant notification, coordination with program management, and monitoring and verification.
	To Be Determined through RFP process or will be done by AE	Marketing and Outreach			188,825	Estimate Based on AE Experience	Advertising through multiple media types to provide information on the Retrofit Program and encourage participation.
	To Be Determined through RFP process or will be done by AE	Workforce Development			100,000	Estimate	Informational materials and training sessions with retrofit-related workforce to provide information on the retrofit program for potential contractors, discuss potential demand, and ensure adequate workforce needs are available.
Total					832,642		

g. Construction	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
Total					0		

h. Other	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	Annual Regional Consortium on Energy Efficiency Financing Best Practices Fees	Regional Consortium/Best Practices			10,000	Estimate	Costs to establish the Regional Consortium.
	Variable Financing Expenses	Tax Service Expenses			271,909	1% of PACE-financed amount for project year	Bond paying and transfer agent, lien recordation, and county tax collection expenses
	Legal Expenses	Legal Expenses			100,000	Estimate	Legal expenses associated with delinquency and other issues requring legal remedies.

	Conference	Conference on Program Results			200,000	Estimate	To provide an opportunity for formal presentation of the results of the program and promote best practices for energy efficiency financing.
Total					581,909		

i. Total Direct Charges					Total Cost ($)		
					3,048,125		

j. Indirect Charges	General Description	Purpose			Total Cost ($)		
No Indirect Charges					0		

k. Totals					Total Cost ($)		
					3,048,125		

Program Income							
(No Program Income)							

Non-Federal Resources

a. Personnel	Position Title / Department	Purpose	Time (Hours)	Pay Rate ($/Hr)	Total Cost ($)	Rate Basis	Justificiation of Need
Existing Personnel (in-kind)	Financial Planner Utility / AE	Program Design / Program Administration and Reporting	520	47	24,544	Actual Salary	Current employee to manage financial impact of Retrofit Program, program budget, and coordination with City Finance Dept. and Travis Co. Tax Assessor.
Existing Personnel (in-kind)	Distributed Energy Services Vice President / AE	Program Design / Program Administration and Reporting	520	75	39,000	Actual Salary	Direct project.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Conservation Program Coordinator / AE	Program Design / Program Administration and Reporting	520	37	19,438	Actual Salary	Austin Climate Protection Plan staff for community organization and inter-departmental interaction with City offices.
Existing Personnel (in-kind)	Energy Services Unit Manager / AE	Program Design / Program Administration and Reporting	520	50	26,016	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Consulting Engineer / AE	Program Design / Program Administration and Reporting	520	62	32,245	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Demand-Side Management Director / AE	Program Design / Program Administration and Reporting	520	71	36,915	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Austin Climate Protection Plan Director / AE	Program Design / Program Administration and Reporting	520	62	32,245	Actual Salary	Community organization and management of inter-department interaction with City offices.

Existing Personnel (in-kind)	Austin Energy Green Building Program Manager / AE	Program Design / Program Administration and Reporting	520	62	32,261	Actual Salary	Current manager to develop integration of existing programs into Retrofit Program.
Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to potential residential customer program participants.
Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to potential small commercial customer program participants.
Existing Personnel (in-kind)	Marketing Communications Consultant / AE	Marketing and Outreach	520	33	16,900	AE Market Rate	Current employee to work on marketing and outreach to large commercial residential customer program participants.
Existing Personnel (in-kind)	Conservation Program Specialist, Senior / AE	Workforce Development	520	33	17,092	AE Market Rate	Coordinate workforce development for Retrofit Program.
Existing Personnel (in-kind)	Chief Information Officer / AE	ITT and Technical Support	52	75	3,900	AE Market Rate	Oversee support services for ITT.
Existing Personnel (in-kind)	Information Technology Project Manager / AE	ITT and Technical Support	1,040	44	46,093	AE Market Rate	Current employee to work on integration of software programs and database for Retrofit Program.
Existing Personnel (in-kind)	Distributed Energy Services Vice President / AE	Regional Consortium/Best Practices	100	75	7,500	Actual Salary	Role in Regional Consortium.
Existing Personnel (in-kind)	City Legal Counsel	Legal Expenses	520	75	39,000	Market Rate	Legal issues associated with Retrofit Program.
Partner Personnel (in-kind)	Various Position Titles / AE	Partner Contributions (In-Kind)	20,800	25	520,000	10 partners committing an average of 2080 staff hours each	Many parters are willing to commit staff for marketing and outreach efforts as well as program coordination.
Total					1,082,449		

b. Fringe Benefits	Rate Applied	Purpose			Total Cost ($)		
Total					169,403		

h. Other	General Description	Purpose			Total Cost ($)	Basis of Cost	Justification of Need
	Free Marketing and Outreach Services	Marketing and Outreach			50,000	Estimate	Free marketing and outreach services include the use of social media (facebook, twitter, etc.), employee events, community events, and public education through government access channels.
	Partnerships for Workforce Development	Workforce Development			50,000	Estimate	In-kind contributions from partnerships with Austin Community College, AmeriWorks and others for green jobs development.
	Utility Rebates	Rebates			11,560,328	20% of Project Cost	Program participants will be able to take advantage of AE's existing and potentially enhanced rebates.
Total					11,660,328		

Additional Leveraged Funds

Retrofit Costs	General Description	Purpose			Total Cost ($)	Basis of Cost	Assumptions
	Residential/Small Commercial PACE-Financed Retrofit Costs	Residential/Small Comm. PACE Retrofits			20,856,679	Assumptions in Project Impact Analysis	1% Single-Family Residential Penetration at $18,750 avg. project cost; 1% Multi-Family Housing Property Penetration at $1,250 avg. project cost; 1% Small Commercial Penetration at $43,750 average project cost
	Large Commercial PACE-Financed Retrofit Costs	Large Commercial PACE Retrofits			6,334,188	Assumptions in Project Impact Analysis	1% Large-Commercial Penetration at $350,000 avg. project cost

	Retrofits Using Non-PACE Financing Options or Up-Front Capital Expenditures	Other Retrfoits			9,248,263	Assumptions in Project Impact Analysis	20% Spillover effect for retrofits using other financing options or owner paying for up-front costs
	Energy Audits and Ratings Required Through the Austin Energy and Conservation Disclosure Ordinance	ECAD Energy Audits and Ratings			1,200,000	Estimate	$300 per Single-Family Residential Audit (4,000 audits expected), $100 per multi-family property audit, $100 per Commercial Energy Ratings
	Federal Tax Credits	Federal Tax Credits			9,802,183	Current tax credit rates	Assume 20% of project costs are solar PV or solar hot water heaters for residential and 10% for small commercial; residential customers will get to use $1,500 federal tax credit for energy efficiency improvements; commercial customers will get $1 per squa
	Home Performance with Energy Star® Loan Program Retrofits	Energy Star® Loan Program			2,000,000	Current Participation	Expected continued participation in loan program in which AE buys down the interest of the loan.
Total					49,441,313		

Forecasted Cash Needs in $		
Federal	3,048,125	
Non-Federal	12,912,180	
Total	15,960,306	
Forecasted Economic Activity in $ (Leveraging plus Forecasted Cash Needs)		
Federal	3,048,125	
Non-Federal	62,353,493	
Total	65,401,619	

Austin Climate Protection Retrofit Program - Total Project Value

Forecasted Cash Needs ($)	Year 1	Year 2	Year 3	Total
Federal	14,666,418	2,752,845	3,048,125	20,467,388
Non-Federal	9,935,442	11,407,180	12,912,180	34,254,803
Total	24,601,860	14,160,025	15,960,306	54,722,191
Forecasted Economic Activity in $ (Leveraging plus Forecasted Cash Needs)	Year 1	Year 2	Year 3	Total
Federal	14,666,418	2,752,845	3,048,125	20,467,388
Non-Federal	54,270,405	61,762,143	62,353,493	178,386,042
Total	68,936,823	64,514,988	65,401,619	198,853,430

Notes:

Austin Energy and the City of Austin are committed to ensuring that all laborers and mechanics on projects funded directly by or assisted in whole or in part by and through funding appropriated by the American Recovery and Reinvestment Act of 2009. P.L. 111-5 shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by subchapter IV of Chapter 31 of title 40, United States Code (Davis-Bacon Act). A letter signed by the General Manager of Austin Energy and included with this application affirms that committment.

The City of Austin is solely responsible for negotiating indirect rates if contractors are used for this project.

Letters of support from third partieis contributing in-kind resources to this project are attached to this application.

The quarterly spending plan provided within the project narrative is consistent with this budget justification.

Appendix C – NEPA FORM For Completion

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL SUMMARY

(To Be Completed by Potential Recipient)

The Department of Energy (DOE) is required by the National Environmental Policy Act (NEPA) of 1969 as amended (42 U.S.C. 4332(2), 40 CFR parts 1500-1508) and DOE implementing regulations (10 CFR 1021) to consider the environmental effects resulting from federal actions, including providing financial assistance. Please provide the following information to facilitate DOE's environmental review.

Part 1: General Information

Title: Austin Climate Protection Retrofit Program

FOA Number: DE-FOA-0000148

1. Please describe the intended use of DOE funding in your proposed plan. For example, would the funding be applied to the entire project or only support a phase of the project? Describe the activity as specifically as possible, i.e. planning, feasibility, study, design, data analysis, education or outreach activities, construction, capital purchase and/or equipment installation or modification.

The Austin Climate Protection Retrofit Program will accelerate energy and water efficiency and integrated renewable energy improvements made to private properties in the City of Austin by offering a menu of financing options to property owners, including a new Property Assessed Clean Energy (PACE) financing mechanism that allows participants to repay installation costs through a special assessment on their property tax bills. All customer types including residential, multi-family, commercial, and industrial will be eligible to participate in the program with distinct outreach and marketing programs designed for each customer type to maximize participation. Activities involved in the funding request include program design, market research, outreach and marketing, program administration and finance costs, and monitoring and verification.

2. Does any part of your project require review and/or permitting by any other federal, state, regional, local, environmental, or regulatory agency? ☐ Yes ☒ No

3. Has any review (e.g. NEPA documentation, permits, agency consultations) been completed?
☐ Yes ☒ No
If yes, is a finding or report available and how can a copy be obtained?

4. Provide information about the potential environmental issues, concerns, and impacts associated with your proposal. Please provide as much detail as possible in the following areas: specifics of proposed activities, project locations, size, layout, commitments to waste management and historic preservation. If project specific information is unknown, describe your plan for obtaining this information.

This project takes place inside a 'brownfield' improvement zone. The municipal airport has been converted into a master planned community that includes open spaces, residential, commercial, industrial and civic development, built to both high energy efficiency and density standards. There will be very minimal to no disturbance of the natural environment, and what there is will be within the footprint of this totally reclaimed area. Most of the work will be either evaluating data, desk-top in an office; or, in and on existing buildings to perform energy efficiency retrofits and attach items such as solar PV systems.

Austin Climate Protection Retrofit Program – Project Impact Table

Project Impact Metrics	During Project Period			Post Project Period (Years 4 to 6)		
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number of buildings retrofitted (total)	2,944	3,022	3,101	3,101	3,101	3,101
Single-family residential	1,808	1,808	1,808	1,808	1,808	1,808
Multi-family residential units	1,058	1,058	1,058	1,058	1,058	1,058
Small commercial (<100 kW)	68	136	203	203	203	203
Large commercial (≥100 kW)	10	21	31	31	31	31
Total square footage of buildings retrofitted	5,293,443	6,628,548	7,963,653	7,963,653	7,963,653	7,963,653
Single-family residential	3,216,855	3,216,855	3,216,855	3,216,855	3,216,855	3,216,855
Multi-family residential units	741,483	741,483	741,483	741,483	741,483	741,483
Small commercial (<100 kW)	527,502	1,055,003	1,582,505	1,582,505	1,582,505	1,582,505
Large commercial (≥100 kW)	807,604	1,615,208	2,422,812	2,422,812	2,422,812	2,422,812
Average utilities savings achieved per unit retrofitted (annual energy/cost)	12 MWh/ $1,112	18 MWh/ $1,669	24 MWh/ $2,197	24 MWh/ $2,197	24 MWh/ $2,197	24 MWh/ $2,197
Single-family residential	7.5 MWh/ $750	7.5 MWh/ $750	7.5 MWh/ $750	7.5 MWh/ $750	7.5 MWh/ $750	7.5 MWh/ $750
Multi-family residential units	1.4 MWh/ $350	1.4 MWh/ $350	1.4 MWh/ $350	1.4 MWh/ $350	1.4 MWh/ $350	1.4 MWh/ $350
Small commercial (<100 kW)	114 MWh/ $28,549	114 MWh/ $28,549	114 MWh/ $28,549	114 MWh/ $28,549	114 MWh/ $28,549	114 MWh/ $28,549
Large commercial (≥100 kW)	1,124 MWh/ $280,962	1,124 MWh/ $280,962	1,124 MWh/ $280,962	1,124 MWh/ $280,962	1,124 MWh/ $280,962	1,124 MWh/ $280,962
Jobs created or retained	111	127	143	110	110	110
Average emissions reductions (MMT CO_2) per unit	6.91	10.53	13.97	13.97	13.97	13.97
Single-family residential	4.43	4.43	4.43	4.43	4.43	4.43
Multi-family residential units	2.07	2.07	2.07	2.07	2.07	2.07
Small commercial (<100 kW)	168.44	168.44	168.44	168.44	168.44	168.44
Large commercial (≥100 kW)	1,657.68	1,657.68	1,657.68	1,657.68	1,657.68	1,657.68
EECBG funds expended ($million)	14.66	2.74	3.03	0	0	0
Leveraged funds and in-kind resources expended ($million)	54.57	62.07	62.67	62.67	62.67	62.67
Note: See Project Narrative, Table 3 for other environmental benefits						

Assumptions

Number of buildings retrofitted (total)

- 80% of retrofits projected are directly financed through Property-Assessed Clean Energy (PACE) financing mechanism, 20% are attributed to other financing options provided by the retrofit program and retrofits stimulated by education and outreach through the retrofit program and without financing needed.
- For all retrofits attributed to or stimulated by the retrofit program penetration of 1% residential building stock (single-family and multi-housing units) in City of Austin each project year and out-year based on PACE program experience, additional financing options, aggressive marketing and outreach strategies and Energy Conservation and Disclosure Ordinance (ECAD) requirements for energy audits at point-of-sale for single-family homes and for all multi-family housing properties by June 2011.
- For all retrofits attributed to or stimulated by the retrofit program penetration of 1% commercial building stock in City of Austin in Project Year 1, 2% penetration in Project Year 2, and 3% penetration in Project Year 3 and out-years due to momentum gained, aggressive marketing and outreach strategies for this sector, and ECAD energy rating requirements for all commercial buildings by June 2011.
- Project Year 1 will have significant building retrofit penetration in Year 1 due to early adopters despite having six months less time for enrollment
- Small commercial buildings are classified as those having less than 100 kW summer peak demand.
- Large commercial buildings are classified as those having 100 kW or greater summer peak demand.
- The following City of Austin building stock numbers and related assumptions were used:

Customer Type	# in City of Austin	Avg. Square Footage	# of ECAD Audits or Energy
Single-Family	144,659	1,779	12,000
Multi-Family (units)	84,620	701	62,041
Small Commercial	5,420	7,786	4,806
Large Commercial	834	77,468	652
Total	235,533	1,798	79,499

Total square footage of buildings retrofitted

- Based upon average square footage per customer type data (based upon Travis County Appraisal District data) provided in above table and expected number of buildings retrofitted by customer type provided in Project Impact Table

Average utilities savings achieved per unit retrofitted (annual energy/cost)

- Average annual energy use by customer type as follows based on Austin Energy data: 15 MWh for single-family, 7 MWh for multi-family units, 571 MWh for small commercial, and 5,619 MWh for large commercial
- 50% average reduction in energy use for single-family (based on 35% of buildings adding a 3 kW solar PV system that will achieve 17% capacity factor for energy generated, and 30% energy reduction from energy efficiency is achieved for all retrofits)
- 20% average reduction in energy use for multi-family housing units and commercial buildings
- Average cost of electricity for residential and small commercial is 10 cents per kWh based on Austin Energy data
- Average cost of electricity for large commercial is 8.5 cents per kWh based on Austin Energy data

Jobs created or retained

- Based on job impact analysis using IMPLAN software.
- Includes direct, indirect, and induced impacts.

Average emissions reductions (MMT CO_2) per unit

- Assume avoided CO_2 emissions equivalent per unit of energy saved of 0.59 metric tons per MWh. This is consistent with ERCOT average for reporting CO_2 emissions from purchased power in the market and is consistent with AE's marginal CO_2 emissions rate attributed to natural gas power plant operation.

EECBG funds expended ($million)

- Based on funding request, details provided in budget justification

Leveraged funds and in-kind resources expended ($million)

- Based on analysis provided in project narrative and budget justification for leveraged funds and in-kind resources
- Details on in-kind resources are provided in the budget justification
- For cost of retrofits the following assumptions are made based on Austin Energy data and performance of PACE programs around the nation
    - $18,750 average cost of retrofit for single-family residential units
    - $1,200 average cost of retrofit for multi-family residential units
    - $43,750 average cost of retrofit for small commercial properties
    - $437,500 average cost of retrofit for large commercial properties

- Rebate costs are 20% of the cost of retrofit, consistent with Austin Energy Demand-Side Management (DSM) program performance data
- Federal tax credit assumptions are as follows:
    - $1,500 credit for all single-family residential energy efficiency improvements
    - $6,000 tax credit (30% of cost of installation) for solar PV system installations (based on 3 kW system at $6,000/kW)
    - Average tax credit of $1 per square foot of commercial building retrofitted
- Required energy audits and ratings identified in table above will cost $300 per single-family residential and roughly $100 per multi-family and commercial property
- AE will leverage funds previously allocated based on formula provisions for free weatherization and municipal building retrofits
- $2 million in energy retrofits will be financed through Austin Energy's existing Home Performance with ENERGY STAR® Program

Other environmental benefits

- Based on expected emissions avoided and water conserved per unit of energy saved attributed to Austin Energy's DSM programs for different pollutant types. This is based on Austin Energy's modeling of reduced load impacts through DSM. A discussion of this is provided in the quantitative analysis of projected impacts of the program in the Project Narrative.

Letters of Commitment

The following letters of commitment to the Austin Climate Protection Retrofit Program applied for funding under the Department of Energy's Retrofit Ramp-up Program (Funding Opportunity Announcement Number DE-FOA-0000148) by the City of Austin, are provided:

1. Roger Duncan, General Manager, Austin Energy
2. Lee Leffingwell, Mayor of Austin
3. Marc Ott, Austin City Manager
4. Karl R. Rábago, Vice President, Distributed Energy Services, Austin Energy, and identified Director of the Austin Climate Protection Retrofit Program
5. Daryl Slusher, Assistant Director, Environmental Affairs and Conservation, Austin Water Utility

City of Austin
Austin's Municipally Owned Electric Utility

Town Lake Center 721 Barton Springs Road • Austin, Texas 78704-1194 • (512) 322-9600

December 10, 2009

The Honorable Secretary Steven Chu
U.S. Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585

Dear Secretary Chu:

As General Manager of Austin Energy (AE), I am very pleased to describe my full commitment to the successful implementation of the Austin Climate Protection Retrofit Program proposed by AE's application for funding under the Department of Energy's Retrofit Ramp-up Program (DE-FOA-0000148).

AE is the ninth largest public electric utility in the United States and serves a dense service territory of roughly 430 square miles with a population of nearly 1 million. We enjoy a positive and mutually supportive relationship with our City Manager and City Council, a relationship I value highly and consider one of the most important of my responsibilities as General Manager. AE enthusiastically supports the City's clean energy and environmental goals, helped in their design, and will play a major role in achieving them.

I believe AE has the ability to quickly and successfully implement this program because of its strong relationship with the Austin City Council, development of a diverse and comprehensive portfolio of demand-side management programs, and success with developing and managing large-scale programs and projects. AE and the City of Austin have achieved national and international recognition for our successful conservation, energy efficiency, green building and renewable energy programs, and we continue to raise our goals.

Implementation of the Austin Climate Protection Retrofit Program set forth in this application is essential to meeting Austin's long term energy and climate protection goals. This program will provide an opportunity for the City of Austin and AE to invigorate community-wide interest in energy efficiency and conservation and promote new opportunities for financing energy efficiency and integrated renewable energy improvements. AE's long-standing philosophy has been that energy efficiency and conservation strategies are the most cost-effective measures for reducing greenhouse gas emissions, meeting new load growth, and lowering customer electric bills. This program will create new jobs and lead to a sustainable retrofit market in Austin. AE will engage with a diverse number of regional and national partners to develop best practices for energy efficiency financing, provide an information clearinghouse on program performance and lessons learned, and promote similar program development nationwide.

I am fully committed to ensuring that AE will have the resources it needs to support this program, leverage greater than five dollars for every dollar received from the federal government for this program, and complete the tasks discussed in our application if we are awarded funding under this grant program. By introducing new financing options for energy efficiency improvements and encouraging participation from all customer types, this program will lead to significantly greater and more diverse energy-saving activity within the Austin community.

Sincerely,

Roger Duncan
General Manager
Austin Energy

City of Austin

Mayor Lee Leffingwell
P.O. Box 1088, Austin, Texas 78767
(512) 974-2250, Fax (512) 974-2337
Lee.Leffingwell@ci.austin.tx.us

December 7, 2009

The Honorable Secretary Steven Chu
U.S. Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585

Dear Secretary Chu:

As the Mayor of Austin I commit my full support for the development of the Austin Climate Protection Retrofit Program, which is being submitted to you under the DOE Retrofit Ramp-up grant solicitation. The Austin City Council recently passed a resolution to pursue mechanisms to increase the number of energy efficiency and integrated renewable energy improvements on private properties through implementation of the Property Assessed Clean Energy (PACE) financing mechanism, which allows participants to repay the costs of the installations through a special assessment on their property tax bill. My proposal to "Energize Austin" was enabled by a new law passed last session by the Texas Legislature that opens the door to PACE-type financing by Texas municipalities.

The City of Austin has an outstanding history of promoting policies that reduce community energy usage and promote environmental leadership, including adopting some of the highest building code standards in the nation and a recent requirement that energy audits be conducted on all existing residential homes at the point-of-sale. We also directed that all commercial buildings be energy rated by June 1, 2011. In 2007, the Austin City Council formally resolved to reduce Austin's contribution to global warming through a series of utility, municipal, and community goals. Our aggressive Austin Climate Protection Plan sets a cap and reduction plan for all utility carbon dioxide emissions, reduces peak demand by 700 MW by 2020 through energy efficiency and conservation, and meets 30 percent of all energy needs through renewable resources by 2020. Developing new programs and opportunities like the one being proposed to DOE for energy efficiency and renewable energy investment in the Austin community will be critical in meeting the City's climate protection goals.

I will do everything in my capacity as Mayor to ensure that the necessary resources and inter-departmental and inter-jurisdictional collaboration are available to successfully develop and implement the proposed retrofit ramp-up program and associated PACE financing mechanism for property owners in the City.

Sincerely,

Lee Leffingwell

Lee Leffingwell
Mayor of Austin

*The City of Austin is committed to compliance with the Americans with Disabilities Act
Reasonable modifications and equal access to communications will be provided upon request.*

City of Austin
City Manager's Office
P. O. Box 1088, Austin, TX 78767
(512) 974-2200, Fax (512) 974-2833

Marc A. Ott, *City Manager*
Marc.Ott@ci.austin.tx.us

December 9, 2009

The Honorable Secretary Steven Chu
U.S. Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585

Dear Secretary Chu:

I am pleased to express my full commitment to the City of Austin's application for funding under the Department of Energy's Retrofit Ramp-up Program. Austin Energy, on behalf of the City of Austin, is requesting approximately $20 million in program development funding with an expected impact of over $150 million in energy efficiency and integrated renewable energy improvements city-wide over three years.

The implementation of the proposed program is consistent with the City's values and goals. The City of Austin is continually considering innovative and promising new opportunities to reduce the city's climate impact, encourage energy-saving and environmentally-friendly activities, and provide sustainable and affordable energy to the Austin community. The Austin Climate Protection Retrofit Program offers a unique, innovative approach to encouraging both cost and energy saving improvements, and I strongly believe that Austin Energy is highly capable of successfully managing the retrofit program and funds provided by the DOE. Austin Energy has provided a foundation for a sustainable energy future for our community and supports and actively develops policies to help meet the City's aggressive climate action goals.

I understand that DOE funding under this program intends to achieve at least a 5 to 1 leveraging of grant funds. The City of Austin and AE believe that the retrofit program will achieve even greater leveraging of grant funds through support of existing programs and the addition of new financing approaches that will greatly accelerate the number of energy efficiency retrofits that are performed in the City of Austin.

The City of Austin is committed to compliance with the Americans with Disabilities Act. Reasonable modifications and equal access to communications will be provided upon request.

As City Manager I am committed to ensuring all appropriate support for and oversight of the proposed program if DOE funding is awarded to the City of Austin. We look forward to having an opportunity to share our success with other municipalities across the United States.

Sincerely,

Marc A. Ott
City Manager

City of Austin
Austin's Municipally Owned Electric Utility

Town Lake Center 721 Barton Springs Road • Austin, Texas 78704-1194 • (512) 322-9600

December 10, 2009

The Honorable Secretary Steven Chu
U.S. Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585

Dear Secretary Chu:

I write to express my strong professional and personal commitment to ensuring the success of the proposed Austin Climate Protection Retrofit Program. Much of my career in public service has been dedicated to realizing the economic, social and environmental benefits of the more efficient use of energy and distributed energy resources through the pursuit of efficient, cost-effective, and marketable initiatives and policies. I am therefore extremely excited about the opportunity of a well-implemented Property-Assessed Clean Energy (PACE) financing program to meet this great need in our community and across the nation. Through its long record of leadership and unparalleled platform of experience and success in implementing energy efficiency and renewable energy technology programs, Austin is the ideal setting for crafting a stunning breakthrough in this field. Our community has the leadership commitment, capabilities, and market needed for this success; through our engagement with other communities, we can be a model for large scale harnessing of efficient energy benefits here in the heart of the one of the biggest energy using states in the nation.

As Vice President of Distributed Energy Services for Austin Energy, Austin's locally-owned municipal utility, I commit both the expertise and resources to lead the program forward through the City's bureaucracy, work with stakeholders to gain buy-in, and ensure close collaboration with other municipalities through our Regional Consortium on Energy Efficiency Financing Best Practices. Working with City Manager Marc Ott, Mayor Lee Leffingwell and the rest of our Austin City Council, the Austin Energy program development and implementation team, and our program partners, I am confident that Department of Energy (DOE) funding will allow us to leverage other resources to great advantage in achieving retrofit gains throughout our building stock.

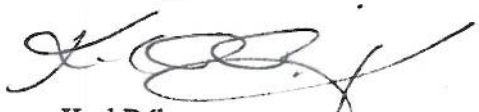
Our proposal builds on one of the nation's premier energy efficiency and clean energy programs; we have decades of experience in harvesting energy efficiency opportunities. As a result, we are prepared to commit approximately $32.7 million of City of Austin and Austin Energy in-kind contributions and budgeted resources to implement the program. Through financed retrofits, federal tax credits, and other related investments, our preliminary calculations suggest we might

achieve cost leveraging at an impressive 8.78:1 ratio with federal funding. The retrofit program will spur needed job creation and economic development in the Central Texas region.

We have designed an innovative program approach that covers all customer classes, builds on over 20 years of customer education and incentive programs, tailors marketing and outreach to specific customer needs, and adds a PACE financing option that can tip the market toward finally and meaningfully overcoming customer hurdles to action. DOE funding will accelerate and ensure success in our efforts. We believe that DOE funding will enable us to launch our program no later than October 2010.

I dedicate my energy and that of our entire team to ensuring a results-oriented, replicable program. We share the passion and a sense of urgency about the mission that DOE has articulated for the Retrofit Ramp-up Program solicitation, and know that Austin is singularly qualified to help DOE chart a course for the rest of the nation.

Sincerely,



Karl Rábago
Vice President, Distributed Energy Services
Austin Energy

Austin Water Utility, P.O. Box 1088, Austin, TX 78767

December 10, 2009

The Honorable Steven Chu
Secretary
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Dear Secretary Chu:

The Austin Water Utility (AWU) is very pleased to commit to an active partnership with the City of Austin and Austin Energy in promoting the Austin Climate Protection Retrofit Program currently being proposed to DOE for funding under the EECBG Retrofit Ramp-up Program.

In particular, we believe the new financing vehicle would accelerate, "property-assessed clean energy" (PACE) assessments, will attract greater customer interest in making not only energy but also water efficiency retrofits that are integral to Austin's Climate Protection Plan.

AWU has a very aggressive and successful water conservation program that is central to our long range plan to minimize water treatment needs and infrastructure. Austin is in a drought-prone region of the Southwest and this year implemented additional conservation measures to address a severe drought. AWU recently received the largest green project loan in Texas under the Clean Water State Revolving Fund to finance infrastructure improvements at the Hornsby Bend Biosolids Management Plant. This award provides a zero percent loan through ARRA funds.

The AWU conservation program encompasses a broad range of approaches including residential and commercial watering restrictions, use of reclaimed water, a free toilet program, irrigation system audits and standards, and water loss reduction measures. We believe that the proposed expanded city-wide marketing and awareness campaigns focused on resource efficiency coupled with new PACE financing options could result in

much higher levels of participation by Austin water and electricity customers to the benefit of the community and the region.

We are prepared to commit to joint program development, marketing, staff resources, and measurement and verification of water savings that result from the proposed retrofit program, and we look forward to having the opportunity to share our successes with other water systems around the United States.

Sincerely,

Daryl Slusher
Assistant Director
Environmental Affairs and Conservation
Austin Water Utility
(512) 972-0218

Letters of Support

The following letters of support of the Austin Climate Protection Retrofit Program applied for funding under the Department of Energy's Retrofit Ramp-up Program (Funding Opportunity Announcement Number DE-FOA-0000148) by the City of Austin are provided:

1. Alliance to Save Energy, on behalf of the Clean and Efficient Energy Program, a partnership of the Alliance to Save Energy, the American Public Power Association, and the Large Public Power Council
2. Austin Board of Realtors
3. Building Owners and Managers Association of Austin, Inc.
4. City of San Antonio
5. Downtown Austin Alliance
6. Environmental Defense Fund
7. ICLEI – Local Governments for Sustainability U.S.A., Inc.
8. Joint letter from Congressman John Carter, Congressman Lloyd Doggett, Congressman Michael T. McCaul, and Congressman Lamar Smith
9. Public Citizen Texas
10. Sierra Club, Lone Star Chapter
11. Renewable Funding

ALLIANCE TO
SAVE ENERGY
Creating an Energy-Efficient World

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Pataki-Cahill Group
Dave Szczupak
Whirlpool Inc.

December 04, 2009

The Honorable Steven Chu, Secretary
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Dear Dr. Chu:

The Alliance to Save Energy (Alliance) fully supports the proposal that The City of Austin and Austin Energy are submitting in response to the U.S. Department of Energy's Retrofit Ramp-Up Program solicitation. Austin brings to the table one of the longest and most successful track records of energy efficiency program implementation in the country, making them distinctly suited to take on an effort of this magnitude. We believe Austin's approach, which includes a partnership between the city and its local public utility, as well as a menu of financing options for property owners, offers a strong, yet nimble framework in which to field test and ultimately prove new program models.

Austin's effort will result in best practice guidance for collaborations between local governments and their utilities, a strategy which has yet to be explored fully in pilot programs for Property Assessed Clean Energy (PACE) financing. This work will be directly applicable and beneficial to the more than 2,000 municipal utilities like Austin, whom because of their local ties we see as uniquely positioned to implement community-scale retrofits.

In 2009, the Alliance, in partnership with the American Public Power Association (APPA) and the Large Public Power Council (LPPC), launched the Clean and Efficient Energy Program (CEEP) to assist municipal utilities in initiating and expanding energy efficiency and renewable energy activities. Much of CEEP's work takes place on a community-based website, where users can access resources and participate in discussion forums. If DOE awards grant funding to "the Austin Climate Protection Retrofit Program," the Alliance is prepared to assist Austin Energy by developing case studies and disseminating successful strategies and lessons learned to the CEEP network. What makes this different from existing efforts to popularize innovative financing programs is that CEEP case studies and guidance will focus specifically on opportunities for utility involvement in such initiatives.

Based on data submitted to the Energy Information Administration, annual public power demand side management (DSM) program expenditures are currently around $300 million. We believe that proven financing models would prompt at least a 10% increase – or additional investments of $30 million/year, for several years – potential which far exceeds the degree of leveraging sought by DOE. More directly, by employing CEEP's delivery channels to communicate with public power utilities, Austin will leverage approximately $300,000 of work funded by other federal and foundation sources, per program year.

The City of Austin and Austin Energy have long been trailblazers in energy conservation and the development of successful and replicable program models. Without reservation, the Alliance endorses their bid for this foundational work.

Sincerely,

Brian T. Castelli
Executive Vice President

1850 M Street, NW, Suite 600 Washington, DC 20036 www.ase.org info@ase.org :: phone 202.857.0666 fax 202.331.9588

AUSTIN BOARD of REALTORS®

December 10, 2009

The Honorable Steven Chu
Secretary
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Dear Secretary Chu:

The Austin Board of REALTORS® supports the City of Austin's "Austin Climate Protection Retrofit Program" proposal. Our organization works closely with the City of Austin and its utility Austin Energy in the very successful "Energy Conservation Audit Disclosure" program. We also understand that a successful future is one where we Americans adapt to renewable and sustainable energy sources as well as embracing a proactive stewardship of natural and manufactured resources.

The Austin Board of REALTORS® serves in an advisory role protecting private property rights, homeownership and consumers. The City of Austin appreciates our role as stakeholder in residential Real Estate due to our extensive network of 9,000 members as well as being part of a well-resourced national trade association. With 9,000 members, the Austin Board of REALTORS® is an effective tool for promoting the Program in the residential and commercial communities. Our complimenting public education efforts minimally start with informing our members supported by a consumer-oriented public website and implementing joint classes and seminars with the City of Austin. Our staff and volunteers through reported member concerns monitor the program to insure the consumer protection.

The Texas Association of REALTORS® supported House Bill 1937 the enabling legislation for Texas municipal programs such as the Austin Climate Retrofit Program. The feature of the creative financing mechanism and its voluntary nature promises to promote deep energy retrofits for our residential, commercial and industrial sectors.

The Austin Board of REALTORS® will collaborate with City of Austin and Austin Energy in designing and implementing an effective Austin Climate Retrofit Program.

Sincerely,

Earl M. Hairston

Earl M. Hairston
Director of Government Affairs
Austin Board of REALTORS®

Quarry Oaks Atrium 10900 Stonelake Boulevard, Suite 100 Austin, TX 78759
512/454-7636 FAX 512/454-5369 www.abor.com www.austinhomesearch.com

December 2, 2009

The Honorable Steven Chu
Secretary
US Department of Energy
100 Independence Avenue SW
Washington, DC 20585

Dear Mr. Chu:

This letter is written in support of the City of Austin and Austin Energy application for funding under the Department of Energy (DOE) Energy Efficiency and Conservation Block Grant "Retrofit Ramp-up" Program.

BOMA Austin plans to partner with the City and Austin Energy in the development of a program for a new loan financing mechanism for commercial building energy efficiency retrofits, leveraging BOMA's relationship with the Clinton Climate Initiative (CCI); and the marketing and implementation of the program to its members and the public.

BOMA Austin, an affiliate of the Building Owners and Managers Association International, is a nonprofit, member-driven organization that represents approximately 90% of the commercial office properties in Austin, Texas. Serving the Greater Austin area, including Round Rock and San Marcos, BOMA Austin is composed of more than 300 members who own or manage more than 35 million square feet of office, industrial, retail and institutional properties.

BOMA International's 16,500-plus members are building owners, managers, developers, leasing professionals, medical office building managers, corporate facility managers, asset managers, and the providers of the products and services needed to operate commercial properties. Collectively, BOMA members own or manage more than nine billion square feet of office space, which represents more than 80 percent of the prime office space in North America.

BOMA International was founded in 1907; today it is a primary source of information on office building development, leasing, building operating costs, energy consumption patterns, local and national building codes, legislation, occupancy statistics and technological developments.

Throughout BOMA International's 100-year history, its goal has always focused on actively and responsibly representing and promoting the interests of the commercial real estate industry through effective leadership and advocacy, through the collection, analysis and dissemination of information, and through professional development.

In a substantive effort to achieve greater energy efficiency in our buildings, BOMA has fully supported and endorses the use of the EPA Energy Star Portfolio Manager tool as our standard for measuring energy efficiency in all buildings. BOMA has developed the 7-Point Challenge - a

voluntary program for all members to commit to significant reductions in energy. Below are the first two points of the challenge.

1. *Continue to work towards a goal to decrease energy consumption by 30 percent across your portfolios by 2012 – as measured against an "average building" measuring a 50 on the ENERGY STAR® benchmarking tool.*
2. *At least once a year, benchmark your energy performance and water usage through EPA's ENERGY STAR benchmarking tool.*

BOMA Austin was the first chapter in the country to adopt the BOMA International 7-Point Challenge, and initiated a Sustainability Task Force to set up its own ENERGY STAR portfolio in 2007 to benchmark its member properties and to provide training courses and share best practices for implementing energy efficient retrofits. The Task Force set a goal of decreasing energy consumption across our portfolio by 30 per cent by 2010, two years ahead of the national goal. With more than 12 million square feet of commercial space benchmarked, BOMA Austin's portfolio has a combined score of 77, some 50% over the average building score across the country.

The organization is recognized as a leader in the promotion of energy efficiency in the Austin area and was the winner of the BOMA International Communication Award last June, recognizing BOMA Austin's efforts to communicate its progressive policies on energy management and its adoption of BOMA International's energy efficiency programs; and, was named a Finalist in the Greater Austin Chamber of Commerce Heavyweights of Business Austin Energy Environment Awards in August.

The Task Force also spearheaded local participation in the international Lights Out program and numerous Earth Day events.

BOMA Austin is a founding member of the Coalition for Clean, Affordable, Reliable Energy (CCARE), a consortium of major energy users in Austin formed to provide energy related information to the Austin City Council and public at large and became affiliated with the Pecan Street Project; a member of the newly formed ISLA (Industries Sustainability Leadership for Austin) made up of major employers in Austin whose goal is to be a predominant resource for information pertaining to all aspects of sustainability in the Austin area.

Over the years BOMA Austin has worked closely with Austin Energy in a variety of programs, including:

- Publicizing Austin Energy's highly effective energy efficiency incentive program, and sharing best practices with its members and sister organization, the Austin Association of Facility and Maintenance Engineers (AAFAME), a 400-member association established to promote professionalism for maintenance engineers, stressing the proper maintenance and operation of modern buildings at their highest efficiency due to the rising cost of utilities, the need to conserve natural resources, and requirements to reduce environmental contamination;

- Serving on a blue-ribbon task force coordinated by Austin Energy to develop recommendations for a city ordinance to encourage, or mandate energy efficiencies for residences, multi-family residences and commercial buildings. BOMA Austin's recommendation to utilize the ENERGY STAR Portfolio program to establish an energy efficiency benchmark and set a voluntary efficiency goal for Austin commercial properties was adopted by the task force and enacted by the City Council November 2008 as the Energy Conservation and Disclosure Ordinance (ECAD).

- Coordinating with Austin Energy to initiate a training program for use of the ENERGY STAR Portfolio program. Training sessions were offered free to BOMA and AAFAME members and the public;

- Serving on the nine-member Austin Generation Resources Planning Task Force in 2009 to analyze the proposed Austin Energy 2020 Resource Generation and CO2 Reduction Plan and make recommendations to the City Council for affordable alternative energy resource generation.

- Serving on the Austin Energy coordinated Industries Sustainability Leadership for Austin (ISLA) task force.

- Co-hosted along with Austin Energy the November, 2009 International Conference for Enhanced Building Operations (ICEBO) held on the University of Texas at Austin campus.

BOMA Austin has worked with the Clinton Climate Initiative (CCI) in Austin to implement the BOMA Energy Performance Contracting (BEPC) model, a groundbreaking model contract and supporting documents that allow building owners and operators to execute sophisticated energy efficiency retrofits to existing buildings. BOMA and CCI, in collaboration with major real estate companies and energy service companies (ESCOs), identified the historical barriers to energy efficiency investment in the commercial real estate sector and developed a standardized, user-friendly contracting model that allows building owners and operators to successfully execute larger, more sophisticated retrofits and bring greater operational improvements in investment real estate.

BOMA and CCI's standardized energy performance contracting model removes current impediments to deeper energy efficiency investments. The new BEPC model revolutionizes the process by allowing capital investments that improve buildings' financial and environmental performance to be paid for out of the energy and operational savings created by those improvements. The savings are financially guaranteed by the ESCO performing the work, reducing risk and enabling deeper potential investment.

BOMA Austin's history of energy efficiency involvement and association with CCI, Austin Energy, CCARE, AAFAME, ISLA and major high tech and industrial stakeholders puts the organization in a unique position to market and implement new programs that will increase energy efficiencies in Austin facilities.

We encourage you to give every consideration to Austin Energy's proposed Austin Climate Protection Retrofit Program.

Thank you for your consideration.

Yours truly,

John M. Sutton

John M. Sutton
Past President, BOMA Austin
Member, BOMA Austin Board of Directors
Chair, BOMA Austin Sustainability Task Force

CITY OF SAN ANTONIO

OFFICE OF ENVIRONMENTAL POLICY
P.O. BOX 839966
SAN ANTONIO, TEXAS 78283-3966

December 10, 2009

The Honorable Secretary Steven Chu
U.S. Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585

Dear Secretary Chu:

This letter documents support from the City of San Antonio for the development of Property-Assessed Clean Energy (PACE) program in Austin and across the State of Texas. The City's Office of Environmental Policy has been leading the initiative to implement a PACE program in San Antonio, and has been working with the various local and county entities to determine and develop the process for collecting the special assessment for such improvements.

I would like to call your attention to the special relationship between the cities of San Antonio and Austin and their municipally-owned electric utility companies. The two cities represent a population of over 1.8 million and are only separated by 70 miles. San Antonio's CPS Energy and Austin Energy are, according to 2007 EIA data, the 4th and 8th largest public utilities in the nation, with combined revenues of more than $1 billion generated from providing electric service to about one million customers.

The City of San Antonio is currently working with Austin to organize a partnership among municipalities to share information and best practices for energy efficiency financing programs through the development of a Texas PACE Partnership. The consortium will consist of Texas municipalities and will seek consultation from energy efficiency financing program administrators around the nation. Some of the goals of the partnership are to standardize program design and operating procedures in order to provide a common template for the financial community and to review performance measures to determine the types of installed measures that provide the savings for Texas homeowners and business owners. The ultimate goal is more efficient, effective and economic implementation of programs in San Antonio and around the state of Texas. Funding under the Retrofit Ramp-up Program and the American Recovery and Reinvestment Act is essential to fully realizing these benefits and will support the successful implementation of a model that can be used nationwide.

We look forward to working with our neighbors from Austin in order to identify the best ways to provide the services outlined in our respective grant applications to our citizens.

Sincerely,

W. Laurence Doxsey

W. Laurence Doxsey
Director, City of San Antonio Office of Environmental Policy

DOWNTOWN AUSTIN ALLIANCE
A Vision and a Voice for Downtown

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T Stacy & Associates
Mark Tester
Austin Convention Center
Amy Thomas
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Charles Betts, Executive Director
Downtown Austin Alliance

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December 8, 2009

The Honorable Secretary Steven Chu
U.S. Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585

Dear Secretary Chu:

On behalf of the Downtown Austin Alliance I am pleased to express our support and commitment to be actively involved with the Austin Climate Protection Retrofit Program. This program will provide new opportunities for collaboration with the City of Austin, Austin Energy and individuals and businesses in Downtown Austin. The Downtown Austin Alliance has a history of successful collaboration with Austin Energy in the promotion of its demand-side management programs and its innovative business offering of district cooling services in the central business district.

The Downtown Austin Alliance is a partnership of individuals and businesses devoted to promoting and maintaining an attractive, clean and affordable Downtown environment. The Alliance devotes its vision and voice to a number of programs, projects and issues that promote Downtown Austin for business and residential location and visitation from members of the Austin community and worldwide. Providing private sector leadership, the Alliance works with the City to develop and implement programs that enhance the business, cultural, and residential environment of Downtown.

The Downtown Austin Alliance is committed to working with the City of Austin and Austin Energy to promote participation in the retrofit program and encourage energy saving and environmentally friendly business practices that improve the quality and comfort of Downtown Austin. Participating Downtown Austin Alliance members range from residential to large commercial property owners that will be interested to learn more about and potentially participate in the retrofit program. The Downtown Austin Alliance is committed to providing in-kind services including communicating the launch of the retrofit program and the enrollment process. Upon launch of the program, the Downtown Austin Alliance will coordinate briefing sessions on the retrofit program that will be conducted by retrofit program staff.

Sincerely,

Charlie Betts
Executive Director

EDF
ENVIRONMENTAL DEFENSE FUND
Finding the ways that work

December 11, 2009

The Honorable Secretary Steven Chu
U.S. Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585

Dear Secretary Chu:

Environmental Defense Fund, Texas Regional Office is pleased to express our support and commitment to the City of Austin's application for funding under the Department of Energy's Retrofit Ramp-up Program. Austin Energy, on behalf of the City of Austin, is requesting these funds as a part of its Austin Climate Protection Retrofit Program.

As a partner with the City of Austin and Austin Energy on several projects, including the Pecan Street Project, which has recently been granted $10.4 million for a Smart Grid demonstration project, EDF has seen first hand the innovation and thought that Austin has put into reducing the city's climate impact, encouraging energy-saving and environmentally-friendly activities, and providing sustainable and affordable energy to Austinites. The Austin Climate Protection Retrofit Program offers a unique, innovative approach to encouraging both cost and energy saving improvements, and we believe that Austin Energy is well positioned to manage the retrofit program and funds provided by the DOE.

As an organization committed to finding the ways that work to achieve environmentally successful results, EDF, Texas Regional Office supports initiatives that try to overcome barriers to energy efficiency. We believe the Property-Assessed Clean Energy (PACE) districts are a model that can succeed, and that Austin Energy is highly capable of putting this initiative into practice. We look forward to working with Austin Energy in this endeavor to accelerate the number of energy efficiency retrofits performed in the City of Austin.

Sincerely,

J Marston

Jim Marston
Texas Regional Director
Energy Program Director

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December 8, 2009

The Honorable Steven Chu
Secretary
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Dear Secretary Chu,

The State of Texas' House Bill 1937 "Contractual Assessments for Energy Efficiency Improvements," passed during the 81st Texas Legislative Session, enables Texas municipalities to take advantage of the Property Assessed Clean Energy (PACE) mechanism for financing energy efficiency and renewable energy projects on private property.

Throughout the design, implementation, and execution of PACE programs, Texas municipalities stand to benefit from the sharing of best practices and lessons learned as each city moves forward with its own program. This collaboration will allow cities to improve program performance, save money, and allow more residents and business owners to take advantage of the unique opportunities afforded by PACE.

With this in mind, Texas cities see value in establishing a statewide PACE partnership to provide a forum for cities to collaborate on issues and opportunities related to PACE programs. The South Central Regional Office of ICLEI-Local Governments for Sustainability USA, Inc. ("ICLEI-USA") has and will continue to support the creation and operation of this partnership through our role as logistics and planning coordinators, local government outreach specialists, and policy/technical researchers, as well as through the use of our world-class information exchange networks.

ICLEI-USA is leveraging its U.S. network of 603 local governments as well as its regionally-focused Texas Network to (1) reduce costs associated with creation of local PACE programs and (2) accelerate their deployment in Texas and beyond. The Texas PACE partnership will:

- Facilitate or directly provide education on legal and regulatory issues common to all Texas cities that may impede PACE program development;
- Share documents and forms relating to program operations and request for support services;
- Standardize program design and operating procedures in order to provide the financial community with familiar and secure investment opportunities, allowing for reduced costs of borrowing for PACE programs; and
- Review performance measures to determine the types of installed measures that provide the best savings to investment ratio for Texas homeowners and business owners.

ICLEI-USA is committed to building, driving, and serving the Texas PACE partnership and has budgeted in-kind contributions valued at $100,000 to support this effort. By way of this investment, ICLEI-USA seeks to spur immediate and widespread implementation of high-quality, effective PACE programs in Texas and beyond.

Sincerely,

Patrice "Pete" Parsons

Patrice "Pete" Parsons
South Central Regional Director

ICLEI
Local Governments for Sustainability USA

ICLEI – Local Governments for Sustainability U.S.A., Inc.

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Congress of the United States
Washington, DC 20515

December 10, 2009

The Honorable Steven Chu
Secretary
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Dear Secretary Chu,

As representatives of the Central Texas region that includes the City of Austin, we are very pleased to write in strong support of the proposed Austin Climate Protection Retrofit Program being proposed for Energy Efficiency and Conservation Block Grant funding under DOE's Retrofit Ramp-up Program.

The City of Austin and its municipally owned electric utility, Austin Energy, are the perfect institutions to showcase the benefits of wide-scale deep energy retrofits in an energy intensive and challenging Southwestern climate. Recent Texas Legislation allows cities to create financing districts and issue bonds to pay for energy efficiency and renewable energy projects on private property, including residential, commercial and industrial properties, which are repaid by property owners through property tax assessments. We believe this approach will be a powerful tool to help stimulate the regional economy and create much-needed green energy jobs.

We have watched with pride the leadership that Austin has shown in implementing energy efficiency and renewable energy policies and programs. The national recognition and numerous awards that Austin and Austin Energy have received are well-deserved and reflective of their sustained commitment to innovation and large-scale program impacts. That successful history gives us great confidence that federal funds for the proposed program will be well-received by our constituents and effectively

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applied to making additional and significant energy saving improvements to the building stock. We are pleased to commit the resources of our offices in supporting the successful implementation of the proposed program, and we stand ready to assist DOE in ensuring the wise use of these critical federal funds in ways that will benefit not only our districts but also other municipalities nationwide.

Sincerely,

Michael T. McCaul
Member of Congress

Lloyd Doggett
Member of Congress

Lamar Smith
Member of Congress

John Carter
Member of Congress

Public Citizen's Texas Office
Award Winning Advocacy

Public Citizen Texas office: Air Quality 2006 Conference "Outstanding Non-Profit Organization Award"
Tom "Smitty" Smith, State Director: Campaign for People's "Thomas Paine Award"
U.S. EPA's "Award of Excellence"
2001 Austin Chronicle Best of Austin "Best People's Lobbyist"
Public Citizen's Solar Austin Campaign: Livable City "Vision Award"
Interstate Renewable Energy Council "Innovation Award"
2004 Austin Chronicle Best of Austin "Best Grassroots Effort"
Texas Renewable Energy Industries Association "Special Recognition Award"

The Honorable Steven Chu
Secretary
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

December 7, 2009

Dear Secretary Chu,

Public Citizen's Texas Office enthusiastically supports the City of Austin and Austin Energy's application for an Energy Efficiency and Conservation Block Grant to develop the Austin Climate Protection Retrofit Program.

As a statewide consumer and environmental advocacy organization, we believe their plans to develop a "Retrofit Ramp-up" program would be extremely successful at creating green jobs, protecting consumer's pocket books, and setting an example for other cities in Texas and the country to follow in how to clean up the environment. We are thankful to see Austin being proactive about helping consumers overcome the daunting upfront cost of major energy efficiency improvements, having advocated for passage of a state bill (HB 1937) that sets the legal framework for exactly this kind of program.

As an NGO, we are prepared to do our part to spread the word and get people excited about saving energy and money, while stimulating the economy. Through participation in joint workshops, using new and traditional media, and reaching out to our members, we are eager to promote the benefits of this retrofit program. We have also been successful in getting other cities interested in this type of program. As it develops, we will continue to encourage other cities in Texas to adopt Austin's model through our advocacy work.

We have extreme confidence in the City of Austin and Austin Energy to run this program successfully. Our confidence is based on both longstanding and recent experience with their willingness to engage the public, stakeholder groups, and businesses for input on policy. For example, we were asked to participate in the Generation Resource Planning Task Force this year, made up of businesses, environmental and consumer groups. Austin Energy was exemplary in its willingness to share information and as a result, our collaborative work has strengthened Austin Energy's 2020 generation plan.

In sum, we strongly recommend you to award Austin the amount they seek. It will be taxpayer money well spent. Feel free to contact me if you have questions or concerns.

Respectfully yours,

Tom "Smitty" Smith, Director
Public Citizen's Texas Office

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www.citizen.org/texas

SIERRA CLUB
FOUNDED 1892
Lone Star Chapter

December 8, 2009

The Honorable Steven Chu
Secretary
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Dear Secretary Chu,

The Lone Star Chapter of the Sierra Club is a 501-C-4 Organization with approximately 20,000 members in Texas, including some 3,500 within the City of Austin. During the 2009 Legislative Session, the Lone Star Chapter was an active supporter of the State of Texas' House Bill 1937 "Contractual Assessments for Energy Efficiency Improvements," passed during the 81st Texas Legislative Session. This legislation, signed by Texas Governor Rick Perry allows Texas municipalities to take advantage of the Property Assessed Clean Energy (PACE) mechanism for financing energy efficiency and renewable energy projects on private property. In October of this year, Austin City Council unanimously approved a resolution for Austin Energy to develop a plan within six months on what steps would be needed to create a PACE Financing District or similar mechanism to increase the amount of energy efficiency and on-site renewable energy in Austin and nearby communities. Among the steps being taken by Austin Energy and the City of Austin is the submittal of a Department of Energy's Department of Energy's (DOE) competitive Energy Efficiency and Conservation Block Grant (EECBG) Retrofit Ramp-up grant application. Because of the Lone Star Chapter's continued involvement with the City of Austin and Austin Energy, and our trust in their leadership and competency, we would like to recommend that the DOE support the Austin Climate Protection Retrofit Program.

Austin Energy and the City of Austin have already demonstrated a long-standing commitment to energy efficiency and the development of on-site renewable energy and the retrofit grant would help bolster those commitments. Austin Energy has – since 1982 – saved more than 700 MWs of demand by arranging loans, rebates and grants to Austin businesses and residents in coordination with the City of Austin. They also have created a successful solar rebate program and recently began implementing the Energy Conservation and Disclosure Ordinance, becoming one of the only municipalities in the country to require energy audits when certain properties change hands.

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Most recently, Austin Energy has developed an Electricity Generation Plan for 2020 that will be presented for a vote to City Council in early 2010, after 18 months of development and a multi stakeholder process. The Lone Star Chapter of the Sierra Club participated as a member of the Austin Generation Resource Generation Planning Task Force, which recently recommended endorsing the Austin Energy Generation Plan, as well as additional recommendations related to energy efficiency and on-site renewable energy. Among our unanimous recommendations were to increase the commitment to energy efficiency by setting a goal of 1,000 MWs of energy demand reduction by 2020, and a separate goal of 300 MWs of on-site renewable energy by 2020. We also specifically endorsed the exploration and development of a PACE or similar mechanism to help attain these aggressive goals. The Austin Energy Generation Plan and Task Force recommendations can be found at www.austinsmartenergy.com.

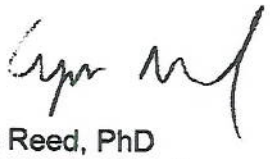
In addition, in November, the Lone Star Chapter of the Sierra Club, Public Citizen, the South Central Regional Office of ICLEI-Local Governments for Sustainability USA, Inc. ("ICLEI-USA") collaborated with the major cities and municipal owned utilities in Texas – including the City of Austin and Austin Energy – to hold the first of what should be several forums in Texas to facilitate the creation of PACE districts. At this meeting, Texas cities and utilities agreed to establish a statewide PACE partnership to provide a forum for cities to collaborate on issues and opportunities related to PACE programs and create best practices for Texas cities and local utilities. The Lone Star Chapter of the Sierra Club will be – with other organizations – facilitating the sharing of information and best practices among different cities and utilities utilizing in-kind contributions and $30,000 in grant funding from the Energy Foundation. We want other cities in Texas to learn from the efforts of the City of Austin and Austin Energy and Austin Energy and the City of Austin to learn from other cities.

The Lone Star Chapter of the Sierra Club is also committed to ensuring that the Austin Climate Protection Retrofit Program is a success. We are looking forward to working with the City of Austin and Austin Energy to support the creation of a PACE District, and also help build educational information and outreach to both our members and other residents to actually retrofit their homes and businesses. In other words, the Lone Star Chapter, and our local affiliate, the Austin Group of the Sierra Club, will be assisting in community outreach in partnership with Austin Energy and the City of Austin. We have multiple venues – from newsletters, to websites, to e-mail to local meetings, and even the utilization of the Student Sierra Coalition, a separate affiliate, to conduct outreach in neighborhoods. Our understanding is that the grant being sought by Austin Energy will specifically include such an outreach component and that the City and Austin Energy are actively seeking partners to help promote their retrofit program so that it is a success.

In closing, the Lone Star Chapter of the Sierra Club enthusiastically supports and will partner with the City of Austin and Austin Energy on the Austin Climate Protection Retrofit Program.

Please don't hesitate to contact me if I can be of further assistance,

Sincerely,



Cyrus Reed, PhD
Conservation Director
Lone Star Chapter, Sierra Club

RENEWABLE FUNDING

December 10, 2009

The Honorable Steven Chu
Secretary
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Chu:

We welcome the opportunity to support the City of Austin on its property assessed clean energy (PACE) program that is part of their Retrofit Ramp-Up Grant Application to the U.S. Department of Energy.

Renewable Funding has been pleased to work with the State of Texas on developing state legislation to enable the PACE program as well as advising on PACE programmatic structures. We look forward to helping Austin implement a PACE program which will complement the already robust retrofit effort in the community and make it even more sustainable.

As the only firm in the country with experience both administering and financing PACE programs, Renewable Funding offers unparalleled expertise in helping our partners understand the intricacies of and reduce the risk in carrying out this new financing model for renewable energy and energy efficiency installations. As the summary below demonstrates, we offer a range of design, administration, and financing services that are available to support Austin's program goals.

Summary of Services

Program Design

1. Design: development of program guidelines, creation of clear underwriting standards, alignment with local goals and policies, and integration with existing programs.
2. Technology: website set-up and customization.
3. Marketing: market demand analysis and promotional and outreach campaign coordination.

Administration Design

1. Education & Marketing: development of materials, workshops, and direct outreach.
2. Application Processing: property/project screens and underwriting.
3. Customer Service: addressing property owner and contract questions.
4. On-Going Technology and Reporting Management: tracking of program goals.
5. Origination and Closing Process Management: project quality assurance, closing documentation, and funding disbursement.

Financial Services

1. Adaptable Financing Structures, including micro-bond or pooled bond approaches.

1746 Broadway, Oakland, California 94612 P: 510.451.7900 F: 510.451.7904 www.renewfund.com

2. Cost Recapture, including via application fee, capitalized expenses, property tax in excess of debt service, installer/contractor fees, and funding from external sources.

Firm Experience
Renewable Funding brings exposure and expertise pioneering the PACE model first in California and now throughout the country. The firm has consulted with many state and local governments, including Arizona, Colorado, Florida, Louisiana, Maine, Missouri, New Mexico, New York, Ohio, Oregon, Texas, Vermont, Virginia, Wisconsin, and others. Renewable Funding is also active on the federal level, having been instrumental in the Congressional clarification extending tax credits to renewable energy financing programs sponsored by local governments. The firm has worked with the U.S. Department of Energy, Environmental Protection Agency, White House, and other federal agencies to develop policy for PACE programs and to assist in building a national model.

Financing
Renewable Funding's access to a range of capital sources permits the firm to provide flexible financing plans for our program partners. This allows programs to adjust to market conditions in order to capture the most competitive financing rates, ensuring the lasting success of programs we support. Renewable Funding both delivers our own financing as well as provides financing through partners such as Barclays, Citigroup, and Royal Bank of Canada Capital Markets. In addition, we have built a sophisticated software platform, which keeps costs low and allows property owners to move efficiently through the application and funding process.

We would welcome an opportunity to work with Austin and Austin Energy to lend our knowledge and experience on PACE to meeting local environmental and workforce development goals, and we strongly support the proposed Austin Climate Protection Retrofit Program.

Best regards,

Cisco DeVries
President

Mimi Frusha
Chief Operating Officer

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