By: Shaheen H.B. No. 3792

A BILL TO BE ENTITLED

AN ACT

relating to protecting the population of Texas, its environment, and its most vulnerable communities, promoting 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 Texas and pose a disproportionally large risk to the elderly, vulnerable and underprivileged within our state and especially communities facing environmental justice issues such as disproportionate environmental health burdens and population vulnerabilities to facilities such as chemical plants and refineries that can become environmental disaster areas when taken offline due to loss of electricity.

(2) all 16 critical infrastructures identified in President Barack Obama's Presidential Policy Directive 21 (PPD-21) including water and wastewater services; 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 countless other critical functions depend on the state's electric grid, making the grid's protection vital to our economy and homeland security;

(3) the February 2021 Texas Blackout caused death and

suffering to the citizens of Texas, economic loss to the Texas economy, impacts to all critical infrastructures in Texas, the dispatch of generation units that likely exceeded Environmental Protection Agency (EPA) limits for sulfur dioxide, nitrogen oxide, mercury, and carbon monoxide emissions, as well as wastewater release limits, radically increased pricing of electricity that resulted in electric power bills unaffordable by many customers across the state, and exacerbated the COVID-19 pandemic risk by forcing many of the state's citizens to consolidate at warming centers and in other small spaces where warmth for survival superseded social distancing;

(4) a previous large-scale blackout occurred in Texas in February 2011 during which 4.4 million customers were affected;

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

(6) the 2011 and 2021 blackouts call into question whether too much risk has been accepted regarding weatherization of electric generation infrastructure, whether the state lacks the internal distribution structure and control systems to manage rolling blackouts, and whether sufficient resources have been allocated toward overall grid resilience;

(7) Governor Gregg Abbott has declared reform of the Electricity Reliability Council of Texas (ERCOT) as an emergency item for the 87th Texas Legislature;

(8) public confidence in the resilience of the Texas

electric grid is essential to ensuring environmental justice, economic prosperity, domestic tranquility, continuity of government, and life-sustaining systems;

(9) a resilient Texas electric grid that offers businesses continuity of operations in the event of a natural or man-made disaster will be an unrivaled attraction for businesses to expand or move their operations to this state and for protecting what is important to Texas, ranging from its military installations to its environment;

(10) insufficient market incentives or regulations exist for electric utilities to prioritize security and resilience, and to protect the grid against "all hazards;"

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

(12) when this state begins implementation of the "all hazards resilience" plan to protect the state's electric grid, short-term and long-term economic benefit will far exceed even the most optimistic estimates of the conventional economic incentives provided by tax abatements to attract businesses to this state;

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

CHAPTER 44. GRID RESILIENCE

Sec. 44.001. DEFINITIONS. In this chapter:

1) "All hazards resilience" of the electric grid means protections against threats caused by:

A. terrestrial weather including wind, hurricanes, tornadoes, flooding, ice storms, extended cold weather events, heat waves, or wildfires;

B. seismic events including earthquakes or tsunamis;

C. physical threats including terrorist attack with direct fire, drones, explosives or other methods of physical sabotage;

D. cyberattacks including through malware or hacking of unprotected or compromised Information Technology (IT) networks,

E. manipulation of Operational Technology (OT) devices including sensors, actuators, or drives;

F. electromagnetic threats through man-made radio frequency (RF) weapons, high altitude nuclear electromagnetic pulse (EMP), or naturally occurring geomagnetic disturbances (GMD),

G. electric generation supply chain vulnerabilities including insecure or inadequate fuel transportation, or storage; and

H. "insider threats" caused by compromised or hostile personnel working within government and/or the utility industry.

(2) "EMP Commission reports" means all reports released by the Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) Attack, including the July 2017 report titled "Recommended E3 HEMP Heave Electric Field Waveform for the Critical Infrastructures."

(3) "Micro-grid" means a group of interconnected loads and distributed energy resources inside clearly defined electrical

boundaries that act as a single controllable entity with respect to the grid.

(4) "Security commission" means the Texas Grid Security Commission.

Sec. 44.002. TEXAS GRID SECURITY COMMISSION. (a) The security commission shall report to the Chief of the Texas Division of Emergency Management (TDEM) and is composed of the following members:

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

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

(3) a representative of the independent organization certified under Section 39.151 for the ERCOT region appointed by the chief executive officer of the organization;

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

(5) a representative of the Texas Military Preparedness Commission appointed by the military preparedness commission;

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

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

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

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

(10) three members of the public with expertise in critical infrastructure protection, to represent the public interest.

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

(A) law enforcement;

(B) emergency services;

(C) communications;

(D) water and sewer services;

(E) health care;

(F) financial services;

(G) food and agriculture;

(H) transportation; and

(I) energy.

(12) an expert in the field of higher education appointed by the chief of the Texas Division of Emergency Management.

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

(b) The chief of the Texas Division of Emergency Management may invite members or former members of the United States Air Force's Electromagnetic Defense Task Force (EDTF) to the security

commission.

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

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

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

(f) Members of the security commission will primarily be residents of the state of Texas or bordering states within ERCOT's jurisdiction. However, the presiding officer or the chief of the Texas Division of Emergency Management may invite additional subject matter experts including, but not limited to, those recognized as experts in the fields of electricity markets, cybersecurity of grid control systems, EMP mitigation, terrestrial and solar weather, and micro-grids from outside Texas as needed.

Sec. 44.003. GRID RESILIENCE INFORMATION. (a) Some information used in determining the vulnerabilities of the electric grid or that is related to measures to be taken to protect the grid may be confidential and not subject to Chapter 552, Government Code.

(b) Information deemed confidential by Subsection (a) shall be stored and maintained by the independent organization certified under Section 39.151 for the ERCOT region.

(c) The following members of the security commission will lead an information security working group and shall apply for a

secret security clearance or an interim secret security clearance to be granted by the federal government:

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

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

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

(d) The information security working group will determine what information should be categorized as confidential information as described by Subsection (a), which particular members of the security commission may access various types of information, and which additional members should apply for a secret security clearance or interim clearance granted by the federal government.

(e) With regard to confidential information as described by Subsection (a), a reasonable balance of public transparency shall be maintained. Nothing in this section abrogates any rights or remedies under Chapter 552, Government Code.

Sec. 44.004. GRID RESILIENCE EVALUATION. (a) The security commission will evaluate all hazards to the ERCOT electric grid by utilizing all available information on past blackouts in the ERCOT system as well as threats which can cause future blackouts utilizing the definition of "all hazards resilience" in Sec. 44.001(1). The commission may create sub-groups or teams to address each hazard as needed and must assess hazards both on the likelihood and the level of consequence of each hazard.

(b) The security commission shall identify methods where

the state can support an overall National Deterrence Policy as proposed by the Cyberspace Solarium Commission by:

i) identifying how to ensure all hazards resilience for electric utilities supporting critical national security functions within the state; and

ii) engaging the Texas National Guard to be trained as first responders to cybersecurity threats to the ERCOT grid and other critical infrastructures.

(c) The security commission shall evaluate the state's nuclear generation sites and the all hazards resilience of the reactors as well as off-site power for critical safety systems that support the reactor and spent fuel. The commission has direct liaison authority to communicate with the Nuclear Regulatory Commission (NRC) to accomplish this evaluation.

(d) The security commission shall evaluate current Critical Infrastructure Protection (CIP) standards established by the North American Electric Reliability Corporation (NERC) and the National Institute of Standards and Technology (NIST) standards to determine the most appropriate standards for protecting the state's grid infrastructure.

(e) The security commission shall explore what local communities and other states have done to address grid resilience, The commission may request funding to conduct site visits to these locations as required.

(f) The security commission shall identify Texas-based universities which can contribute with expertise in cybersecurity and other areas to mitigate all hazards.

(g) The security commission shall solicit information from defense contractors with experience protecting defense systems from EMP, as well as electric utilities who have developed EMP protections for their grid assets.

(h) The security commission shall solicit information from the United States Department of Homeland Security which has published Electromagnetic Pulse (EMP) Protection and Resilience Guidelines for Critical Infrastructure and Equipment that can be used to mitigate the effects of such a disaster.

(i) The security commission will solicit information from the Congressional EMP Commission which assesses that protection against the worst threat, nuclear EMP attack, will mitigate lesser threats.

Sec. 44.005. CONTRACTOR SUPPORT FOR CRITICAL SYSTEM AND COMPONENT RESILIENCE. (a) With the assistance of the security commission the State Office of Risk Management shall select contractors with proven expertise to identify critical systems and components of the ERCOT electric grid vulnerable to "all hazards," with a specific emphasis on the most dangerous cyber and electromagnetic threats. The contractors must have the demonstrated expertise to identify the critical components, including industrial control systems, before the expiration of six months after the date the contractors are engaged.

(b) Not later than January 1, 2023, an entity that owns or operates a component identified by the contractor under Subsection (a) as critical shall upgrade the components as necessary for the components to meet the applicable standard proposed in the EMP

Commission reports.

(c) The State Office of Risk Management shall select contractors with demonstrated expertise to verify whether affected entities have identified potential affected systems and components and whether these entities have upgraded systems and components as required by Subsection (b).

Sec. 44.006. PLAN FOR ALL HAZARDS RESILIENCE. (a) Not later than January 1, 2022, the security commission shall prepare and deliver to the legislature a plan for protecting the ERCOT grid from a catastrophic loss of power in the state.

(b) The plan must include:

(1) provisions for determining weatherizing requirements to prevent blackouts from extreme cold weather events, whether these requirements will induce cyber vulnerabilities, and the associated costs for these requirements not later than January 1, 2022;

(2) provisions for installing, replacing, or upgrading industrial control systems and associated networks (or the use of compensating controls/procedures) in critical facilities to address cyber vulnerabilities not later than January 1, 2022;

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

(4) a timeline for upgrading remaining infrastructure

to meet recommendations of the EMP Commission reports;

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

(A) nuclear reactors, materials, and waste;

(B) fuel supply;

(C) health care;

(D) communications;

(E) water and sewer services;

(F) food supply; and

(G) transportation.

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

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

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

Sec. 44.007. ALTERNATIVE TIMELINE OR STANDARD. A panel composed of members of the security commission may approve a resilience standard or implementation timeline for an electric utility or other entity that differs from a resilience standard or implementation timeline adopted under Section 44.005.

Sec. 44.008. RESILIENCE COST RECOVERY. A regulatory authority shall include in establishing the rates of an electric utility consideration of the costs incurred to install, replace, or upgrade facilities or equipment to meet a resilience standard

established under this chapter. A regulatory authority shall presume that costs incurred to meet a resilience standard under this chapter are reasonable and necessary expenses.

Sec. 44.009. MICRO-GRIDS. (a) The security commission shall establish resilience standards for micro-grids and certify a micro-grid that meets the standards. These standards must be developed for both alternating current (AC) and direct current (DC) micro-grids.

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

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

(1) interconnect the micro-grid;

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

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

SECTION 3. Chapter 380, Local Government Code, is amended by adding Section 380.004 to read as follows:

Sec. 380.004. FIVE STAR GOLD RESILIENT COMMUNITIES. (a) The Texas Grid Security Commission shall establish resilience standards for municipalities in the following essential service areas:

(1) emergency services;

(2) communications systems;

(3) clean water and sewer services;

(4) health care systems;

(5) financial services;

(6) energy systems; and

(7) transportation systems.

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

(c) On the application of a municipality for the designation, the Texas Grid Security Commission may designate a municipality that meets the resilience standards in the applicable service area as:

(1) a Resilient Emergency Services Community;

(2) a Resilient Communications Systems Community;

(3) a Resilient Clean Water and Sewer Services Community;

(4) a Resilient Health Care Systems Community;

(5) a Resilient Financial Services Community;

(6) a Resilient Energy Community; or

(7) a Resilient Transportation Community.

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

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

(f) A municipality that does not qualify in at least five of the seven areas as a resilient community may not offer economic incentives or tax abatements for any purposes for any entity to locate in the municipality.

SECTION 4. Not later than January 1, 2023, the Texas Grid Security Commission shall prepare and deliver a report to the legislature on the progress of implementing resilience standards adopted under Sections 44.004 and 44.005, Utilities Code, as added by this Act.

Section 5. Not later than January 1 of each year, the commission shall prepare and deliver a non-classified report to the legislature, the Governor and the Public Utility Commission of Texas assessing natural and man-made threats to the electric grid and efforts to mitigate the threats. Such report shall be prepared for public distribution The commission shall hold confidential or classified briefings with officials as necessary.

SECTION 6. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this

Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2021.