

---

THE GENERAL ASSEMBLY OF PENNSYLVANIA

---

SENATE BILL

No. 831 Session of  
2023

---

INTRODUCED BY YAW, ROBINSON, STEFANO AND VOGEL, JUNE 20, 2023

---

REFERRED TO ENVIRONMENTAL RESOURCES AND ENERGY, JUNE 20, 2023

---

AN ACT

1 Providing for the injection of carbon dioxide into an  
2 underground reservoir for the purpose of carbon  
3 sequestration, for the ownership of pore space in strata  
4 below surface lands and waters of the Commonwealth, for  
5 conveyance of the surface ownership of real property;  
6 imposing duties on the Department of Environmental  
7 Protection; and establishing the Carbon Dioxide Storage  
8 Facility Fund.

9 The General Assembly of the Commonwealth of Pennsylvania  
10 hereby enacts as follows:

11 Section 1. Short title.

12 This act shall be known and may be cited as the Carbon  
13 Capture and Sequestration Act.

14 Section 2. Findings and declarations.

15 The General Assembly finds and declares as follows:

16 (1) It is in the public interest to promote the geologic  
17 storage of carbon dioxide.

18 (2) The capture and geologic storage of carbon dioxide  
19 will benefit this Commonwealth and the global environment by  
20 reducing greenhouse gas emissions and will help to ensure the  
21 viability of the energy and power industries of this

1 Commonwealth, to the economic benefit of Pennsylvania and its  
2 residents.

3 (3) Carbon dioxide is a potentially valuable commodity  
4 and geologic storage may allow for its ready availability if  
5 needed for commercial, industrial or other uses.

6 (4) The use of any subsurface stratum, formations,  
7 cavities or voids, and any materials and fluids contained  
8 therein, for geologic storage of carbon dioxide is a  
9 reasonable and beneficial use.

10 Section 3. Definitions.

11 The following words and phrases when used in this act shall  
12 have the meanings given to them in this section unless the  
13 context clearly indicates otherwise:

14 "Carbon dioxide injection well." A well that is used to  
15 inject carbon dioxide into a reservoir for carbon sequestration  
16 under a UIC Class VI permit.

17 "Carbon dioxide plume." The physical extent underground of  
18 the injected carbon dioxide stream.

19 "Carbon sequestration." The underground storage of carbon  
20 dioxide in a reservoir.

21 "Carbon sequestration project." A project that involves the  
22 underground storage of carbon dioxide in a reservoir pursuant to  
23 at least one UIC Class VI permit.

24 "Department." The Department of Environmental Protection of  
25 the Commonwealth.

26 "Escrow." To place in trust with a third party to be held  
27 segregated from other funds for the secured interest of the  
28 department.

29 "Fund." The Carbon Dioxide Storage Facility Fund established  
30 under section 10(a).

1 "Pore space." Subsurface strata, formations, cavities or  
2 voids, whether natural or artificially created, that can be used  
3 as a storage space for carbon dioxide or other media.

4 "Secretary." The Secretary of Environmental Protection of  
5 the Commonwealth.

6 "Storage facility." The subsurface area consisting of the  
7 extent of a carbon dioxide plume which is required to be  
8 delineated on an approved UIC Class VI permit or an amendment to  
9 a UIC Class VI permit of a storage operator.

10 "Storage operator." An individual, corporation or other  
11 legal entity that operates a carbon sequestration project.

12 "Subsurface property interest owner." A property interest  
13 owner identified by the records of the recorder of deeds for  
14 each county containing a portion of the proposed storage  
15 facility who holds a fee simple interest or other freehold  
16 interest in the subsurface of the property, which may include  
17 minerals, including coal, or oil and gas rights. The term does  
18 not include the owner of a right-of-way, an easement or a  
19 leasehold.

20 "Surface property interest owner." A property interest owner  
21 identified by the records of the recorder of deeds for each  
22 county containing a portion of the proposed storage facility who  
23 holds a fee simple interest or other freehold interest in the  
24 surface of the property, which may include minerals, including  
25 coal, or oil and gas rights. The term does not include the owner  
26 of a right-of-way, an easement or a leasehold.

27 "UIC Class VI permit." A permit issued under 40 CFR Pt. 144  
28 (relating to underground injection control program) that allows  
29 the operation of a carbon dioxide injection and storage well.

30 "Underground storage of carbon dioxide." The injection and

1 storage of carbon dioxide into underground strata and formations  
2 under at least one UIC Class VI permit.

3 Section 4. Ownership of pore space.

4 (a) General rule.--The ownership of all pore space in all  
5 strata below the surface lands and waters of the Commonwealth  
6 shall be vested in the owner of the surface above the pore  
7 space.

8 (b) Conveyance.--A conveyance of the surface ownership of  
9 real property shall be a conveyance of the pore space in all  
10 strata below the surface of the real property unless the  
11 ownership interest in the pore space previously has been  
12 expressly excepted and reserved, conveyed or otherwise severed  
13 from the surface ownership. The ownership of pore space in  
14 strata may be conveyed in the manner provided by law for the  
15 transfer of real property interests. No agreement conveying  
16 minerals, including coal, oil and gas, or other interests  
17 underlying the surface shall act to convey pore space in the  
18 stratum unless the agreement expressly includes conveyance of  
19 the pore space.

20 (c) Construction.--

21 (1) No provision of law or regulation requiring notice  
22 to be given to a surface owner, owner of the minerals,  
23 including coal, or oil and gas interest or both, shall be  
24 construed to require notice to individuals holding ownership  
25 interest in pore space in the underlying strata unless the  
26 applicable law specifies notice to the individuals is  
27 required.

28 (2) Nothing in this section shall be construed to change  
29 or alter the common law existing as of the effective date of  
30 this paragraph with respect to the rights belonging to, or

1 the dominance of, the mineral, including coal, estate or oil  
2 and gas estate. For the purpose of determining the priority  
3 of subsurface uses between a severed mineral, including coal,  
4 or oil and gas estate and pore space, the severed mineral,  
5 including coal, or oil and gas estate is dominant regardless  
6 of whether ownership of the pore space is vested in the  
7 several owners of the surface or is owned separately from the  
8 surface.

9 (3) Nothing in this section shall alter, amend, diminish  
10 or invalidate rights to the use of subsurface pore space that  
11 were acquired by contract or lease prior to the effective  
12 date of this paragraph.

13 (d) Transfer instruments.--

14 (1) Instruments that transfer the rights to pore space  
15 under this section shall describe the scope of any right to  
16 use the surface estate. The owner of a pore space right shall  
17 have no right to use the surface estate beyond that set out  
18 in a properly recorded instrument.

19 (2) After the effective date of this paragraph, a  
20 transfer instrument shall include a specific description of  
21 the location of the pore space being transferred. The  
22 description may include a metes and bounds description of the  
23 surface lying over the transferred pore space and  
24 identification of the subsurface strata, formations or  
25 reservoirs. In the event only a description of the surface is  
26 used, the transfer shall be deemed to include pore space at  
27 all depths underlying the described surface area unless  
28 specifically excluded. The validity of pore space rights  
29 under this paragraph shall not affect the respective  
30 liabilities of a party and liabilities shall operate in the

1 same manner as if the pore space transfer were valid.

2 Section 5. Cotenants, ownership of pore space by multiple  
3 cotenants and collective storage.

4 (a) General rule.--If a storage operator does not obtain the  
5 consent of all persons that own the storage facility's pore  
6 space to the construction and operation of a storage facility,  
7 the secretary may require that the pore space owned by  
8 nonconsenting owners be included in a storage facility and  
9 subject to geologic storage. The following shall apply:

10 (1) The permit applicant and prospective storage  
11 operator shall negotiate with the pore space owners and  
12 acquire rights needed to access the pore space.

13 (2) If, after good-faith negotiation, the applicant or  
14 storage operator cannot locate or cannot reach an agreement  
15 with all necessary pore space owners but has secured written  
16 consent or agreement from the owners of at least 60% of the  
17 ownership interest in the pore space for the storage  
18 facility, all of the pore space of said interests for which  
19 an agreement has not been reached shall be declared to be  
20 included within the proposed storage facility if the  
21 secretary finds that the requirements of this section have  
22 been met. For the purposes of this subsection, an unknown or  
23 nonlocatable owner shall be deemed to have consented or  
24 agreed to the use of the pore space, provided that the  
25 storage operator has complied with the publication  
26 requirements of this act.

27 (b) Collective storage.--

28 (1) The storage operator shall provide a list to the  
29 secretary of all persons reasonably known to own an interest  
30 in pore space proposed to be collectively used in an

1 application to the secretary for a collective storage order.  
2 A collective storage order shall be made only after the  
3 secretary provides notice to all pore space owners proposed  
4 to be included within the order.

5 (2) The secretary shall set and collect a fee adequate  
6 to pay expenses associated with the conduct of administrative  
7 hearings for the collective storage of pore space.

8 (3) If the proposed collective storage order concerns  
9 pore space with an unknown or nonlocatable owner, the storage  
10 operator shall publish one notice in the newspaper of the  
11 largest circulation in each county in which the pore space is  
12 located. The notice shall appear no more than 30 days prior  
13 to the initial application for the collective storage order.  
14 The applicant shall file proof of notice with the division  
15 concurrently with the application. The notice shall:

16 (i) State that an application for a collective  
17 storage order has been filed with the department.

18 (ii) Describe the pore space proposed to be  
19 collectively used.

20 (iii) In the case of an unknown pore space owner,  
21 indicate the name of the last known owner.

22 (iv) In the case of a nonlocatable pore space owner,  
23 identify the owner and the owner's last known address.

24 (v) State that a person claiming an interest in the  
25 pore space proposed to be collectively used should notify  
26 the secretary and the storage operator at the published  
27 address within 20 days of the publication date.

28 (4) A collective storage order shall authorize the long-  
29 term storage of carbon dioxide beneath the tract or portion.  
30 The order shall also specify, where necessary, the location

1 of and how to access carbon injection wells, outbuildings,  
2 roads and monitoring equipment. The collective storage order  
3 shall identify the compensation to be paid to unknown,  
4 nonlocatable and nonconsenting pore space owners and the  
5 basis for valuation of the collective interest.

6 (5) A certified copy of a collective storage order and a  
7 survey of the storage field shall be recorded by the storage  
8 operator in the office of the county clerk of the county in  
9 which all or a portion of the collective tract is located.  
10 The secretary shall provide a copy of the collective storage  
11 order to those required to be notified. For purposes of this  
12 section, an unknown or nonlocatable owner shall be deemed to  
13 have received notice, provided that the storage operator has  
14 complied with the publication requirements under this  
15 subsection.

16 (c) Seismic study.--

17 (1) It is the policy of the Commonwealth to allow for  
18 the exploration for geologic storage.

19 (2) If a storage operator is unable to reasonably  
20 negotiate with a surface owner for the right to conduct  
21 seismic study on lands owned by the surface owner, the  
22 secretary may issue an order for the entry onto the lands by  
23 the storage operator. In this instance, the storage operator  
24 shall pay the surface owner just and reasonable compensation  
25 as established by the secretary.

26 (3) A seismic study shall be limited to geologic storage  
27 and shall remain confidential and proprietary. The storage  
28 operator shall defend, indemnify and hold harmless the  
29 property owner for all claims arising out of entry onto the  
30 property by the storage operator, its contractors and its



1 agents.

2 Section 6. Authorization of projects.

3 (a) Carbon sequestration.--Carbon sequestration projects are  
4 authorized in this Commonwealth for the purposes of:

5 (1) Injecting carbon dioxide into the pore space of an  
6 underground storage facility through at least one carbon  
7 dioxide injection well under a UIC Class VI permit.

8 (2) Employing the underground storage of carbon dioxide.

9 (b) Conditions for authorization.--To operate a carbon  
10 sequestration project under this section, a storage operator  
11 must obtain a UIC Class VI permit and all other permits as  
12 required by applicable statutes and regulations.

13 Section 7. Ownership of material injected into storage  
14 facilities and liability for holding interests  
15 related to a storage facility or giving consent to  
16 allow carbon sequestration activities.

17 (a) General rule.--All carbon dioxide, and other substances  
18 injected incidental to the injection of carbon dioxide, injected  
19 into a storage facility for the purpose of carbon sequestration  
20 shall be presumed to be owned by the storage operator of the  
21 material and all rights, benefits, burdens and liabilities of  
22 the ownership shall belong to the storage operator. This  
23 presumption may be rebutted by an individual claiming contrary  
24 ownership by a preponderance of the evidence in an action to  
25 establish ownership.

26 (b) Liability.--No owner of pore space, other individual  
27 holding any right to control pore space or other surface  
28 property interest owner or subsurface property interest owner,  
29 shall be liable for the effects of injecting carbon dioxide for  
30 carbon sequestration activities, or for the effects of injecting

1 other substances for the purpose of carbon sequestration which  
2 substances are injected incidental to the injection of carbon  
3 dioxide, solely by virtue of their interest in the pore space or  
4 surface or subsurface rights.

5 Section 8. Liability of storage operator.

6 (a) General rule.--A claim for damages due to injection or  
7 migration of carbon dioxide shall not be actionable against a  
8 storage operator conducting carbon sequestration in accordance  
9 with a valid UIC Class VI permit unless the claimant proves that  
10 the injection or migration of carbon dioxide:

11 (1) is injurious to health, or an obstruction to the  
12 free use of property so as essentially to interfere with the  
13 comfortable enjoyment of life or property; or

14 (2) has caused direct physical injury to an individual,  
15 animal or real or personal property.

16 (b) Damages.--

17 (1) A surface property interest owner or subsurface  
18 property interest owner may recover monetary damages due to  
19 injection or migration of carbon dioxide only for  
20 the diminution in property value resulting from the injection  
21 and migration of carbon dioxide beyond the storage facility.

22 (2) A surface property interest owner or subsurface  
23 property interest owner may not seek punitive damages due to  
24 injection or migration of carbon dioxide if the storage  
25 operator acts in compliance with the requirements of the UIC  
26 Class VI permit.

27 Section 9. Operation and storage fees.

28 (a) Requirement.--Storage operators shall pay the department  
29 a fee on each ton of carbon dioxide injected for storage.

30 (b) Amount.--The fee under this section shall be in an

1 amount set by the Environmental Quality Board. The following  
2 apply:

3 (1) The fee shall be based on the department's  
4 anticipated expenses associated with:

5 (i) Regulating storage facilities during their  
6 construction, operation and preclosure phases.

7 (ii) Long-term monitoring and management of the  
8 storage facility following issuance of the certificate of  
9 project completion under section 11.

10 (2) The department shall transmit to the Legislative  
11 Reference Bureau for publication in the next available issue  
12 of the Pennsylvania Bulletin a schedule of fees under this  
13 section.

14 (c) Segregation of funds.--Fees imposed by the department  
15 under this section shall be segregated as follows:

16 (1) Fifty percent of fees imposed for the purpose of  
17 covering the activities described in section 10(c)(1), (2)  
18 and (3) shall be deposited to the credit of the fund, and 50%  
19 of the fees shall be held in escrow by the storage operator  
20 pursuant to rules promulgated by the department, provided  
21 that rules permit investment of the escrowed funds.

22 (2) One hundred percent of the fees imposed for the  
23 purpose of covering the activities described in section 10(c)  
24 (4) shall be held in escrow by the storage operator pursuant  
25 to rules promulgated by the Environmental Quality Board,  
26 provided that rules permit investment of the escrowed funds.

27 (d) Penalties.--Penalties imposed for violations of this act  
28 or regulations promulgated under this act and funds received by  
29 the department from financial responsibility mechanisms shall be  
30 remitted to the fund.

1 Section 10. Fund.

2 (a) Establishment.--The Carbon Dioxide Storage Facility Fund  
3 is established as a separate fund within the State Treasury.

4 (b) Administration.--The department shall administer the  
5 fund.

6 (c) Purpose.--The fund shall be used only for defraying the  
7 department's expenses associated with:

8 (1) Processing permit applications.

9 (2) Regulating storage facilities during construction,  
10 operational and preclosure phases.

11 (3) Making storage amount determinations.

12 (4) Long-term monitoring and management of a closed  
13 storage facility.

14 (d) Interest.--Interest earned by the fund shall be  
15 deposited into the fund.

16 (e) Transfer.--Money in the fund may not be transferred to  
17 the General Fund or another fund.

18 (f) Deposit.--At the time a certificate of project  
19 completion is issued by the department, the storage operator  
20 shall deposit to the credit of the fund all money accumulated by  
21 the storage operator in escrow under section 9(c), provided that  
22 the total amount credited by the storage operator shall not  
23 exceed the anticipated cost of oversight and management  
24 following closure of the geologic storage facility and  
25 associated carbon dioxide injection wells, as determined by the  
26 department.

27 Section 11. Certificate of project completion.

28 (a) Issuance.--After all carbon dioxide injections  
29 underground or into pore space are completed and upon  
30 application by the storage operator, the department may issue a

1 certificate of project completion. The department shall issue a  
2 certificate upon satisfaction of the conditions imposed under  
3 this section and after providing public notice of the  
4 application, an opportunity for public comment and a public  
5 hearing on the application.

6 (b) Timing.--A certificate of project completion shall not  
7 be issued until at least 10 years after carbon dioxide  
8 injections end.

9 (c) Conditions.--A certificate of project completion shall  
10 not be issued until the storage operator establishes with a  
11 degree of certainty that satisfies the department that:

12 (1) The storage operator is in full compliance with all  
13 laws governing the injection and storage of the carbon  
14 dioxide.

15 (2) The storage operator has addressed pending claims  
16 regarding the injection and storage of the carbon dioxide.

17 (3) The carbon dioxide that has been injected  
18 underground for storage is not expected to expand vertically  
19 or horizontally and poses no threat to human health, human  
20 safety, the environment or underground sources of drinking  
21 water.

22 (4) The carbon dioxide that has been injected  
23 underground for storage is unlikely to cross any underground  
24 or pore space boundary and is not expected to endanger any  
25 underground source of drinking water or otherwise endanger  
26 human health, human safety or the environment.

27 (5) All wells, equipment and facilities to be used in  
28 maintaining and managing the stored carbon dioxide are in  
29 good condition and will retain mechanical integrity.

30 (6) The storage operator has plugged injection wells and

1 has completed all reclamation required by the department.

2 (d) After issuance.--Upon the issuance of a certificate of  
3 project completion under this section:

4 (1) In exchange for assuming responsibility and  
5 liability for the stored carbon dioxide as provided in this  
6 section, title to the stored or injected carbon dioxide, and  
7 any facilities used to inject or store the carbon dioxide,  
8 without payment of compensation, shall be transferred to the  
9 Commonwealth.

10 (2) Title acquired by the Commonwealth includes all  
11 rights, and interests in, and all responsibilities associated  
12 with, the stored or injected carbon dioxide, subject to  
13 limitations provided within this subsection.

14 (3) Except in situations provided below, and except for  
15 criminal and contractual liability, primary responsibility  
16 and liability for the stored or injected carbon dioxide shall  
17 be transferred to the Commonwealth:

18 (i) situations in which the operator violated a duty  
19 imposed on the operator by Pennsylvania law or regulation  
20 prior to approval of site closure and any applicable  
21 statutes of limitation have not run;

22 (ii) situations in which the department determines,  
23 after notice and hearing, that the operator provided  
24 deficient or erroneous information that was material and  
25 relied upon by the department to support approval of site  
26 closure;

27 (iii) situations in which the department determines,  
28 after notice and hearing, that there is carbon dioxide  
29 migration for which the operator is responsible that  
30 causes or threatens imminent and substantial endangerment

1 to an underground source of drinking water; or  
2 (iv) the balance of the escrow or the fund is  
3 insufficient to cover costs arising from storage  
4 facilities and associated carbon dioxide injection wells  
5 after site closure.

6 (4) The storage operator and all individuals who  
7 generated, injected or stored carbon dioxide shall be forever  
8 released from all regulatory requirements associated with the  
9 continued storage and maintenance of the injected carbon  
10 dioxide, except as provided in paragraph (3).

11 (5) A bond or financial assurance submitted to the  
12 department shall be released.

13 (6) The department shall assume responsibility to manage  
14 and monitor the stored carbon dioxide until a time when the  
15 Federal Government assumes responsibility for the long-term  
16 monitoring and management of stored carbon dioxide.

17 (e) Construction.--Nothing in this section shall be  
18 construed as a waiver of sovereign immunity by the Commonwealth.

19 Section 12. Effective date.

20 This act shall take effect immediately.