

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.

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

SECTION 1. The legislature finds that:

(1) electric grid outages 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 power outage 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18 superseded social distancing protocols;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 power outage occurred in  
20 this state in February 2011 during which 4.4 million customers were  
21 affected;

22 (5) this state is uniquely positioned to prevent power  
23 outages 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 power outages call into  
27 question:

1 (A) whether too much risk has been accepted  
2 regarding weatherization of electric generation infrastructure;

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

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

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

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

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

20 (A) prioritize grid security and resilience; and

21 (B) protect the grid against hazards;

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

1           (11) when this state begins implementation of the plan  
2 for all hazards resilience described by Section 44.006, Utilities  
3 Code, as added by this Act, to protect the electric grid in this  
4 state, short-term and long-term economic benefit will far exceed  
5 even the most optimistic estimates of the conventional economic  
6 incentives provided by tax abatements to attract businesses to this  
7 state.

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

10                           CHAPTER 44. GRID RESILIENCE

11           Sec. 44.001. DEFINITIONS. In this chapter:

12                   (1) "All hazards" means:

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

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

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

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

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

26                           (F) electromagnetic threats through man-made  
27 radio frequency weapons, high-altitude nuclear electromagnetic

1 pulse, and naturally occurring geomagnetic disturbances;

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

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

8 (2) "Micro-grid" means a group of interconnected loads  
9 and distributed energy resources inside clearly defined electrical  
10 boundaries.

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 commission appointed by  
18 that commission;

19 (3) a representative of the Railroad Commission of  
20 Texas appointed by that commission;

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

24 (5) a representative of power generation companies  
25 appointed by the chief of the Texas Division of Emergency  
26 Management; and

27 (6) a representative of transmission and distribution

1 utilities appointed by the chief of the Texas Division of Emergency  
2 Management.

3 (b) The chief of the Texas Division of Emergency Management  
4 may invite members or former members of the United States Air  
5 Force's Electromagnetic Defense Task Force to advise the security  
6 commission.

7 (c) The Texas Division of Emergency Management shall  
8 designate a member of the security commission to serve as presiding  
9 officer.

10 (d) The presiding officer may invite to advise the security  
11 commission any person whose expertise the security commission  
12 considers necessary to carry out the purposes of this chapter.

13 (e) The security commission shall convene at the call of the  
14 presiding officer.

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

17 (g) A vacancy on the security commission is filled by  
18 appointment for the unexpired term in the same manner as the  
19 original appointment.

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

22 (i) The presiding officer of the security commission or the  
23 chief of the Texas Division of Emergency Management may invite  
24 subject matter experts to advise the security commission, including  
25 individuals recognized as experts in the fields of law enforcement,  
26 emergency services, communications, water and sewer services,  
27 health care, financial services, agriculture, transportation,

1 electricity markets, cybersecurity of grid control systems,  
2 electromagnetic pulse mitigation, terrestrial and solar weather,  
3 and micro-grids. The presiding officer may invite an individual  
4 for this purpose regardless of whether the individual is a resident  
5 of this state.

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

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

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

15 (3) the representative of the commission.

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

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

21 (1) which information created or obtained by the  
22 security commission is confidential;

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

26 (3) which members, other than members of the working  
27 group, should apply for a secret security clearance or interim

1 clearance granted by the federal government.

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

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

9 (f) Confidential information created or obtained by the  
10 security commission is not subject to disclosure under Chapter 552,  
11 Government Code.

12 (g) A meeting of the security commission that involves the  
13 discussion of confidential information is not subject to Chapter  
14 551, Government Code.

15 Sec. 44.004. GRID RESILIENCE EVALUATION. (a) The security  
16 commission shall evaluate, using available information on past  
17 power outages in ERCOT, all hazards to the ERCOT electric grid,  
18 including threats that can cause future outages. The security  
19 commission shall evaluate the resilience of municipalities in this  
20 state in the following essential areas:

- 21 (1) emergency services;
- 22 (2) communications systems;
- 23 (3) water and sewer services;
- 24 (4) health care systems;
- 25 (5) financial services;
- 26 (6) energy systems, including an evaluation of whether  
27 energy, electric power, and fuel supplies are protected and



1 available for recovery in the event of a catastrophic power outage;  
2 and

3 (7) transportation systems.

4 (b) The security commission may create groups or teams to  
5 identify and address each hazard as necessary. The security  
6 commission must assess each hazard both on the likelihood of  
7 occurrence of the hazard and the potential consequences of the  
8 hazard.

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

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

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

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

24 (e) The security commission shall evaluate current Critical  
25 Infrastructure Protection standards established by the North  
26 American Electric Reliability Corporation and standards set by the  
27 National Institute of Standards and Technology to determine the

1 most appropriate standards for protecting grid infrastructure in  
2 this state.

3 (f) The security commission shall investigate the steps  
4 that local communities and other states have taken to address grid  
5 resilience. The security commission may request funding from the  
6 Texas Division of Emergency Management to conduct site visits to  
7 these locations as required.

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

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

14 (1) defense contractors with experience protecting  
15 defense systems from electromagnetic pulse;

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

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

19 and

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

22 Sec. 44.005. RESILIENCE STANDARDS. (a) Based on the  
23 findings of the evaluations and investigations conducted under  
24 Section 44.004, the security commission shall consider and  
25 recommend resilience standards for municipalities and critical  
26 components of the ERCOT electric grid.

27 (b) Standards considered and recommended for energy systems

1 of municipalities should include provisions to ensure that energy,  
2 electric power, and fuel supplies are protected and available for  
3 recovery in the event of a catastrophic power outage.

4 (c) Not later than October 1, 2024, the security commission  
5 shall prepare and deliver a report to the legislature on the  
6 recommended resilience standards as required under this section and  
7 an anticipated timeline for implementation of the standards.

8 Sec. 44.006. PLAN FOR ALL HAZARDS RESILIENCE. (a) Not  
9 later than October 1, 2024, the security commission shall prepare  
10 and deliver to the legislature a plan for protecting the ERCOT  
11 electric grid from all hazards, including a catastrophic loss of  
12 power in the state.

13 (b) The plan must include:

14 (1) weatherizing requirements to prevent power  
15 outages from extreme cold weather events, an analysis of whether  
16 these requirements would induce cyber vulnerabilities, and an  
17 analysis of the associated costs for these requirements;

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

22 (3) provisions for installing, replacing, or  
23 upgrading extra high-voltage power transformers and supervisory  
24 control and data acquisition systems to withstand 100  
25 kilovolts/meter E1 electromagnetic pulses and 85 volts/kilometer  
26 E3 electromagnetic pulses;

27 (4) a timeline for making improvements to remaining

1 infrastructure to meet resilience standards adopted by the security  
2 commission 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 Sec. 44.007. GRID RESILIENCE REPORT. (a) Not later than  
17 January 1 of each year, the security commission shall prepare and  
18 deliver a nonclassified report to the legislature, the governor,  
19 and the commission assessing natural and man-made threats to the  
20 electric grid and efforts to mitigate the threats.

21 (b) The security commission shall make the report available  
22 to the public.

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

26 Sec. 44.008. MICRO-GRIDS. The security commission shall  
27 recommend resilience standards for micro-grids. The standards must

1 be developed for both alternating current and direct current.

2           SECTION 3. This Act takes effect immediately if it receives  
3 a vote of two-thirds of all the members elected to each house, as  
4 provided by Section 39, Article III, Texas Constitution. If this  
5 Act does not receive the vote necessary for immediate effect, this  
6 Act takes effect September 1, 2023.