

AECT
ASSOCIATION OF ELECTRIC
COMPANIES OF TEXAS, INC

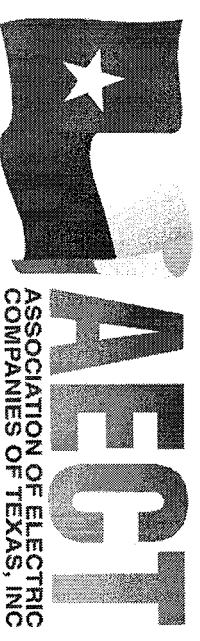
Benefits and Costs of Alternative Energy Sources

Testimony before the Senate Committee on Business & Commerce

August 24, 2010

Legislative advertising paid for by: John W. Fainter, Jr. • President and CEO Association of Electric Companies of Texas, Inc.
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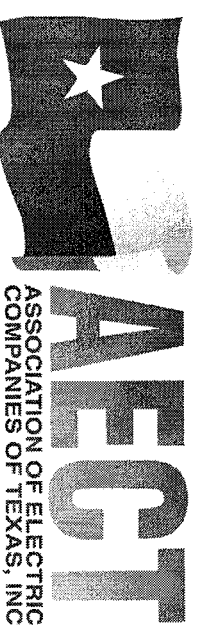
AECT Principles



- AECT is an advocacy group composed of member companies committed to:
 - Ensuring a modern, reliable infrastructure for the supply & delivery of electricity.
 - Supporting efficient competitive markets that are fair to customers and market participants.
 - Supporting consistent and predictable oversight and regulation that will promote investment and ensure the stability of Texas' electric industry.
 - Promoting an economically strong and environmentally healthy future for Texas, including conservation and efficient use of available resources.
- AECT member companies remain dedicated to providing Texas customers with reliable service and are committed to the highest standards of integrity.

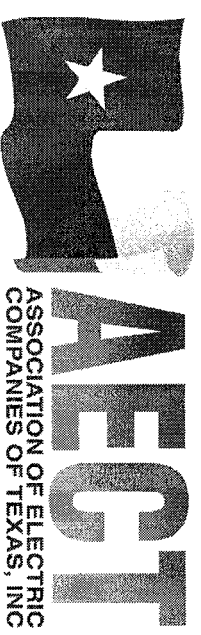
The Association of Electric Companies of Texas, Inc. (AECT) is a trade organization of investor-owned electric companies in Texas. Organized in 1978, AECT provides a forum for member company representatives to exchange information about public policy, and to communicate with government officials and the public. For more information, visit www.aect.net.

Benefits and costs of alternative energy sources



- AECT member companies support the implementation of alternative energy technologies as they become economically viable and in demand by customers. Allowing market participants the flexibility to meet customer demand is the best process for supporting new technologies.
- Customers who seek to use these technologies should be allowed the opportunity to weigh the benefits versus the costs and choose accordingly, but those customers should not be able to shift costs to other customers.
- Alternative energy resource development must be closely coordinated with the utilities whose job it is to provide electric service to customers. This is particularly important with new technologies designed to interconnect with the current electric system.
- Mandates of experimental or developing technologies can add costs to the market, which are ultimately borne by customers.
- AECT remains committed to a long-term transition to future energy solutions, but our state must do so in a manner that is rational, measured and does not impose an unreasonable financial burden on customers or market participants.

Benefits and Challenges: Wind-Powered Generation

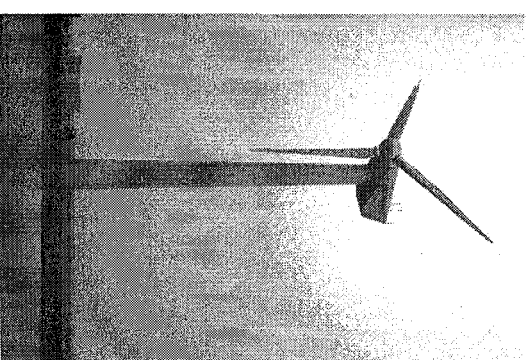


Type of Generation

- + Wind is plentiful in certain parts of Texas.
- Wind blows intermittently, making it a less reliable power source.

Environmental Issues

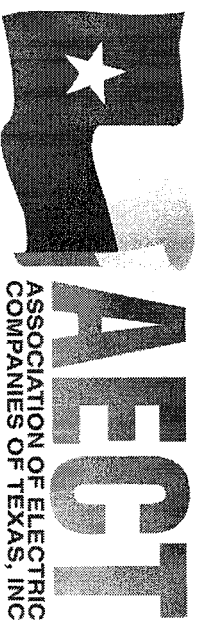
- + No air emissions.
- Can affect migratory birds.
- Concerns about aesthetic impact.



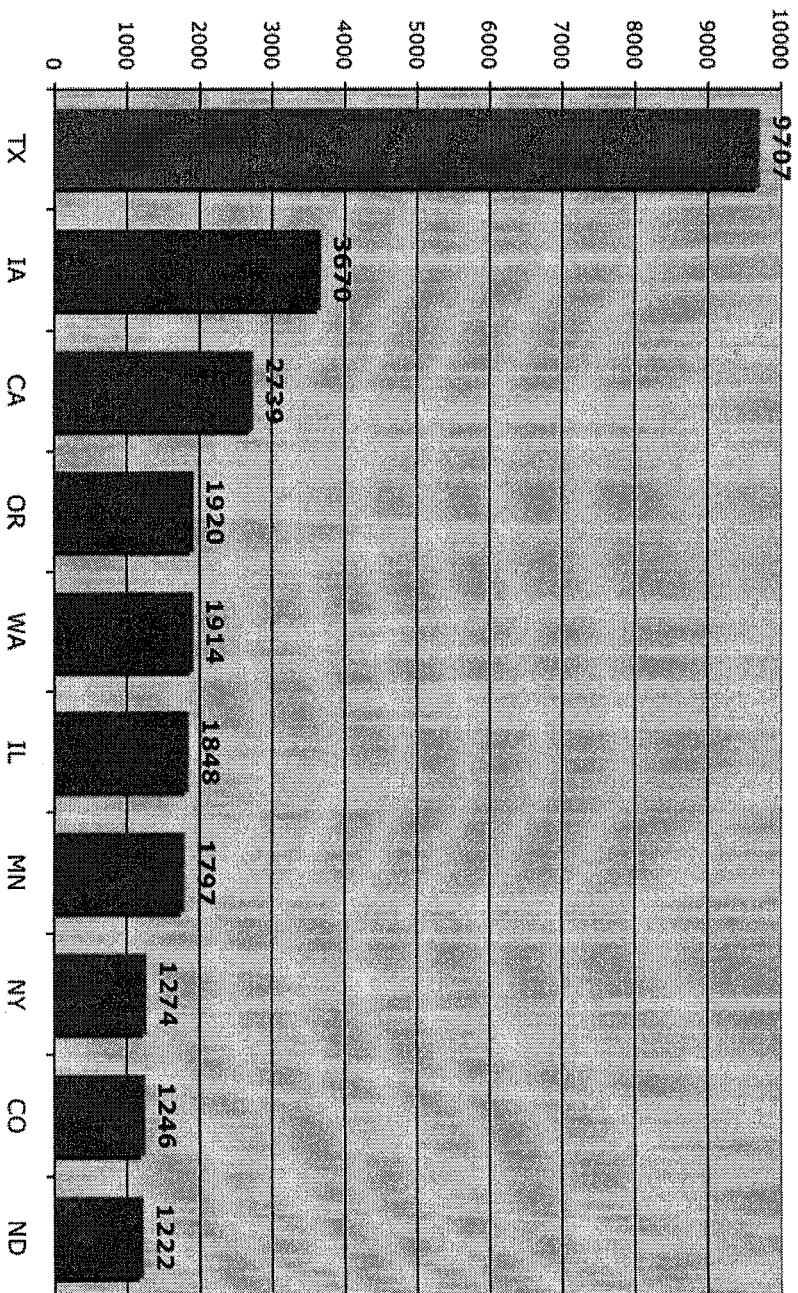
Cost of Construction and Fuels

- + No fuel cost.
- Limited ability to replace other generation to satisfy reserve margins.
- Imposes other costs on the system, such as increased ancillary service requirements, backup capacity and the need for transmission lines to reach rural wind farms.

Texas Has the Most Installed Wind Energy Capacity



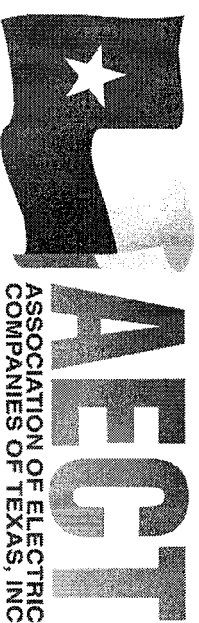
States With Most Installed Wind Capacity (MW)



27% of the nation's installed wind generation capacity is located in Texas.

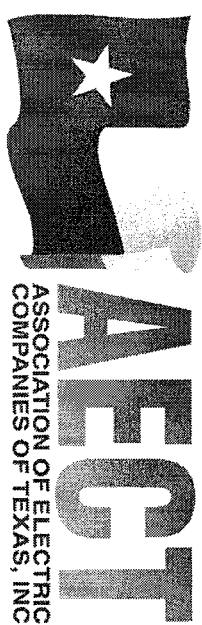
Source: American Wind Energy Association, 7/20/10 (www.awea.org/projects)

Competitive Renewable Energy Zones: Legislative and Regulatory Steps

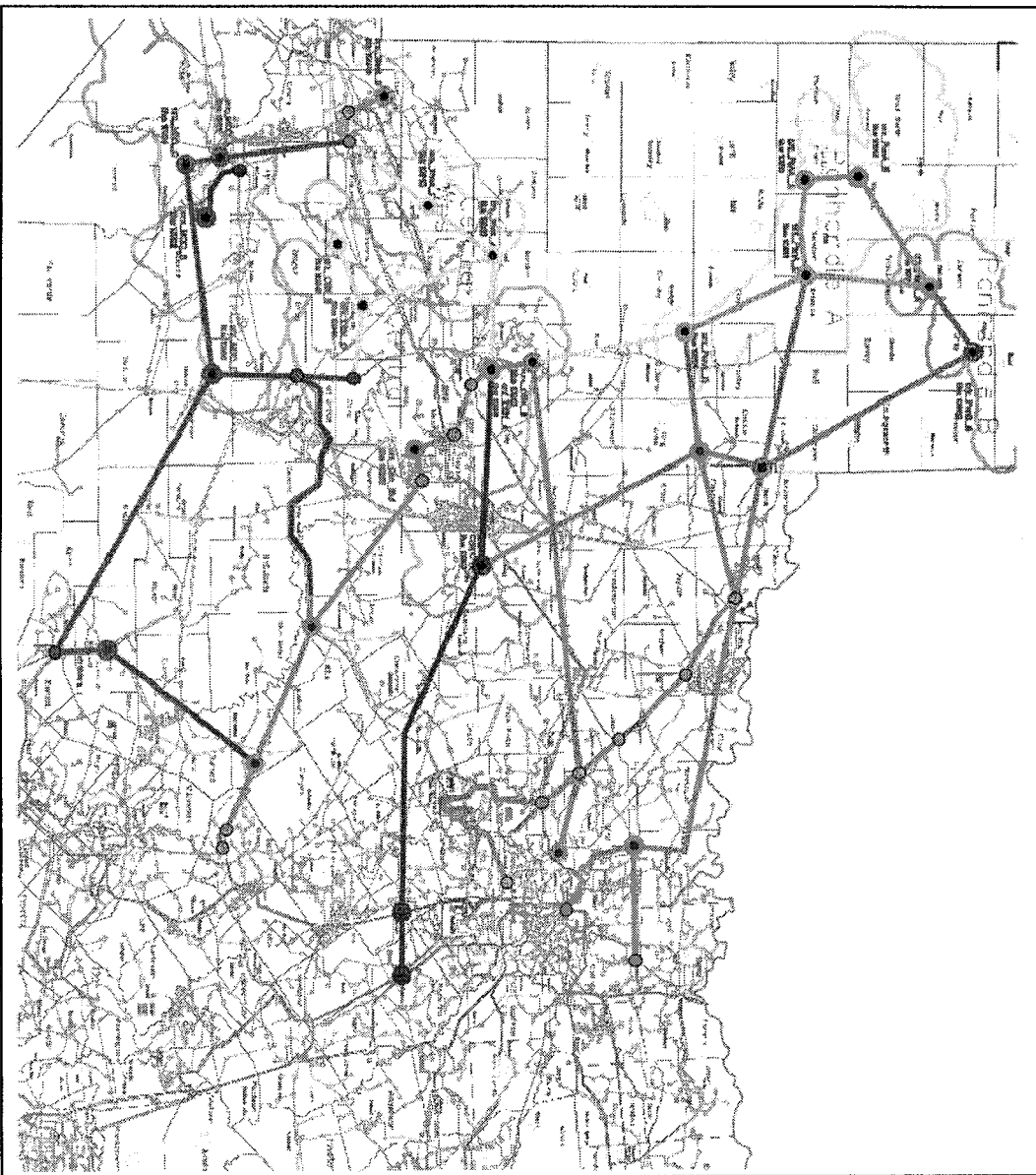


- The Texas Legislature mandated steady increases in renewable power in TX76RSB 7 (1999) and TX791RSB 20 (2005).
 - Starting Line: 880 MW in 1999
 - Old Goal 1: 2,880 MW by 2009 (Achieved by 2007)
 - New Goal 1: 5,880 MW by 2015
 - New Target 1: 10,000 MW by 2025
 - New Target 2: 500 MW non-wind renewable generation
- TX791SB 20 (2005) also required PUC to:
 - designate Competitive Renewable Energy Zones (CREZs) in areas in which renewable energy resources and suitable land areas are sufficient to develop generating capacity from renewable technologies;
 - develop a plan to construct necessary transmission capacity in a manner that is most beneficial and cost effective to customers; and
 - take into account transmission constraints, the need for generation and the level of financial commitment by generators when defining CREZs.
- PUC adopted Substantive Rule 25.174 in December 2006, which creates framework for determining CREZs.
- Texas currently has 9,707 MW of installed renewable generation capacity (Oct 2009).

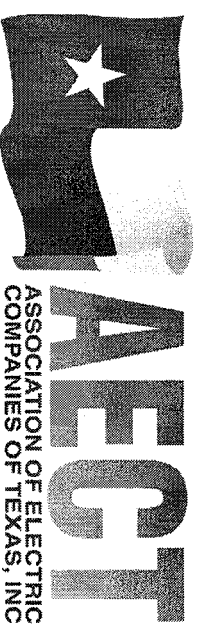
Map of Adopted Competitive Renewable Energy Zones



	Cross Texas
	ETT
	LCRA TSC
	Lone Star
	Oncor
	Sharlyland
	STEC
	WETT
	Collection Stations
	New 345 kV Stations
	Existing Stations



Benefits and Challenges: Solar Generation

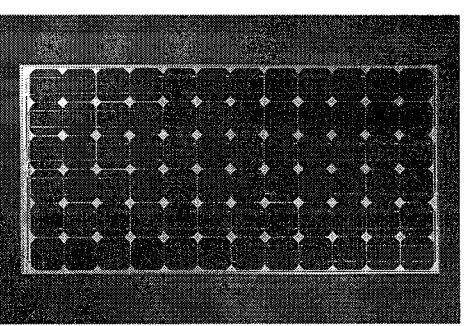


Type of Generation

- + Solar power is generally reliable, but intermittent, as it depends on certain levels of sunlight.
- Plants are generally small in scale.

Environmental Issues

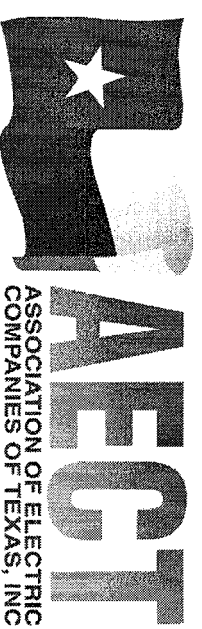
- + No air emissions.
- Large areas of land needed for effective solar arrays.



Cost of Construction and Fuels

- Can have 15 to 20 times the capacity cost of natural gas-fired generation
- + No fuel cost.
- Cannot be used to replace other generation to satisfy reserve margins.
- Imposes other costs on the system, such as the need for transmission lines, since large-scale solar power plants would be located in areas far from population centers.

Benefits and Challenges: Biomass and Landfill Gas Generation

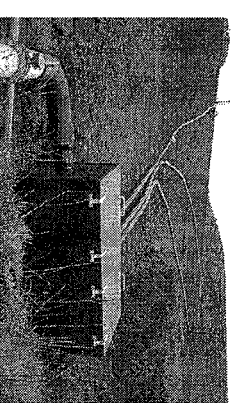


Type of Generation

- + Biomass and landfill gas generation generally operates reliably.
- Plants are generally small in scale.

Environmental Issues

- Plants burning biomass can have high CO₂ emissions.
- + Landfill gas facilities reduce methane greenhouse gas emissions.
- Generation is difficult to permit and site.



Cost of Construction and Fuels

- Requires high capital and operating costs when compared with fossil fuel-fired generation
- Often located far from population centers, requiring high transmission costs