OKLAHOMA'S ENERGY FUTURE

Securing Demand and Effectively Marketing our Domestic Natural Resources

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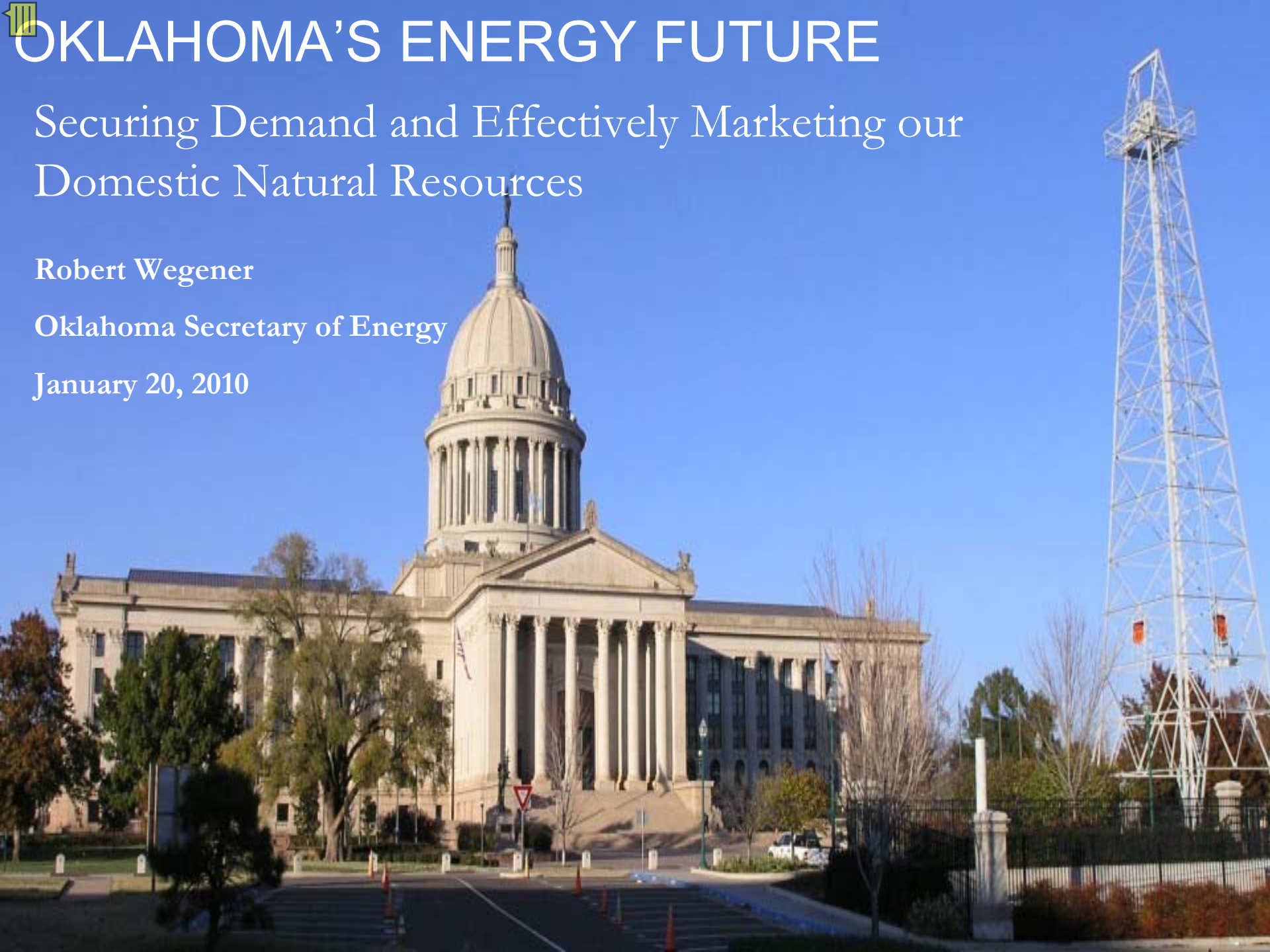
Oklahoma Secretary of Energy

January 20, 2010



- energy states such as Oklahoma, Texas and Louisiana "**enjoyed much faster job growth prior to the recession, entered the recession much later and have posted better overall job growth in the current cycle**. These states have also dominated the state job growth rankings since the start of the recession."

Dr. Mark Snead, former Oklahoma State University economist, now with the Federal Reserve

Thoughts from energy leaders…

*"We need more from **all sources of domestic energy to get America's economy on track** and growing again and to increase our energy security…Thus, **we need a multi-pronged approach that along with current sources includes renewable energy and increased energy efficiency."***

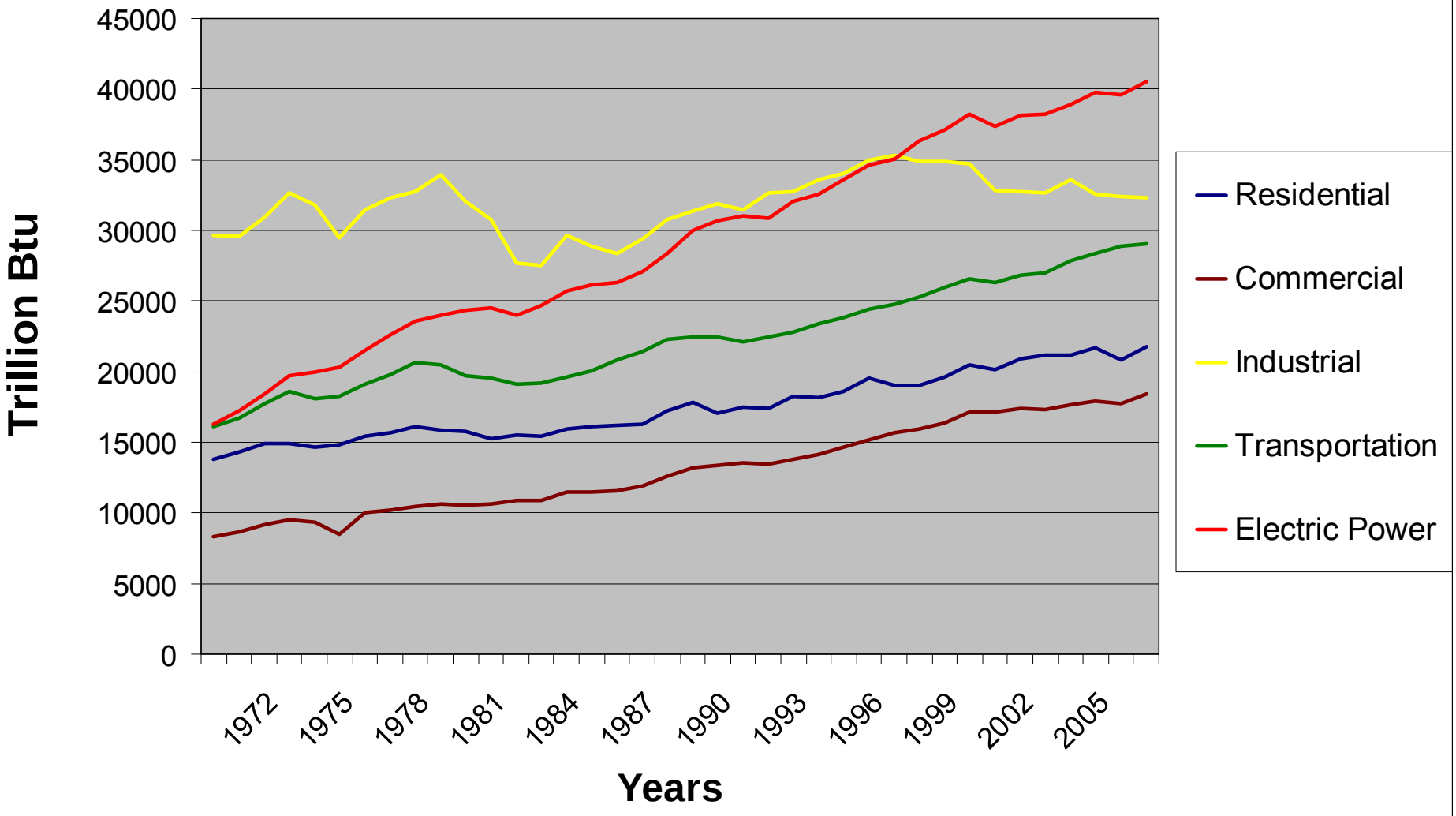
-J. Larry Nichols
Chairman, American Petroleum Institute and
Chairman and CEO Devon Energy Corporation
September 10, 2009 Testimony before Senate Finance Committee

"Renewable energy and clean burning natural gas are the basis of a new strategy the world needs to create a cleaner and more secure future."

- T. Boone Pickens and Ted Turner
CEO of BP Capital and Chairman of Turner Enterprises Inc.
August 16, 2009


If we want to protect the safety and economic security of our citizens, no city, no state, no nation will ever arrive at an alternative energy future without relying on domestic oil and natural gas.

Energy Consumption by End Use Sector



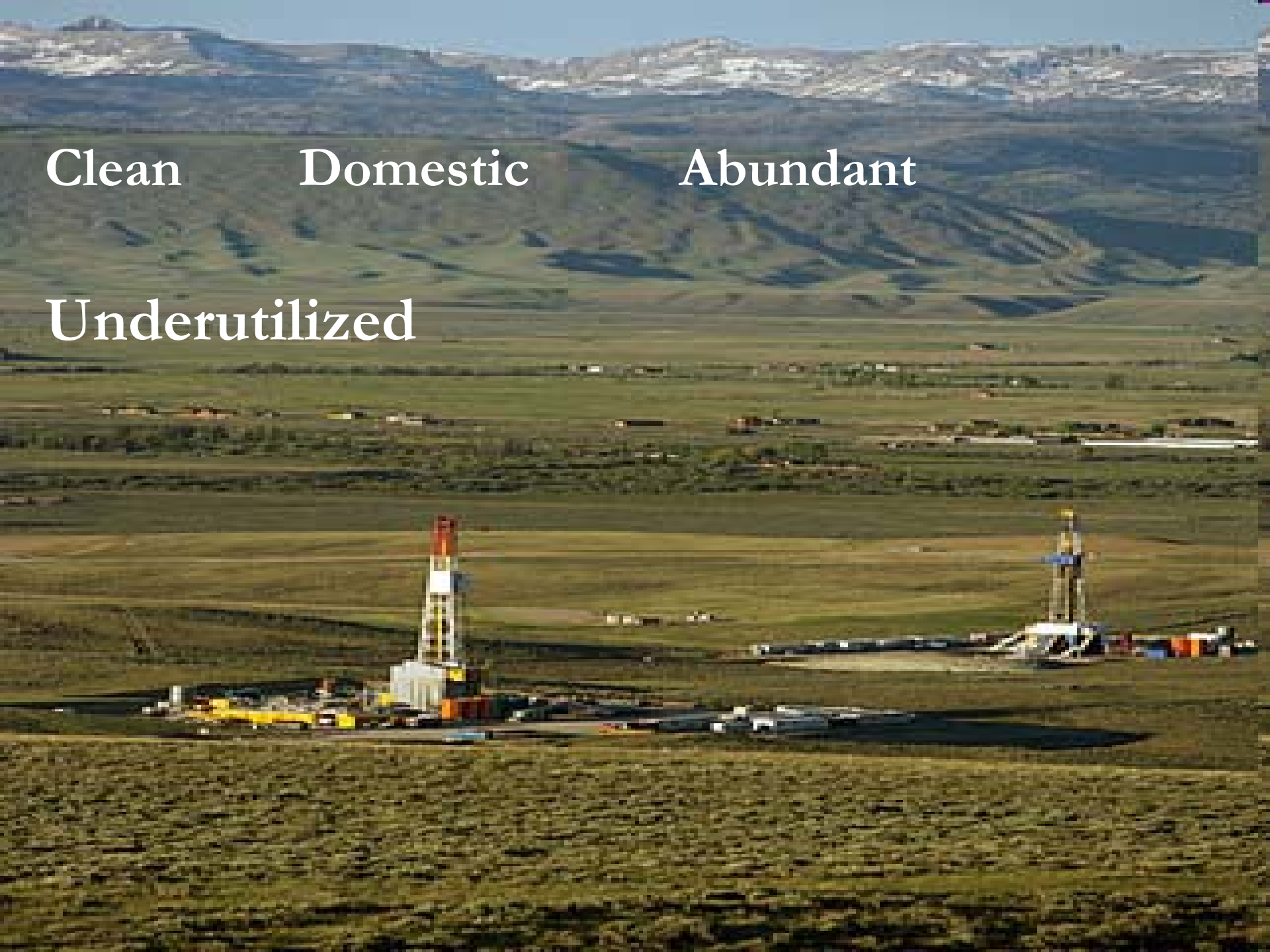
Source: Energy Information Administration: 2008 Annual Energy Review

Securing Demand for our Natural Resources

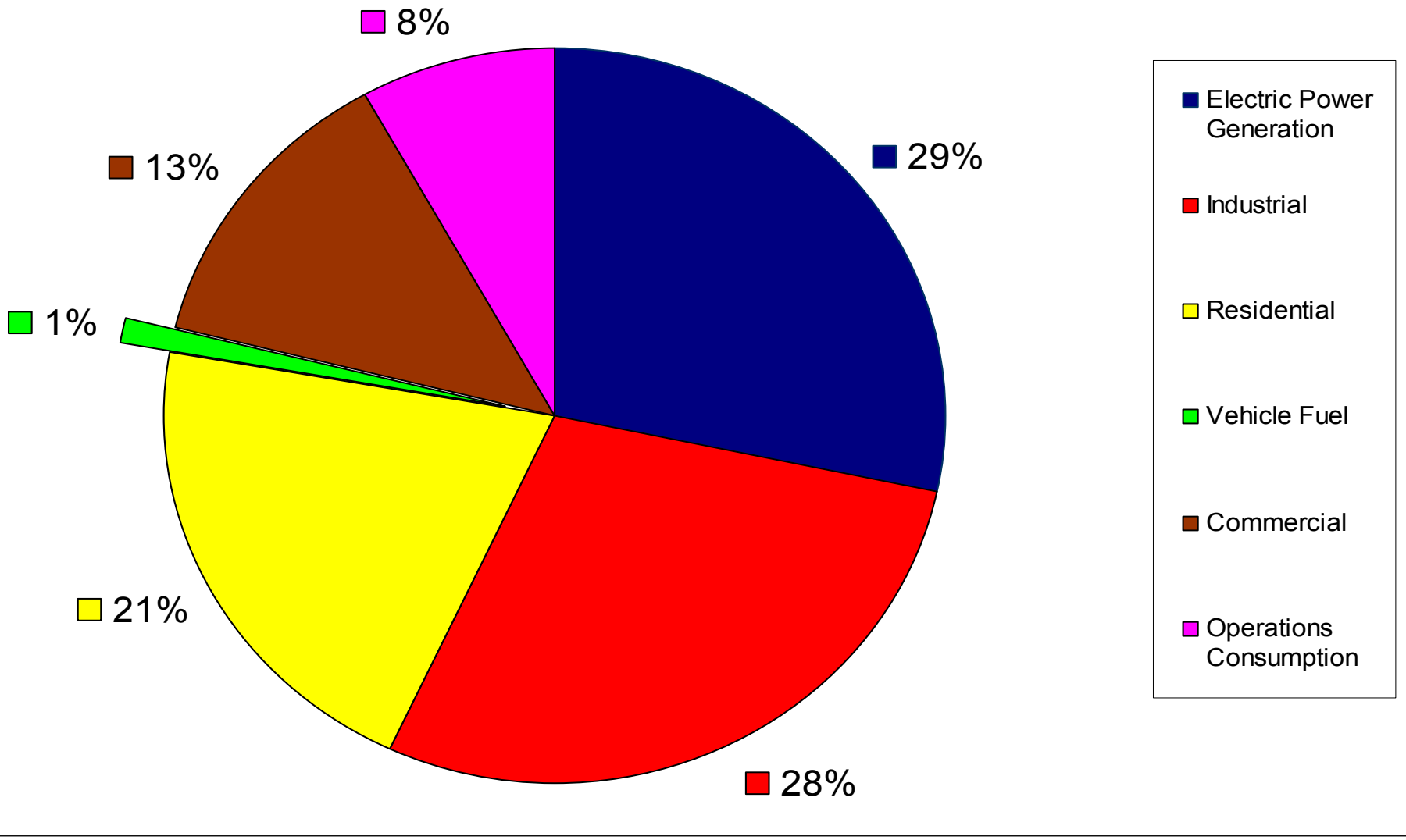
OK Power Supply No-brainers

- Natural Gas – the foundation; the baseload
- Wind
- Geothermal
- Demand-side Management/Efficiency

What about coal and nuclear???


Clean Domestic Abundant
Underutilized

U.S. End Uses of Natural Gas



Source: EIA

Why Natural Gas?

- Abundant domestic supply supports increased utilization
- Cleanest Fossil Fuel Generation– 50% less CO2 than coal
- **Addresses scalability issue: Only available backup for renewable generation**
- Challenges
  - Price Volatility Requires Hedges
  - Policy challenges in DC


42% of all new generation capacity

Policy Support for Wind

- Public Policy has been a strong driver for wind development
- PTC extended through 2012
- Zero Water Use
- Primary driver - Renewable Portfolio Standard (RPS)
  - Mandate requiring utilities purchase a minimum level of electricity from renewable sources
  - Majority of states have adopted
  - KS is newest addition to the family
    - Lead to locating of Siemens manufacturing plant

Oklahoma – Economic Impacts

from 1000 MW of new wind development

Wind energy's economic "ripple effect"

Direct Impacts

Payments to Landowners:
- $2.7 Million/yr

Local Property Tax Revenue:
- $6.4 Million/yr

Construction Phase:
- 1,800 new jobs
- $189 M to local economies

Operational Phase:
- 250 new long-term jobs
- $21 M/yr to local economies

Indirect & Induced Impacts

Construction Phase:
- 1,650 new jobs
- $141 M to local economies

Operational Phase:
- 250 local jobs
- $20 M/yr to local economies

Totals (construction + 20yrs)

Total economic benefit = $1.16 billion

New local jobs during construction = 3,500

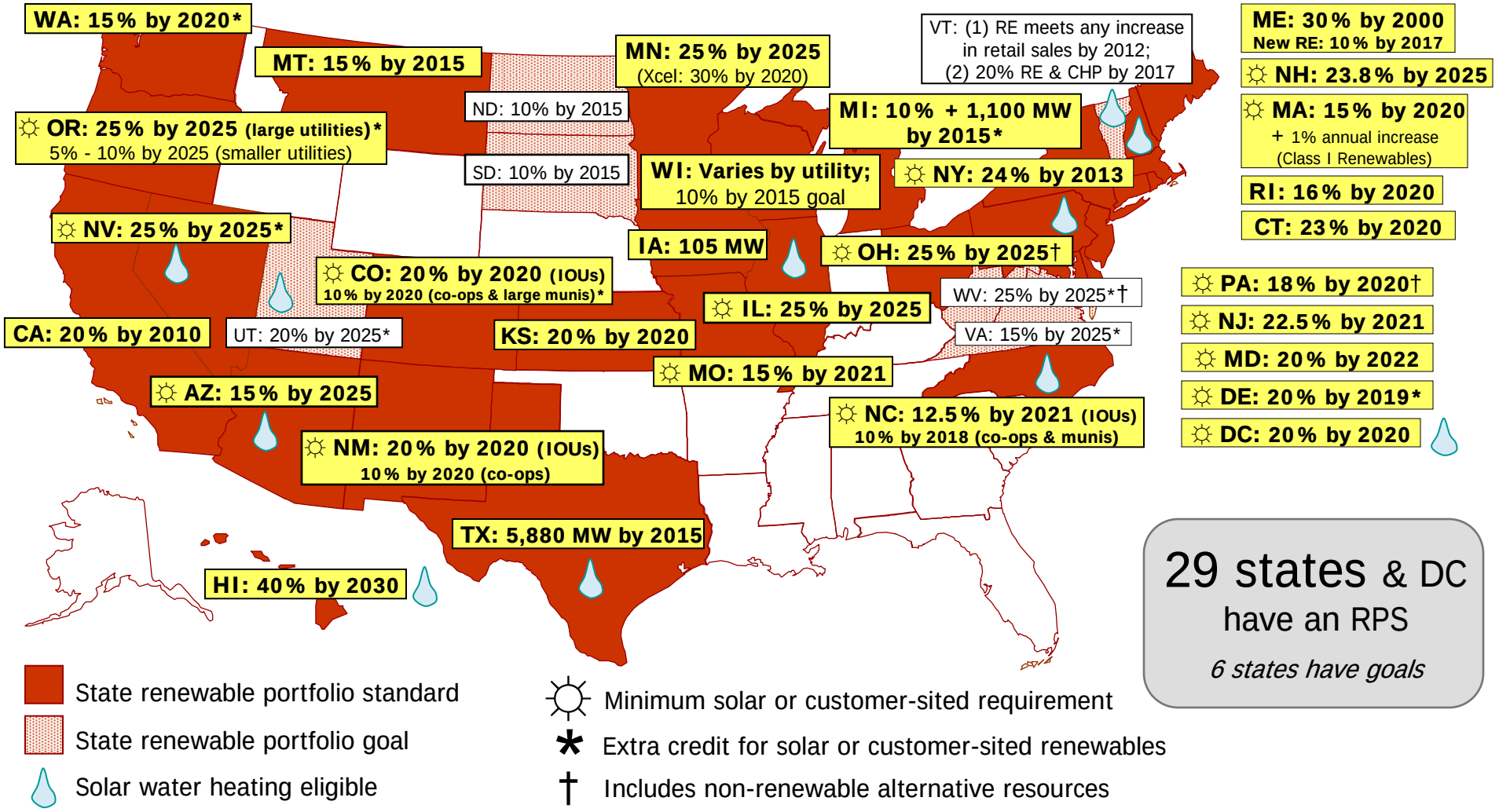
New local long-term jobs = 500

All jobs rounded to the nearest 50 jobs; All values greater than $10 million are rounded to the nearest million

Construction Phase = 1-2 years
Operational Phase = 20+ years

Renewable Portfolio Standards

www.dsireusa.org / September 2009



29 states & DC have an RPS

6 states have goals

State renewable portfolio standard

State renewable portfolio goal

Solar water heating eligible

Minimum solar or customer-sited requirement

* Extra credit for solar or customer-sited renewables

† Includes non-renewable alternative resources

What should Oklaoma do??

- Consider RPS and Clean Energy Standards

- Look to Texas for an example
  - Adopted a “natural gas goal” AND a RPS in 1999.
    - 50 percent of new generation from natural gas
    - 10,000 MW of wind by 2015

Supply alone is not a sustainable solution to increased electric sector demand

Why DSM and Efficiency?

- Hedge to natgas price volatility
- Cost of additional supply
  - 1000 mw nuclear: $6 - 8 billion
  - 1000 mw coal: $2.5 billion…and rising
  - Renewables are important, but they are intermittent

Policy must address the utility disincentive


Diversity is critical, but we must keep
the foundation strong

What's happening in DC?

- IDC and Percentage Depletion
- EPA endangerment decision
- Hydraulic Fracturing Debate re-ignited
  - NY Times Editorial
  - September 2009 EPA Report
- Natgas Act
  - Important provisions need to be protected
  - Stand-alone legislation needs a home

Helping DC

- Natgas Act
  - Preserve transferable tax credits – draw parallels to the wind industry
  - Support inclusion in new jobs legislation
- Hydraulic Fracturing
  - Empathize with groups concerned about water quality
  - Emphasize importance of state regulators and their increasing involvement
  - Consider disclosing fluid mixture to state regulators

How should we promote natgas?

- Address the misconception that natural gas is scarce
- Agree that carbon emissions need to be reduced
- Encourage alternative energy development
- Embrace energy efficiency and demand programs
- Address scale issue without criticizing alternatives
  - Focus message on utilizing gas as baseload
  - Criticism jeopardizes public perception

Summary

- Develop a multi-pronged approach with a natural gas foundation
- Embrace renewables and efficiency as hedges to price volatility and significant statewide economic development potential
- Address scale issues without criticizing alternatives
  - Focus message on utilizing gas as baseload
  - Criticism jeopardizes public perception
- Efficiency and Demand-management must be considered with traditional supply-side options


Natural Gas Wins the Policy War
and Rigs Stay Active…