

# Austin's Energy Leadership

Austin Energy  
Karl R. Rábago  
Distributed Energy Services  
September 21, 2010


# Leadership

- Crafting an Agenda Inspired by Vision
- Convening People Around a Common Agenda
- Serving People in Pursuit of the Agenda

# Austin Energy's Mission Statement

*Environment*

*Economy*



To deliver clean, affordable,  
reliable energy and  
excellent customer service.

*Society*

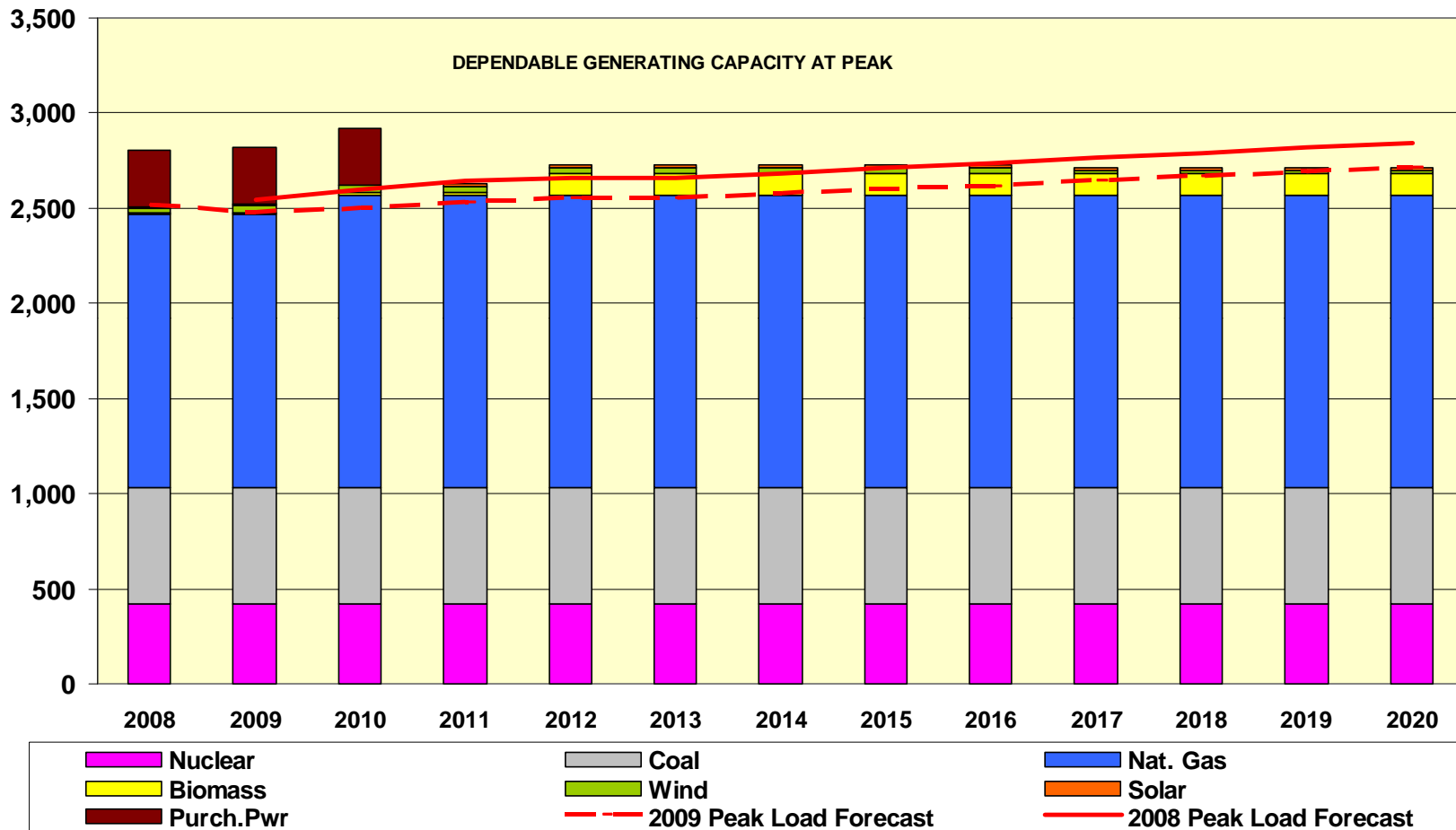
# Austin Climate Protection Plan (2007)

- Establish a CO<sub>2</sub> cap and reduction plan for all utility emissions
- 30% Renewable Energy by 2020
- 100 MW Solar by 2020
- 700 MW Energy Conservation by 2020
- “Make Austin Energy the leading utility in the nation for greenhouse gas reductions”

# Indicators

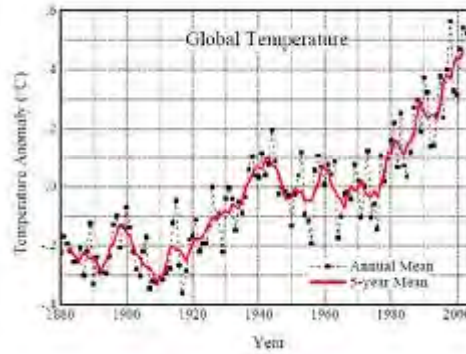
- 11% renewable energy, volunteer supported
- + 1,000 MW energy efficiency savings
- Lower average consumption & bills ~ 15% lower than Texas average
- Higher average efficiency
- High reliability
- National leader in smart grid, plug-in electric vehicles, energy efficiency, green power, green buildings, climate protection

# Current Resources vs. Load Forecasts



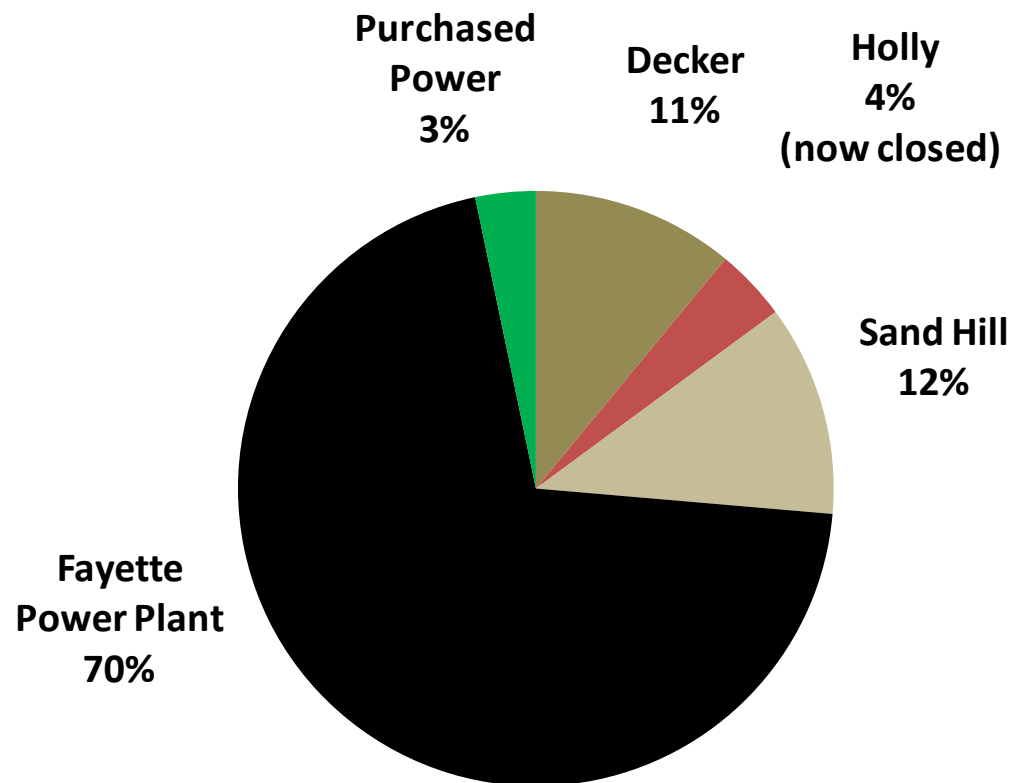


**CLIMATE CHANGE THREATENS ALL AMERICANS**  
**WE MUST WORK TOGETHER ON AN AMERICAN STRATEGY**



# Austin Energy CO<sub>2</sub> Emissions Profile, 2007

Fayette Power Plant = Nearly  $\frac{3}{4}$  of Power Plant CO<sub>2</sub> Emissions





# *Austin Energy Resource & Climate Protection Plan*

## Goals Summary

### **Proposed** 2020 Goals

- Increase renewable energy goal to 35%
  - Increase solar to 200 MW
  - Wind increases to 1000 MW
  - Increase biomass by 50 MW to 150 MW
- Increase energy efficiency goal by 100MW to 800MW
- CO<sub>2</sub> reduction target of 20% below 2005 level

# *AE Recommendation*

## Generation Resources in MW

Year	Coal/Nuclear	Gas	Biomass	Wind	Solar	Renewable Portfolio
2009	1,029	1,444	12	439	1	12.6%
2010		100			30	12.5%
2011				(77)* / 200		17.7%
2012			100			22.2%
2013				150		26.2%
2014					30	26.4%
2015		200		100		28.7%
2016			50		20	31.6%
2017				(126)* / 200	30	35.0%
2018					20	33.6%
2019					30	33.7%
2020				115	40	36.7%
<b>Total</b>	<b>1,029</b>	<b>1,744</b>	<b>162</b>	<b>1001</b>	<b>201</b>	

\* Wind contracts expire.

## *AE Recommendation*

### Estimated Impacts

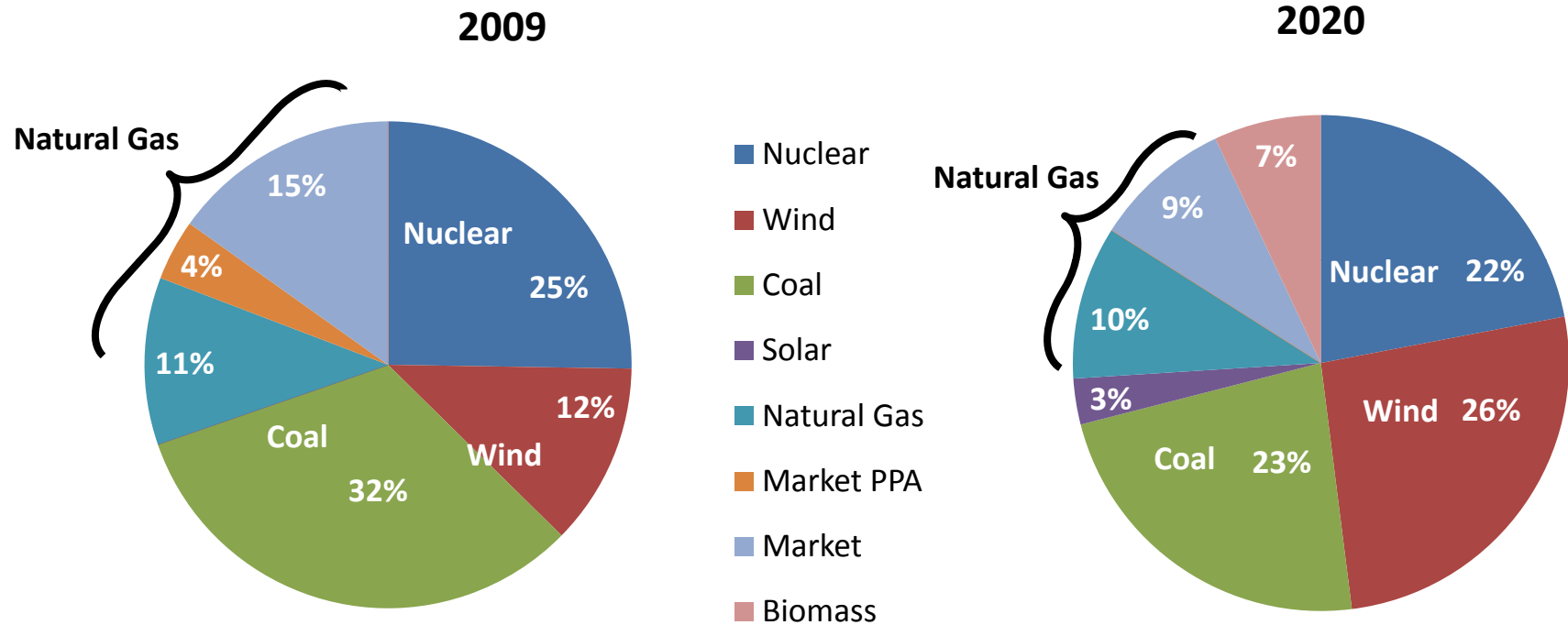
Estimated impacts due to increased generation requirements, in 2020.

	Residential	General Service	Industrial
Demand/Energy Used	1,000 kWh	100 kW/ 43,800 kWh	5,000 kW/3,300,000 kWh
Increase over 2009	22.0%	19.2%	11.7%
Bill Impact	\$21	\$717	\$24,684

- Total capital expenditures to 2020 of \$2.67 billion
- For residential customers, about the same as higher usage already costs customers in San Antonio (before their next 5 rate increases, already planned for nuclear and coal plants)

# Austin Energy Resource & Climate Protection Plan

## Energy Mix – 2009 vs. 2020



# 2020

800

1000

200

150

60%



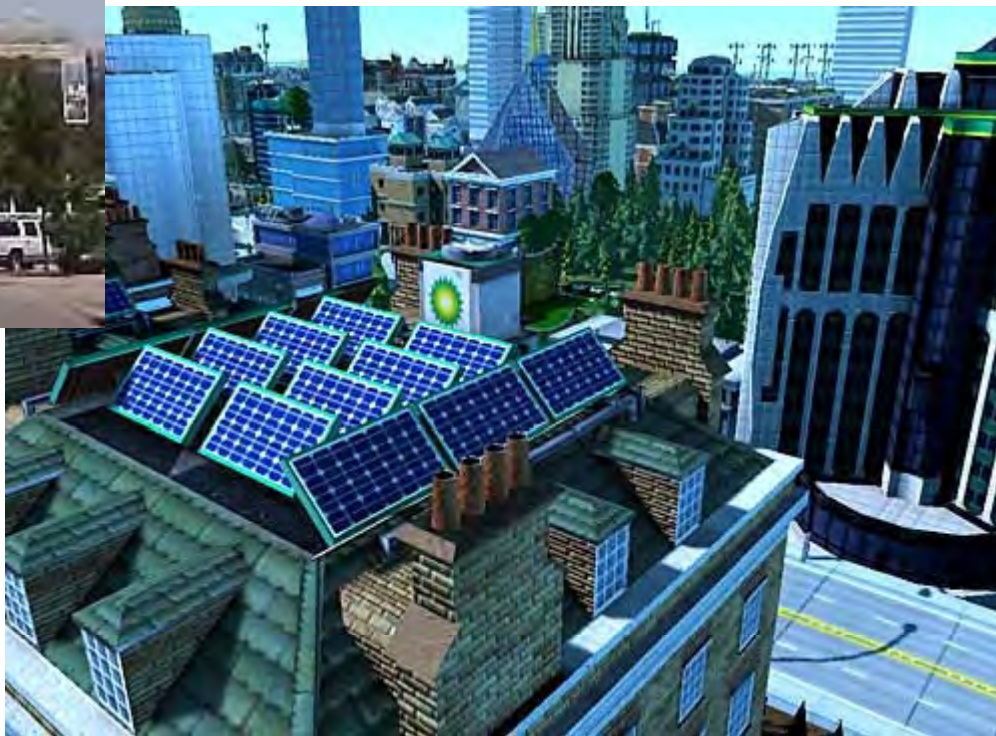
# Complementary Strategies

- Low Income Energy Services & Weatherization
  - Energy Storage
  - Smart Grid & Pecan Street Project
  - Electric Transportation
  - Green Economy
  - Zero Energy Capable Homes, 2015
  - Austin Climate Protection Plan
  - Municipal Energy Efficiency Leadership
- 
- \$25 million in Federal funds from Stimulus Act, plus \$10 million for Pecan Street Project





# 2300

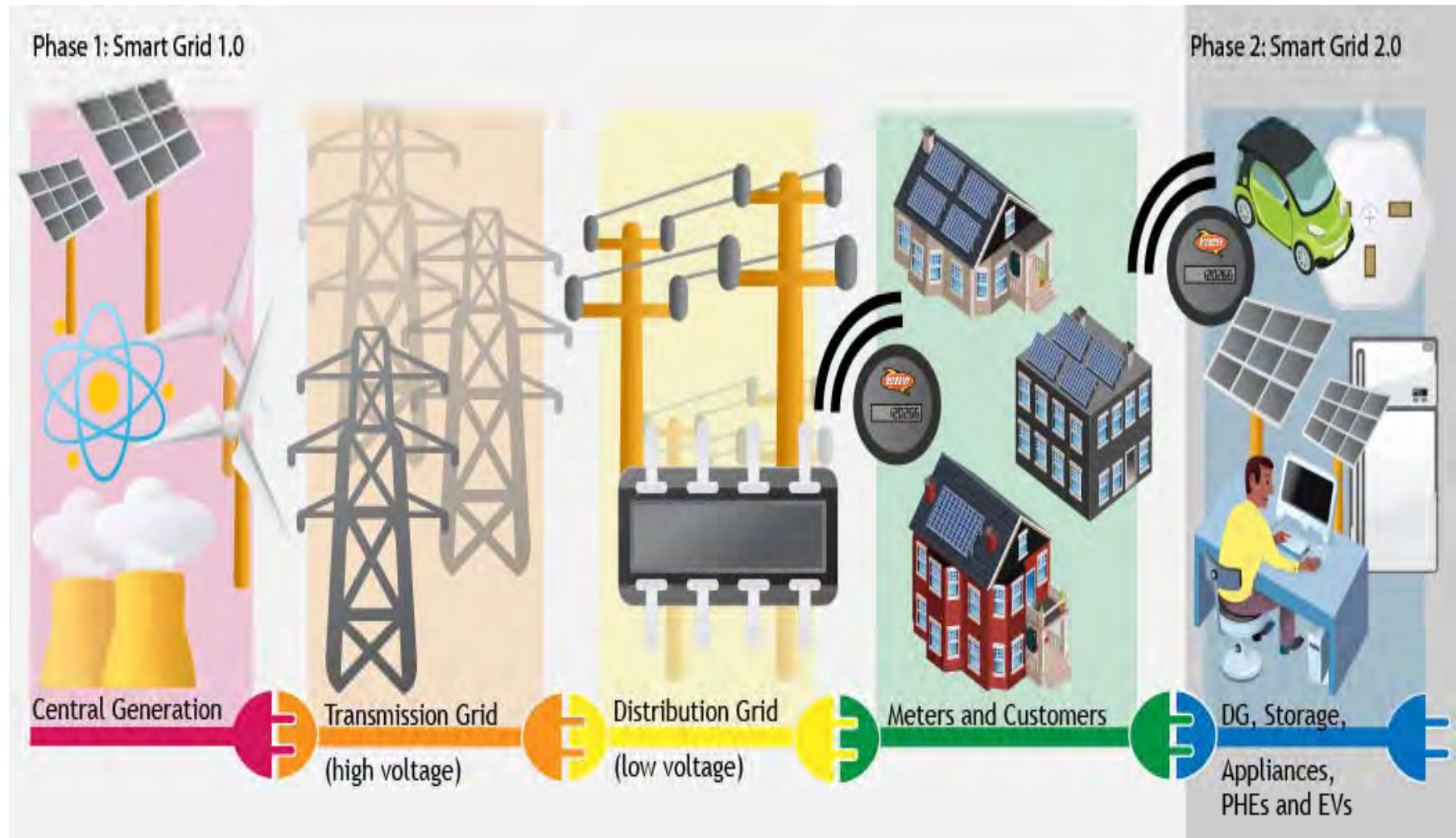


# 1700

13 October 2010

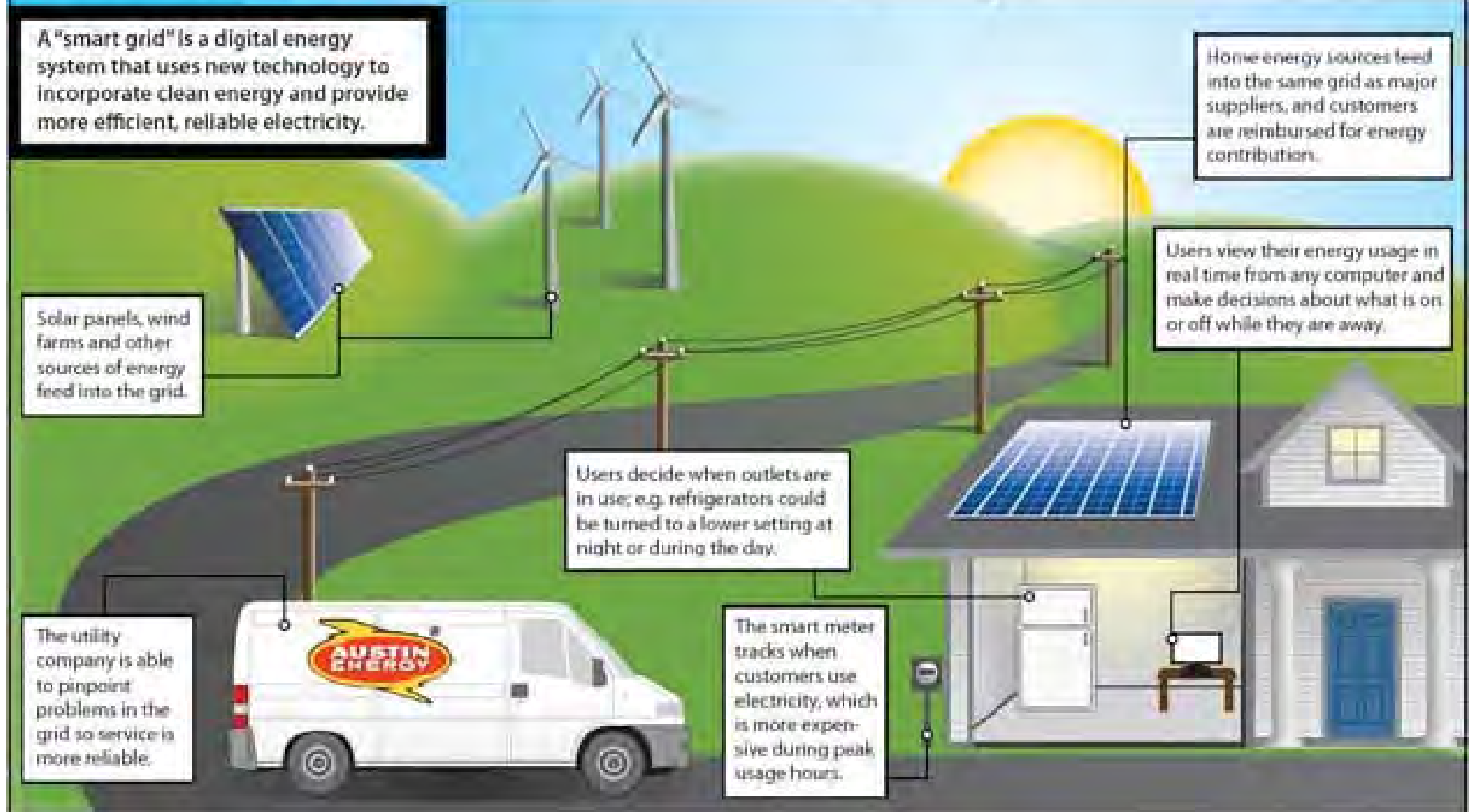


# Austin Energy Smart Grid





## How a smart grid works



## Pecan Street Project

# Questions & Discussion

## Contact

Karl R. Rábago  
[karl.rabago@austinenenergy.com](mailto:karl.rabago@austinenenergy.com)