SUBJECT: Expanding the renewable portfolio standard for non-wind resources

COMMITTEE: State Affairs — favorable, without amendment

VOTE: 9 ayes — Solomons, Menendez, Farabee, Gallego, Geren, Lucio, Maldonado, Oliveira, Swinford

5 nays — Cook, Craddick, Harless, Jones, S. Turner

1 absent — Hilderbran

SENATE VOTE: On final passage, May 12 — 24-7 (Fraser, Harris, Jackson, Nelson, Ogden, Patrick, Williams)

WITNESSES: (*On House companion bill, HB 4327:*)
For — Garrett Boone, Texas Business for Clean Air; Doug Divine, Bright Source Energy, Tessera Solar North America; Chris Hickman, Ice Energy; Colin Meehan, Environmental Defense Fund; Brett Perlman, Texas Energy Storage Coalition; Cyrus Reed, Sierra Club, Lone Star Chapter; (*Registered, but did not testify:* Rich Herweck, Texas Combined Heat and Power Initiative; Lindsay Hughes, The Wind Coalition; Suzi McClellan, Good Company Associates; Luke Metzger, Environment Texas; David Power, Public Citizen; Susan Ross, Texas Renewable Energy Industries Association; Mike Sloan, Entegrity Wind, Southwest Windpower; Steve Taylor, Applied Materials, Inc.)

Against — Phillip Oldham, Texas Association of Manufacturers

On — Michael Jewell, Reliant Energy; Bob Samford, Temple-Inland

BACKGROUND: SB 7 by Sibley, the electric market restructuring bill enacted by the 76th Legislature in 1999, had a goal of promoting retail competition and consumer choice. To help give consumers a choice of renewable energy sources, it established a renewable portfolio standard (RPS) for Texas. The RPS is a market-driven policy created to ensure the use of renewable energy as electricity markets became more competitive. Renewable energy technologies that qualify for the RPS must not rely on energy resources derived from fossil fuels or waste products from fossil fuels. These

sources include solar, wind, geothermal, hydroelectric, tidal energy (wave), and biomass, including landfill gas. By 2000, development of wind energy had surpassed that of other qualified renewable energy sources and was well ahead of the goals for renewable energy in the RPS.

SB 20 by Fraser, enacted in the 79th Legislature's first called session in 2005, expanded the RPS goals to require an additional 5,000 megawatts on top of the then-existing 880 megawatts of renewable capacity, incrementally, and a target of 10,000 megawatts by 2025. The goal of 3,272 megawatts by 2009 was surpassed in 2007 just with wind, with 4,446 megawatts of installed capacity by the end of that year. The 2015 goal of 5,880 megawatts was surpassed in 2008 by all renewable sources, seven years early, with more than 6,000 megawatts from wind alone.

As part of the RPS, the renewable energy credit (REC) trading program was established to provide an incentive for developing, building, and operating new renewable energy projects. It requires each competitive retail electric provider to obtain a specified amount of renewable energy by purchasing credits in the REC trading program. The amount required — the load ratio share — is equal to that provider's market share of electricity sales for the year multiplied by the renewable capacity goal. All competitive retail electric providers must purchase and retire their load ratio share of RECs annually.

DIGEST:

SB 541 would amend the Utilities Code by establishing definitions of tier 1 and tier 2 renewable energy, create new goals for renewable energy generation capacity, and provide for a credit-trading program.

Tier 1 renewable energy would be solar, wind, geothermal, hydroelectric, tidal energy (wave), and biomass, including landfill gas. Tier 2 would be tier 1 renewable energy technology, excluding energy derived from wind, with a capacity of more than 150 kilowatts.

Tier 2 renewable energy goals. SB 541 would amend the Utilities Code by removing the existing target of 500 megawatts of non-wind renewable capacity and replacing it with a goal of 1,500 megawatts of tier 2 renewable energy to be installed by January 1, 2020.

Of the renewable energy generating capacity installed to meet that goal, up to 500 megawatts of renewable energy storage could qualify to meet the

tier 2 goal. The cumulative installed tier 2 renewable energy resource capacity would total:

- 50 megawatts by January 1, 2011;
- 100 megawatts by January 1, 2012;
- 200 megawatts by January 1, 2013;
- 350 megawatts by January 1, 2014;
- 500 megawatts by January 1, 2015;
- 750 megawatts by January 1, 2016;
- 900 megawatts by January 1, 2017;
- 1,000 megawatts by January 1, 2018;
- 1,250 megawatts by January 1, 2019; and
- 1,500 megawatts by January 1, 2020.

On January 1, 2016, if the Public Utility Commission (PUC) determined that the state had not made significant progress toward the goals, it could take action to suspend future obligations. The PUC also could suspend any requirement to meet the goals if it determined that complying with the goals and a more stringent federal renewable portfolio standard would cause an undue burden to ratepayers or if it was necessary to protect the reliability and operation of the electric grid.

Renewable energy credits (RECs). The PUC would be required to set up a tier 1 and tier 2 REC program and encourage a diverse portfolio of tier 2 renewable energy technologies.

By January 1, 2010, the PUC would be required to adopt rules necessary to track and account for RECs earned from electric generating capacity derived from renewable energy storage. The rules would:

- allow for the renewable energy storage to be located on the same or on a different site as the renewable generation being stored;
- ensure that only one REC was retired for every megawatt hour of renewable energy generated prior to being stored for later release onto the electricity grid; and
- account for any loss in energy resulting from storage for later use.

Made in Texas. By January 1, 2011, the PUC would be required to adopt rules necessary to provide a "Made in Texas" incentive for tier 1 and tier 2 RECs generated by equipment that was wholly produced or substantially

transformed by a Texas workforce. The incentive would be available for the first three years after renewable energy equipment first produced electricity on a commercial basis.

By January 1, 2010, the PUC would be required to adopt rules necessary to allow generators of tier 2 renewable energy installed before September 1, 1999, to qualify annually for up to 40 megawatts of tier 2 RECs.

Alternative compliance payments. The PUC could establish tier 1 and tier 2 alternative compliance payments so that entities with a renewable energy purchase requirement could elect to pay the alternative compliance payment instead of applying RECs toward the satisfaction of the entity's obligation.

Tier 1 alternative compliance payments. The tier 1 alternative compliance payment that could be satisfied with a REC from wind energy would be $2.50 to $20 per credit. Before September 1, 2009, an alternative compliance payment could not be set above $5 per credit.

Tier 2 alternative compliance payments. The tier 2 alternative compliance payment that could be satisfied with a tier 2 REC could not exceed:

- $90 per REC before December 31, 2014;
- $80 per REC before December 31, 2015;
- $65 per REC before December 31, 2016;
- $45 per REC before December 31, 2017;
- $40 per REC before December 31, 2018;
- $35 per REC before December 31, 2019;
- $30 per REC before December 31, 2020.

Tier 2 alternative compliance payment funds would be used for a solar rebate program. If the PUC determined it was necessary to suspend the renewable energy goals, the funds would be refunded to retail electric providers for residential and commercial electric customers.

Renewable energy for municipally owned utilities (MOUs). SB 541 would establish as a legislative goal that MOUs with retail sales of more than 500,000 megawatt hours for the year beginning January 1, 2007, increased their installed capacity from tier 2 renewable energy or from renewable energy storage in a cost-effective, market-neutral, and

nondiscriminatory manner in proportion to the requirements for electric utilities.

By September 1, 2012, MOUs would be required to report annually information regarding the efforts of the utility to the State Energy Conservation Office. The governing body of a MOU would be allowed to adopt rules, programs, and incentives that would encourage or provide for the installation of capacity from tier 2 renewable energy or renewable energy storage in addition to the goals provided in the bill.

The PUC would be required to count capacity from tier 2 renewable energy or renewable energy storage installed on or after May 1, 2007, toward an MOU's compliance. An MOU could satisfy the requirements by owning or purchasing capacity from tier 2 renewable energy or renewable energy storage or by purchasing RECs.

The bill would take effect September 1, 2009.

SUPPORTERS SAY:

SB 541 would provide a 1,500 megawatt non-wind RPS goal, to be achieved by 2020. This would continue Texas' leadership in installing clean, renewable energy in a market-based manner that would drive manufacturing jobs and would provide price protections for businesses and consumers.

The RPS model has been proven to work well and effectively in Texas and is the most market-driven of incentive programs. The bill would be the right mix for Texas business, Texas' economy, and its environment. While Texas has installed more renewable energy than any other state thanks to the large-scale wind development in West Texas, the state has fallen behind in the development of emerging renewable energy technologies such as solar, geothermal, and biomass power. A second-tier renewable portfolio standard would help jumpstart these industries in Texas and prepare Texas for the expected federal Renewable Electricity Standard and carbon cap and trade legislation currently being debated in Congress. The bill also would help create Texas jobs by providing an incentive for renewable energy equipment manufacturing to locate in Texas.

SB 541 would be an important step toward cleaning the air in Texas by offsetting over 7 million tons of CO2 by 2020, and it would have a significant impact on NOx and particulate matter emissions.

Concerns that an RPS leads to higher electricity rates are unfounded because renewable energy has been proven to lower the wholesale market price of electricity and will drive those prices even lower due infrastructure investment where wind and solar resources are most abundant. The RPS allows Texas to hedge against the risk of future skyrocketing electric rates and insulates ratepayers from the volatility of natural gas prices. By expanding the RPS for non-wind sources, SB 541 would lead to lower electricity prices and provide for more energy diversity.

SB 541 also would provide important protections for ratepayers by keeping the cost of the program and REC prices low through a gradual, staged increase of megawatt targets. In the initial years, the requirements would be relatively small, which would keep the cost of the program low. The bill also would provide price certainty for ratepayers by providing price caps for tier 2 renewable energy. The bill also would provide that the program could be suspended if an undue burden was placed on ratepayers.

OPPONENTS SAY:

All electricity generation should be based on the market. Renewable energy is more expensive and therefore is not a cost-effective way to produce energy. Manufacturers and schools anticipate paying millions more per year on electricity. Although this program would not be financed by surcharges or non-bypassable fees, generators that did not meet the standards would have to buy RECs to meet their obligations. This is essentially a cap-and-trade system, for which the costs ultimately would be passed on to customers. Requiring utilities to use more expensive energy sources would increase electric rates for customers.

Solar plants and other renewable sources cannot produce the same amount of energy as more traditional generating plants. Many of the renewable energy generating facilities, such as solar, require a source of backup energy from a traditional source. This duplicates generation and further increases costs.

NOTES:

The House companion bill, HB 4327 by Strama, was heard and left pending by a subcommittee of the Energy Resources Committee on April 9.