

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 1476 Session of 2023

INTRODUCED BY VITALI, WAXMAN, MADDEN, SANCHEZ, HILL-EVANS, STEELE, KHAN, BRENNAN, HOWARD, PIELLI, HOHENSTEIN, SALISBURY, GREEN AND KRAJEWSKI, JUNE 21, 2023

AS REPORTED FROM COMMITTEE ON ENVIRONMENTAL RESOURCES AND ENERGY, HOUSE OF REPRESENTATIVES, AS AMENDED, OCTOBER 16, 2023

AN ACT

1 Providing for a moratorium on electric generating facility that <--
2 provides, in whole or in part, behind the meter electric
3 energy consumed or utilized by a qualifying crypto asset
4 mining operation REPORTING REQUIREMENTS FOR QUALIFYING <--
5 CRYPTO-ASSET MINING OPERATIONS and for an impact study; and
6 imposing duties on the Department of Environmental
7 Protection.

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

10 Section 1. Short title.

11 This act shall be known and may be cited as the
12 Cryptocurrency Energy Conservation Act.

13 Section 2. Declaration of policy.

14 The General Assembly finds and declares as follows:

15 (1) Climate change is the most serious long-term threat
16 to this planet.

17 (2) The world needs to reach carbon neutrality by mid-
18 century to avoid the worst effects of climate change.

19 (3) This Commonwealth is a major emitter of greenhouse

1 gases that contribute to climate change, the vast majority of
2 which are related to the production and consumption of
3 energy.

4 (4) This Commonwealth is committed to reducing
5 greenhouse gas emissions within the Commonwealth in order to
6 help combat climate change, with goals of reducing greenhouse
7 gas emissions by 26% from 2005 levels by 2025 and further
8 reducing greenhouse gas emissions by 80% from 2005 levels by
9 2050 under Executive Order 2019-01.

10 (5) Recently, cryptocurrency mining has expanded greatly
11 in the United States and this Commonwealth, with several
12 major cryptocurrency mining operations expected to come
13 online in this Commonwealth over the next several years.

14 (6) Cryptocurrency mining refers to the process of
15 creating new units of cryptocurrency and verifying
16 transactions by using computers to solve complicated
17 calculations.

18 (7) Cryptocurrency mining requires a substantial amount
19 of energy and currently accounts for as much as 1.7% of
20 energy consumption in the United States, according to a White
21 House report.

22 (8) The cryptocurrency mining industry currently
23 operates with little governmental oversight or regulation.

24 (9) The massive use of energy to produce cryptocurrency
25 is a wasteful use of finite resources.

26 (10) Unchecked cryptocurrency mining in this
27 Commonwealth will prevent this Commonwealth from reaching its
28 stated greenhouse gas emissions reduction goals.

29 Section 3. Definitions.

30 The following words and phrases when used in this act shall

1 have the meanings given to them in this section unless the
2 context clearly indicates otherwise:

3 "Blockchain." A distributed ledger technology in which:

4 (1) the data are shared across a network that creates a
5 digital ledger of verified transactions or information among
6 network participants; and

7 (2) the data are typically linked using cryptography to
8 maintain the integrity of the ledger and execute other
9 functions, including transfer of ownership or value.

10 "Consensus mechanism." A process to achieve agreement among
11 network participants on the current state of a blockchain.

12 "Crypto-asset mining." The process of performing
13 computations to add a valid block of data to the blockchain
14 typically in exchange for a reward or fee, including a proof of
15 work consensus mechanism and excluding those computations
16 required to validate individual transactions.

17 "Department." The Department of Environmental Protection of
18 the Commonwealth.

19 "Power load." The amount of electrical power, in megawatts,
20 that is consumed by a qualifying crypto-asset mining operation.

21 "Qualifying crypto-asset mining operation." The term means:

22 (1) an individual crypto-asset mining operation located
23 in this Commonwealth that has a power load that is greater
24 than or equal to 5 megawatts;

25 (2) a crypto-asset operation located in this
26 Commonwealth comprised of more than one location that has a
27 cumulative power load that is greater than or equal to 5
28 megawatts; or

29 (3) a crypto-asset mining operation located at a natural
30 gas well site in this Commonwealth.

1 "Scope 1 emissions." Greenhouse gas emissions directly from
2 sources that are operated, controlled or owned by an individual
3 or entity performing a qualifying crypto-asset mining operation.

4 "Scope 2 emissions." Indirect greenhouse gas emissions
5 associated with the purchase of electricity, steam, heat or
6 cooling by an individual or entity performing a qualifying
7 crypto-asset mining operation.

8 ~~Section 4. Moratorium.~~ <--

9 ~~Notwithstanding any other provision of law, for two years~~
10 ~~following the effective date of this section, the department may~~
11 ~~not approve an application for a new permit or renew an existing~~
12 ~~permit under the act of January 9, 1959 (P.L.2119, No.787),~~
13 ~~known as the Air Pollution Control Act, including, but not~~
14 ~~limited to, section 6.1 of the Air Pollution Control Act, for an~~
15 ~~electric generating facility that provides, in whole or in part,~~
16 ~~behind the meter electric energy consumed or utilized by a~~
17 ~~qualifying crypto asset mining operation.~~

18 Section 5 4. Reporting requirements for qualifying crypto-asset <--
19 mining operations.

20 (a) Reporting.--No later than six months following the
21 effective date of this subsection, the owner of a qualifying
22 crypto-asset mining operation in this Commonwealth shall submit
23 the following information to the department on a form prescribed
24 by the department:

25 (1) the number and geographic locations of the
26 qualifying crypto-asset mining operation;

27 (2) the number and type of devices engaged in crypto-
28 asset mining, purchased and retired by the qualifying crypto-
29 asset mining operation in the past year;

30 (3) the amount of electric energy consumed by the

1 qualifying crypto-asset mining operation, including the time
2 of electricity usage;

3 (4) the source or sources of electric generation for all
4 electric energy consumed by the qualifying crypto-asset
5 mining operation, including the type of fuel used by the
6 electric generating facility;

7 (5) scope 1 emissions and scope 2 emissions associated
8 with electric generation for all electricity consumed by the
9 qualifying crypto-asset mining operation;

10 (6) water use associated with cooling crypto-asset
11 mining devices used by a qualifying crypto-asset mining
12 operation; and

13 (7) any other information deemed necessary by the
14 department.

15 (b) Ongoing reporting requirements.--

16 (1) Prior to starting operations in this Commonwealth, a
17 qualifying crypto-asset mining operation shall submit the
18 information required under subsection (a) to the department.

19 (2) The department shall require a qualifying crypto-
20 asset mining operation to submit the information under
21 subsection (a) on an annual basis.

22 (c) Form.--The department shall prepare a form that includes
23 all of the information required under subsections (a) and (b) to
24 make available on the department's publicly accessible Internet
25 website.

26 Section 6 5. Impact study. <--

27 (a) Report.--No later than one year following the effective
28 date of this subsection, the department, in consultation with
29 the Pennsylvania Public Utility Commission, shall issue a
30 report, including all of the following information:

1 (1) The number and location of any existing or planned
2 qualifying crypto-asset mining operations, including which
3 operations are located in an environmental justice area.

4 (2) The amount of greenhouse gas emissions and other air
5 pollutants that are:

6 (i) released by an onsite energy source used by a
7 qualifying crypto-asset mining operation; and

8 (ii) attributable to offsite-generated electricity,
9 steam, heat or cooling provided to a qualifying crypto-
10 asset mining operation.

11 (3) The anticipated increase of new, and expansion of
12 existing, qualifying crypto-asset mining operations.

13 (4) The potential impacts of electric energy consumption
14 by qualifying crypto-asset mining operations, including by
15 prolonging the use of fossil fuel generators, on the ability
16 of this Commonwealth to achieve stated greenhouse gas
17 emission reduction goals.

18 (5) The ecological impacts, including ecological impacts
19 associated with electronic waste generation and the use or
20 discharge of cooling water, caused by qualifying crypto-asset
21 mining operations.

22 (6) The potential public health impacts due to the
23 reduced air and water quality and increased water stress on
24 communities near qualifying crypto-asset mining operations.

25 (7) The potential public health and ecological impacts
26 from noise generated by qualifying crypto-asset mining
27 operations.

28 (8) The amount of electric energy consumed by each
29 qualifying crypto-asset mining operation, including the time
30 of use of electricity and the potential grid stress posed by

1 the power load of the qualifying crypto-asset mining
2 operation.

3 (9) The source of electric energy consumed by each
4 qualifying crypto-asset mining operation.

5 (10) An analysis of energy use and greenhouse gas
6 emissions by type of consensus mechanism.

7 (11) An analysis of demand-response programs negotiated
8 between qualifying crypto-asset mining operations and
9 electric utilities.

10 (12) An analysis of potential rate-design measures that
11 could be implemented by State and local regulators to reduce
12 the energy consumption and dependence on fossil fuel energy
13 sources of qualifying crypto-asset mining operations.

14 (b) Report submission.--The department shall submit the
15 report required under subsection (a) to the Governor, the
16 chairperson and minority chairperson of the Environmental
17 Resources and Energy Committee of the Senate and the chairperson
18 and minority chairperson of the Environmental Resources and
19 Energy Committee of the House of Representatives no later than
20 one year following the effective date of this subsection.

21 (c) Publication.--The department shall publish the report
22 required under subsection (a) on the department's publicly
23 accessible Internet website.

24 Section 7 6. Regulations. <--

25 The department and the Environmental Quality Board shall
26 promulgate regulations as necessary to implement the provisions
27 of this act.

28 Section 8 7. Effective date. <--

29 This act shall take effect immediately.