

## **BILL ANALYSIS**

S.B. 1387  
By: Seliger  
Environmental Regulation  
Committee Report (Unamended)

### **BACKGROUND AND PURPOSE**

The State of Texas has a growing appetite for power generation capacity. It is a matter of generally accepted wisdom that Texas will use a diverse fuel feedstocks and methods to meet or curb the projected energy demand. Furthermore, there will also be a need to reconcile this escalating need for power with sound environmental policies. Carbon Capture and Storage (CCS) is a tool that can reconcile these interests while contributing to energy security through increased domestic production.

The State of Texas leads the world in the technologies of CCS. Over 480 million tons of carbon dioxide has been captured, transported, injected, and stored in connection with the enhanced recovery of oil in Texas. Enhanced Oil Recovery is currently responsible for over 15% of current production in Texas.

Although carbon dioxide (CO<sub>2</sub>) driven enhanced oil recovery is regulated by the Railroad Commission of Texas (RCT), there is no regulatory framework in Texas for the pure storage and sequestration of CO<sub>2</sub>. As such, entities wanting to capture and sequester CO<sub>2</sub> for long-term storage are left without clear legal guidelines by which to operate. Under the new administration in Washington DC, the adoption of federal mandates to regulate greenhouse gases is more likely today than ever before. Texas refineries, electric utilities and operators may very well be required to capture and sequester CO<sub>2</sub> under these new rules by as early as 2011.

SB 1387 provides a needed state-level regulatory framework for the storage and sequestration of CO<sub>2</sub> into geologic formations that may contain oil or gas. The bill would give the RCT jurisdiction over the injection of CO<sub>2</sub> into wells that are or may be productive of oil or gas. The RCT would also have jurisdiction over storage in a salt brine formation that exists above or below an oil or gas formation - "stacked storage". SB 1387 also requires that before the RCT may issue a permit under this section that the TCEQ must certify that underground fresh water supplies will not be injured by the permitted activity.

The bill also calls for the TCEQ, RCT, and the University of Texas Bureau of Economic Geology (BEG) to conduct a study of and report back to the legislature on the appropriate agency to regulate the long term storage of CO<sub>2</sub> into non oil or gas producing geologic formations. SB 1387 enhances coordination between the RCT and TCEQ to ensure the regulation of CO<sub>2</sub> storage in Texas is being done in an economically and environmentally sound manner.

Finally, SB 1387 calls on the Texas General Land Office (GLO) in conjunction with the TCEQ, the RCT, and the BEG to develop recommendations for managing geologic storage of CO<sub>2</sub> on state-owned lands, including an assessment of storage capacity and new legal and regulatory frameworks that could be necessary based on the GLO recommendations.

### **RULEMAKING AUTHORITY**

It is the committee's opinion that rulemaking authority is expressly granted to the Texas Commission on Environmental Quality in SECTION 2 of this bill.

It is the committee's opinion that rulemaking authority is expressly granted to the Railroad Commission of Texas in SECTION 2, SECTION 6 and SECTION 7 of this bill.

### **SECTION BY SECTION ANALYSIS**

SECTION 1. Amends Section 27.002, Water Code, by adding Subdivisions (19)-(25), to define "anthropogenic carbon dioxide," "anthropogenic carbon dioxide injection well," "enhanced recovery operation," "geologic storage," "geologic storage facility," "oil or gas," and "reservoir."

SECTION 2. Amends Chapter 27, Water Code, by adding Subchapter C-1. GEOLOGIC STORAGE AND ASSOCIATED INJECTION OF ANTHROPOGENIC CARBON DIOXIDE.

Section 27.041. JURISDICTION. (a) Provides that, except as provided by Subsection (b), the railroad commission has jurisdiction over the geologic storage of carbon dioxide in, and the injection of carbon dioxide into, a reservoir that is initially or may be productive of oil, gas, or geothermal resources or a saline formation directly above or below that reservoir.

(b) Provides that the jurisdiction of the railroad commission over the geologic storage of carbon dioxide in, and the injection of carbon dioxide into, a saline formation described by Subsection (a) of Section 27.041 is subject to the review of the legislature based on the recommendations made in the preliminary report described by Section 10 of the Act.

(c) Provides that, except as provided by Subsection (b), the railroad commission has jurisdiction over a well used for the purpose provided by Subsection (a) regardless of whether the well was initially completed for that purpose or was initially completed for another purpose and is converted to the purpose provided by Subsection (a).

Section 27.042. APPLICABILITY. Provides that this subchapter does not apply to the injection of fluid through the use of a Class II injection well as defined by 40 C.F.R. Section 144.6(b) for the primary purpose of enhanced recovery operations.

Section 27.043. PERMIT FROM RAILROAD COMMISSION. Prohibits a person from beginning drilling or operating an anthropogenic carbon dioxide injection well for geologic storage or constructing or operating a geologic storage facility regulated under this subchapter without first obtaining the necessary permits from the railroad commission.

Section 27.044. INFORMATION REQUIRED OF APPLICANT. Requires the railroad commission to require an applicant to provide any information the railroad commission considers necessary to discharge its duties under this subchapter.

Section 27.045. FEES. (a) Authorizes the railroad commission to impose fees to cover the cost of permitting, monitoring and inspecting anthropogenic carbon dioxide injection wells for geologic storage and geologic storage facilities; and enforcing and implementing Subchapter C-1 and rules adopted by the railroad commission under that subchapter.

(b) Requires that fees collected by the railroad commission under this section be deposited to the credit of the anthropogenic carbon dioxide storage trust fund established under Section 120.003, Natural Resources Code.

Section 27.046. LETTER FROM EXECUTIVE DIRECTOR. (a) Prohibits the railroad commission from issuing a permit under rules adopted under Subchapter C-1 until the applicant for the permit provides to the railroad commission a letter from the executive director of TCEQ (executive director) stating that drilling and operating the anthropogenic well for geologic storage or operating the geologic storage facility will not injure any freshwater strata in that area and that the formation or stratum to be used for the geologic storage facility is not freshwater sand.

(b) Requires the executive director, in making the determination required by Subsection (a), to review certain information.

(c) Requires TCEQ to adopt rules to implement and administer this section.

Section 27.047. RULES. Requires the railroad commission to adopt rules and procedures reasonably required for the performance of its powers, duties and functions under Subchapter C-1, including rules for the geologic storage and associated injection of anthropogenic carbon

dioxide, including certain activities; the enforcement of Subchapter C-1 and rules adopted by the railroad commission under that subchapter; and the collection and administration of fees imposed under Section 27.045 and penalties imposed for a violation of Subchapter C-1 or rules adopted by the railroad commission under that subchapter.

Section 27.048. **CONSISTENCY WITH AND IMPLEMENTATION OF FEDERAL REQUIREMENTS.** (a) Requires that rules adopted by the railroad commission under Subchapter C-1 be consistent with applicable rules or regulations adopted by the United States Environmental Protection Agency or another federal agency governing the injection and geologic storage of anthropogenic carbon dioxide.

(b) Provides that if rules or regulations adopted to govern the geologic storage and associated injection of anthropogenic carbon dioxide under the federal Safe Drinking Water Act (42 U.S.C. Section 300f et seq.) or another federal statute allow this state to seek primary enforcement authority under the underground injection control program: the railroad commission shall seek primacy to administer and enforce the program subject to the jurisdiction granted under Subchapter C-1; and this state shall seek primacy to administer and enforce the program for the geologic storage of carbon dioxide in, and the injection of carbon dioxide into, a saline formation.

Section 27.049. **MEMORANDUM OF UNDERSTANDING.** Requires TCEQ and the railroad commission, as necessary to comply with the subchapter, by rule to amend the memorandum of understanding recorded in 16 T.A.C. Section 3.30 or enter into a new memorandum of understanding.

Section 27.050. **FINANCIAL RESPONSIBILITY.** (a) Requires a person to whom a permit is issued under this subchapter to annually provide to the railroad commission evidence of financial responsibility that is satisfactory to the railroad commission.

(b) Requires the railroad commission to rely on certain information in determining whether the person is financially responsible.

**SECTION 3.** Amends Section 27.051, Water Code, by amending Subsection (b) and adding Subsection (b-1). Section 27.051 (b) Authorizes the railroad commission to grant an application for a permit under Subchapter C in whole or part and to issue the permit if it finds certain information, including that the applicant has made a satisfactory showing of financial responsibility if required by Section 27.073.

Section 27.051(b-1) Authorizes the railroad commission to issue a permit under Subchapter C-1 if it finds that the injection and geologic storage of anthropogenic carbon dioxide will not endanger or injure any oil, gas, or other mineral formation; that, with proper safeguards, both ground and surface freshwater can be adequately protected from pollution; that the injection of anthropogenic carbon dioxide will not endanger human health and safety; that the reservoir into which the anthropogenic carbon dioxide is injected is suitable for or capable of being made suitable for protecting against the escape or migration of anthropogenic carbon dioxide from the reservoir; and that the applicant for the permit meets all of the statutory and regulatory requirements for the issuance of the permit.

**SECTION 4.** Amends Sections 27.071 and 27.072, Water Code. Amends Section 27.071 to authorize members and employees of TCEQ and the railroad commission to enter public and private property to inspect and investigate conditions relating to certain wells or geologic storage activities within their respective jurisdictions or to monitor compliance with a rule, permit, or other order of TCEQ or railroad commission.

Amends Section 27.072 to authorize members and employees of TCEQ and the railroad commission to examine and copy certain documents of a business being investigated as provided by Section 27.071 relating to the operation of certain wells or a geologic storage facility or any other records required to be maintained by law.

**SECTION 5.** Amends Sections 27.073, Water Code, by amending Subsection (a) and adding Subsection (b-1). Amends Section 27.073(a) to authorize TCEQ or the railroad commission require a person who has been issued an injection well permit to maintain a performance bond or

other form of financial security to ensure that an abandoned injection well is properly plugged or funds are available for plugging, post-injection site care, and closure of an anthropogenic well subject to Subchapter C-1.

Adds Section 27.073(b-1) to provide that the railroad commission is authorized to receive funds as the beneficiary of a financial responsibility mechanism established under Chapter 27 for the proper management of an anthropogenic carbon dioxide injection well or geologic storage facility.

**SECTION 6. Amends Chapter 91, Natural Resources Code, by adding Subchapter R, AUTHORIZATION FOR MULTIPLE OR ALTERNATIVE USES OF WELLS.**

**Section 91.801. RULES AUTHORIZING MULTIPLE OR ALTERNATIVE USES OF WELLS.** Requires the railroad commission to adopt rules allowing a person to obtain a permit for a well that authorizes the well to be used for multiple purposes and that would allow an operator of a well authorized by a permit issued by the railroad commission to convert the well from its authorized purpose to a new or additional purpose.

**Section 91.802. LAW APPLICABLE TO GEOLOGIC STORAGE FACILITIES AND ASSOCIATED INJECTION WELLS.** (a) Defines "anthropogenic carbon dioxide injection well."

(b) Provides that if a well is authorized as or converted to an anthropogenic carbon dioxide injection well for geologic storage, Subchapter C-1, Chapter 27, Water Code, applies to the well.

(c) Provides that a conversion of an anthropogenic carbon dioxide injection well from use for enhanced recovery operations to use for geologic storage is not considered to be in a change in the purpose of the well.

**SECTION 7. Amends Subtitle D, Title 3, Natural Resources Code, by adding Chapter 120. OWNERSHIP AND STEWARDSHIP OF ANTHROPOGENIC CARBON DIOXIDE.**

**Section 120.001. DEFINITIONS.** Defines "anthropogenic carbon dioxide," "anthropogenic carbon dioxide injection well," "geologic storage facility," "commission," and "storage operator."

**Section 120.002. OWNERSHIP OF ANTHROPOGENIC CARBON DIOXIDE.** (a) Provides that Section 120.002 does not apply to anthropogenic carbon dioxide injected for the primary purpose of enhanced recovery operations.

(b) Provides that unless otherwise expressly provided by a contract, bill of sale, deed, mortgage, deed of trust, or other legally binding document or by other law, anthropogenic carbon dioxide stored in a geologic storage facility is considered to be the property of the storage operator or the storage operator's heirs, successors, or assigns.

(c) Provides that absent a final judgment of willful abandonment rendered by a court or a regulatory determination of closure or abandonment, anthropogenic carbon dioxide stored in a geologic storage facility is not considered to be the property of the owner of the surface or mineral estate in the land in which the anthropogenic carbon dioxide is stored or of a person claiming under the owner of the surface or mineral estate.

(d) Authorizes the owner, as designated by Subsection (b) or (c), of the anthropogenic carbon dioxide stored in a geologic storage facility, or the owner's heirs, successors, or assigns, to produce, take, extract, or otherwise possess anthropogenic carbon dioxide stored in the facility.

**Section 120.003. ANTHROPOGENIC CARBON DIOXIDE STORAGE TRUST FUND.** (a) Creates the anthropogenic carbon dioxide storage trust fund (fund) as a special fund in the state treasury.

(b) Provides that the fund is an interest-bearing fund and requires that interest earned on money in the fund be deposited to the credit of the fund.

(c) Requires that fees collected by the railroad commission under Subchapter C-1, Chapter 27, Water Code, and penalties imposed for violations of that subchapter or rules adopted under that subchapter be deposited to the credit of the fund.

(d) Authorizes the fund to be used by the railroad commission only for certain activities.

Section 120.004. EXTRACTION OF STORED ANTHROPOGENIC CARBON DIOXIDE. (a) Requires the railroad commission to adopt rules allowing anthropogenic carbon dioxide stored in a geologic storage facility to be extracted for a commercial or industrial use.

(b) Provides that the railroad commission has jurisdiction over the extraction of anthropogenic carbon dioxide stored in a geologic storage facility.

SECTION 8. Repealer: Section 27.038, Water Code, is repealed.

SECTION 9. (a) Defines "anthropogenic carbon dioxide," "geologic storage," "geologic storage facility," and "state-owned land."

(b) Requires the commissioner of the General Land Office, not later than December 1, 2010, to prepare and file with the legislature a preliminary report on a recommended framework for managing activities related to geologic storage on state-owned land. Sets forth the requirements of the report.

(c) Requires the commissioner of the General Land Office, in preparing the preliminary report under Subsection (b), to coordinate with the Bureau of Economic Geology of The University of Texas at Austin, the railroad commission, TCEQ, and the heads of other appropriate agencies.

(d) Provides that the section expires December 31, 2010.

SECTION 10. (a) Defines "anthropogenic carbon dioxide," "geologic storage," and "geologic storage facility."

(b) Requires TCEQ and the railroad commission, in consultation with the Bureau of Economic Geology of The University of Texas at Austin, to prepare and file with the legislature a joint preliminary report not later than December 1, 2010. The subsection also sets forth some requirements of what is to be contained in the report.

(c) Sets forth the requirements of the preliminary report.

(d) Provides that the section expires December 31, 2010.

SECTION 11. (a) Requires TCEQ to adopt rules under Section 27.046, Water Code, as added by this Act, as soon as practicable after the effective date of the Act.

(b) Requires the railroad commission, not later than March 1, 2010, to adopt rules under Section 27.047, Water Code, as added by this Act, for the geologic storage and associated injection of carbon dioxide in connection with enhanced recovery operations, excluding enhanced recovery operations for which there is reasonable expectation of more than insignificant future production volumes or rates as a result of the injection of anthropogenic carbon dioxide, and operating pressures are not higher than reasonably necessary to produce the production volumes or rates described by this subsection.

(c) Requires the railroad commission, not later than September 1, 2010, to adopt rules under Section 27.047, Water Code, as added by this Act, for the geologic storage of carbon dioxide in, and the injection of carbon dioxide into, a reservoir that is initially or may be productive of oil, gas, or geothermal resources.

(d) Requires TCEQ and the railroad commission to adopt rules under Section 27.049, Water Code, as added by this Act, as soon as practicable after the effective date of this Act.

(e) Requires the railroad commission to adopt rules under Sections 91.801 and 120.004, Natural Resources Code, as added by this Act, as soon as practicable after the effective date of this Act.

SECTION 12. Provides that this Act does not make an appropriation and that a provision in this Act that creates a new governmental program or a new entitlement, or imposes a new duty on a governmental entity is not mandatory during a fiscal period for which the legislature has not made a specific appropriation to implement the provision.

SECTION 13. Effective date.

**REPEALER**

S.B. 1387 repeals Section 27.038, Water Code.

**EFFECTIVE DATE**

September 1, 2009.