



## **CITY OF AUSTIN D/B/A AUSTIN ENERGY'S PROPOSAL FOR IMPLEMENTING THE FEDERAL ENERGY INDEPENDENCE AND SECURITY ACT OF 2007**

The Federal Energy Independence and Security Act of 2007 (EISA), which amends the Public Utility Regulatory Policies Act of 1978 (PURPA)<sup>1</sup>, requires the City of Austin, as the owner of an electric utility, to conduct a public hearing to consider adopting standards<sup>2</sup> (the “PURPA standards” attached at Appendix A) that address:

- 1) integrating energy efficiency resources into its resource planning and adopting cost-effective energy efficiency as a priority resource;
- 2) modifying its rate design to promote energy efficiency investments; and
- 3) making smart grid information available to its customers and others.

This document sets forth the proposed recommendations of Austin Energy staff to City Council regarding the adoption of the PURPA standards. The City Council may adopt or decline to adopt any particular standard, or may choose to adopt one or more in modified form, as it deems appropriate to carry out the three stated purposes of PURPA, which are: 1) energy conservation, 2) the optimal efficiency of utility resources, and 3) equitable electric rates. City staff will conduct public hearings on this proposal before the Electric Utility Commission (EUC) at its regularly scheduled meeting on October 19, 2009, and before the Resource Management Commission (RMC) on October 20, 2009. A final presentation and recommendation will be made to the City Council on a date to be determined, no later than December 19, 2009, the statutory deadline for a final determination. Public comments prior to those meetings are welcome and encouraged, and may be submitted to Cynthia Hayes at Austin Energy, 721 Barton Springs Rd., Austin, Texas 78704 (fax at 322-6521 / email at [cynthia.hayes@austinenergy.com](mailto:cynthia.hayes@austinenergy.com)). Persons who wish to comment at the EUC or RMC public hearings should be present to sign in to speak before 6:00 p.m. on October 19 for the EUC and before 6:30 p.m. on October 20 for the RMC.

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<sup>1</sup> 16 U.S.C. §§2601 et seq.

<sup>2</sup> The relevant standards enacted in the EISA are set forth in 16 U.S.C. §2621(16),(17), and (19). The standard contained in subsection 18 is addressed to state regulatory bodies and thus is not under consideration as part of this proposal.

## **A. PURPA STANDARD 16 – INTEGRATED RESOURCE PLANNING**

If adopted, PURPA standard 16 would require Austin Energy to: 1) integrate energy efficiency resources into its resource planning, and 2) adopt policies establishing cost-effective energy efficiency as a priority resource.<sup>3</sup>

The Austin City Council has already adopted policies that direct Austin Energy to integrate energy efficiency into its resource planning and that establish energy efficiency as a priority resource. The utility's current energy efficiency policies began with resolutions passed by Council in 2003. Council resolution no. 20030828-038<sup>4</sup> directed Austin Energy to, among other things, develop a strategic plan that incorporated progressive and ambitious renewable energy and energy conservation programs. Council resolution no. 20030925-002<sup>5</sup> established an energy efficiency savings goal of 15% by 2020. These Council mandates were incorporated into Austin Energy's 2003 Strategic Plan,<sup>6</sup> which was approved by Council on December 04, 2003.

More recently, by adopting the Climate Protection Plan contained in Council resolution no. 20070215-023,<sup>7</sup> Council has directed the utility to achieve 700 megawatts of avoided load through the use of energy efficiency and conservation programs. That resolution also established the goal of establishing "the most energy efficient building codes in the nation," including requiring all new residential buildings built in the City to be net-zero-energy capable and all other new buildings to have 75% increased energy efficiency by 2015.

To implement Council policy, Austin Energy offers low interest loans for residential customers who install efficiency upgrades such as new HVAC, additional insulation, solar screens, and new ductwork. In fiscal year 2008 (the most recent year for which comprehensive statistics have been compiled) Austin Energy issued 213 loans, in addition to 2,223 rebates for residential customers who participated in the Home Performance with Energy Star program.

Austin Energy programs for fiscal year 2008 involved 55,471 program participants. These programs include energy efficiency rebates, demand response, GreenBuilding, and increased efficiency through codes and standards. These efforts resulted in 64.1 megawatts of peak demand reduction, and annual energy reductions of 132,192 megawatt hours.

Another example of current City policy that already meets the spirit of PURPA standard 16 is City Code Chapter 6-7, also known as the Energy Conservation and Disclosure Ordinance and sometimes referred to as the "point of sale" ordinance. This ordinance requires every owner of a home more than ten years old, with certain exceptions, to obtain an energy audit and disclose the results to the buyer prior to any sale of the residence. It also requires energy audits

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<sup>3</sup> 16 U.S.C. §2621(d)(16).

<sup>4</sup> [20030828-038, Resolution](#)

<sup>5</sup> [20030925-002, Resolution](#)

<sup>6</sup> <http://www.austinenenergy.com/About%20Us/Newsroom/Strategic%20Plan/index.htm>

<sup>7</sup> [20070215-023, Resolution](#)

to be performed on older multifamily facilities and that certain high energy use facilities undergo energy efficiency retrofits. Commercial facilities are required to obtain and disclose standardized energy efficiency ratings. Council resolution no. 20081106-048,<sup>8</sup> which accompanied the adoption of Chapter 6-7, established aggressive energy efficiency goals to be met through implementation of the ordinance and provided for enhanced rebates to be used to help achieve those goals. For fiscal year 2008 the demand reduction is estimated to equal to 7.03 megawatts and 12,541 megawatt hours.

In addition, a new initiative called the Pecan Street Project addresses some of the stated purposes of this and the two standards that follow. The Pecan Street Project will explore ways to advance the clean energy industry and to integrate the electric grid with a communication network and necessary software and hardware to monitor, control and manage the generation, transmission, distribution, storage and consumption of energy by any customer. Recognizing that distributed generation and smart grid technologies hold great potential to maximize energy efficiency and the use of renewable energy sources, Council resolution no. 20080925-084<sup>9</sup> directs the City Manager to work with the Environmental Defense Fund and other community stakeholders to achieve these goals.

Based on the foregoing, Austin Energy staff believes that the City is already more than in compliance with the requirements of PURPA standard 16. Adoption of the standard would essentially have no effect on current City policy, other than to broadly require what the City is already doing. There is no reason, therefore, to decline to accept this standard as City policy or to modify it in any way.

#### **Staff Recommendation:**

Austin Energy staff recommends that the City Council adopt PURPA standard 16 as City policy, while recognizing that the City Council has already adopted, and the City Manager has implemented, policies<sup>10</sup> that integrate energy efficiency into utility resource planning and establish cost-effective energy efficiency measures as a priority resource. Staff believes that existing City Council policies already exceed the requirements of PURPA standard 16 and should be reaffirmed, not replaced. PURPA standard 16 should serve only as a minimum baseline for integrated resource planning, and should complement, rather than supersede, the policies already adopted by City Council on these matters. Adoption of PURPA standard 16 in and of itself should not require any action by City staff not already required by existing City Council policies.

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<sup>8</sup> [20081106-048, Resolution](#)

<sup>9</sup> [20080925-084, Resolution](#)

<sup>10</sup> See, e.g., Council resolutions [20081106-048, Resolution](#) , [20080925-084, Resolution](#) , [20071018-036, Resolution](#) , [20070215-023, Resolution](#) , [20070201-031, Resolution](#) , [20070111-002 , Resolution](#) , [20030925-002, Resolution](#) , and [20030828-038, Resolution](#).

Staff also notes that energy efficiency is given high priority (increasing the energy efficiency savings goal from 700 to 800 megawatts by 2015) as a resource in the staff-proposed generation resource plan that is currently under public discussion; however, adoption of PURPA standard 16 at this point should not be construed as foreclosing the full discussion of all options – including energy efficiency – in the public resource planning process.

## **B. PURPA STANDARD 17 – RATE DESIGN MODIFICATIONS THAT PROMOTE ENERGY EFFICIENCY INVESTMENTS**

If adopted, PURPA standard 17 would require Austin Energy to design its rates in a way that would align its incentives with the delivery of cost-effective energy efficiency and promote energy efficiency investments by its customers.<sup>11</sup> In making its determination, PURPA sets forth six policy options to be considered as the means of achieving the goal of PURPA standard 17:

- 1) eliminating the “throughput” incentive (i.e., the incentive to increase revenue by increasing sales volume) and other regulatory and management disincentives to energy efficiency;
- 2) providing incentives for the successful management of energy efficiency programs;
- 3) including the impact on adoption of energy efficiency as one of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;
- 4) adopting rate designs that encourage energy efficiency for each customer class; and
- 5) allowing timely recovery of energy efficiency-related costs; and
- 6) offering home energy audits, offering demand response programs, publicizing the financial and environmental benefits associated with making home energy efficiency improvements, and educating homeowners about all existing federal and state incentives, including the availability of low cost loans, that make energy efficiency improvements more affordable.

While PURPA standard 17 purports to concern rate design modifications, two of the policy options to be considered – subparts (2) and (5) concerning energy efficiency incentives and programs – are not necessarily limited to rate design. With respect to subpart (2), Austin Energy staff refers back to the discussion above concerning standard 16. It is clear that current Council policy calls for the implementation of aggressive energy efficiency programs, including incentives for implementing such programs. Accordingly, staff recommends that Council adopt PURPA standard 17(2) under the same conditions as those for standard 16 – that the standard be adopted as a supplement to existing Council policy.

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<sup>11</sup> 16 U.S.C. §2621(17).

Austin Energy operates several demand response programs designed to reduce peak demand on approximately 15 summer peak days. The demand response programs through September 2009 have installed 70,930 remotely controlled thermostats and 14,454 electric water heater timers targeted primarily at the residential markets. In addition there are two commercial demand response programs that provide incentives to customers who reduce demand upon request.

Subparts (1), (3), (4) and (5) are directed at the City's rate making authority. Staff notes that, in light of the City Council's existing policies regarding the high priority of energy efficiency, all three policy options are worthy of consideration. However, only subpart (3) expressly calls for balancing energy efficiency concerns with other valid rate making objectives.

Staff believes that the adoption of subpart (3) would be proper and consistent with current City policy, while at the same time leaving intact the City Council's broad rate-making discretion in any future rate proceeding. Staff does not believe that it would be proper, at this time, to adopt either subpart (1), (4), or (5) as the chosen means of achieving the purpose of standard 17. The City Council is free to adopt any or all of these approaches if and when a rate making proceeding is brought before it. Only at that time, however, would there be a full opportunity to consider either means within the context of a full proceeding, taking into consideration all other policy objectives and rate design methodologies, which may or may not be consistent with these PURPA standards.

#### **Staff Recommendation:**

Austin Energy staff recommends that the City Council partially adopt PURPA standard 17. The Council should adopt subparts (2) and (6) of the standard – regarding energy efficiency incentive programs and other efficiency and demand response programs, respectively – as written, with the exception of the requirement to offer home energy audits. Home energy audits are currently provided by private third-parties and should be encouraged on a voluntary basis in conjunction with Austin Energy's energy efficiency rebate programs. Audits are also now required by law in many circumstances under City Code Chapter 6-7. As with PURPA standard 16, adoption of subparts (2) and (6) should complement, rather than supersede, the policies already adopted by City Council on these matters. Adoption of PURPA standard 17 should not require any action by City staff not already required by existing City Council policies.

City Council should adopt subpart (3), but decline to adopt subparts (1), (4), and (5) at this time for the reason that no rate making proceeding is likely until at least 2012, and that the City Council should retain the full rate-making discretion with which it is currently vested by state law. Subparts (1), (4), and (5) should be considered only in the context of a full rate-making proceeding rather than the limited proceeding now underway.

## C. PURPA STANDARD 19 – SMART GRID INFORMATION

PURPA standard 19<sup>12</sup> would require that all electric customers have access to certain information from the utility. The information required to be provided includes:

- 1) time-based electricity prices in both the retail and wholesale markets;
- 2) the number of kilowatt-hours of electricity purchased by the customer;
- 3) not less than daily updates on prices and usage, including hourly prices and use information if available, and a day-ahead projection of such price information to the extent available; and
- 4) annual reporting of the utility's generation resources by type of generation, including the amount of greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.

PURPA standard 19 would also require Austin Energy to provide 24/7 internet access to this information. Anyone would be able to obtain information that is not specific to a customer, whereas only customers would be able to access their own usage information.

From 2004 to date, Austin Energy has been actively building the technology foundation required to successfully manage the smart grid as it develops.<sup>13</sup> The current Smart Grid Program, Smart Grid 1.0, is focused on systems integration, communications, safety and reliability of electric operations, better and new services, and even better customer service. It goes from the central power plant through the transmission and distribution systems to the meter and back.

Austin Energy currently offers its customers online information regarding the number of kilowatt-hours purchased. The utility is also nearing completion of a system-wide installation of automated meters that will allow two-way communication between the utility and customers' meters. Additionally, the utility is exploring technologies that would enable customers to obtain near real-time information regarding their usage levels, whether through Austin Energy's own web portal, third-party applications, or in-home display devices. Deployment of these systems and technology will allow Austin Energy to provide the information specified in PURPA standard 19.

Austin Energy's Smart Grid 2.0, will be defined by recommendations of the Pecan Street Project, with focus on the grid beyond the meter and into the premise (e.g. home, office, store, mall, building) with integration back to our utility grid. Smart Grid 2.0 will focus on managing and leveraging distributed generation (*e.g.*, solar photovoltaics, micro wind), storage, plug-in

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<sup>12</sup> 16 USC §2621(d)(19).

<sup>13</sup> Austin Energy's 2008 Strategic Planning Update at p. 10-11.

<http://www.austinenergy.com/About%20Us/Newsroom/Strategic%20Plan/index.htm>

hybrid vehicles, electric vehicles and smart appliances on the customer side of the meter. Innovations may include, for example, smart home energy control systems/portals that provide customers with more information, alternatives, and decision support.

Current City Council policy already requires Austin Energy to make available the information specified in subpart (4) on an annual basis<sup>14</sup>, with the exception of greenhouse gas emission data, and Austin Energy also provides this information in its written annual report. Staff believes that also including overall greenhouse gas emission data associated with each resource would be a valuable service to its customers and consistent with the goals of the Climate Protection Plan.

Unless and until time-based rates are available to its customers, the adoption of PURPA standard 19 with respect to real-time retail rates would be of little value, and the cost of implementing such a capability would not be justified. In any event, staff does not see any value in providing wholesale price information, as wholesale prices do not necessarily correlate with customers' usage, given that Austin Energy is a vertically integrated utility with its own generation capacity. Customers wishing to obtain wholesale price information may currently do so through ERCOT's website.

**Staff Recommendation:**

Staff recommends that the City Council adopt PURPA standard 19 subparts (2) and (4), and subpart (3) as it pertains to usage rather than price information. For the reasons stated above, Staff recommends that the City Council decline to adopt subpart (1) related to time-based electricity price. Staff recommends that the City Council adopt standard 19 subpart (C) as a goal to reaffirm, rather than supersede the policies already adopted by City Council with regard Smart Grid 2.0 as defined by the Pecan Street Project and without requiring action by City staff not already required under existing City Council policies.

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<sup>14</sup> [20051201-002, Resolution](#)

## **Appendix A: 16 USC §2621(d)(16), (17), and (19)**



**Appendix B: City Council Resolutions**  
**(in ascending date order; click on footnote links in main text or below to access the resolution)**

[20030828-038, Resolution](#) – Directs Austin Energy to develop a strategic plan that incorporated progressive and ambitious renewable energy and energy conservation programs.

[20030925-002, Resolution](#) – Establishes an energy efficiency goal of 15% by 2020.

[20051201-002, Resolution](#) – Defining information that will always be provided to public, including review of performance, costs and planning targets for generating system.

[20070111-002, Resolution](#) – Establishing an annual rebate of \$200,000 for implementation of energy efficiency measures by commercial customers, including thermal energy storage systems.

[20070201-031, Resolution](#) – Directs City Manager to undertake a directed marketing campaign to further promote Austin Energy's energy audit, rebate and loan-buy down programs to the most energy inefficient residential households to achieve better energy efficiency and reduce energy costs for those households.

[20070215-023, Resolution](#) – Adopts a Climate Protection Plan.

[20071018-036, Resolution](#) – Directs City Manager to bring forward measures outlined in Zero energy Capable Homes Task Force final report to meet the goal of achieving zero energy capability in all new single-family home construction in Austin by 2015.

[20080925-084, Resolution](#) – Directs City Manager to work with Environmental Defense Fund and other community stakeholders in furtherance of the goals of the Pecan Street Project.

[20081106-048, Resolution](#) – Establishes aggressive energy efficiency goals to be met through implementation of ordinance adopting City Code Chapters 6-7.