

By: Hall, et al.

S.B. No. 330

A BILL TO BE ENTITLED

AN ACT

relating to the resilience of the electric grid and certain municipalities; authorizing an administrative penalty.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. The legislature finds that:

(1) electric grid blackouts threaten the lives of the citizens of this state and pose a disproportionately large risk to:

(A) the elderly, vulnerable, and underprivileged within this state; and

(B) communities facing disproportionate environmental health burdens and population vulnerabilities relating to facilities such as chemical plants and refineries that can become environmental disaster areas when taken off-line due to loss of electricity;

(2) the critical infrastructures identified in President Barack Obama's Presidential Policy Directive "Critical Infrastructure Security and Resilience" (PPD-21) including water and wastewater systems, food and agriculture, communications systems, the energy sector including refineries and fuel distribution systems, chemical plants, the financial sector, hospitals and health care facilities, law enforcement and government facilities, nuclear reactors, and other critical functions depend on the electric grid in this state and make the grid's protection vital to the economy of this nation and homeland

1 security;

2 (3) the blackout that occurred in this state in
3 February 2021 caused:

4 (A) death and suffering in this state;

5 (B) economic loss to this state's economy;

6 (C) impacts to all critical infrastructures in
7 this state;

8 (D) the dispatch of generation units that likely
9 exceeded limits established by the Environmental Protection Agency
10 for sulfur dioxide, nitrogen oxide, mercury, and carbon monoxide
11 emissions and wastewater release limits;

12 (E) radically increased pricing of electricity
13 that resulted in making electric power bills unaffordable to many
14 customers across this state; and

15 (F) the exacerbation of the COVID-19 pandemic
16 risk by forcing many of the state's citizens to consolidate at
17 warming centers and in other small spaces where warmth for survival
18 superseded social distancing protocols;

19 (4) a previous large-scale blackout occurred in this
20 state in February 2011 during which 4.4 million customers were
21 affected;

22 (5) this state is uniquely positioned to prevent
23 blackouts because this state is a net exporter of energy and is the
24 only state with an electric grid almost exclusively within its
25 territorial boundaries;

26 (6) the 2011 and 2021 blackouts call into question:

27 (A) whether too much risk has been accepted

1 regarding weatherization of electric generation infrastructure;

2 (B) whether this state lacks the internal
3 distribution structure and control systems to manage rolling
4 blackouts; and

5 (C) whether sufficient resources have been
6 allocated toward overall grid resilience;

7 (7) public confidence in the resilience of the
8 electric grid in this state is essential to ensuring economic
9 prosperity, domestic tranquility, continuity of government, and
10 life-sustaining systems;

11 (8) a resilient electric grid that offers businesses
12 in this state continuity of operations in the event of a natural or
13 man-made disaster will be an unrivaled attraction for businesses to
14 expand or move their operations to this state and for protecting
15 what is important to this state, including its military
16 installations and its environment;

17 (9) current market incentives and regulations are not
18 sufficient for electric utilities to:

19 (A) prioritize grid security and resilience; and

20 (B) protect the grid against hazards;

21 (10) protection of the electric grid in this state
22 against hazards would assure businesses and the citizens of this
23 state that the "lights will be back on first in Texas" in the event
24 of a nationwide catastrophe affecting electric infrastructure,
25 sparing catastrophic societal and environmental consequences for
26 this state; and

27 (11) when this state begins implementation of the plan

1 for all hazards resilience described by Section 44.007, Utilities
2 Code, as added by this Act, to protect the electric grid in this
3 state, short-term and long-term economic benefit will far exceed
4 even the most optimistic estimates of the conventional economic
5 incentives provided by tax abatements to attract businesses to this
6 state.

7 SECTION 2. Subtitle B, Title 2, Utilities Code, is amended
8 by adding Chapter 44 to read as follows:

9 CHAPTER 44. GRID RESILIENCE

10 Sec. 44.001. DEFINITIONS. In this chapter:

11 (1) "All hazards" means:

12 (A) terrestrial weather including wind,
13 hurricanes, tornadoes, flooding, ice storms, extended cold weather
14 events, heat waves, and wildfires;

15 (B) seismic events including earthquakes and
16 tsunamis;

17 (C) physical threats including terrorist attacks
18 with direct fire, drones, explosives, and other methods of physical
19 sabotage;

20 (D) cyber attacks including malware attacks and
21 hacking of unprotected or compromised information technology
22 networks;

23 (E) manipulation of operational technology
24 devices including sensors, actuators, and drives;

25 (F) electromagnetic threats through man-made
26 radio frequency weapons, high altitude nuclear electromagnetic
27 pulse, and naturally occurring geomagnetic disturbances;

1 (G) electric generation supply chain
2 vulnerabilities including insecure or inadequate fuel
3 transportation or storage; and

4 (H) insider threats caused by compromised or
5 hostile personnel working within government or the utility
6 industry.

7 (2) "Micro-grid" means a group of interconnected loads
8 and distributed energy resources inside clearly defined electrical
9 boundaries that act as a single controllable entity with respect to
10 the grid.

11 (3) "Security commission" means the Texas Grid
12 Security Commission.

13 Sec. 44.002. TEXAS GRID SECURITY COMMISSION. (a) The Texas
14 Grid Security Commission is composed of the following members:

15 (1) a representative of the Texas Division of
16 Emergency Management appointed by the chief of that division;

17 (2) a representative of the State Office of Risk
18 Management appointed by the risk management board;

19 (3) a representative from the commission appointed by
20 that commission;

21 (4) a representative from the Railroad Commission of
22 Texas appointed by that commission;

23 (5) a representative of the independent organization
24 certified under Section 39.151 for the ERCOT power region appointed
25 by the chief executive officer of that organization;

26 (6) a representative of the Texas Military Department
27 appointed by the adjutant general of that department;

1 (7) a representative of the Texas Military
2 Preparedness Commission appointed by that commission;

3 (8) a representative of the Office of State-Federal
4 Relations appointed by the director of that office;

5 (9) a representative of the Department of Information
6 Resources appointed by the executive director of that department;

7 (10) a representative of power generation companies
8 appointed by the chief of the Texas Division of Emergency
9 Management;

10 (11) two representatives of transmission and
11 distribution utilities appointed by the chief of the Texas Division
12 of Emergency Management;

13 (12) three individuals with expertise in critical
14 infrastructure protection appointed by the chief of the Texas
15 Division of Emergency Management, to represent the public interest;

16 (13) one representative appointed by the chief of the
17 Texas Division of Emergency Management from each of the following
18 essential services sectors:

19 (A) law enforcement;

20 (B) emergency services;

21 (C) communications;

22 (D) water and sewer services;

23 (E) health care;

24 (F) financial services;

25 (G) food and agriculture;

26 (H) transportation; and

27 (I) energy;

1 (14) an expert in the field of higher education
2 appointed by the chief of the Texas Division of Emergency
3 Management; and

4 (15) an expert in the field of electricity markets and
5 regulations appointed by the chief of the Texas Division of
6 Emergency Management.

7 (b) The chief of the Texas Division of Emergency Management
8 may invite members or former members of the United States Air
9 Force's Electromagnetic Defense Task Force to the membership of the
10 security commission.

11 (c) The Texas Division of Emergency Management shall
12 designate a member of the security commission to serve as presiding
13 officer.

14 (d) The presiding officer may invite to the membership of
15 the security commission any person whose expertise the security
16 commission considers necessary to carry out the purposes of this
17 chapter.

18 (e) The security commission shall convene at the call of the
19 presiding officer.

20 (f) The security commission shall report to the chief of the
21 Texas Division of Emergency Management.

22 (g) A vacancy on the security commission is filled by
23 appointment for the unexpired term in the same manner as the
24 original appointment.

25 (h) To the extent possible, individuals appointed to the
26 security commission must be residents of this state.

27 (i) The presiding officer of the security commission or the

1 chief of the Texas Division of Emergency Management may invite
2 subject matter experts to advise the security commission, including
3 individuals recognized as experts in the fields of electricity
4 markets, cybersecurity of grid control systems, electromagnetic
5 pulse mitigation, terrestrial and solar weather, and micro-grids.
6 The presiding officer may invite an individual for this purpose
7 regardless of whether the individual is a resident of this state.

8 Sec. 44.003. EXECUTIVE COMMITTEE. (a) The security
9 commission executive committee is composed of the following
10 security commission members selected by the presiding officer:

11 (1) a representative of the Texas Division of
12 Emergency Management;

13 (2) a representative of the Railroad Commission of
14 Texas;

15 (3) a representative of the commission;

16 (4) a representative of the independent organization
17 certified under Section 39.151 for the ERCOT power region;

18 (5) two representatives of transmission and
19 distribution utilities; and

20 (6) a representative of power generation companies or
21 another member of the security commission with expertise in power
22 generation.

23 (b) If two or more members or former members of the United
24 States Air Force's Electromagnetic Defense Task Force join the
25 security commission after being invited under Section 44.002(b),
26 the presiding officer shall select two of those members to serve on
27 the executive committee.

1 (c) The security commission may not adopt a resilience
2 standard under Section 44.006 unless the executive committee
3 approves the standard.

4 Sec. 44.004. GRID RESILIENCE INFORMATION. (a) Each of the
5 following members of the security commission shall apply for a
6 secret security clearance or an interim secret security clearance
7 to be granted by the federal government:

8 (1) the representative of the independent
9 organization certified under Section 39.151 for the ERCOT region;

10 (2) the representative of the Texas Division of
11 Emergency Management; and

12 (3) the representative of the State Office of Risk
13 Management.

14 (b) A member of the security commission listed under
15 Subsection (a) who is granted an applicable security clearance
16 under that subsection is a member of the information security
17 working group.

18 (c) The information security working group shall determine:

19 (1) which information received by the security
20 commission that is used in determining the vulnerabilities of the
21 electric grid or that is related to measures to be taken to protect
22 the grid is confidential and not subject to Chapter 552, Government
23 Code;

24 (2) which members of the security commission may
25 access which types of information received by the security
26 commission; and

27 (3) which members, other than members of the working

1 group, should apply for a secret security clearance or interim
2 clearance granted by the federal government.

3 (d) Information that the information security working group
4 determines is confidential under Subsection (c) shall be stored and
5 maintained by the independent organization certified under Section
6 39.151 for the ERCOT power region.

7 (e) The security commission must maintain a reasonable
8 balance between public transparency and security for information
9 determined to be confidential under Subsection (c).

10 (f) Nothing in this section abrogates any rights or remedies
11 under Chapter 552, Government Code.

12 Sec. 44.005. GRID RESILIENCE EVALUATION. (a) The security
13 commission shall evaluate, using available information on past
14 blackouts in ERCOT, all hazards to the ERCOT electric grid,
15 including threats that can cause future blackouts. The security
16 commission shall evaluate the resilience of municipalities in this
17 state in the following essential areas:

18 (1) emergency services;

19 (2) communications systems;

20 (3) clean water and sewer services;

21 (4) health care systems;

22 (5) financial services;

23 (6) energy systems, including an evaluation of whether
24 energy, electric power, and fuel supplies are protected and
25 available for recovery in the event of a catastrophic power outage;
26 and

27 (7) transportation systems.

1 (b) The security commission may create groups or teams to
2 address each hazard as necessary. The security commission must
3 assess each hazard both on the likelihood of occurrence of the
4 hazard and the potential consequences of the hazard.

5 (c) The security commission shall identify methods by which
6 this state can support an overall national deterrence policy as
7 proposed by the Cyberspace Solarium Commission, including by:

8 (1) identifying means to ensure that all hazards
9 resilience for electric utilities supports critical national
10 security functions in this state; and

11 (2) engaging the Texas National Guard to be trained as
12 first responders to cybersecurity threats to the ERCOT electric
13 grid and other critical infrastructure.

14 (d) The security commission shall evaluate nuclear
15 generation sites in this state, the resilience of each nuclear
16 reactor to all hazards, and the resilience to all hazards of
17 off-site power for critical safety systems that support the reactor
18 and spent fuel. The security commission may communicate with the
19 Nuclear Regulatory Commission to accomplish the evaluation.

20 (e) The security commission shall evaluate current Critical
21 Infrastructure Protection standards established by the North
22 American Electric Reliability Corporation and standards set by the
23 National Institute of Standards and Technology to determine the
24 most appropriate standards for protecting grid infrastructure in
25 this state.

26 (f) The security commission shall investigate the steps
27 that local communities and other states have taken to address grid

1 resilience. The security commission may request funding to conduct
2 site visits to these locations as required.

3 (g) The security commission shall identify universities
4 based in this state that have expertise in cybersecurity and other
5 matters that can contribute to the security commission's goal of
6 mitigating all hazards to the grid in this state.

7 (h) In carrying out the security commission's duties under
8 this section, the security commission may solicit information from:

9 (1) defense contractors with experience protecting
10 defense systems from electromagnetic pulse;

11 (2) electric utilities that have developed
12 electromagnetic pulse protections for the utilities' grid assets;

13 (3) the United States Department of Homeland Security;

14 and

15 (4) the Commission to Assess the Threat to the United
16 States from Electromagnetic Pulse (EMP) Attack.

17 Sec. 44.006. RESILIENCE STANDARDS. (a) Based on the
18 findings of the evaluations and investigations conducted under
19 Section 44.005, the security commission shall develop and adopt
20 resilience standards for municipalities and critical components of
21 the ERCOT electric grid.

22 (b) Standards developed and adopted for energy systems of
23 municipalities must include provisions to ensure that energy,
24 electric power, and fuel supplies are protected and available for
25 recovery in the event of a catastrophic power outage.

26 Sec. 44.007. CONTRACTOR SUPPORT FOR CRITICAL SYSTEM AND
27 COMPONENT RESILIENCE. (a) The State Office of Risk Management,

1 with assistance from the security commission, shall select
2 contractors with proven expertise to identify critical systems and
3 components of the ERCOT electric grid vulnerable to hazards
4 described by Section 44.005(a) with a specific emphasis on the most
5 dangerous cyber and electromagnetic threats.

6 (b) A contractor selected under Subsection (a) must
7 identify the critical components, including industrial control
8 systems, not later than six months after the date the contractor is
9 engaged.

10 (c) Not later than January 1, 2025, an entity that owns or
11 operates a component identified by a contractor under Subsection
12 (a) as critical shall upgrade the component as necessary for the
13 component to meet the applicable standards set by the security
14 commission under Section 44.006.

15 (d) The State Office of Risk Management shall select
16 contractors with demonstrated expertise to verify whether an entity
17 with a component identified as critical under Subsection (a) has
18 upgraded components as required by Subsection (c).

19 Sec. 44.008. PLAN FOR ALL HAZARDS RESILIENCE. (a) Not
20 later than January 1, 2024, the security commission shall prepare
21 and deliver to the legislature a plan for protecting the ERCOT
22 electric grid from all hazards, including a catastrophic loss of
23 power in the state.

24 (b) The plan must include:

25 (1) weatherizing requirements to prevent blackouts
26 from extreme cold weather events, an analysis of whether these
27 requirements would induce cyber vulnerabilities, and an analysis of

1 the associated costs for these requirements;

2 (2) provisions for installing, replacing, or
3 upgrading industrial control systems and associated networks, or
4 the use of compensating controls or procedures, in critical
5 facilities to address cyber vulnerabilities;

6 (3) provisions for installing, replacing, or
7 upgrading extra high-voltage power transformers and supervisory
8 control and data acquisition systems to withstand 100
9 kilovolts/meter E1 electromagnetic pulses and 85 volts/kilometer
10 E3 electromagnetic pulses;

11 (4) a timeline for making improvements to remaining
12 infrastructure to meet resilience standards adopted by the security
13 commission under Section 44.006;

14 (5) long-term resilience provisions for supporting
15 industries including:

16 (A) nuclear reactors, materials, and waste;

17 (B) fuel supply;

18 (C) health care;

19 (D) communications;

20 (E) water and sewer services;

21 (F) food supply; and

22 (G) transportation; and

23 (6) any additional provisions considered necessary by
24 the security commission.

25 (c) The security commission may consult with the Private
26 Sector Advisory Council in developing the plan.

27 (d) The Texas Division of Emergency Management shall

1 incorporate the plan into the state emergency management plan and
2 update the state emergency management plan as necessary to
3 incorporate progressive resilience improvements.

4 Sec. 44.009. GRID RESILIENCE REPORT. (a) Not later than
5 January 1 of each year, the security commission shall prepare and
6 deliver a nonclassified report to the legislature, the governor,
7 and the commission assessing natural and man-made threats to the
8 electric grid and efforts to mitigate the threats.

9 (b) The security commission shall make the report available
10 to the public.

11 (c) In preparing the report, the security commission may
12 hold confidential or classified briefings with federal, state, and
13 local officials as necessary.

14 Sec. 44.010. RESILIENCE COST RECOVERY. A regulatory
15 authority shall include in establishing the rates of an electric
16 utility consideration of the costs incurred to install, replace, or
17 upgrade facilities or equipment to meet a resilience standard
18 established under this chapter. A regulatory authority shall
19 presume that costs incurred to meet a resilience standard under
20 this chapter are reasonable and necessary expenses.

21 Sec. 44.011. MICRO-GRIDS. (a) The security commission
22 shall establish resilience standards for micro-grids and certify a
23 micro-grid that meets the standards. The standards must be
24 developed for both alternating current and direct current
25 micro-grids.

26 (b) Except as provided by Subsection (c), a municipality or
27 other political subdivision may not enact or enforce an ordinance

1 or other measure that bans, limits, or otherwise regulates inside
2 the boundaries or extraterritorial jurisdiction of the
3 municipality or political subdivision a micro-grid that is
4 certified by the security commission under this section.

5 (c) The owner or operator of a micro-grid certified by the
6 security commission is a power generation company and is required
7 to register under Section 39.351(a). The owner or operator of the
8 micro-grid is entitled to:

9 (1) interconnect the micro-grid;

10 (2) obtain transmission service for the micro-grid;

11 and

12 (3) use the micro-grid to sell electricity and
13 ancillary services at wholesale in a manner consistent with the
14 provisions of this title and commission rules applicable to a power
15 generation company or an exempt wholesale generator.

16 Sec. 44.012. COMPLIANCE AND ENFORCEMENT. (a) The
17 commission by rule shall require entities that the commission
18 determines operate critical components of the ERCOT electric grid
19 to comply with resilience standards adopted by the security
20 commission under this chapter. This subsection applies only to an
21 entity that is subject to the jurisdiction of the commission under
22 another provision of this subtitle. The commission may impose an
23 administrative penalty, in the manner provided by Chapter 15, on an
24 entity that is subject to the jurisdiction of the commission under
25 another provision of this subtitle for a violation of a resilience
26 standard or of Subsection (b).

27 (b) The commission by rule shall require each entity

1 described by Subsection (a) to make publicly available on an
2 Internet website the entity's compliance status with the resilience
3 standards.

4 (c) The Railroad Commission of Texas by rule shall require
5 entities that the Railroad Commission of Texas determines operate
6 critical components of the ERCOT electric grid to comply with
7 resilience standards adopted by the security commission under this
8 chapter. This subsection applies only to an entity that is subject
9 to the jurisdiction of the Railroad Commission of Texas under
10 Section 81.051, Natural Resources Code. The Railroad Commission of
11 Texas may impose an administrative penalty, in the manner provided
12 by Chapter 81, Natural Resources Code, on an entity that is subject
13 to the jurisdiction of the Railroad Commission of Texas under
14 Section 81.051, Natural Resources Code, for a violation of a
15 resilience standard or of Subsection (d).

16 (d) The Railroad Commission of Texas by rule shall require
17 each entity described by Subsection (c) to make publicly available
18 on an Internet website the entity's compliance status with the
19 resilience standards.

20 SECTION 3. Not later than January 1, 2025, the Texas Grid
21 Security Commission shall prepare and deliver a report to the
22 legislature on the progress of implementing resilience standards
23 adopted and implemented under Sections 44.006 and 44.007, Utilities
24 Code, as added by this Act.

25 SECTION 4. This Act takes effect immediately if it receives
26 a vote of two-thirds of all the members elected to each house, as
27 provided by Section 39, Article III, Texas Constitution. If this

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1 Act does not receive the vote necessary for immediate effect, this

2 Act takes effect September 1, 2023.