

Creating a Clean Energy Future for Austin Energy

Public Citizen's Preliminary Suggestions for Updating the
Austin Energy Resource, Generation and Climate Protection
Plan to 2024



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Our Priorities

- Improve human and environmental health by using clean energy options
- Keep energy prices affordable for Austin Energy customers, especially residential customers and small businesses
- Ensure that Austin Energy continues to provide a positive example for the rest of the state and country when it comes to creative energy solutions and investing in clean energy technologies
- Grow the local and state economies by investing in local, sustainable energy sources that create jobs and tax revenue
- Improve equity in Austin by ensuring that low- and medium-income families have access to energy efficiency and solar energy programs

Goals Matter

- Strong renewable energy, energy efficiency and greenhouse gas emissions reduction goals have driven Austin Energy to actively seek out resources to meet these goals
 - 35% renewable energy goal pushed AE to make wind investments a priority
 - 200 MW solar goal has pushed AE to ensure that solar is part of the mix and resulted in the 150 MW solar deal that will *lower* energy prices for customers
 - 100 MW local solar goal makes community solar a priority
- Demand reduction goal has already caused AE to avoid building a new costly power plant
- Just because a technology is already cost competitive, doesn't negate the need for a goal because RFPs are often resource specific.

Health Costs of Fayette

- The annual cost of health impacts from the pollution from the Fayette coal plant are about \$55.5 million. (Clean Air Task Force) The health impacts include:
 - Deaths
 - Heart Attacks
 - Asthma Attacks and ER Visits for Asthma
 - Hospital Admissions
 - Chronic Bronchitis



Water Use and Contamination

- Coal- and gas-fired power plants use precious water
 - The Fayette coal plant needs over 5 billion gallons of water per year to operate.
 - Each natural gas or oil fracking job uses millions of gallons of water. That water is disposed of in injection wells and can contaminate groundwater and cause earthquakes.
- Wind needs no water to operate
- Solar facilities use only a very small amount of water for occasional washing of the panels.

Affordability Challenge

- Affordability goal wasn't clearly enough established
 - Goal says that electric rates can't rise by more than 2% each year
 - Austin Energy hasn't decided if the Power Supply Adjustment (PSA) Charge is included in that 2% limit.
- Limiting reliance on energy sources with fluctuating prices will protect consumers from unexpected bill increases.
 - If Austin Energy decides that the PSA Charge isn't included, customers will be exposed to increasing prices as natural gas prices rise.
 - Using more wind, solar and energy efficiency will limit the risk to customers because these options have no fuel needs. The costs are almost all up front and are therefore predictable.

Climate Change

- New reports indicate that climate change is taking place more rapidly than previously projected
- Negative impacts of climate change are already harming our city and our state
- Austin City Council recently adopted a goal of city-wide net zero greenhouse gas emissions by 2050, with a much reduction coming in the earlier years as possible.
 - It will be easier for some sectors to be carbon neutral than others
 - Electricity production is largely controlled by Austin Energy, making it an easier sector to achieve emissions reductions in than sectors such as transportation and waste.
- Once the leaked gas from extraction, processing and transportation is accounted for, natural gas is nearly as bad for the climate on a 20-year basis as coal.
- AE's greenhouse gas reduction goals should be expanded to at least 60% below 2005 levels for 2024 – more is possible

Reducing Reliance on Dirty Fuels



- No expansion of the use of natural gas, except as part of an energy storage facility.
- Retire Fayette by 2018.
 - Austin Energy should begin negotiations with LCRA immediately to obtain control of a single unit.
 - Once AE control over a single unit is established, reducing the use of it prior to 2018 should be a priority
 - Council should immediately request a complete briefing on all available options for refinancing the debt associated with Fayette.
- Austin Energy should not participate in the relicensing of the South Texas Project 1 & 2 nuclear reactors. (no impact for 2024)
 - As a minority partner (16%) we likely can't stop the relicensing, but we may be able to leave the partnership and reduce our risk.
 - The units are set to retire in 2027 and 2028 and will likely incur significant additional costs, including for water, if relicensed.

Reducing Overall Energy Use, As Well As Peak Energy Use

- Current 800 MW demand reduction goal includes both energy efficiency and demand response
 - Energy efficiency measures significantly reduce energy use on a daily, weekly and yearly basis
 - Demand response programs reduce peak energy use when the system is stressed and prices are high, but doesn't significantly reduce energy use in the building because that energy use is generally just shifted to another time.
- Energy efficiency and demand response serve different purposes and should have separate goals.
 - 1,200 MW of energy efficiency by 2024
 - 300 MW of demand response by 2024 – much of this should be commercial and industrial



Maintaining Affordability with Renewable Energy

- Affordable wind, and more recently solar contracts are allowing AE to meet its current 35% renewable energy goal 4 years early in 2016.
 - Cheap wind contracts have already helped keep rates low for all customers.
 - Contract for 150 MW of west Texas solar is projected to slightly reduce bills.
- Renewable energy generation goal should be expanded to:
 - 50% by 2020
 - 60% by 2024



Making Solar a Priority



- While solar isn't quite as cheap as wind yet, it offers benefits that wind doesn't and should therefore be a priority.
 - West Texas solar projects will produce when Austin is using the most energy.
 - Local solar reduces transmission fees and puts ratepayer money back into the local economy
- Austin Local Solar Advisory Committee and City Council have recommended expanding the solar goal to 400 MW (5.2-6% of energy) by 2020.
 - Recommendation includes 200 MW local solar goal, with 100 MW goal for local and customer controlled distributed solar
 - Achieving local solar goal is projected to yield \$300 million in local economic benefits
- Solar goal should be expanded to 10% of energy generation by 2024 – converting to a percent will simplify comparison with overall renewable energy goal

Winning the Market with Energy Storage



- Energy storage offers the attractive feature of being fully dispatchable
 - AE should replace the old natural gas-fired Decker units with energy storage
 - Storage facilities can be charged at night, when prices are low and used when prices are high
 - Priority should be given to energy storage facilities that can provide valuable ancillary services
- Energy storage coupled with renewable energy will reduce natural gas use and offer AE the most value
 - Goal should be 300 MW of energy storage by 2024
 - At least 150 MW should be charged directly from an AE owned or contracted renewable energy facility

Improving Equity

- Energy efficiency goal should be set in MW for low- and medium-income households
 - Setting MW goal will encourage AE to find ways to reduce the costs of these programs
 - Perhaps available services should be limited to those that are more cost effective
 - Perhaps these programs should be managed by a different department
 - Setting MW goal, instead of \$ goal will ensure that a proportional number of low- and medium-income households actual benefit from AE energy efficiency programs.
 - MW goal should fix the problem of budgeted money not being spent
- A solar program should be developed for low-income households – could be part of the community solar program

Summary

- Reduce **CO₂ emissions** by at least 60% by 2024 from 2005 levels.
- Retire 1 unit of **Fayette** by 2018
- Don't participate in relicensing **South Texas Project 1 & 2** nuclear reactors
- Separate demand reduction goal into energy efficiency and demand response goals:
 - 1,200 MW of **energy efficiency** by 2024
 - 300 MW of **demand response** by 2024
- Increase **renewable energy** goal to 50% by 2020 and 60% by 2024.
- Increase **solar** goal to 400 MW by 2020 and 10% by 2024.
- Set **energy storage** goal of 300 MW by 2024, with at least 150 MW charging directing from renewable energy source
- Establish low- and medium-income energy efficiency goals
- Establish low-income solar program