

- SUBJECT:** State bonds to promote hydrogen and clean energy projects
- COMMITTEE:** Ways and Means — committee substitute recommended
- VOTE:** 7 ayes — Keffer, Ritter, Y. Davis, Otto, Paxton, Peña, Pitts
0 nays
1 absent — Bonnen, Flores
- WITNESSES:** For — Patric P. Marshall; John R. Pitts, Jr., Texas Renewable Industries Association; Stephen F. Smith, Texas Mining and Declamation Association; Scott Swafford, Air Liquide
Against — None
- 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).
- DIGEST:** CSHJR 93 proposes two constitutional amendments that would provide incentives to use carbon-free hydrogen and advanced clean energy utilizing coal, biomass, petroleum coke, and solid waste in the generation of electricity or the creation of liquid fuels outside of existing fuel production infrastructure while co-generating electricity.
- The first amendment would allow the Legislature to authorize the Texas Public Finance Authority or its successor to issue general obligation bonds, not to exceed \$250 million, and to enter into related bond enhancement agreements to provide loans to businesses that either:
- expand the use of carbon-free hydrogen energy in this state; or
 - relate to the manufacture, storage, distribution, or sale of carbon-free hydrogen energy in this state.
- This resolution would create the following standard for considering hydrogen to be “carbon-free”:

- any carbon resulting from production or electricity generation would have to be captured and permanently sequestered; or
- 90 percent or more of the carbon resulting from production or electricity generation would have to be used to produce other carbon-based products.

The second amendment would allow the Legislature to authorize the Texas Public Finance Authority or its successor to issue general obligation bonds, not to exceed \$250 million, and related credit enhancement agreements to provide and guarantee loans for businesses developing advanced clean energy projects. The proposed amendment would define “advanced clean energy project” as a project that:

- used coal, biomass, petroleum coke, or solid waste in generating electricity or creating liquid fuels outside of existing fuel production infrastructure while co-generating electricity;
- reduced SO₂ emissions by 99 percent;
- reduced mercury emissions by 95 percent;
- produced NO_x emissions of no more than 0.05 lbs/MMBTU; and
- captured, sequestered, or abated carbon emissions.

The bonds authorized by this resolution would constitute a general obligation of the state and the first money coming into the treasury in each fiscal year not otherwise appropriated by the Constitution would be appropriated for paying the principal of and interest on the bonds that matured or became due during the fiscal year, including an amount sufficient to make payments under a related credit enhancement agreement, if said bonds remained outstanding and unpaid.

The first constitutional amendment would be presented to the voters at an election on Tuesday, November 6, 2007. The ballot proposal would read: “The constitutional amendment authorizing the issuance of state general obligation bonds to stimulate economic development and reduce greenhouse gases by providing and guaranteeing loans to encourage the use of carbon-free hydrogen energy.”

The second constitutional amendment would be presented to the voters at an election on Tuesday, November 6, 2007. The ballot proposal would read: “The constitutional amendment authorizing the issuance of general obligation bonds to provide and guarantee loans to encourage clean energy projects.”

**SUPPORTERS
SAY:**

CSHJR 93 would promote and support the development of hydrogen and advanced clean energy projects and technology. As the demand for electric power grows and the drawbacks of carbon-based fuels become more apparent, Texans increasingly have called for more environmentally clean technologies. Many of the technologies associated with harnessing hydrogen power and using advanced 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, CSHJR 93 would provide financial incentives to encourage businesses to develop hydrogen and advanced 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.

CSHJR 93 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. These proposed amendments would authorize financial incentives for projects that met or exceeded those goals up to 12 years early. This is a forward-thinking measure, with aggressive emissions profiles that do not need to be made more stringent. While other clean-energy technologies exist, hydrogen, coal, biomass, and solid waste are abundant sources of energy that will be a part of the power grid for the foreseeable future. These proposed amendments would aim to improve hydrogen, coal, biomass, and solid waste technologies in order more efficiently to harness these fuels, while providing better stewardship of the environment.

These proposed amendments 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, biomass, solid waste, and hydrogen technologies are 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. CSHJR 93 would motivate private businesses to locate advanced clean energy projects in the state that would create jobs and additional tax revenue.

**OPPONENTS
SAY:**

There is no clear reason to provide the incentives proposed by this measure. 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 CSHJR 93. In addition, the Texas Commission on Environmental (TCEQ) currently may offer tax incentives for pollution control projects.

OTHER
OPPONENTS
SAY:

The proposed amendment to promote advanced clean energy projects would set an emission standard for NO_x that was 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 CSHJR 93 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 proposed amendment would set the NO_x emission standard for advanced clean energy at 0.05 lbs/MMBTU, which is no cleaner than the average coal plant operating in Texas today. In contrast, research by the Environmental Protection Agency (EPA) and projects currently being proposed in the state suggest that advanced clean energy projects could achieve a NO_x emission standard of 0.02 lbs/MMBTU. While this proposed amendment would address the capture of CO₂, setting such a low emissions standard for NO_x could have the unintended consequence of subsidizing business as usual rather than stimulating technological innovation.

This proposed resolution 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.

NOTES:

Three bills that would fund the proposals authorized by CSHJR 93. HB 3732 by Hardcastle, et al., which would establish the ultra clean energy program, passed the House by 141-2 on April 26 and has been referred to the Senate Natural Resources Committee. HB 2972 by Chisum, which would provide incentives for a hydrogen energy loan program, was reported favorably, without amendment, by the House Ways and Means Committee on May 3. HB 2970 by Chisum, which would provide incentives for a hydrogen energy loan program and hydrogen-powered vehicles, was left pending in the Ways and Means Committee on April 18.

The companion resolution, SJR 53 by Van de Putte, is pending in the Senate Finance Committee.

After initially being reported from committee on May 2, CSHJR 93 was recommitted the following day. When the Ways and Means Committee considered the measure again, it removed a requirement that an advanced clean energy project be a project that had filed an application for a permit from TCEQ. Additionally, it no longer includes process steam or industrial products, including gasification and the creation of liquid fuels, hydrogen for fuel cells, and other co-products, from being part of what is considered an advanced clean energy project. Further, it would allow the \$250 million to be used for credit enhancements associated with advanced clean energy projects, but with carbon-free hydrogen energy, CSHJR 93 would allow bond enhancements only.