

## Proposed Energy Resource Plan

AE has developed a proposed Energy Resource Plan aimed at meeting 2020 generation needs and the Austin Climate Protection Plan goals set by the City Council, with the least impact on rates. The components of the proposed plan (Figure 12) include the following:

### ■ Current Generation

Continue to maintain and operate the current generation fleet.

### ■ Conservation – 700 MW

Meet 700 MW of new electric demand through energy efficiency and load-shifting programs by 2020.

### ■ Add Natural Gas Generation – 300 MW

The Sand Hill Energy Center was built with the infrastructure to support additional generating units. Expand the main power plant, called a combined cycle plant, by 200 MW by 2013. The addition of 100 MW of peaking units is under way.

### ■ Add Renewables – 872 MW

Increase renewables to achieve a 30 percent target by 2020 through the following:

Add 200 MW of biomass generation. This includes the 100 MW biomass facility near Nacogdoches, Texas, the energy of which is secured through a Purchase Power Agreement (PPA).

Add 100 MW of solar generation, including a 30 MW facility at a location in eastern Travis County (Webberville).

Figure 12

Proposed Energy Resource Plan Maximum Capability in MW					
Year	Coal/Nuclear	Gas	Biomass	Wind	Solar
2008	1,029	1,444	12	274	1
2009		100		165	
2010					30
2011				(77)* 100	
2012			100		
2013		200			
2014				50	20
2015				100	
2016			100		
2017				(126)* 200	20
2018					
2019				50	30
2020				110	
<b>Additions</b>	0	300	200	610	100
<b>Total</b>	1,029	1,744	212	846	101
				*PPA Expires	

Continue to expand the wind portfolio to a total of 846 MW after subtracting wind contracts that expire and including the 165 MW wind farm addition slated to come online in January 2009.

For future wind development, explore Gulf Coast wind opportunities, ownership and development, support transmission construction and explore low-power wind technology. Pursue energy storage options for wind and solar.

■ **Carbon Offsets**

Cap CO<sub>2</sub> emissions at the 2007 level and reduce CO<sub>2</sub> emissions to the 2005 level by 2014 through carbon offset purchases. The estimated date for potential federal legislation imposing CO<sub>2</sub> limits is 2014.

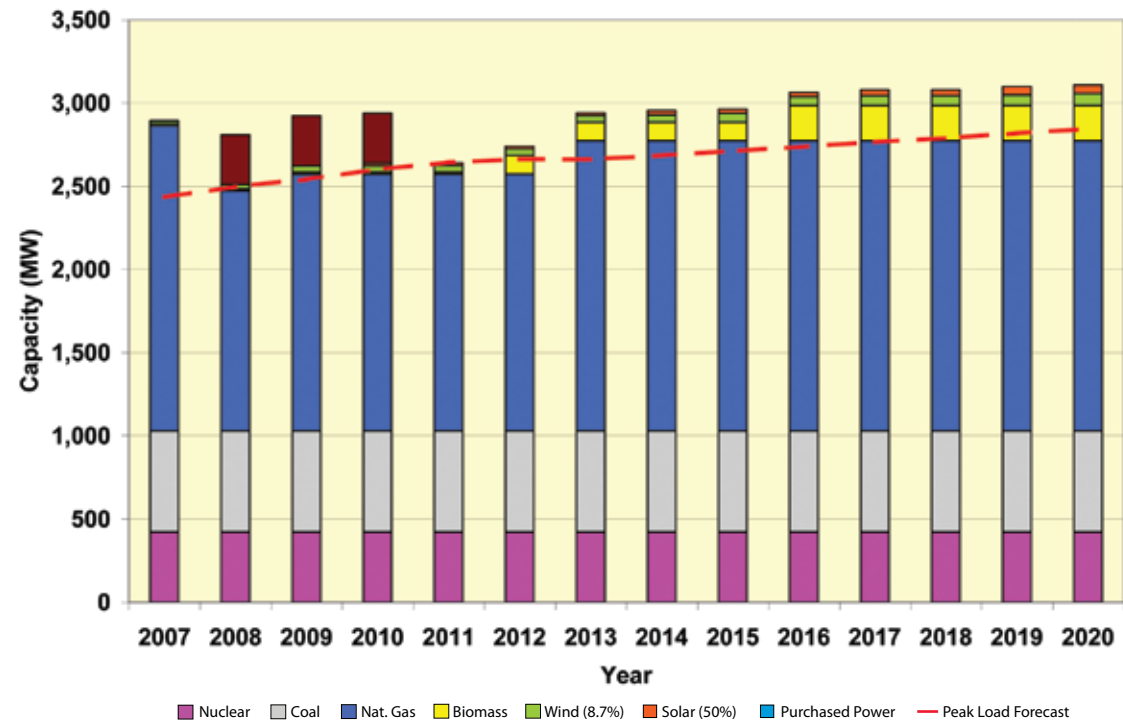
It is important to note that while the proposed plan contemplates a total of 846 MW of wind and 100 MW of solar by 2020, Figure 13 reflects only 90 MW of wind resources and 50 MW of solar.

**Carbon Offsets**

Many of our everyday actions consume energy and produce greenhouse gas emissions – for example, airline flights, driving our cars, heating or cooling our homes and offices. A carbon offset is a financial instrument that can be used to compensate for the emissions produced by funding an equivalent greenhouse gas savings somewhere else. One carbon offset represents the reduction of one metric ton of carbon dioxide or its equivalent in other greenhouse gases. Offsets are typically generated from emissions-reducing projects, such as renewable energy, energy efficiency and reforestation projects.

**Figure 13**

**Projected Demand Through 2020 With Resource Plan Added**



The 8.7 percent wind and 50 percent solar reflect the amount of capacity that can be counted on during peak demand hours.

These figures are based on statistical estimates of the amount of power that can be relied upon from these resources to meet peak demand periods.

As indicated, while some of the new projects are under way, decisions regarding the remaining almost 1,000 MW have yet to be made. Austin Energy seeks community feedback on the substantial additional projects, as well as on the overall direction.

Alternatives could include adding energy efficiency, natural gas-fueled generation, nuclear, clean coal or additional renewable energy resources. Later in this Resource Guide, the main advantages and disadvantages of various types of generating technologies are discussed.

This public participation process also seeks to identify community preferences for achieving the CO<sub>2</sub> cap and reduction goals.