

SUBJECT: Implementation of ultra-clean energy projects

COMMITTEE: Energy Resources — committee substitute recommended

VOTE: 7 ayes — Hardcastle, Farabee, Crownover, Chisum, Corte, Crabb, Gonzalez Toureilles

0 nays

WITNESSES: For — Chesley Blevins, Americans for Balanced Energy Choices; Doug Matthews; Donna McDonald, Clean Coal Technology Foundation of Texas; Mike Nasi, Clean Coal Technology Foundation; Chris Shields, Tenaska; Michael Williams, Governor's Clean Coal Technology Council (*Registered, but did not testify*: Ray Allen, Texas Mining & Reclamation Association; Randy Eminger, Center for Energy & Economic Development; Gary Gibbs, Association of Electric Companies of Texas; Bill Hammond, Texas Association of Business; Michelle Reed, American Electric Power; Joel Trouart, Westmoreland Coal Co.)

Against — Cyrus Reed, Lone Star Chapter of Sierra Club; (*Registered, but did not testify*: Tom “Smitty” Smith, Public Citizen; Karen Hadden, Sustainable Energy & Economic Development (SEED); Melanie Oldham)

On — Scott Anderson, Environmental Defense; Dr. Scott Tinker, Bureau of Economic Geology - University of Texas

BACKGROUND: 42 U.S.C. sec. 15962 creates the 2020 goals for the clean coal power initiative in the Energy Policy Act of 1995, which are: a 99 percent reduction of sulfur dioxide (SO₂), a 95 percent reduction of mercury emissions, and an emission rate for nitrogen oxide (NO_x) of no more than 0.05 pounds per million British thermal units (lbs/MMBTU).

Tax Code, sec. 182.122 allocates three-fourths of the money collected from the utility company occupation tax to general revenue. The remaining one-fourth is allocated to the foundation school fund.

Tax Code, sec. 11.31 exempts all or part of real and personal property that is used as a facility, device, or method for controlling pollution from taxation.

Tax Code, sec. 11.31(c) requires a person, when seeking a tax exemption, to present to the executive director of the TCEQ information detailing:

- the anticipated environmental benefits from the installation of the facility, device, or method for pollution control;
- the estimated cost of the pollution control facility, device, or method; and
- the purpose of the installation of such facility, device, or method, and the proportion of the installation that is pollution control property.

If the installation includes property that is not used wholly for pollution control, the person seeking the exemption must also present financial or other data as requested by the executive director to determine what proportion of the installation is pollution control property.

Tax Code, sec. 11.31(d) requires the executive director of the TCEQ to determine if the facility, device, or method is used wholly or partly as method of controlling pollution. As soon as practicable, the executive director must notify the chief appraiser in the applicant's county by mail that the person has applied for a determination. The executive director also must issue a letter to the applicant and the chief appraiser, stating the determination of whether the facility, device, or method is used wholly or partly to control pollution and, if applicable, the proportion that is pollution control property.

The state of Texas has applied with the U.S. Department of Energy to be a host of the FutureGen clean coal project that will be funded by the federal government. Part of the project involves the deep injection and permanent storage of CO₂ that is generated in the production of electricity.

DIGEST:

CSHB 3732 would establish the ultra-clean energy project grant and loan program, to be administered by the State Energy Conservation Office (SECO) no later than January 1, 2008. A dedicated account would be created in the general fund and each biennium it would receive:

- general obligation bond revenue issued by the Texas Public Finance Authority;
- a transfer of \$30 million of general revenue funds generated from Tax Code, sec. 182.122 until September 1, 2020;

- any additional appropriations by the Legislature;
- gifts, grants, and other donations; and
- interest earned on the investment money in the account.

CSHB 3732 would allow only SECO to award grants or make or guarantee loans for ultra-clean energy projects and would set guidelines on how these would be awarded:

- Of the \$30 million appropriated from Tax Code, sec. 182.122, no more than \$20 million per biennium could be spent on grants and no more than \$10 million on loans;
- All entities receiving grants or loans from SECO would have to enter into a written agreement specifying a date by which the entities would use the funds or else surrender them back to the state with any accrued interest;
- Grants provided by SECO could not exceed 50 percent of the total amount invested in the project by the private sector; and
- Entities requesting grant funding would have to provide any necessary information so SECO could determine eligibility.

CSHB 3732 would require the Texas Public Finance Authority to issue general obligation bonds, and if a project received a loan or guarantee that was funded by the bonds, it would have to be qualified for the loan or guarantee under Texas Constitution, Art. 3, sec. 49-p, which would be added if HJR 93 by Chisum is approved.

The bill would define “clean coal technology” as a technology or process used at a new or existing facility that:

- reduced SO₂ emissions by 97 percent;
- maintained a NO_x emission rate of no more than 0.08 lbs/MMBTU;
- significantly reduced mercury emissions when using coal for electricity generation, process steam, or industrial products including liquid fuels, hydrogen for fuel cells, and other co-products;

- complied with federal law regarding mercury emissions and was able to capture, sequester, or abate carbon emissions; and
- included atmospheric or pressurized fluidized bed combustion technology (FBC), integrated gasification combined cycle technology (IGCC), methanation technology, magnetohydrodynamic technology, direct and indirect coal-fired turbines, undiluted high-flame temperature oxygen combustion technology, and integrated gasification fuel cells.

The bill would define “ultra-clean energy project” as a project that:

- involved the use of coal, biomass, petroleum coke, or solid waste in generating electricity, process steam, or industrial projects, including gasification and creating liquid fuels, hydrogen for fuel cells, and other co-products;
- reduced SO₂ emissions by 99 percent;
- reduced mercury emissions by 95 percent;
- maintained a NO_x emission rate of no more than 0.05 lbs/MMBTU; and
- captured, sequestered, or abated carbon emissions.

CSHB 3732 would require the Texas Commission on Environmental Quality (TCEQ) to begin accepting applications for an ultra-clean energy project by September 1, 2008. The TCEQ would have one year from the date of accepting an application to issue or deny the applicant a permit. Applicants would not have to prove that the technology proposed for use in the project had been demonstrated feasible in commercial operation. The TCEQ would be empowered to adopt rules to implement the permitting process. Permits would be subject to existing rules regarding contested cases.

The bill would require the TCEQ to establish a non-exclusive list of pollution-control facilities, devices, or methods, which would have to be updated at least once every three years and include:

- coal-cleaning facilities;

- atmospheric or pressurized and bubbling or circulating fluidized bed combustion systems and gasification fluidized bed combustion combined cycle systems;
- ultra-supercritical pulverized coal boilers;
- flue gas recirculation components;
- syngas purification systems and gas-cleanup units;
- enhanced heat recovery systems;
- exhaust heat recovery boilers;
- heat recovery steam generators;
- superheaters and evaporators;
- enhanced steam turbine systems;
- methanation;
- coal combustion or gasification byproduct and co-product handling, storage, or treatment facilities;
- biomass co-firing storage, distribution, and firing systems;
- coal cleaning or drying processes, such as coal drying/moisture reduction, air jigging, pre-combustion de-carbonization, and coal flow balancing technology;
- oxy-fuel combustion technology, amine or chilled ammonia scrubbing, fuel or emission conversion through the use of catalysts, enhanced scrubbing technology, modified combustion technology such as chemical looping, and cryogenic technology; and
- any other equipment designed to capture, abate, or monitor nitrogen oxides, volatile organic compounds, particulate matter, mercury, carbon monoxide, carbon dioxide, or any criteria pollutant.

If an applicant intended to seek a tax exemption or tax rollback, used one of the methods from the list above, and detailed the estimated cost and purpose of a project, the executive director of TCEQ would have no more than 30 days to determine if the facility, device, or method was used wholly or partly as a method of controlling pollution and take actions as required by Tax Code, 11.31(d), without regard to whether information had been submitted about the anticipated environmental benefits of the project.

CSHB 3732 would allow an entity operating an ultra-clean energy project to be eligible for a limitation on appraised property value. The bill would also prohibit taxes from being imposed on gross receipts from the sale of electricity generated by an ultra-clean energy project.

The bill also would encourage grant and loan recipients to spend proceeds with small and historically under-utilized businesses.

The bill would take immediate effect if finally passed by a two-thirds record vote of the membership of each house. Otherwise, it would take effect September 1, 2007.

**SUPPORTERS
SAY:**

CSHB 3732 would promote and support the development of new ultra-clean energy projects and technology. As the demand for electric power grows and the externalities of carbon-based fuels become more apparent, Texans have increasingly called for more environmentally clean technologies. The bill would use some of the lessons learned from the development of the FutureGen project and apply them to the development of a statewide ultra-clean energy program. Many of the technologies associated with ultra-clean energy still are in the experimental stage and require grant support for the initial start-up costs associated with research, development, and large-scale implementation. To that end, CSHB 3732 would provide a mix of financial, tax, and regulatory incentives to encourage businesses to develop ultra-clean energy projects in the state, which ultimately would result in cleaner air and spawn the creation of an entirely new generation of energy solutions.

The bill would streamline the permitting process for ultra-clean energy projects. One of the chief stumbling blocks to getting innovative technologies on line is the administrative uncertainty associated with getting an energy project permitted. While energy plants should be subjected to public scrutiny, the state has a vested interest in providing a more predictable turn-around time for those plants that ultimately will reduce emissions.

This bill would ensure that ultra-clean energy projects got to the front of the line by requiring a time-certain permitting process with the TCEQ. Entities requesting a permit for a clean-energy project would be guaranteed to have a firm yes or no on their applications within one year of filing, which would be a significant incentive for businesses. This schedule would provide plenty of time for the TCEQ to consider

applications, but if it were inundated by ultra-clean energy project proposals, the bill ultimately could reduce the amount of time the agency could spend on approving more polluting projects. In addition, although businesses participating in this program would not have to submit the estimated environmental impact of their projects prior to securing tax exemptions, the bill would provide such flexibility only to businesses seeking permitting for a pollution control project on the list of technologies already evaluated and approved by the TCEQ.

CSHB 3732 would uphold the highest clean-energy standards currently recommended. In the Energy Policy Act of 2005, the federal government set clean coal power emissions goals for 2020. This bill would create incentives for projects that met or exceeded those goals up to 12 years early. This is a forward-thinking bill, with aggressive emissions profiles that do not need to be made more stringent. While other clean-energy technologies exist, coal, biomass, and solid waste are cheap and abundant sources of energy that will be a part of the power grid for the foreseeable future. This bill would aim to improve coal, biomass, and solid waste technologies in order more efficiently to harness these fuels, while providing better stewardship of the environment.

This bill would not create a financial hardship, but would spawn more economic development. Much like solar and wind projects are provided with subsidies in order to be competitive and develop cleaner sources of energy, clean coal technology is expensive and will require some public subsidy to be sold on the common market and developed on a large scale. Texas is poised to become a national leader in the development of clean energy with the explosion of wind power, by hosting the FutureGen project, and by serving as a clean-energy technology incubator. This bill would motivate private businesses to locate ultra-clean energy projects in the state that will create jobs and additional tax revenue. While the initial plants will be experimental, and therefore produce energy at a higher rate per kilowatt-hour, as these technologies become commercially viable, they will become cheaper and no longer require subsidies. Also, while this bill would dedicate new funds to the development of ultra-clean energy projects, it would not create any new tax incentives and would not make the tax abatements mandatory.

A proposed floor amendment would address concerns about the 12-month permitting process by allowing the TCEQ to extend the deadline by up to

three months if it determined the number of complex pending applications created an extraordinary burden on its resources.

A proposed floor amendment also would address concerns about the ultra-clean energy program's current scope, economic feasibility, and emission standards by requiring the TCEQ and SECO to issue a joint report to the Legislature every four years and by requiring SECO to assess whether the ultra-clean energy program should be extended beyond 2020.

**OPPONENTS
SAY:**

This bill would propose an emission standard for NO_x that would be too low. High levels of NO_x form smog and ozone, which has put many of Texas' major cities in non-compliance with the Clean Air Act. While this bill would use the minimum 2020 standards recommended by the Energy Policy Act of 2005, current coal plants across the state already are meeting these standards. In fact, this bill would set the NO_x emission standard for ultra-clean energy at 0.05 lbs/MMBTU, which is no cleaner than the average coal plant operating in Texas today. In addition, it would set the clean coal technology standard for NO_x at 0.08 lbs/MMBTU, which is as high as TXU's Oak Grove Plant, the worst polluting plant currently being proposed in the state. In contrast, research by the Environmental Protection Agency (EPA) and projects currently being proposed in the state suggest that ultra-clean energy projects could achieve a NO_x emission standard of 0.02 lbs/MMBTU. also, this bill would allow businesses to secure tax exemptions before actually proving that their projects would have a positive environmental impact. While this bill would focus on NO_x, SO₂, and mercury emissions, it would not address other serious pollutants like particulate matter, CO, and CO₂. By setting so low an emissions standard, this bill could have the unintended consequence of subsidizing business as usual rather than stimulating technological innovation.

This bill would sacrifice accountability by fast-tracking the permitting process. The one-year application schedule being proposed would be extremely compressed and would leave little time for public input. A typical permitting process includes nine months for a technical review, in addition to finding experts to analyze the permits, the presentation of cases, the creation of associated briefs, judicial review, and a 30-day notice followed by public hearings. The governor recently tried to fast-track coal plants on an 18-month schedule, which met with public resistance. To meet such an aggressive permitting timeline, the TCEQ would have to focus staff resources on these applications rather than on

other environmental issues affecting the state. This bill would represent an unfunded mandate for the TCEQ and should instead provide the agency with enough time thoroughly to examine each permit request to ensure the plants were the best value for taxpayers.

There is no clear reason to provide the incentives proposed by this bill. In rejecting the 19 coal plants proposed by TXU earlier this year, Texans made it clear that they wanted more environmentally clean technologies. To meet that need, the private market will respond to consumer demand and the increasing federal regulations on air pollution that are sure to follow. Two coal gasification plants currently are being proposed in Texas, without the benefit of the incentives proposed by this bill. In addition, the TCEQ currently may offer tax incentives for pollution-control projects. Due to the experimental nature of ultra-clean energy technology, the state should not put taxpayers at risk by investing \$30.2 million per biennium in projects that are not yet commercially viable. Further, like any spending program, this budget would not be a fixed cost but likely would grow over time. While it is contended that the incentive program would generate additional economic development, it is unclear if the state could derive more benefit by returning the \$30.2 million to Texas taxpayers.

OTHER
OPPONENTS
SAY:

This bill should take current EPA research into consideration and set the emissions standard for NO_x at 0.02 lbs/MMBTU. This would ensure that businesses receiving taxpayer subsidies actually reduced emissions and produced state-of-the-art facilities that would benefit the state well into the future.

While the bill would create a non-exclusive list of technologies, the state should require all ultra-clean energy projects receiving state funding to include carbon sequestration or carbon offsets to mitigate the effects of global warming.

NOTES:

The committee substitute differs from the original by the addition of methanation and undiluted high-flame temperature oxygen combustion technologies; the addition of biomass, petroleum coke, and solid waste to the definition of "ultra-clean energy project;" allowing the TCEQ to adopt rules for permitting ultra-clean energy projects; and establishing a non-exclusive list of pollution control methods.

According to the fiscal note, CSHB 3732 would cost \$30,255,000 in general revenue in fiscal 2008-09.

The companion bill, SB 1785 by Averitt, was referred the Natural Resources committee and was considered in a public hearing on April 23.

HJR 93 by Chisum, pending in the Ways and Means Committee, would add Art. 3, sec. 49-p to the Texas Constitution to authorize the Texas Public Finance Authority to issue up to \$250 million in general obligation bonds to encourage the use and relate to the manufacture, storage, distribution, or sale of carbon-free hydrogen energy.