

By: Hall

S.B. No. 23

A BILL TO BE ENTITLED

AN ACT

relating to the resilience of the electric grid and certain municipalities.

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 environmental justice issues such as 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18 superseded social distancing protocols;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) the governor has declared reform of the
8 independent organization certified under Section 39.151, Utilities
9 Code, for the ERCOT power region as an emergency item for the 87th
10 Legislature;

11 (8) public confidence in the resilience of the
12 electric grid in this state is essential to ensuring environmental
13 justice, economic prosperity, domestic tranquility, continuity of
14 government, and life-sustaining systems;

15 (9) a resilient electric grid that offers businesses
16 in this state continuity of operations in the event of a natural or
17 man-made disaster will be an unrivaled attraction for businesses to
18 expand or move their operations to this state and will protect what
19 is important to this state, including its military installations
20 and its environment;

21 (10) current market incentives and regulations are not
22 sufficient for electric utilities to:

23 (A) prioritize grid security and resilience; and

24 (B) protect the grid against hazards;

25 (11) protection of the electric grid in this state
26 against hazards would assure businesses and the citizens of this
27 state that the "lights will be back on first in Texas" in the event

1 of a nationwide catastrophe affecting electric infrastructure,
2 sparing catastrophic societal and environmental consequences for
3 this state; and

4 (12) when this state begins implementation of the plan
5 for all hazards resilience described by Section 44.007, Utilities
6 Code, as added by this Act, to protect the electric grid in this
7 state, short-term and long-term economic benefit will far exceed
8 even the most optimistic estimates of the conventional economic
9 incentives provided by tax abatements to attract businesses to this
10 state.

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

13 CHAPTER 44. GRID RESILIENCE

14 Sec. 44.001. DEFINITIONS. In this chapter:

15 (1) "All hazards" means:

16 (A) terrestrial weather including wind,
17 hurricanes, tornadoes, flooding, ice storms, extended cold weather
18 events, heat waves, and wildfires;

19 (B) seismic events including earthquakes and
20 tsunamis;

21 (C) physical threats including terrorist attacks
22 with direct fire, drones, explosives, and other methods of physical
23 sabotage;

24 (D) cyber attacks including malware attacks and
25 hacking of unprotected or compromised information technology
26 networks;

27 (E) manipulation of operational technology

1 devices including sensors, actuators, and drives;

2 (F) electromagnetic threats through man-made
3 radio frequency weapons, high altitude nuclear electromagnetic
4 pulse, and naturally occurring geomagnetic disturbances;

5 (G) vulnerabilities regarding installed
6 generation capacity located in, or capable of delivering
7 electricity to, this state;

8 (H) electric generation supply chain
9 vulnerabilities including insecure or inadequate fuel
10 transportation or storage; and

11 (I) insider threats caused by compromised or
12 hostile personnel working within government or the utility
13 industry.

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

18 (3) "Security commission" means the Texas Grid
19 Security Commission.

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

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

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

26 (3) a representative of the independent organization
27 certified under Section 39.151 for the ERCOT power region appointed

1 by the chief executive officer of that organization;

2 (4) a representative of the Texas Military Department
3 appointed by the adjutant general of that department;

4 (5) a representative of the Texas Military
5 Preparedness Commission appointed by that commission;

6 (6) a representative of the Office of State-Federal
7 Relations appointed by the director of that office;

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

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

13 (9) two representatives of transmission and
14 distribution utilities appointed by the chief of the Texas Division
15 of Emergency Management;

16 (10) three individuals with expertise in critical
17 infrastructure protection appointed by the chief of the Texas
18 Division of Emergency Management, to represent the public interest;

19 (11) one representative appointed by the chief of the
20 Texas Division of Emergency Management from each of the following
21 essential services sectors:

22 (A) law enforcement;

23 (B) emergency services;

24 (C) communications;

25 (D) water and sewer services;

26 (E) health care;

27 (F) financial services;

1 (G) food and agriculture;

2 (H) transportation; and

3 (I) energy;

4 (12) an expert in the field of higher education
5 appointed by the chief of the Texas Division of Emergency
6 Management; and

7 (13) an expert in the field of electricity markets and
8 regulations appointed by the chief of the Texas Division of
9 Emergency Management.

10 (b) The chief of the Texas Division of Emergency Management
11 may invite members or former members of the United States Air
12 Force's Electromagnetic Defense Task Force to advise the security
13 commission.

14 (c) The Texas Division of Emergency Management shall
15 designate a member of the security commission to serve as presiding
16 officer.

17 (d) The security commission shall convene at the call of the
18 presiding officer.

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

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

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

26 (h) The presiding officer of the security commission or the
27 chief of the Texas Division of Emergency Management may invite

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

7 Sec. 44.003. GRID RESILIENCE INFORMATION. (a) Each of the
8 following members of the security commission shall apply for a
9 secret security clearance or an interim secret security clearance
10 to be granted by the federal government:

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

13 (2) the representative of the Texas Division of
14 Emergency Management; and

15 (3) the representative of the State Office of Risk
16 Management.

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

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

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

27 (2) which members of the security commission may

1 access which types of information received by the security
2 commission; and

3 (3) which members, other than members of the working
4 group, should apply for a secret security clearance or interim
5 clearance granted by the federal government.

6 (d) Information that the information security working group
7 determines is confidential under Subsection (c) shall be stored and
8 maintained by the independent organization certified under Section
9 39.151 for the ERCOT power region.

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

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

15 Sec. 44.004. GRID RESILIENCE EVALUATION. (a) The security
16 commission shall evaluate, using available information on past
17 blackouts in ERCOT, all hazards to the ERCOT electric grid,
18 including threats which can cause future blackouts.

19 (b) The security commission may create groups or teams to
20 address each hazard as necessary. The security commission must
21 assess each hazard both on the likelihood of occurrence of the
22 hazard and the potential consequences of the hazard.

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

26 (1) identifying means to ensure that all hazards
27 resilience for electric utilities supports critical national

1 security functions in this state; and

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

5 (d) The security commission shall evaluate nuclear
6 generation sites in this state, the resilience of each nuclear
7 reactor to all hazards, and the resilience to all hazards of
8 off-site power for critical safety systems that support the reactor
9 and spent fuel. The security commission may communicate with the
10 Nuclear Regulatory Commission to accomplish the evaluation.

11 (e) The security commission shall evaluate current Critical
12 Infrastructure Protection standards established by the North
13 American Electric Reliability Corporation and standards set by the
14 National Institute of Standards and Technology to determine the
15 most appropriate standards for protecting grid infrastructure in
16 this state.

17 (f) The security commission shall investigate the steps
18 that local communities and other states have taken to address grid
19 resilience. The security commission may request funding to conduct
20 site visits to these locations as required.

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

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

27 (1) defense contractors with experience protecting

1 defense systems from electromagnetic pulse;

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

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

5 and

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

8 Sec. 44.005. GRID RESILIENCE STANDARDS. Based on the
9 findings of the evaluations and investigations conducted under
10 Section 44.004, the security commission shall develop resilience
11 standards for critical components of the ERCOT electric grid.

12 Sec. 44.006. CONTRACTOR SUPPORT FOR CRITICAL SYSTEM AND
13 COMPONENT RESILIENCE. (a) The State Office of Risk Management,
14 with assistance from the security commission, shall select
15 contractors with proven expertise to identify critical systems and
16 components of the ERCOT electric grid vulnerable to hazards
17 described by Section 44.004(a) with a specific emphasis on the most
18 dangerous cyber and electromagnetic threats.

19 (b) A contractor selected under Subsection (a) must
20 identify the critical components, including industrial control
21 systems, not later than six months after the date the contractor is
22 engaged.

23 (c) Not later than January 1, 2023, an entity that owns or
24 operates a component identified by a contractor under Subsection
25 (a) as critical shall upgrade the component as necessary for the
26 component to meet the applicable standards set by the security
27 commission under Section 44.005.

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

5 Sec. 44.007. PLAN FOR ALL HAZARDS RESILIENCE. (a) Not
6 later than January 1, 2022, the security commission shall prepare
7 and deliver to the legislature a plan for protecting the ERCOT
8 electric grid from all hazards, including a catastrophic loss of
9 power in the state.

10 (b) The plan must include:

11 (1) weatherizing requirements that may be implemented
12 not later than January 1, 2023, to prevent blackouts from extreme
13 cold weather events, an analysis of whether these requirements
14 would induce cyber vulnerabilities, and an analysis of the
15 associated costs for these requirements;

16 (2) provisions that may be implemented not later than
17 January 1, 2023, for installing, replacing, or upgrading industrial
18 control systems and associated networks, or the use of compensating
19 controls or procedures, in critical facilities to address cyber
20 vulnerabilities;

21 (3) provisions that may be implemented not later than
22 January 1, 2026, for installing, replacing, or upgrading extra
23 high-voltage power transformers and supervisory control and data
24 acquisition systems to withstand 100 kilovolts/meter E1
25 electromagnetic pulses and 85 volts/kilometer E3 electromagnetic
26 pulses;

27 (4) a timeline for making improvements to remaining

1 infrastructure to meet standards set by the security commission
2 under Section 44.005;

3 (5) long-term resilience provisions for supporting
4 industries including:

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

6 (B) fuel supply;

7 (C) health care;

8 (D) communications;

9 (E) water and sewer services;

10 (F) food supply; and

11 (G) transportation; and

12 (6) any additional provisions considered necessary by
13 the security commission.

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

16 (d) The Texas Division of Emergency Management shall
17 incorporate the plan into the state emergency management plan and
18 update the state emergency management plan as necessary to
19 incorporate progressive resilience improvements.

20 Sec. 44.008. GRID RESILIENCE REPORT. (a) Not later than
21 January 1 of each year, the security commission shall prepare and
22 deliver a nonclassified report to the legislature, the governor,
23 and the commission assessing natural and man-made threats to the
24 electric grid and efforts to mitigate the threats.

25 (b) The security commission shall make the report available
26 to the public.

27 (c) In preparing the report, the security commission may

1 hold confidential or classified briefings with federal, state, and
2 local officials as necessary.

3 Sec. 44.009. ALTERNATIVE TIMELINE OR STANDARD. A panel
4 composed of members of the security commission may approve a
5 resilience standard or implementation timeline for an electric
6 utility or other entity that differs from a resilience standard or
7 implementation timeline adopted under Section 44.006.

8 Sec. 44.010. RESILIENCE COST RECOVERY. A regulatory
9 authority shall include in establishing the rates of an electric
10 utility consideration of the costs incurred to install, replace, or
11 upgrade facilities or equipment to meet a resilience standard
12 established under this chapter. A regulatory authority shall
13 presume that costs incurred to meet a resilience standard under
14 this chapter are reasonable and necessary expenses.

15 Sec. 44.011. MICRO-GRIDS. (a) The security commission
16 shall establish resilience standards for micro-grids and certify a
17 micro-grid that meets the standards. The standards must be
18 developed for both alternating current and direct current
19 micro-grids.

20 (b) Except as provided by Subsection (c), a municipality or
21 other political subdivision may not enact or enforce an ordinance
22 or other measure that bans, limits, or otherwise regulates inside
23 the boundaries or extraterritorial jurisdiction of the
24 municipality or political subdivision a micro-grid that is
25 certified by the security commission under this section.

26 (c) The owner or operator of a micro-grid certified by the
27 security commission is a power generation company and is required

1 to register under Section 39.351(a). The owner or operator of the
2 micro-grid is entitled to:

3 (1) interconnect the micro-grid;

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

5 and

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

10 SECTION 3. Chapter 380, Local Government Code, is amended
11 by adding Section 380.005 to read as follows:

12 Sec. 380.005. FIVE STAR GOLD RESILIENT COMMUNITIES. (a)
13 The Texas Grid Security Commission shall establish resilience
14 standards for municipalities in the following essential service
15 areas:

16 (1) emergency services;

17 (2) communications systems;

18 (3) clean water and sewer services;

19 (4) health care systems;

20 (5) financial services;

21 (6) energy systems; and

22 (7) transportation systems.

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

27 (c) On the application of a municipality for the

1 designation, the Texas Grid Security Commission may designate a
2 municipality that meets the resilience standards in the applicable
3 service area as:

- 4 (1) a Resilient Emergency Services Community;
- 5 (2) a Resilient Communications Systems Community;
- 6 (3) a Resilient Clean Water and Sewer Services
7 Community;
- 8 (4) a Resilient Health Care Systems Community;
- 9 (5) a Resilient Financial Services Community;
- 10 (6) a Resilient Energy Community; or
- 11 (7) a Resilient Transportation Community.

12 (d) The Texas Grid Security Commission may designate a
13 municipality that meets the resilience standards in five of the
14 seven service areas as a Five Star Gold Resilient Community.

15 (e) A municipality may not use a resilient community
16 designation in advertising, marketing, or economic development
17 initiatives unless the Texas Grid Security Commission has awarded
18 the municipality with the designation in the applicable service
19 area or as a Five Star Gold Resilient Community.

20 SECTION 4. Not later than January 1, 2023, 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 44.005 and 44.006, Utilities
24 Code, as added by this Act.

25 SECTION 5. 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 on the 91st day after the last day of the
3 legislative session.