

1-1 By: Hall, et al. S.B. No. 330
 1-2 (In the Senate - Filed December 21, 2022; February 15, 2023,
 1-3 read first time and referred to Committee on Business & Commerce;
 1-4 April 19, 2023, reported adversely, with favorable Committee
 1-5 Substitute by the following vote: Yeas 8, Nays 1, one present not
 1-6 voting; April 19, 2023, sent to printer.)

1-7 COMMITTEE VOTE

	Yea	Nay	Absent	PNV
1-8				
1-9	X			
1-10			X	
1-11	X			
1-12	X			
1-13	X			
1-14		X		
1-15	X			
1-16	X			
1-17	X			
1-18	X			
1-19				X

1-20 COMMITTEE SUBSTITUTE FOR S.B. No. 330 By: Schwertner

1-21 A BILL TO BE ENTITLED
 1-22 AN ACT

1-23 relating to the resilience of the electric grid and certain
 1-24 municipalities.

1-25 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

1-26 SECTION 1. The legislature finds that:

1-27 (1) electric grid outages threaten the lives of the
 1-28 citizens of this state and pose a disproportionately large risk to:

1-29 (A) the elderly, vulnerable, and underprivileged
 1-30 within this state; and

1-31 (B) communities facing disproportionate
 1-32 environmental health burdens and population vulnerabilities
 1-33 relating to facilities such as chemical plants and refineries that
 1-34 can become environmental disaster areas when taken off-line due to
 1-35 loss of electricity;

1-36 (2) the 16 critical infrastructures identified in
 1-37 President Barack Obama's Presidential Policy Directive "Critical
 1-38 Infrastructure Security and Resilience" (PPD-21) including water
 1-39 and wastewater systems, food and agriculture, communications
 1-40 systems, the energy sector including refineries and fuel
 1-41 distribution systems, chemical plants, the financial sector,
 1-42 hospitals and health care facilities, law enforcement and
 1-43 government facilities, nuclear reactors, and other critical
 1-44 functions depend on the electric grid in this state and make the
 1-45 grid's protection vital to the economy of this nation and homeland
 1-46 security;

1-47 (3) the power outage that occurred in this state in
 1-48 February 2021 caused:

1-49 (A) death and suffering in this state;

1-50 (B) economic loss to this state's economy;

1-51 (C) impacts to all critical infrastructures in
 1-52 this state;

1-53 (D) the dispatch of generation units that likely
 1-54 exceeded limits established by the Environmental Protection Agency
 1-55 for sulfur dioxide, nitrogen oxide, mercury, and carbon monoxide
 1-56 emissions and wastewater release limits;

1-57 (E) radically increased pricing of electricity
 1-58 that resulted in making electric power bills unaffordable to many
 1-59 customers across this state; and

1-60 (F) the exacerbation of the COVID-19 pandemic

2-1 risk by forcing many of the state's citizens to consolidate at
2-2 warming centers and in other small spaces where warmth for survival
2-3 superseded social distancing protocols;

2-4 (4) a previous large-scale power outage occurred in
2-5 this state in February 2011 during which 4.4 million customers were
2-6 affected;

2-7 (5) this state is uniquely positioned to prevent power
2-8 outages because this state is a net exporter of energy and is the
2-9 only state with an electric grid almost exclusively within its
2-10 territorial boundaries;

2-11 (6) the 2011 and 2021 power outages call into
2-12 question:

2-13 (A) whether too much risk has been accepted
2-14 regarding weatherization of electric generation infrastructure;

2-15 (B) whether this state lacks the internal
2-16 distribution structure and control systems to manage rolling
2-17 outages; and

2-18 (C) whether sufficient resources have been
2-19 allocated toward overall grid resilience;

2-20 (7) public confidence in the resilience of the
2-21 electric grid in this state is essential to ensuring economic
2-22 prosperity, domestic tranquility, continuity of government, and
2-23 life-sustaining systems;

2-24 (8) a resilient electric grid that offers businesses
2-25 in this state continuity of operations in the event of a natural or
2-26 man-made disaster will be an unrivaled attraction for businesses to
2-27 expand or move their operations to this state and for protecting
2-28 what is important to this state, including its military
2-29 installations and its environment;

2-30 (9) current market incentives and regulations are not
2-31 sufficient for electric utilities to:

2-32 (A) prioritize grid security and resilience; and

2-33 (B) protect the grid against hazards;

2-34 (10) protection of the electric grid in this state
2-35 against hazards would assure businesses and the citizens of this
2-36 state that the "lights will be back on first in Texas" in the event
2-37 of a nationwide catastrophe affecting electric infrastructure,
2-38 sparing catastrophic societal and environmental consequences for
2-39 this state; and

2-40 (11) when this state begins implementation of the plan
2-41 for all hazards resilience described by Section 44.006, Utilities
2-42 Code, as added by this Act, to protect the electric grid in this
2-43 state, short-term and long-term economic benefit will far exceed
2-44 even the most optimistic estimates of the conventional economic
2-45 incentives provided by tax abatements to attract businesses to this
2-46 state.

2-47 SECTION 2. Subtitle B, Title 2, Utilities Code, is amended
2-48 by adding Chapter 44 to read as follows:

2-49 CHAPTER 44. GRID RESILIENCE

2-50 Sec. 44.001. DEFINITIONS. In this chapter:

2-51 (1) "All hazards" means:

2-52 (A) terrestrial weather including wind,
2-53 hurricanes, tornadoes, flooding, ice storms, extended cold weather
2-54 events, heat waves, and wildfires;

2-55 (B) seismic events including earthquakes and
2-56 tsunamis;

2-57 (C) physical threats including terrorist attacks
2-58 with direct fire, drones, explosives, and other methods of physical
2-59 sabotage;

2-60 (D) cyber attacks including malware attacks and
2-61 hacking of unprotected or compromised information technology
2-62 networks;

2-63 (E) manipulation of operational technology
2-64 devices including sensors, actuators, and drives;

2-65 (F) electromagnetic threats through man-made
2-66 radio frequency weapons, high-altitude nuclear electromagnetic
2-67 pulse, and naturally occurring geomagnetic disturbances;

2-68 (G) electric generation supply chain
2-69 vulnerabilities including insecure or inadequate fuel

3-1 transportation or storage; and
3-2 (H) insider threats caused by compromised or
3-3 hostile personnel working within government or the utility
3-4 industry.
3-5 (2) "Micro-grid" means a group of interconnected loads
3-6 and distributed energy resources inside clearly defined electrical
3-7 boundaries.
3-8 (3) "Security commission" means the Texas Grid
3-9 Security Commission.
3-10 Sec. 44.002. TEXAS GRID SECURITY COMMISSION. (a) The Texas
3-11 Grid Security Commission is composed of the following members:
3-12 (1) a representative of the Texas Division of
3-13 Emergency Management appointed by the chief of that division;
3-14 (2) a representative of the commission appointed by
3-15 that commission;
3-16 (3) a representative of the Railroad Commission of
3-17 Texas appointed by that commission;
3-18 (4) a representative of the independent organization
3-19 certified under Section 39.151 for the ERCOT power region appointed
3-20 by the chief executive officer of that organization;
3-21 (5) a representative of power generation companies
3-22 appointed by the chief of the Texas Division of Emergency
3-23 Management; and
3-24 (6) a representative of transmission and distribution
3-25 utilities appointed by the chief of the Texas Division of Emergency
3-26 Management.
3-27 (b) The chief of the Texas Division of Emergency Management
3-28 may invite members or former members of the United States Air
3-29 Force's Electromagnetic Defense Task Force to the membership of the
3-30 security commission.
3-31 (c) The Texas Division of Emergency Management shall
3-32 designate a member of the security commission to serve as presiding
3-33 officer.
3-34 (d) The presiding officer may invite to the membership of
3-35 the security commission any person whose expertise the security
3-36 commission considers necessary to carry out the purposes of this
3-37 chapter.
3-38 (e) The security commission shall convene at the call of the
3-39 presiding officer.
3-40 (f) The security commission shall report to the chief of the
3-41 Texas Division of Emergency Management.
3-42 (g) A vacancy on the security commission is filled by
3-43 appointment for the unexpired term in the same manner as the
3-44 original appointment.
3-45 (h) To the extent possible, individuals appointed to the
3-46 security commission must be residents of this state.
3-47 (i) The presiding officer of the security commission or the
3-48 chief of the Texas Division of Emergency Management may invite
3-49 subject matter experts to advise the security commission, including
3-50 individuals recognized as experts in the fields of law enforcement,
3-51 emergency services, communications, water and sewer services,
3-52 health care, financial services, agriculture, transportation,
3-53 electricity markets, cybersecurity of grid control systems,
3-54 electromagnetic pulse mitigation, terrestrial and solar weather,
3-55 and micro-grids. The presiding officer may invite an individual
3-56 for this purpose regardless of whether the individual is a resident
3-57 of this state.
3-58 Sec. 44.003. GRID RESILIENCE INFORMATION. (a) Each of the
3-59 following members of the security commission shall apply for a
3-60 secret security clearance or an interim secret security clearance
3-61 to be granted by the federal government:
3-62 (1) the representative of the independent
3-63 organization certified under Section 39.151 for the ERCOT power
3-64 region;
3-65 (2) the representative of the Texas Division of
3-66 Emergency Management; and
3-67 (3) the representative of the commission.
3-68 (b) A member of the security commission listed under
3-69 Subsection (a) who is granted an applicable security clearance

4-1 under that subsection is a member of the information security
 4-2 working group.

4-3 (c) The information security working group shall determine:

4-4 (1) which information created or obtained by the
 4-5 security commission is confidential;

4-6 (2) which members of the security commission may
 4-7 access which types of information received by the security
 4-8 commission; and

4-9 (3) which members, other than members of the working
 4-10 group, should apply for a secret security clearance or interim
 4-11 clearance granted by the federal government.

4-12 (d) Information that the information security working group
 4-13 determines is confidential under Subsection (c) shall be stored and
 4-14 maintained by the independent organization certified under Section
 4-15 39.151 for the ERCOT power region.

4-16 (e) The security commission must maintain a reasonable
 4-17 balance between public transparency and security for information
 4-18 determined to be confidential under Subsection (c).

4-19 (f) Confidential information created or obtained by the
 4-20 security commission is not subject to disclosure under Chapter 552,
 4-21 Government Code.

4-22 (g) A meeting of the security commission that involves the
 4-23 discussion of confidential information is not subject to Chapter
 4-24 551, Government Code.

4-25 Sec. 44.004. GRID RESILIENCE EVALUATION. (a) The security
 4-26 commission shall evaluate, using available information on past
 4-27 power outages in ERCOT, all hazards to the ERCOT electric grid,
 4-28 including threats that can cause future outages. The security
 4-29 commission shall evaluate the resilience of municipalities in this
 4-30 state in the following essential areas:

4-31 (1) emergency services;

4-32 (2) communications systems;

4-33 (3) water and sewer services;

4-34 (4) health care systems;

4-35 (5) financial services;

4-36 (6) energy systems, including an evaluation of whether
 4-37 energy, electric power, and fuel supplies are protected and
 4-38 available for recovery in the event of a catastrophic power outage;
 4-39 and

4-40 (7) transportation systems.

4-41 (b) The security commission may create groups or teams to
 4-42 identify and address each hazard as necessary. The security
 4-43 commission must assess each hazard both on the likelihood of
 4-44 occurrence of the hazard and the potential consequences of the
 4-45 hazard.

4-46 (c) The security commission shall identify methods by which
 4-47 this state can support an overall national deterrence policy as
 4-48 proposed by the Cyberspace Solarium Commission, including by:

4-49 (1) identifying means to ensure that all hazards
 4-50 resilience for electric utilities supports critical national
 4-51 security functions in this state; and

4-52 (2) engaging the Texas National Guard to be trained as
 4-53 first responders to cybersecurity threats to the ERCOT electric
 4-54 grid and other critical infrastructure.

4-55 (d) The security commission shall evaluate nuclear
 4-56 generation sites in this state, the resilience of each nuclear
 4-57 reactor to all hazards, and the resilience to all hazards of
 4-58 off-site power for critical safety systems that support the reactor
 4-59 and spent fuel. The security commission may communicate with the
 4-60 Nuclear Regulatory Commission to accomplish the evaluation.

4-61 (e) The security commission shall evaluate current Critical
 4-62 Infrastructure Protection standards established by the North
 4-63 American Electric Reliability Corporation and standards set by the
 4-64 National Institute of Standards and Technology to determine the
 4-65 most appropriate standards for protecting grid infrastructure in
 4-66 this state.

4-67 (f) The security commission shall investigate the steps
 4-68 that local communities and other states have taken to address grid
 4-69 resilience. The security commission may request funding to conduct

5-1 site visits to these locations as required.
 5-2 (g) The security commission shall identify universities
 5-3 based in this state that have expertise in cybersecurity and other
 5-4 matters that can contribute to the security commission's goal of
 5-5 mitigating all hazards to the grid in this state.
 5-6 (h) In carrying out the security commission's duties under
 5-7 this section, the security commission may solicit information from:
 5-8 (1) defense contractors with experience protecting
 5-9 defense systems from electromagnetic pulse;
 5-10 (2) electric utilities that have developed
 5-11 electromagnetic pulse protections for the utilities' grid assets;
 5-12 (3) the United States Department of Homeland Security;
 5-13 and
 5-14 (4) the Commission to Assess the Threat to the United
 5-15 States from Electromagnetic Pulse (EMP) Attack.
 5-16 Sec. 44.005. RESILIENCE STANDARDS. (a) Based on the
 5-17 findings of the evaluations and investigations conducted under
 5-18 Section 44.004, the security commission shall develop and adopt
 5-19 resilience standards for municipalities and critical components of
 5-20 the ERCOT electric grid.
 5-21 (b) Standards developed and adopted for energy systems of
 5-22 municipalities must include provisions to ensure that energy,
 5-23 electric power, and fuel supplies are protected and available for
 5-24 recovery in the event of a catastrophic power outage.
 5-25 (c) Not later than October 1, 2024, the security commission
 5-26 shall prepare and deliver a report to the legislature on the
 5-27 development of the resilience standards as required under this
 5-28 section and a recommended timeline for implementation.
 5-29 Sec. 44.006. PLAN FOR ALL HAZARDS RESILIENCE. (a) Not
 5-30 later than October 1, 2024, the security commission shall prepare
 5-31 and deliver to the legislature a plan for protecting the ERCOT
 5-32 electric grid from all hazards, including a catastrophic loss of
 5-33 power in the state.
 5-34 (b) The plan must include:
 5-35 (1) weatherizing requirements to prevent power
 5-36 outages from extreme cold weather events, an analysis of whether
 5-37 these requirements would induce cyber vulnerabilities, and an
 5-38 analysis of the associated costs for these requirements;
 5-39 (2) provisions for installing, replacing, or
 5-40 upgrading industrial control systems and associated networks, or
 5-41 the use of compensating controls or procedures, in critical
 5-42 facilities to address cyber vulnerabilities;
 5-43 (3) provisions for installing, replacing, or
 5-44 upgrading extra high-voltage power transformers and supervisory
 5-45 control and data acquisition systems to withstand 100
 5-46 kilovolts/meter E1 electromagnetic pulses and 85 volts/kilometer
 5-47 E3 electromagnetic pulses;
 5-48 (4) a timeline for making improvements to remaining
 5-49 infrastructure to meet resilience standards adopted by the security
 5-50 commission under Section 44.005;
 5-51 (5) long-term resilience provisions for supporting
 5-52 industries including:
 5-53 (A) nuclear reactors, materials, and waste;
 5-54 (B) fuel supply;
 5-55 (C) health care;
 5-56 (D) communications;
 5-57 (E) water and sewer services;
 5-58 (F) food supply; and
 5-59 (G) transportation; and
 5-60 (6) any additional provisions considered necessary by
 5-61 the security commission.
 5-62 (c) The security commission may consult with the Private
 5-63 Sector Advisory Council in developing the plan.
 5-64 (d) The Texas Division of Emergency Management shall
 5-65 incorporate the plan into the state emergency management plan and
 5-66 update the state emergency management plan as necessary to
 5-67 incorporate progressive resilience improvements.
 5-68 Sec. 44.007. GRID RESILIENCE REPORT. (a) Not later than
 5-69 January 1 of each year, the security commission shall prepare and

6-1 deliver a nonclassified report to the legislature, the governor,
6-2 and the commission assessing natural and man-made threats to the
6-3 electric grid and efforts to mitigate the threats.

6-4 (b) The security commission shall make the report available
6-5 to the public.

6-6 (c) In preparing the report, the security commission may
6-7 hold confidential or classified briefings with federal, state, and
6-8 local officials as necessary.

6-9 Sec. 44.008. RESILIENCE COST RECOVERY. A regulatory
6-10 authority shall include in establishing the rates of an electric
6-11 utility consideration of the costs incurred to install, replace, or
6-12 upgrade facilities or equipment to meet a resilience standard
6-13 established under this chapter. A regulatory authority shall
6-14 presume that costs incurred to meet a resilience standard under
6-15 this chapter are reasonable and necessary expenses.

6-16 Sec. 44.009. MICRO-GRIDS. (a) The security commission
6-17 shall establish resilience standards for micro-grids and certify a
6-18 micro-grid that meets the standards. The standards must be
6-19 developed for both alternating current and direct current
6-20 micro-grids.

6-21 (b) Except as provided by Subsection (c), a municipality or
6-22 other political subdivision may not enact or enforce an ordinance
6-23 or other measure that bans, limits, or otherwise regulates inside
6-24 the boundaries or extraterritorial jurisdiction of the
6-25 municipality or political subdivision a micro-grid that is
6-26 certified by the security commission under this section.

6-27 (c) The owner or operator of a micro-grid certified by the
6-28 security commission is a power generation company and is required
6-29 to register under Section 39.351(a). The owner or operator of the
6-30 micro-grid may:

6-31 (1) interconnect the micro-grid to the ERCOT electric
6-32 grid;

6-33 (2) obtain transmission service for the micro-grid;
6-34 and

6-35 (3) use the micro-grid to sell electricity at
6-36 wholesale in a manner consistent with the provisions of this title,
6-37 commission rules applicable to a power generation company or an
6-38 exempt wholesale generator, and the requirements of the independent
6-39 organization certified under Section 39.151 for the ERCOT power
6-40 region.

6-41 SECTION 3. This Act takes effect immediately if it receives
6-42 a vote of two-thirds of all the members elected to each house, as
6-43 provided by Section 39, Article III, Texas Constitution. If this
6-44 Act does not receive the vote necessary for immediate effect, this
6-45 Act takes effect September 1, 2023.

6-46 * * * * *