

House File 2690 - Introduced

HOUSE FILE 2690
BY COMMITTEE ON COMMERCE

(SUCCESSOR TO HF 2447)

A BILL FOR

1 An Act relating to water and energy use for data centers,
2 including reporting and tariff requirements, and including
3 effective date provisions.

4 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

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1 Section 1. NEW SECTION. **455B.280 Water usage at data**
2 **centers.**

3 1. As used in this section:

4 a. "Data center" means the same as defined in section 476.59.

5 b. "Water usage effectiveness" means a calculation of a data
6 center's total water input divided by the total water consumption
7 of the data center's information technology equipment.

8 2. No later than six months after the effective date of this
9 Act, or, for a data center that has been in operation for at
10 least one year as of the effective date of this Act, no later
11 than three months after the effective date of this Act, or within
12 three months of starting operations for a new data center, and
13 quarterly thereafter, the owner or operator of a data center
14 in the state of Iowa shall prepare and submit a water usage
15 report to the department that contains at least the following
16 information:

17 a. Basic information relating to the data center, including
18 all of the following:

19 (1) The name of the data center.

20 (2) The owner or operator of the data center.

21 (3) The address of the data center.

22 (4) The nature or purpose of the data center.

23 (5) The month and year that the data center commenced
24 operation.

25 b. Information related to water usage at the data center,
26 including all of the following:

27 (1) The total water input in gallons including the respective
28 volumes of water input for specific functions of the data center.

29 (2) The source of water for the data center including a
30 municipal water supply, groundwater, or surface water, and
31 whether water from such sources is potable or reclaimed, and
32 water withdrawal permit numbers. If a data center utilizes more
33 than one water source, the data center shall provide information
34 regarding water usage from each source as a percentage of total
35 water usage.

1 (3) Performance calculations and indicators for the data
2 center regarding water use effectiveness.

3 3. Within thirty days of receiving a water usage report from
4 the owner or operator of a data center pursuant to subsection
5 2, the department shall publish the information on its internet
6 site, and update the information as necessary.

7 4. An owner or operator of a data center that has submitted
8 a water usage report to the department pursuant to subsection
9 2 shall notify the department of any substantial change in
10 operations or technologies at the data center that would require
11 an update to the information provided in the water usage
12 report at least sixty days prior to implementing the change in
13 operations or technologies at the data center.

14 Sec. 2. Section 476.4, subsection 3, Code 2026, is amended
15 by striking the subsection and inserting in lieu thereof the
16 following:

17 3. The commission shall provide for a classification of
18 service for data centers, as defined in section 476.59. The
19 classification of service must be separate and distinct from
20 classification of service for other commercial or industrial
21 retail electricity consumers and have its own tariff schedule.
22 Any tariff schedule adopted by the commission for data centers
23 must meet all of the following requirements:

24 a. Allocate the costs of servicing data centers in a manner
25 that is equal or proportional to the costs of serving the data
26 centers or directly assign the costs of serving a data center to
27 the data center.

28 b. Mitigate the risk of all of the following:

29 (1) Other classes of retail electricity consumers paying
30 unwarranted costs.

31 (2) Shifting the costs, in an unwarranted manner, of serving
32 a data center to other classes of retail electricity consumers,
33 including costs of an electric company to meet load requirements
34 resulting from the provision of electricity service to a data
35 center.

1 c. In deciding whether to approve a proposed tariff schedule
2 of a data center, the commission shall consider whether the rate,
3 charge, or schedule may do any of the following:

4 (1) Result in or have the potential to result in increased
5 costs or unwarranted risks to other retail electricity consumers.

6 (2) Provide for equitable contributions to grid efficiency,
7 reliability, and resiliency benefits.

8 (3) Meet any other conditions the commission may require in
9 the public interest.

10 Sec. 3. NEW SECTION. **476.59 Energy usage at data centers.**

11 1. As used in this section:

12 a. "Data center" means a facility for which all of the
13 following apply:

14 (1) The facility's primary services are the storage,
15 management, and processing of digital data.

16 (2) The facility is used to house computer and network
17 systems, including associated components such as servers, network
18 equipment and appliances, telecommunications, and data storage
19 systems, systems for monitoring and managing infrastructure
20 performance, internet-related equipment and services, data
21 communications connections, environmental controls, fire
22 protection systems, and security systems and services.

23 b. "Energy reuse factor" means a calculation of waste heat
24 reused divided by total energy consumption.

25 c. "Power usage effectiveness" means a calculation of a
26 data center's total energy consumption divided by the total
27 energy consumption of the data center's information technology
28 equipment.

29 d. "Waste heat reused" means any heat that is used or reused
30 outside the boundary of a data center and that replaces, partly
31 or entirely, energy needed outside the boundary of the data
32 center.

33 2. No later than six months after the effective date of this
34 Act, or, for a data center that has been in operation for at
35 least one year as of the effective date of this Act, no later

1 than three months after the effective date of this Act, or within
2 three months of starting operations for a new data center, and
3 quarterly thereafter, the owner or operator of a data center
4 in the state of Iowa shall prepare and submit an energy usage
5 report to the commission that contains at least the following
6 information:

7 a. Basic information relating to the data center, including
8 all of the following:

- 9 (1) The name of the data center.
10 (2) The owner or operator of the data center.
11 (3) The address of the data center.
12 (4) The nature or purpose of the data center.
13 (5) The month and year that the data center commenced
14 operation.

15 b. Information related to energy usage at the data center,
16 including all of the following:

- 17 (1) The total energy consumption in kilowatt hours during the
18 reporting period, including the use of electricity, fuels, and
19 other energy sources used for cooling.
20 (2) All on-site power supplies, including any primary power
21 on site and emergency backup power supply, and any permit
22 information, including permit numbers, capacity, tier level, fuel
23 type, total permitted emissions for the data center, and any
24 other relevant information.
25 (3) The total energy consumption in kilowatt hours measured
26 as the value of the combined annual energy consumption at every
27 uninterruptible power system.

28 c. Performance calculations for the data center, including
29 the energy reuse factor and power usage effectiveness.

30 d. Sustainability indicators for the data center, including
31 all of the following:

- 32 (1) The average set point intake temperature in degrees
33 Fahrenheit, which shall be measured as the average set point
34 temperature in all of the data center's computer rooms over a
35 twelve-month period.

1 (2) The average waste heat temperature in degrees Fahrenheit,
2 which shall be measured as the temperature of the fluid used
3 to cool any information and communication technology equipment,
4 averaged over a twelve-month period and across every measurement
5 point. Individual waste heat temperature readings shall be
6 measured at the point where heated fluid enters a heat exchanger
7 in the data center's computer rooms.

8 (3) The amount of waste heat reused in kilowatt hours.

9 e. Any other information deemed necessary by the commission.

10 3. Within thirty days of receiving an energy usage report
11 from the owner or operator of a data center pursuant to
12 subsection 2, the commission shall publish the nonprivileged
13 information on its internet site and update the information as
14 necessary.

15 4. An owner or operator of a data center that has submitted
16 an energy usage report to the commission pursuant to subsection
17 2 shall notify the commission of any substantial change in
18 operations or technologies at the data center that would require
19 an update to the information provided in the energy usage
20 report at least sixty days prior to implementing the change in
21 operations or technologies at the data center.

22 Sec. 4. EFFECTIVE DATE. This Act, being deemed of immediate
23 importance, takes effect upon enactment.

24 EXPLANATION

25 The inclusion of this explanation does not constitute agreement with
26 the explanation's substance by the members of the general assembly.

27 This bill relates to water and energy use for data centers,
28 including reporting and tariff requirements.

29 The bill requires owners or operators of data centers located
30 in Iowa to submit periodic water usage reports to the department
31 of natural resources (department). The bill requires data center
32 owners or operators to submit an initial water usage report
33 within six months after the effective date of the bill if the
34 data center has been in operation for less than one year, within
35 three months of the effective date of the bill if the data

1 center has been in operation for at least one year, or within
2 three months of starting operations for a new data center, and
3 submit updated reports quarterly thereafter. The reports must
4 include identifying information about the data center and certain
5 information regarding water inputs, water sources, and water
6 usage effectiveness. The bill requires the department to publish
7 the reported information on its internet site within 30 days of
8 receipt. The bill also requires a data center to notify the
9 department at least 60 days before implementing any substantial
10 change in operations or technologies that would require updating
11 the reported information.

12 The bill requires the Iowa utilities commission (commission)
13 to establish a separate classification of electric service for
14 data centers that is distinct from other commercial or industrial
15 customers and that has its own tariff schedule. The bill
16 specifies that tariffs for data centers must allocate or directly
17 assign costs in proportion to the costs of serving data centers
18 and must mitigate the risk of other customer classes paying
19 unwarranted costs and the risk of shifting, in an unwarranted
20 manner, the costs of serving a data center to other customer
21 classes.

22 The bill requires the commission, when deciding whether to
23 approve a proposed tariff for a data center, to consider whether
24 the proposal may result in or have the potential to result in
25 increased costs or unwarranted risks to other retail consumers,
26 whether the proposal provides for equitable contributions to grid
27 efficiency, reliability, and resiliency benefits, and whether the
28 proposal meets any other conditions the commission may require in
29 the public interest.

30 The bill requires owners or operators of data centers
31 located in Iowa to submit periodic energy usage reports to
32 the commission. Data center owners or operators are required
33 to submit energy usage reports to the utilities commission on
34 the same timeline as the water usage reports. The reports
35 must include identifying information about the data center and

1 certain information regarding energy consumption and on-site
2 power supplies. The report must also include certain performance
3 metrics and sustainability indicators. The bill provides
4 similar publication requirements for the commission and similar
5 notification of substantial change requirements for data centers
6 regarding energy usage reports as required for water usage
7 reports.

8 The bill strikes provisions relating to rate, charge, rule,
9 and regulation filings made prior to July 4, 1963. The bill
10 takes effect upon enactment.

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