

SUBJECT: Establishing incentives for the capture and sequestration of carbon dioxide

COMMITTEE: Energy Resources — committee substitute recommended

VOTE: 6 ayes — Keffer, Craddick, Farabee, Gonzalez Toureilles, Rios Ybarra, Strama

1 nay — Crabb

1 present not voting — Hardcastle

1 absent — Crownover

WITNESSES: For — Scott Anderson, Environmental Defense Fund; Laura Miller, Eric Redman, Summit Power Group; David Power, Public Citizen; Gary Vest, Odessa Chamber of Commerce, Odessa Development Corp.; (*Registered, but did not testify:* Walt Baum, Association of Electric Companies of Texas; Barry Cunningham, Summit Power Group; Jerry Valdez; Greater Houston Partnership)

Against — Cyrus Reed, Lone Star Chapter, Sierra Club; (*Registered, but did not testify:* Luke Metzger, Environment Texas)

On — Ian Duncan, Bureau of Economic Geology; Jerry Patterson, General Land Office

BACKGROUND: In 2007, the 80th Legislature enacted SB 1461 by Seliger to provide franchise tax credit incentives to attract the federally sponsored FutureGen project to Texas. The FutureGen project would have been a public-private partnership to build the world's first near-zero emissions coal-fueled power plant. The plant was intended to prove the feasibility of producing electricity and hydrogen from coal while capturing and permanently storing carbon dioxide underground.

In 2008, the FutureGen project was awarded to Illinois. The FutureGen project was subsequently cancelled by the U.S. Department of Energy.

One of the proposed Texas sites for the FutureGen project was a 600-acre

tract in Odessa. Summit Power Group has secured the FutureGen site in Odessa and currently is working on a “clean coal” power plant configuration and on securing a necessary air permit. Summit Power Group is expected to be fully operational by early 2014. Another proposed clean coal plant is being developed by Tenaska, Inc. for a site near Sweetwater in Nolan County.

DIGEST:

CSHB 469 would authorize the Railroad Commission (RRC) to certify three carbon-fueled electric generation projects as clean energy projects. These projects would be issued franchise tax credits by the comptroller.

Certification of clean energy project. CSHB 469 would make the RRC responsible for certifying whether a project met the requirements to be a clean energy project.

A clean energy project would be a project to construct a carbon-fueled electric generating facility that would:

- have a capacity of at least 200 megawatts;
- use integrated gasification combined cycle or other pre-combustion technology;
- capture at least 70 percent of the carbon dioxide (CO₂) resulting from the generation of electricity by the facility;
- be capable of permanently sequestering CO₂ in a geologic formation; and
- be capable of supplying the capture CO₂ for an enhanced oil recovery (EOR) project.

An entity would be able to apply to the RRC for a certification that their project met the requirements. The application would have to include a certification from an engineer that the project was operational and met the standards, and an application fee of at least \$50,000 to the RRC.

On verification that a project met the requirements, the RRC would be required to issue a certificate of compliance for the project and provide a copy of the certificate to the comptroller for issuance of a franchise tax credit.

Issuance of franchise tax credit. CSHB 469 would amend Government Code, ch. 490, by requiring the comptroller, by rule, to issue a franchise

tax credit to a clean energy project after the RRC had certified that the project met the requirements to be a clean energy project, the construction had been completed, the facility was fully operational, and the Bureau of Economic Geology (BEG) had verified that the facility was sequestering at least 70 percent of its CO2 emissions.

The total amount of the franchise tax credit would be equal to 10 percent of the capital cost of the project, excluding financing costs, or \$100 million, whichever was less.

The BEG would design and supervise the monitoring, measurement, and verification protocols for sequestering CO2 and would provide an evaluation to the RRC. CSHB 469 would provide a payment schedule for the applicant to compensate the BEG a total of \$8.1 million for the monitoring, measuring, and verification process.

Severance tax reduction for EOR. CSHB 469 would amend Tax Code, sec. 202.0545 by providing that a producer of oil recovered by an enhanced oil recovery (EOR) project that used CO2 generated by a clean energy project would be entitled to an extended severance tax rate reduction for 30 years.

The bill would take effect September 1, 2009.

**SUPPORTERS
SAY:**

CSHB 469 would provide incentives in the form of tax credits of up to \$100 million for the first three coal-fired power plants that could produce at least 200 megawatts of power and sequester at least 70 percent of CO2 emissions. Providing these incentives would help overcome the "prototype penalty" of being the first to invest money in this type of project.

This bill, dubbed by some as "NowGen," would give Texas an opportunity to become the first state in the United States with fully operational, large-scale clean-coal power plants. Each of the three plants incentivized would bring 2,000 construction jobs for the building of the plant, and 120 to 150 well-paying permanent jobs to Texas.

Texas is well-suited to become a major repository for CO2 capture. The captured CO2 could be used for valuable enhanced oil recovery (EOR)

projects, which would create an additional economic benefit to the state. For the past 30 years, Texas oil producers in the Permian Basin have been piping in CO₂ from naturally occurring underground domes in New Mexico and Colorado. When the CO₂ is injected into depleted wells, it causes an additional 15 percent or more of an oilfield's original crude oil volume to rise to the surface. The state of Texas, led by efforts of the Bureau of Economic Geology, has estimated that as much as 4 to 5 billion barrels of additional Texas oil is available across the state to be recovered using CO₂ for EOR. The bill would help incentivize the use of CO₂ produced in Texas rather than piping it in from other states.

The capture of 70 percent of the CO₂ would meet the California and Washington emission standard of 1,100 pounds of CO₂ per megawatt hour of net power produced. This is roughly the amount of CO₂ produced by the newest, state-of-the-art natural gas plant.

The bill would provide that the project would not receive a franchise tax credit until there had been verification by the BEG and RRC that CO₂ is actually being sequestered. Enforcement would be non-payment of the tax credit.

There are concerns that this bill is not technology neutral. However, of all of the technologies available, integrated gasification combined cycle is seen as the cleanest, most acceptable way of using carbon-based fuel for electricity.

OPPONENTS
SAY:

CSHB 469 would set the percentage of CO₂ to be sequestered too low. Some companies are boasting that they could design plants that would capture as much as 90 percent of their CO₂ emissions. If this is possible, then making 70 percent the standard might be a disincentive for innovation. Incentives should be given for going beyond the standards. Also, this bill would not provide any enforcement provisions to ensure that CO₂ actually would be sequestered.

It is not good state policy to subsidize the coal industry when there are cheaper and cleaner energy sources available, such as renewables and energy efficiency.

It is important to look at the full life-cycle of a coal plant before determining whether these coal plants actually would be clean. Mining for

coal has significant negative environmental effects and transporting coal requires a lot of energy. Also, coal plants require a large amount of water, a resource not plentiful in West Texas, where these projects would be located.

This bill would be specifically directed at integrated gasification combined cycle or other pre-combustion technology. By not being technology-neutral, the state would run the risk of picking winners and losers rather than letting the market decide.

NOTES:

The committee substitute differs from the bill as filed by:

- providing that the applicant pay for the monitoring, measuring, and verification process rather than the state;
- expanding the fuel mix to any carbon-based fuel rather than specifically coal-fired;
- providing that a project capture, rather than be capable of capturing, CO₂; and
- increasing the percentage of captured and sequestered CO₂ from 60 percent to 70 percent.

During second-reading consideration of HB 469 on May 2, the House adopted an amendment by Rep. Anchia that would prohibit the Railroad Commission, after issuing an initial certificate of compliance for a clean energy project, from issuing a certificate to another electric generating facility using specified clean coal technology unless it captured at least 80 percent of carbon dioxide, if another plant in the United States was capturing at least 75 percent, or unless it captured at least 90 percent, if another U.S. plant was capturing at least 85 percent. The bill subsequently was postponed until today.

According to the fiscal note, depending on the size of the franchise tax credit and the number of power plants constructed, the state could forego an indeterminate amount of franchise tax revenue. Depending on the location of carbon sequestration, the state could experience a revenue loss to the Permanent University Fund. Depending on the number of producers participating in qualified EOR projects, the state could experience an indeterminate loss of severance tax revenue.

A similar bill, HB 2811 by Hardcastle, was reported favorably, as substituted, by the Energy Resources Committee on April 1. Its

companion, SB 2111 by Averitt, passed the Senate by 31-0 on April 27 and has been referred to the House Energy Resources Committee.