

## Late Backup

### **Please Vote Yes on Pursuing New Wind Contracts (Council Items 3 and 4)**

**How do you replace coal power from Fayette? With contracts like these.**

**Cyrus Reed, Chapter Director  
Lone Star Chapter, Sierra Club  
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The Lone Star Chapter endorses moving forward on negotiations with Duke Energy and EON Renewables to contract up to 570 MWs of new wind resources, to be built between 2014 and 2016 in Nueces and Starr Counties. We would request, however, that Austin Energy work with the developer to assure best practices to reduce bird and bat fatalities, including the use of radar technology and a commitment to stop wind production during migratory fly-over events. Other coastal wind companies have made similar commitments and implemented these projects.

If AE is successful at reaching a contract for 570 MWs of new wind through these contracts at the announced price, AE could nearly meet its overall 35 percent goal by 2016, and meet all of its expected 2020 wind goal of 1,000 MWs by that date (see Table 1).

**Table 1. Total Wind Resource, Austin Energy**

Year	MWs
2009	439
2012-2013 wind added	295
2014-16 wind added	570
total in 16	1,304
expired contracts	-203
Total with expired contracts	1,101
Generation Plan 2020 Goal	1,001
Generation that would be added to Goal	100

Austin Energy has announced that they would seek other similar contracts in coming years if the projects are available at these competitive prices. At the proposed price, the power from these new wind units would be competitive with the prices we currently pay for power produced by the coal plants

without the pollution or water use needed by those coal plants (see Table 2). Preliminary figures suggest we currently pay slightly under \$30 per MWh for coal, about \$40 dollars per MWh for gas and \$50 dollars per MWh for our current amount of renewables. These new contracts, however would be closer to the price we pay for coal. One of the ways that Austin can permanently retire its use of coal is by these contracts, as well as commitment locally to building out our solar and energy efficiency resources. In fact, we believe this could be accomplished by 2016 in part through these new contracts.

**Table 2. Current 2012 Production Costs per MWh**

Category	2012 Fuel Cost (or equivalent) per MWh	Estimated Total Production Cost
All Resources, 2012	\$32	\$42
Coal	\$25	\$30
Nuclear	\$5	\$15
Natural Gas	\$57	\$63
All Renewables on System	Fuel cost is PPA	\$51
2012 Wind Contracts	Fuel cost is PPA	\$35 to \$45
New Wind Contracts	Fuel cost is PPA	\$23 to \$33

*Note: These are estimates from Austin Energy's Annual Performance Report Year Ending September 2012. Any errors in these estimates are Sierra Club's alone.*

Table 3 shows a hypothetical plan to rid ourselves of all 600 MWs of coal, by expanding our solar goal to 400 MWs, increasing our use of energy efficiency to 1,000 MWs of demand reduction by 2020, and expanding our wind goal from 1001 MWs to 1,349 MWs including these new resources being contemplated. This can be done for approximately the same price as we currently pay for generation.

**Table 3. Comparison of Current Generation Plan and Get out of Fayette by 2016 with Added Wind and Solar**

Category	Austin Energy's Current 2020 Plan	Get Out of Fayette by 2016 Plan
% of Annual Electricity Demand Met	100%	100%
% of Peak Hourly Demand Met	100%	100%
% Generation from Renewables in 2020	34.3%	50.1%
% Capacity from Renewables in 2020	33.0%	48.1%
<b>% of Peak Demand from Coal, 2016-2020</b>	<b>21.25%</b>	<b>0%</b>
Carbon Emissions 2020 (metric tons)	4,495,900	1,788,600
Sulfur Dioxide Emissions 2020 (Metric Tons)	889	266
Mercury Emissions 2020 (Pounds)	147	0
Total Expected Capital Costs through 2020 (\$ million)	2,950	3,260
Water Intensity (gallons/kWh)	0.64	0.49
Annual Expected Fuel Costs in 2020 (\$ million)	360	<b>330</b>
<b>Expected Increase in Cost of Electricity in 2020 (¢/kWh)</b>	<b>2.7</b>	<b>2.6</b>
Energy Efficiency Goal	800 MWs	1,000 MWs
Solar Goal (1/2 onsite)	200 MWs	400 MWs
Wind Goal	1,001 MWs	1,349 MWs

Source; Models run by Austin Beyond Coal on Austin Energy PRP Model Version 26 with PACE Energy Costs, June 2013;

Notes: The model makes assumptions about future operations, fuel and construction costs based upon data provided by PACE Consulting in 2009, with three changes made based upon more recent data. First the average fuel price for natural gas at combined cycle plants was reduced from \$70 per MWh to \$50 per MWh. Second, a one-time additional expense of \$250 million for operating the coal plant was assumed in 2016 based upon expected pollution control equipment needed. Third, we assumed a new lower cost for the new wind contracts of \$35 per MWh. The model is a static model, meaning for example, it does not take into account the ability of Austin Energy to purchase energy on the market, or sell its own generation resources into the market. Actual costs and projections would require a dynamic model, updated with more recent prices and projections.