



Mike Sloan Position on Austin's Energy Future

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Overview

Big Picture

Key Issues

Reaction AE Plan

Propose Solutions

***Our Energy Future
will see change:***

***Cheap
Fuel***



***Advanced
Technology***

Mega-Trends in Energy

Advanced Technology

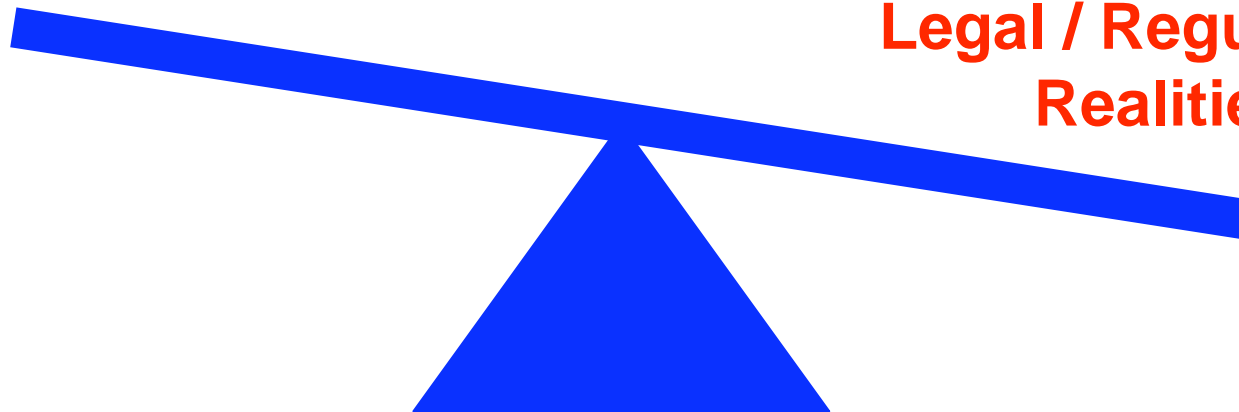
\$\$\$ Enviro Impacts

Customer-Sited Options

Status Quo \$\$\$

Institutional Inertia

**Legal / Regulatory
Realities**



New Ideas are counter-balanced by Inertia of Old Ideas

Change is Difficult

What's the Goal ?

**Austin
Energy**
\$1.3 B / 1,700

City of Austin Govt.
\$2.8 B / 12,000

Individual & Corporate Citizens of Austin, Texas
GDP = \$70 B / 724,000 people

Broad spectrum of values, perspectives & opportunities

MY TAKE:

AE as Catalyst for Maximum Benefit to Citizens of Austin

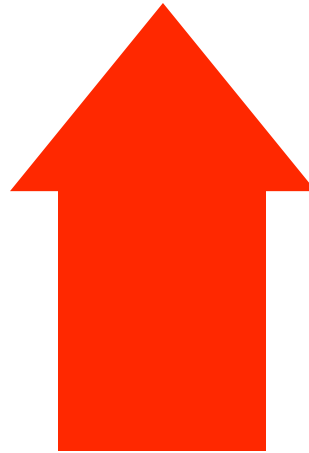
Key Issues

- 1. Business Model Reform*
- 2. Transparency / Public Input*
- 3. Coal - Keep / Sell / Shut Down?*

#1 Business Model Reform Essential

Current

GROWTH



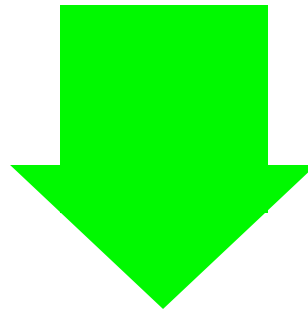
%

**Utility Revenue
(Customer Bills)**

**General Fund
Transfer**

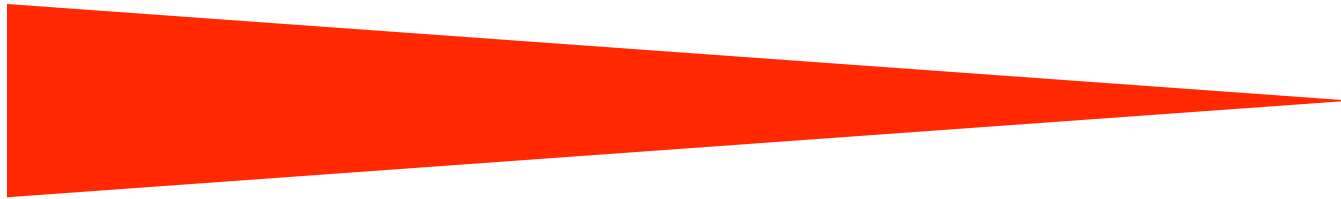
Better

REDUCE



FIXED

#2 Transparency / Public Input



1983
Vote
on all major
expenditures

1996
Austin
Competitiveness
Resolution

1999
Texas law allows
confidentiality of
competitive info

2005
Secrecy Resolution
extended
without sunset

**How much does lack of transparency
benefit Austin electric customers ?**

MY TAKE:

**inappropriate for a Monopoly Utility
Secrecy is ultimately Bad for Austin**

Coal - Adopt a Clear Policy

**#1 Climate
Protection**

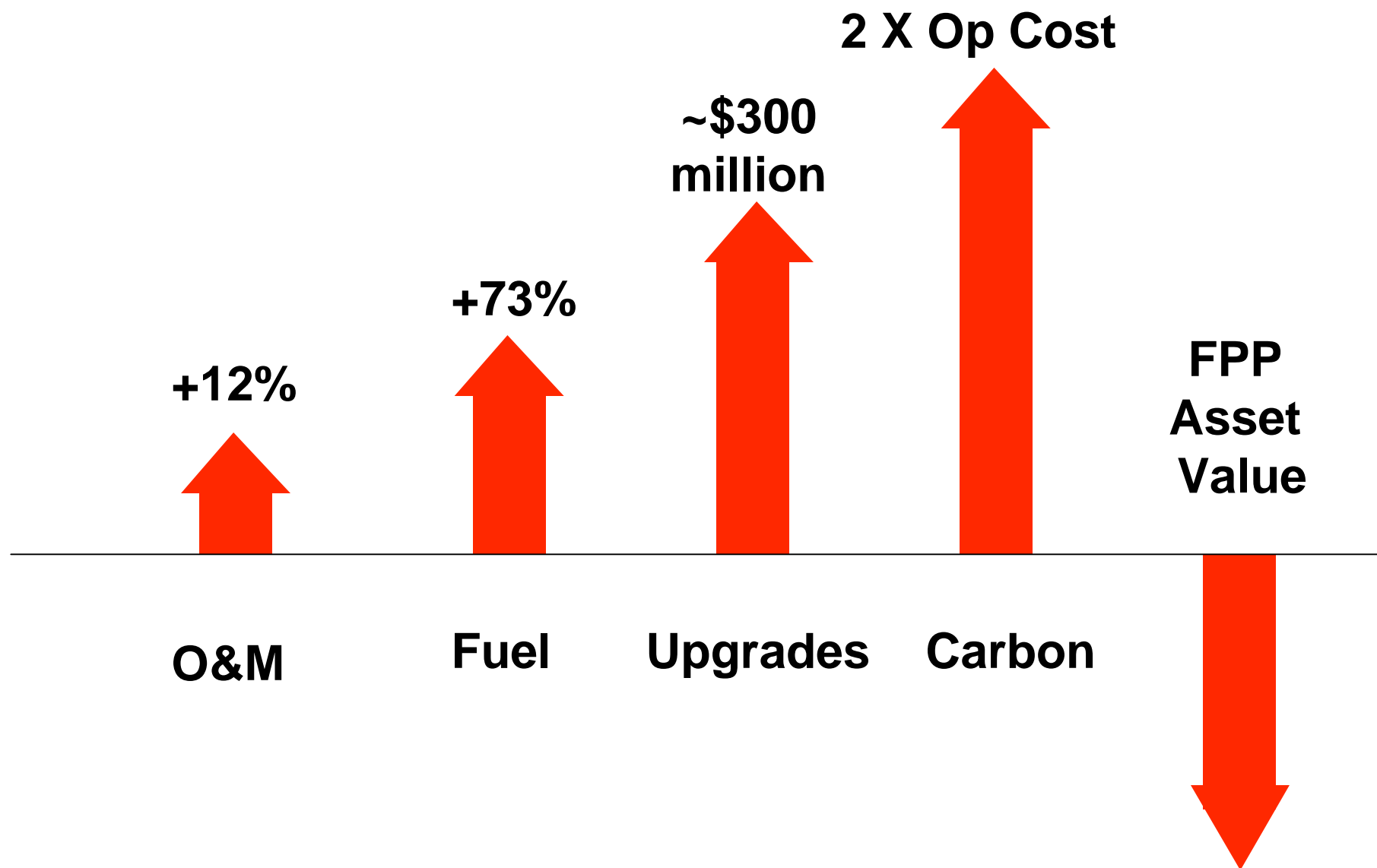
**#1 fuel is
Coal**

These seem irreconcilable

What Austin should do Next ?

- A - KEEP our Coal Plant because it's Valuable
- B - SELL our Coal Plant because it's Valuable
- C - SHUT DOWN our Coal Plant because it's Costly

Increasing Costs for Fayette Coal Plant



Reaction to Plan:

- 1. Carbon Reduction?***
- 2. Slow to add Wind & Solar***
- 3. ERCOT Market purchases?***

Keep all existing plants

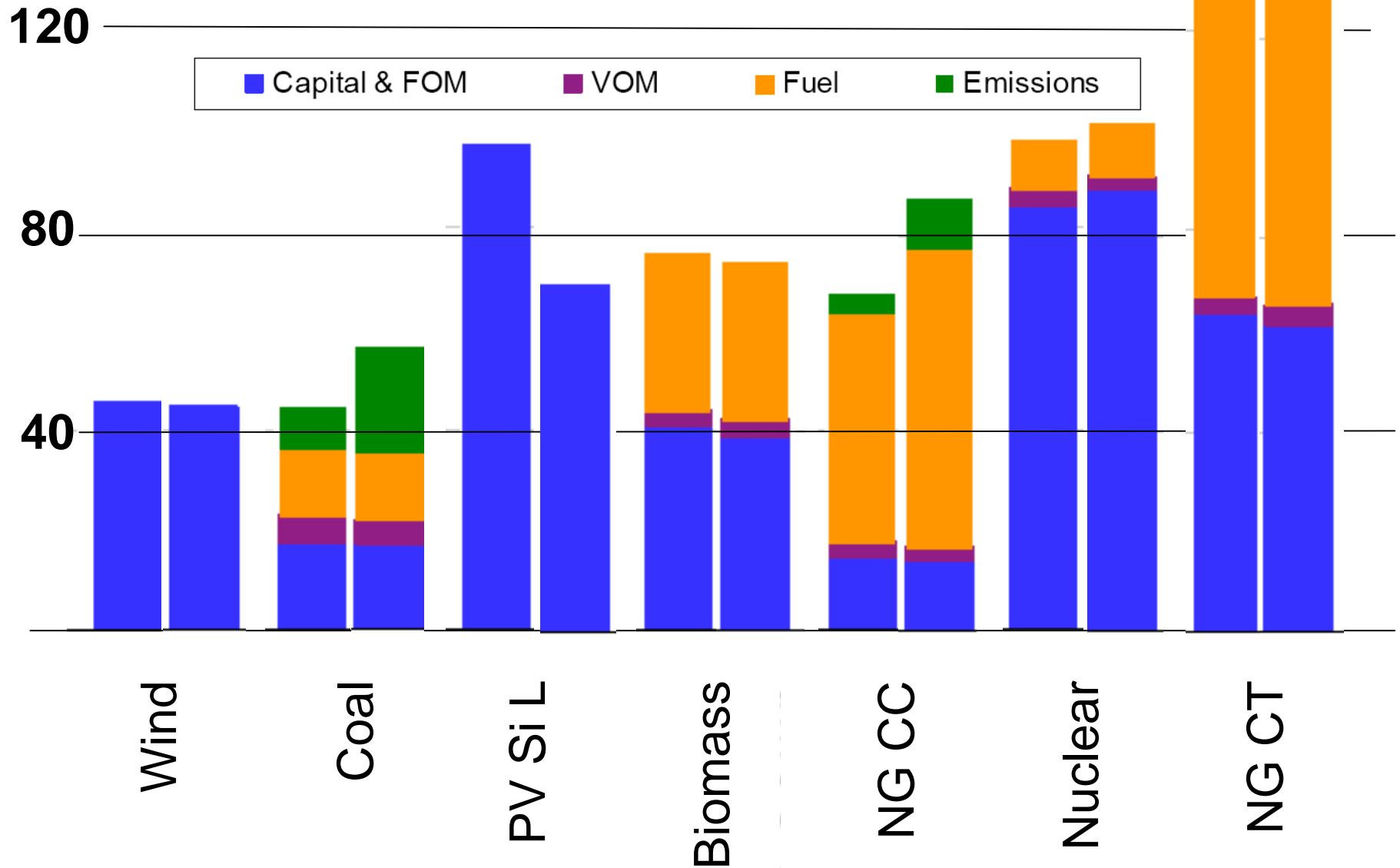
**short term focus:
Add more units that burn carbon**

**Long term focus:
add clean / zero fuel options:
wind & solar**

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	
Additions	0	300	200	610	100
Total	1,029	1,744	212	846	101
				*PPA Expires	

Cost of Electricity (\$/MWh)

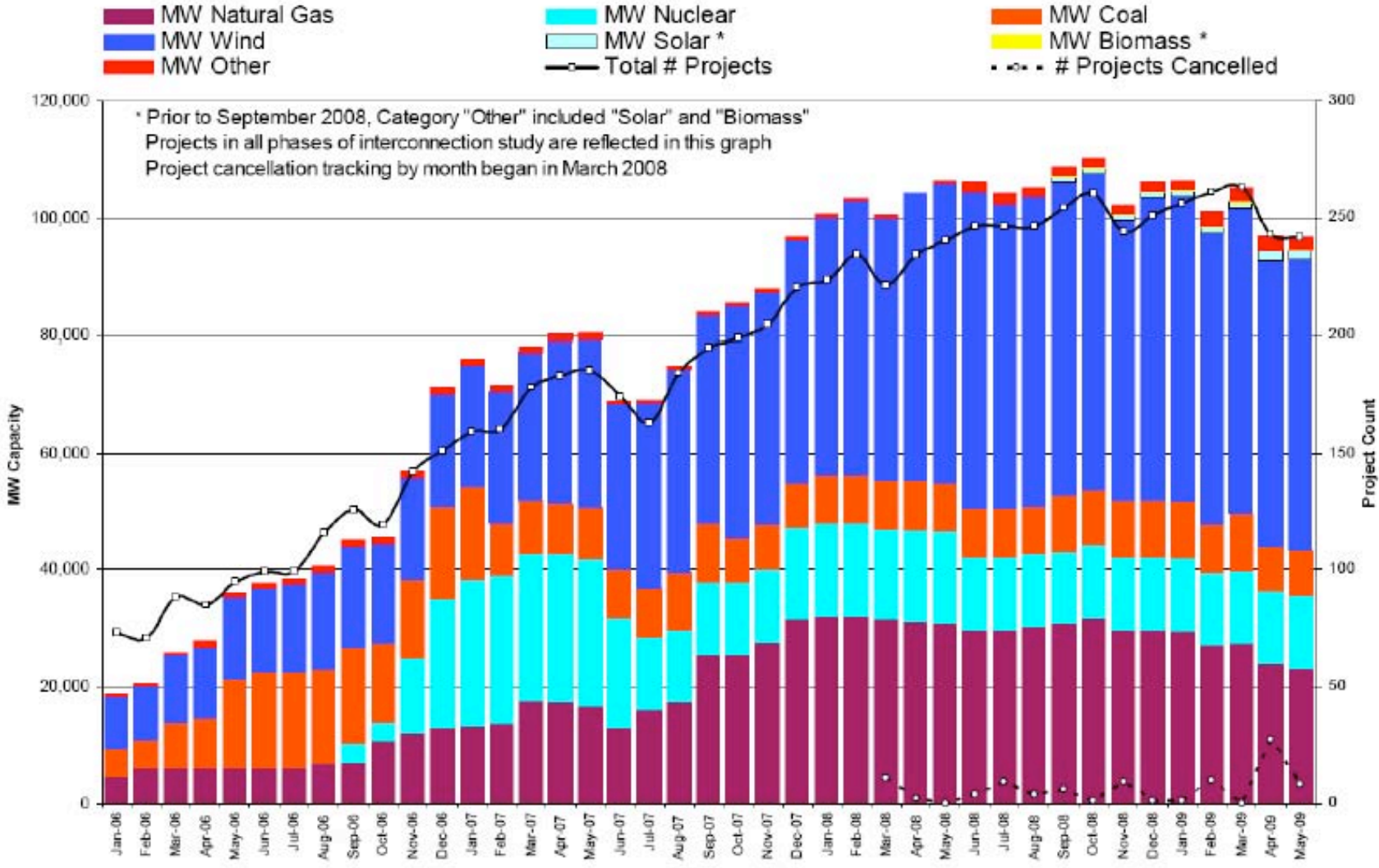
(APPROX. GRAPHIC extracts from PACE 5-27-09 for 2012 & 2020)



“Wind generation has had the impact of reducing wholesale and retail prices of electricity.”

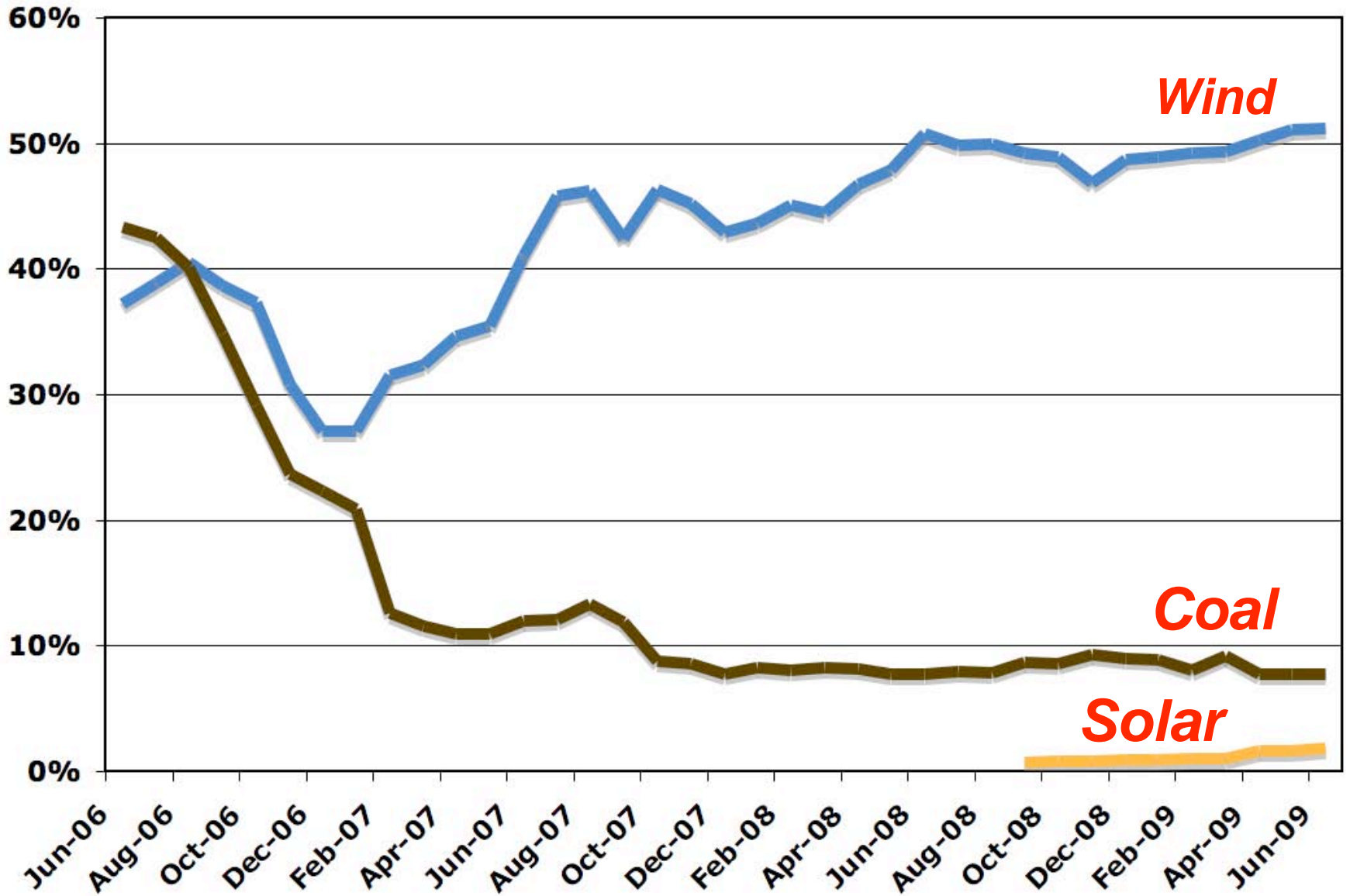
Source: PUCT, Scope of Competition Report to Texas Legislature, 2009

History of ERCOT Interconnection Requests by Technology Type



Source: ERCOT, System Planning Division, Monthly Status Report to Reliability and Operations Subcommittee, May 2009
http://www.ercot.com/content/meetings/ros/keydocs/2009/0611/07_May_2009_System_Planning_Report_to_ROS_-_final.pdf

Wind, Solar & Coal Interconnection Requests



Electric Generator Locations

Total Megawatts

(72,000 MW)

GAS - 64%

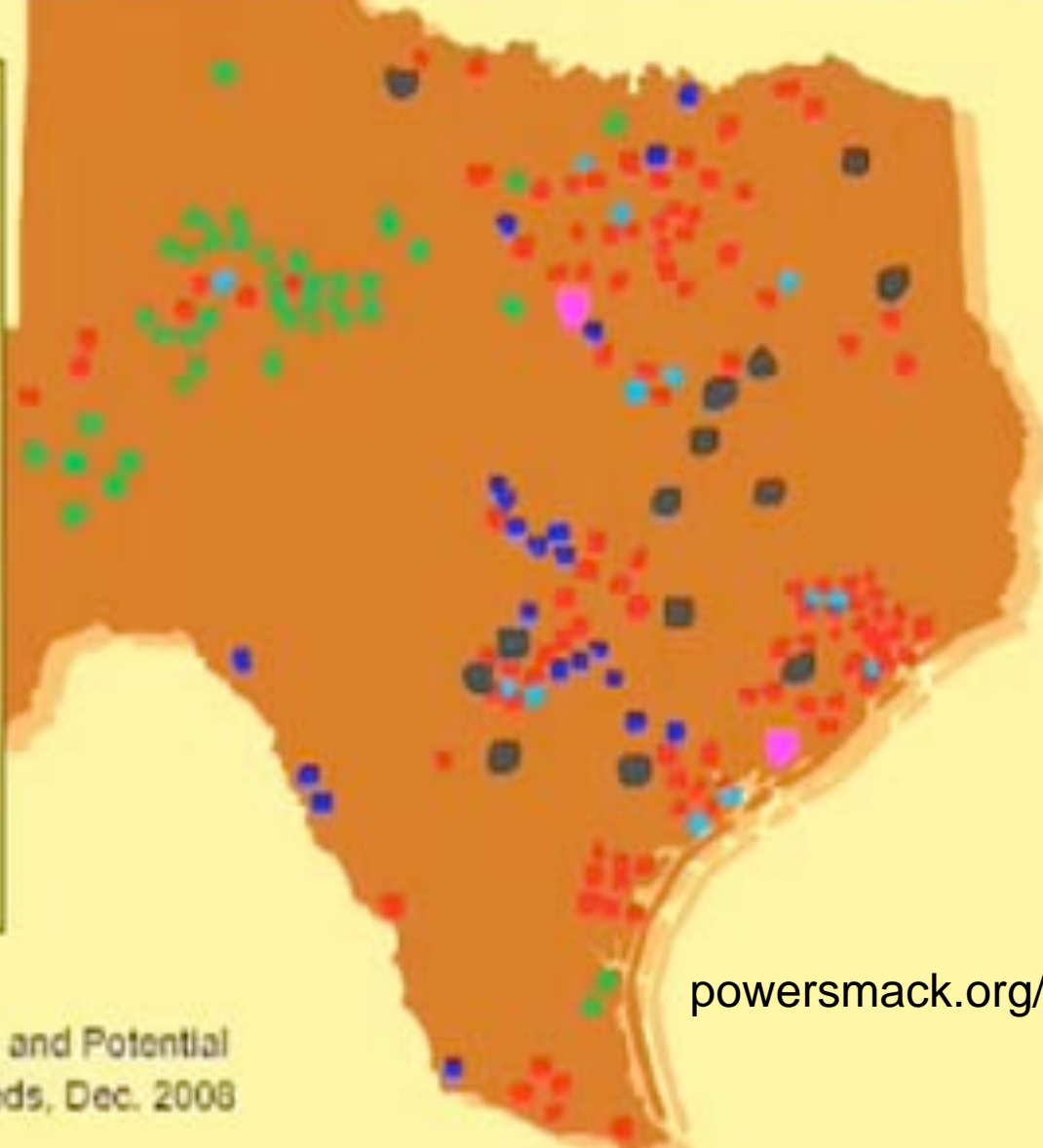
COAL - 20.6%

WIND - 8.2%

NUCLEAR - 6.4%

HYDRO - 0.8%

OTHER - 0.2%



powersmack.org/austin

Source: ERCOT Report on Existing and Potential System Constraints and Needs, Dec. 2008

Opportunities to Buy from Market

Total Load Weighted Average Price (\$/MWH)*

[MCPE weighted by Total Zonal Load]

<u>LOAD ZONE</u>	<u>May</u> <u>2009</u>	<u>Apr</u> <u>2009</u>	<u>Mar</u> <u>2009</u>	<u>Feb</u> <u>2009</u>	<u>Jan</u> <u>2009</u>
South	\$32.97	\$24.27	\$26.35	\$27.27	\$34.69
North	\$32.99	\$24.82	\$32.21	\$27.89	\$32.31
Houston	\$32.70	\$24.58	\$29.11	\$27.19	\$32.78
West	\$24.57	\$12.93	\$25.70	\$19.93	\$24.04

<u>LOAD ZONE</u>	<u>May</u> <u>2008</u>	<u>Apr</u> <u>2008</u>	<u>Mar</u> <u>2008</u>	<u>Feb</u> <u>2008</u>	<u>Jan</u> <u>2008</u>
South	\$171.09	\$83.65	\$64.34	\$63.26	\$60.24
North	\$86.41	\$74.92	\$69.64	\$59.05	\$62.31
Houston	\$152.76	\$100.00	\$68.19	\$60.06	\$60.16
West	\$58.01	\$58.59	\$38.52	\$56.84	\$52.04

Sloan Priorities

(predicated on change in business model)

- 1. Maximize Energy Efficiency***
- 2. Innovation / Local Solar***
- 3. Focus on Clean, Low Cost***
- 4. Flexibility (one size fits all?)***

***Maximize
Energy
Efficiency***

Which Resource Should Austin Use More?

Cheaper (\$26/MWh)

No Emissions

No Water

Local

Cost More (\$37/MWh)

High Emissions

High Water Use

None Local

Our Budget Priorities Seem Wrong

\$395+ million

**Cost More (\$37/MWh)
High Emissions
High Water Use
None Local**

\$15 million

**Energy Efficiency
Rebate Program**

**Natural Gas, Coal, Nuclear
Fuel Costs**

Innovation & Local Solar

(Pecan Street)

Lead on Things the World Needs

30 MW of PV in Austin - Three Options:

City-Controlled: Webberville

\$10 million x 25 years = \$250 million

Citizen-Owned / City Rebates

\$3.75 x 30 MW = \$112.5 million

Citizen-Owned / Long-term Rebate Program

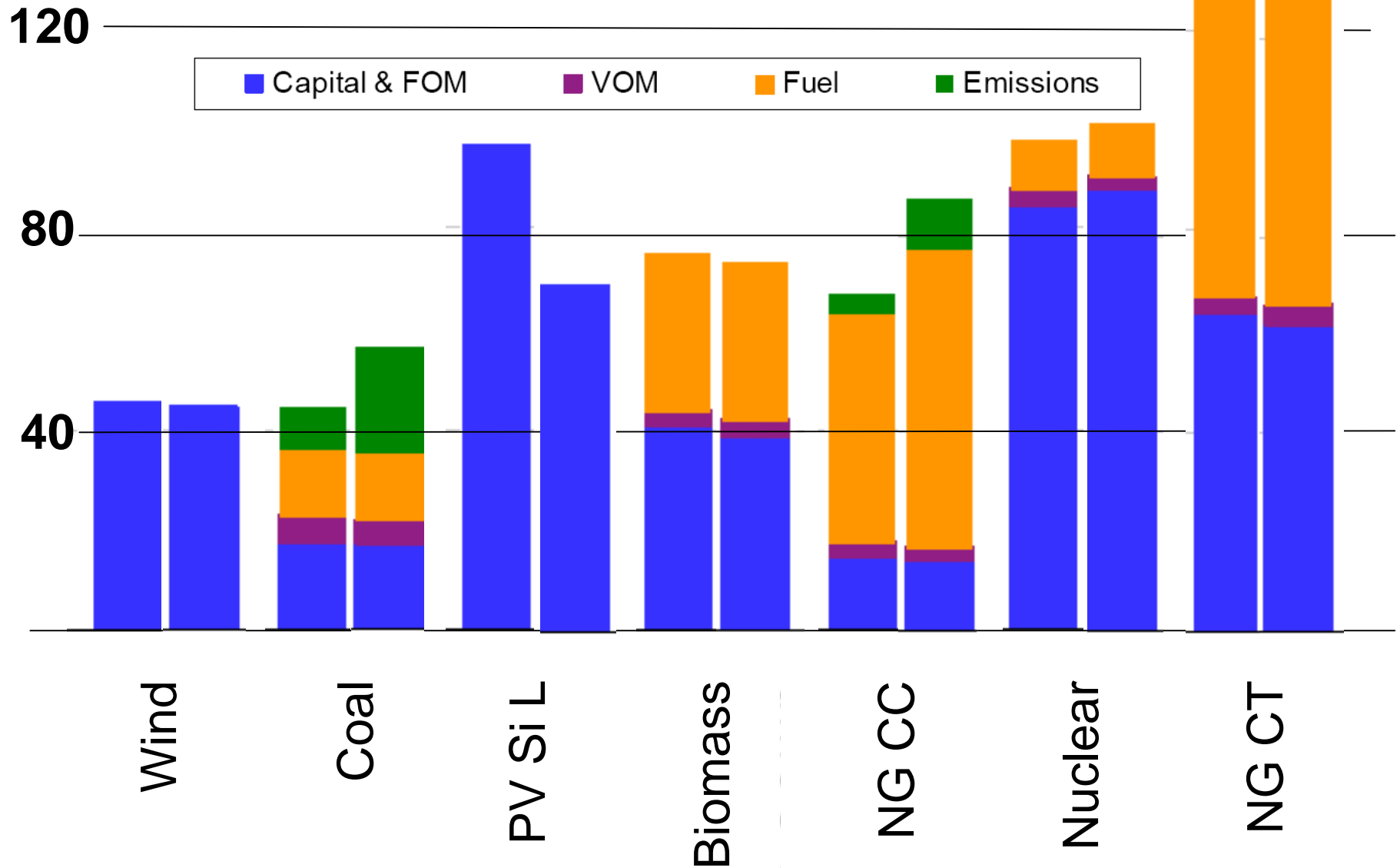
\$1 x 30 MW = \$30 million

Citizen-Owned Systems - part of the local solar solution

***Clean, Low-Cost
Additions of
Capacity***

Cost of Electricity (\$/MWh)

(APPROX. GRAPHIC extracts from PACE 5-27-09 for 2012 & 2020)



Flexibility

???