

Kerr County Commissioners' Court Workshop on BESS, 391 SRPC Progress and Fire Code Compliance

January 5, 2026



Agenda

1. BESS Overview
2. 391 HCESRPC Progress Report
3. Applicable Fire Codes
4. Authorities Having Jurisdiction over BESS
5. Need for Outside Expert Review & Testimony
6. Potential Fire Marshal Permits & Fees
7. BESS Projects under Temporary Restraining Orders
8. Kerr County Options to Mitigate BESS Hazards & Safety Concerns

Battery Energy Storage System (BESS) Example



NAME: Key Capture Energy TX 12 Lithium BESS

LOCATION: Pflugerville, Travis County, TX, HWY 45

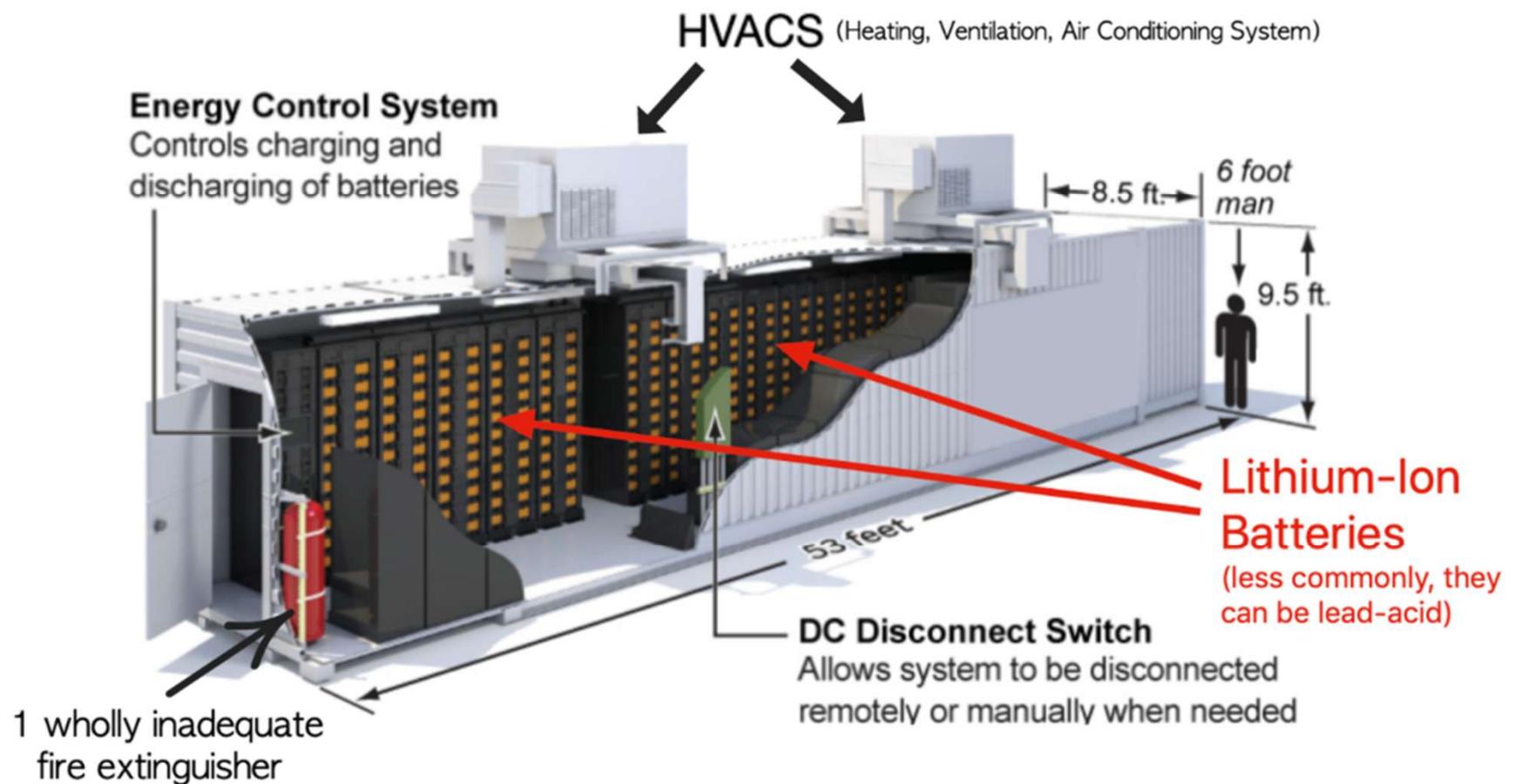
PROJECT: 100 MW shown at left

LANDOWNERS: LCRA, Key Capture Energy, a subsidiary of South Korean Energy

CONCERNS:

- New technology with foreign components
- Inadequate State Regulations
- Foreign parent companies with fiduciary integrity concerns
- Thermal runaway of aggregated Lithium batteries
- Containment of fire & smoke requires excessive water volume in a “PGMA.”
- Cybersecurity of key infrastructure
- No site reclamation mandate

Battery Energy Storage System



Typical BESS Facility (*under construction*) adjacent to an Electric Substation



Battery Energy Storage System Concerns

- Lithium batteries have a history of instability and overheating, leading to thermal runaway, fires and explosions (e.g. Moss Landing, CA).
 - Raises concern regarding their installation in the pristine Texas Hill Country that is prone to frequent severe drought and to rapidly spreading wildland fires.
 - Extremely difficult to extinguish a lithium battery fire.
 - Our rural volunteer firefighters lack sufficient foam and water to extinguish a BESS fire.
 - Environmental impact from a BESS runaway fire - toxic gases are released & contaminants would find their way into our creeks, rivers & precious shallow groundwater on which we all rely.
 - Risks far outweigh any benefit associated with BESS power stabilization.

Battery Energy Storage System Concerns

- Inadequate regulations on eventual disposal of BESS lithium batteries.
- BESS facility dramatically lowers the property value of the adjacent land, just ask Christopher Dyer in Mason County.
- BESS is not a renewable or new source of energy and has a power discharge cycle limited to only a few hours, rendering it useless in any prolonged power outage.
- Lithium battery components are mined and manufactured abroad, primarily benefiting foreign adversaries.
- Many BESS components, controllers & circuit boards are manufactured in China, creating major cybersecurity and grid vulnerability concerns.
- Unmanned facilities with no long-term local jobs associated with BESS.
- Property taxes are the only economic benefit associated with BESS for our local community.

Moss Landing, Monterey, CA

- Vistra Energy's 300 MW BESS fire on Jan. 16, 2025 burned for 5 days.
- Resulted in a huge plume of toxic smoke containing carbon monoxide, methane, hydrogen fluoride, hydrogen cyanide and formaldehyde, which contaminated the soil and water in the surrounding area.
- The January '25 fire led to evacuation of 1,500 people, closure of parts of State Highway 1, and lawsuits against Vistra Energy and PG&E.
- Monterey County has since launched a dashboard to track environmental testing and monitoring related to the fire.

Moss Landing BESS Event History

- September 2021 – Overheating event caused a month long outage.
- February 2022 – Another overheating event led to further operational disruptions.
- September 2022 – A small fire occurred at the adjacent PG&E Elkhorn battery system.
- January 16, 2025 – A runaway fire destroyed a large portion of the 750-MW/3-GWh Moss Landing Battery Storage Facility, consuming most of a 300-MW/1,200-MWh phase of the complex.
- February 18, 2025 - Batteries reignited.
- March 2025 – A fire occurred at the Moss 300 Lithium-Ion BESS building.
- March 2025 – The January fire reignited as hazardous materials crews begin removing burned batteries.
- June 2, 2025 - Batteries reported to be smoldering.

Other BESS Fires

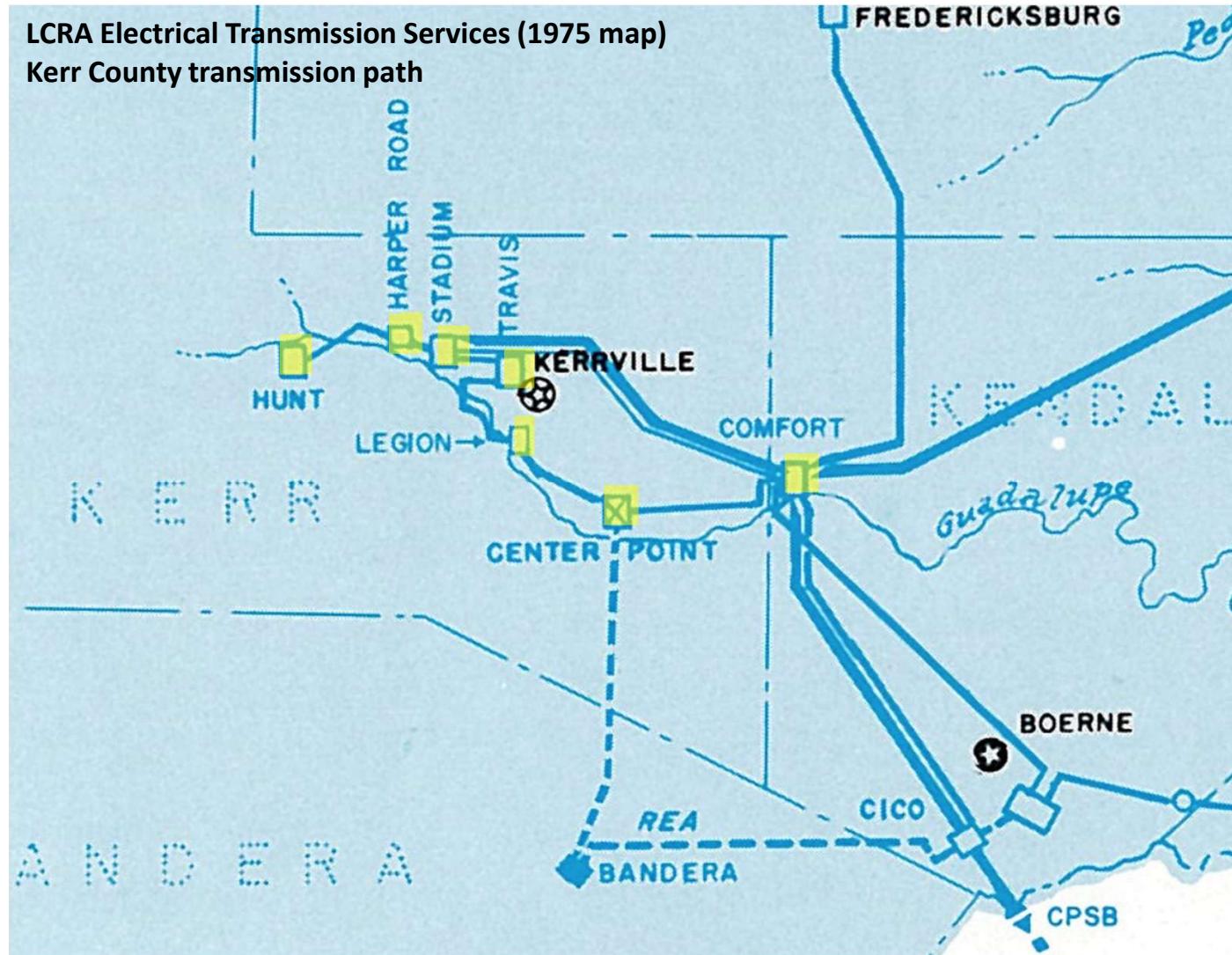
- South Korea (2018-2019) – A series of **23** BESS fires led to extensive investigations and safety improvements.
- Surprise, Arizona (2019) – A thermal runaway event caused an explosion, injuring four firefighters.
- Gunwi-gun, South Korea (January 2022) – Firefighters entered a burning BESS facility unaware of explosion risks, sparking controversy.
- Chandler, Arizona (April 2022) – A fire in a containerized BESS unit lasted over ten days, requiring continuous sprinkler use and robotic intervention.
- Chaumont, New York (July 2023) – A fire at a solar farm's lithium-ion battery storage facility burned for four days before being extinguished.
- Otay Mesa, San Diego (June 2024)



Other BESS Fires in New York

- May, 2023 a NextEra Energy Resources BESS in East Hampton, New York caught fire.
- June, 2023 a Convergent Energy and Power BESS in Warwick, New York caught fire.
- Dec. 2025, the Convergent Energy & Power Church Street BESS caught fire in Warwick, New York. The fire was confined to a single container, but burned for two days, requiring a multi-agency response.
- *“BESS facilities are NOT storing power during the day to be used at night. They are providing artificial inertia to the grid, as well and frequency control and ancillary services. None of these services would be required absent wind and solar power” (per Francis Menton, Manhattan Contrarian)*

BESS Require Proximity to Grid Substations



The Lower Colorado River Authority (LCRA) is the primary wholesale provider of electricity for the Texas hill country for 90 years from mostly hydroelectric and fossil fuel power plants. LCRA owns property and easements for transmission of electricity through power sources, power lines and electrical substations in residential communities. Kerr County receives electrical power for residential and commercial properties through 13 substations operated by LCRA in Kerr County.

There is an ERCOT effort to improve reliability of the Texas electrical power grid which includes supporting the development of BESS adjacent to electrical substations. >900 BESS facilities are planned in TX.



NAME: COMFORT LCRA SUBSTATION
7150/7046

LOCATION: FLAT ROCK CREEK RD AND FM473

PROJECTS:

100 MW LITHIUM BESS BY KEY CAPTURE ENERGY IS PENDING APPROVALS. \$80M PROJECT. 18 MONTH BUILD. OPERATIONAL 5/23/2028. ON 138 KV.

250 MW LITHIUM BESS PROPOSED BY KENDALL ENERGY LLC/EAST POINT ENERGY ON 345KV. OPERATIONAL 7/1/2027.

LANDOWNERS: LCRA, INDIVIDUAL LEASE (E) AND SALE PENDING (S).

CONCERNs:

VERY LARGE FACILITY AND THERMAL RUNAWAY OF LITHIUM BATTERY AGGREGATION

ONLY ONE ACCESS ROAD TO FACILITY

VFD CONTAINMENT OF FIRE, SMOKE, REQUIRING EXCESSIVE WATER USAGE IN A "PGMA."

FIDUCIARY INTEGRITY PARENT COMPANY

CYBER SECURITY OF KEY INFRASTRUCTURE

NO PUBLIC WATER SYSTEM



NAME: GRANITE SOURCE POWER (GSP) BESS

LOCATION: FM 1273 AND HWY 16
UPPER TURTLE CREEK SUBSTATION

PROJECT: ? MW

LANDOWNERS: BANDERA ELECTRIC

CONCERNS:

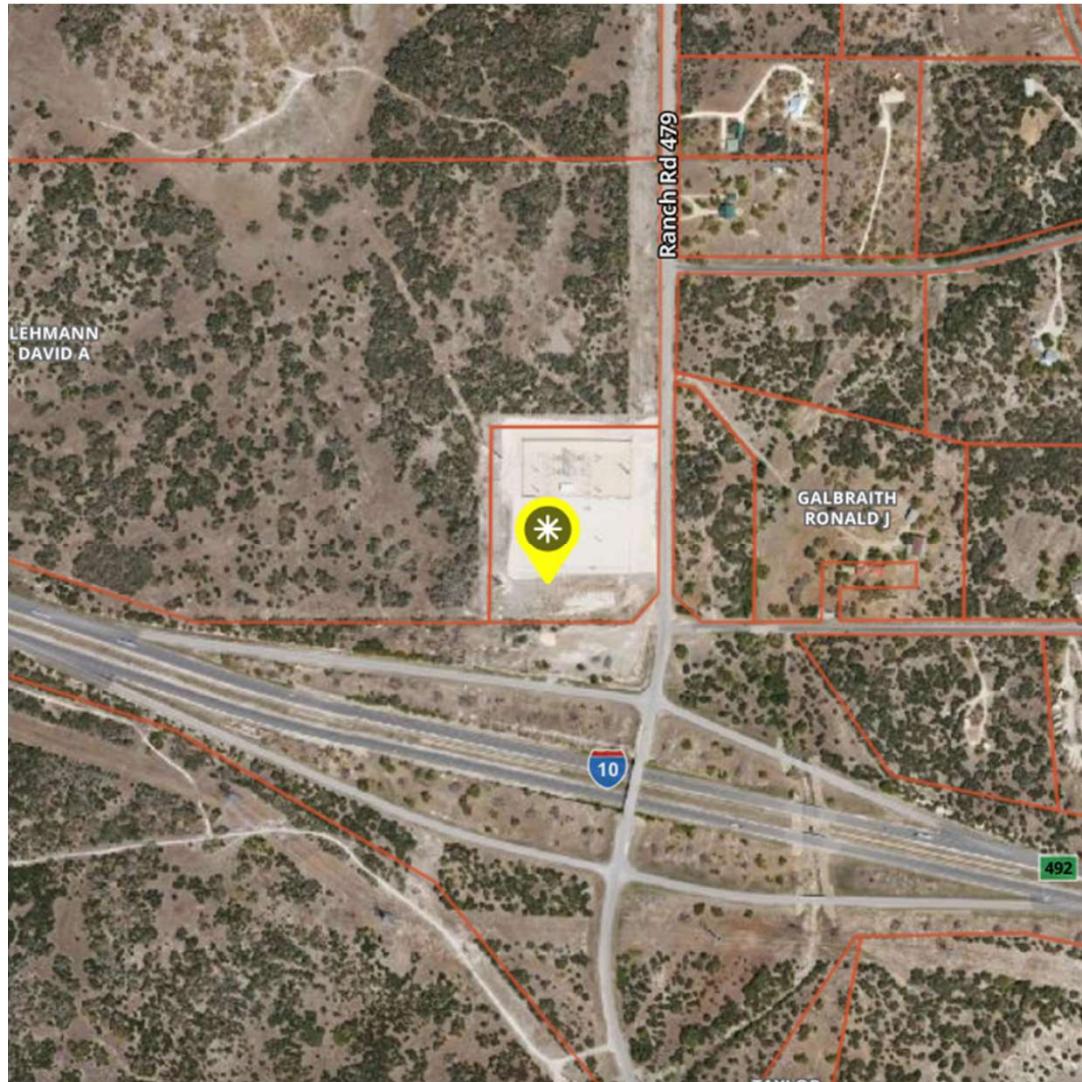
RURAL SETTING BUT ADJACENT TO KEY
INFRASTRUCTURE

HWY INTERSECTION

THERMAL RUNAWAY OF LITHIUM BATTERY
AGGREGATION

TURTLE CREEK VFD CONTAINMENT OF FIRE, SMOKE,
REQUIRING EXCESSIVE WATER USAGE IN A "PGMA."

CYBER SECURITY OF KEY INFRASTRUCTURE



NAME: EAST-WEST ENERGY BESS
7750 MOUNTAIN HOME LCRA SUBSTATION

LOCATION: RANCH ROAD 479 AND I-10

PROJECT: 2025-26 \$87M LITHIUM BESS PLANT PROPOSED BY BLACK MOUNTAIN / EAST WEST ENERGY. 120 MW BESS PROVIDING 2 HR POWER FOR KERR. REQUESTED TAX ABATEMENT FOR 2026. OPERATIONAL 6/30/2026.

LANDOWNERS: LCRA, UNKNOWN LEASE/SALE

CONCERNS:

PROXIMITY TO I-10 IN CASE OF FIRE

CONSIDERABLE UNDEVELOPED LAND ADJACENT

THERMAL RUNAWAY OF LITHIUM BATTERY AGGREGATION

VFD CONTAINMENT OF FIRE, SMOKE, REQUIRING EXCESSIVE WATER USAGE IN A "PGMA."

CYBER SECURITY OF KEY INFRASTRUCTURE



NAME: HARPER LCRA SUBSTATION, ROGERS DRAW ENERGY STORAGE SYSTEM

LOCATION: GILLESPIE CTY, HARPER TX. HWY 290 AND FM 2093

PROJECT: 145 MW, LiP CONTAINERS, \$150M

LANDOWNERS: LCRA, PEREGRINE DEV LLC BOUGHT PROPERTY

CONCERNS:

PEREGRINE LLC WORKING TO MITIGATE ISSUES WITH LOCALS

FUTURE GROWTH- USING 12 OF 35 ACRES.

PROXIMITY TO HWY AND PERDANALES RIVER IN CASE OF FIRE

FACILITY WITHIN 100-500M OF RESIDENCES

VFD CONTAINMENT OF FIRE, SMOKE, REQUIRING EXCESSIVE WATER USAGE IN A "PGMA."

CYBER SECURITY OF KEY INFRASTRUCTURE

BESS Regulations?

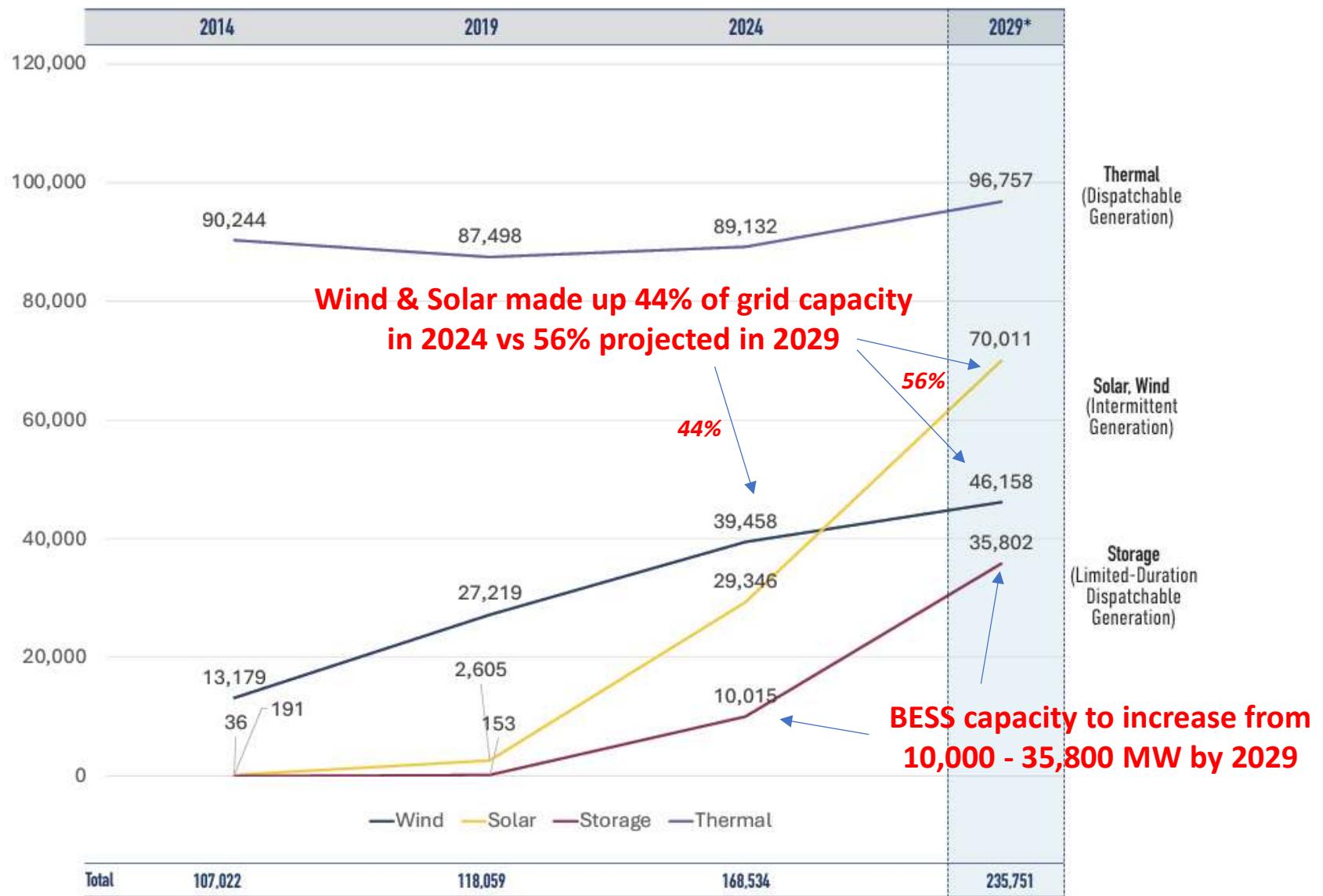
- BESS developers target unincorporated areas of small counties, acquiring land adjacent to an electricity transmission substation.
 - No local permits or approvals are required, unless the developer is requesting a variance.
 - Counties may not know that a BESS facility is being proposed or installed.
 - Only approvals appear to be from ERCOT consisting of an interconnectivity study, a cybersecurity study, and final authority to energize.
 - State and National Codes & Standards apply.
 - NFPA 1 (Fire Code), NFPA 70 (Electrical Code), NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems) and UL 9450 (ESS safety standard ensuring that inverters and batteries are tested together for electrical, mechanical, and fire safety).

BESS Root Cause

- Texas increasingly relies on intermittent renewable energy.
- As of Nov. 2024, according to ERCOT:
 - Wind generation capacity was 39,458 MW (25%) of total generation capacity,
 - Solar generation capacity was 10,015 MW (19%) of total generation capacity,
 - Both failed Texas in the 2021 extreme winter storm Uri.
- Inconsistent power from renewables creates the need for BESS.
- Renewables are uneconomic without government subsidies and tax abatements.
- Instead of unreliable wind & solar energy, Texas should expand power generation capacity using reliable fossil fuels such as natural gas.
 - Texas is blessed with abundant natural gas, which is the cleanest source of energy.
 - Natural gas production benefits Texas as opposed to renewables that primarily benefit foreign adversaries.

Extract from ERCOT's "Advancing Reliability 2024 State of the Grid"

SUPPLY: Fuel Mix Snapshot (MW Capacity)



State Fire Marshall's Presentation to Kerr Commissioners Court 1/27/25

- "Are battery energy storage system safe?"
 -"However, when malfunctions occur, data shows they happen in less than **2%** of the installations."
- The problem is that ERCOT & PUCT are planning for +/-1000 (*and growing*) BESS facilities across Texas
 - **Are 20 thermal run-away fires acceptable?**

Kerr County Actions Against BESS

- Commissioners Court resolutions on BESS:
 - Aug. 26, 2024 - requiring TCEQ to deny all environmental permits for BESS facilities proposed in Kerr County
 - Aug. 26, 2024 - requesting Senator Flores and Rep. Elect Wes Virdell to pass legislation that will:
 - Require TCEQ to hold public hearings for all proposed BESS facilities
 - Require BESS facilities to provide adequate fire protection & containment
 - Require a 1500' setback from adjacent property lines
 - Eliminate all government subsidies for BESS
 - Require a financial guarantee for proper disposal of lithium batteries
 - Oct 15, 2024 – to study the creation of the HCESRPC with Kendall County
 - Nov. 25, 2024 – authorized creation of the HCESRPC with Kendall County
 - Feb. 10, 2025 – authorized execution of the ILA & bylaws for the HCESRPC and appointment of Commissioners Paces and Holt to the HCESRPC Board
- Jan. 27, 2025 - State Fire Marshal's Office briefed CC on applicable fire codes and on potential SFMO assistance in enforcing the codes.
- May 27, 2025 - CC approved “Policy on the Safe Development of Battery Energy Storage Systems” for the East-West Bess (CO 41286)
 - *Needs to be replaced with a stronger policy*

391 HCESRPC Progress Report

- 391 Sub-Regional Planning Commission with Kendall County
 - First HCESRPC Board meeting was held Feb. 14, 2025
 - Gillespie County joined HCESRPC on Nov. 18, 2025
- Texas **Local Government Code Section 391.009** (c) states: *in carrying out their planning and program development responsibilities, state agencies shall, to the greatest extent feasible, coordinate planning with commissions to ensure effective and orderly implementation of state programs at the regional level*.
- Held a coordination meeting with TCEQ to understand their approval process, make them aware of our concerns and move them to proactively study the worst case (major thermal runaway fire).
- Trying to hold coordination meetings with LCRA, PUCT and ERCOT on BESS development in Kerr & Kendall Counties.
- Gillespie County joined the HCESRPC in November, 2025.
- Working with legislators to pass Bills to regulate BESS facilities, promote safety and cybersecurity, and ensure responsible disposal of used batteries.

HCESRPC Officers & Board Members



Rich Paces
Kerr County
Commissioner
President



Jennifer McCall
Kendall County
Commissioner
Vice President



Chad Carpenter
Kendall County
Commissioner
Treasurer



Linda Bullard
Kerr County
Land Owner Rep.
Secretary



Jeff Holt
Kerr County
Commissioner



Wes Virdell
State Representative
District 53



Daniel Jones
Gillespie County
Judge



Keith Kramer
Gillespie County
Commissioner

LCRA Key Correspondence

(4 notices sent, 1 response received)

- **LCRA:** “*required by state law to provide transmission service to generation resources seeking interconnection....on a nondiscriminatory basis. “LCRA has no discretion to choose which projects it will interconnect to the grid.”*
- **HCESRPC:** “*Please advise us which state law requires LCRA to provide transmission service to “generation resources” seeking interconnection and which state law defines a BESS as a generation resource. A BESS clearly does not generate electricity.”*
- **LCRA:** “*LCRA is a political subdivision of the state and is not a state agency subject to Chapter 391.009 of the Local Government Code.”*
- **HCESRPC:** “*LCRA is indeed a state governmental agency subject to Chapter 391 of the Local Government Code based on its creation by the Texas legislature and the definition clearly stated in the Texas SPECIAL DISTRICT LOCAL LAWS CODE, TITLE 6, SUBTITLE G, CHAPTER 8503 (a) “A conservation and reclamation district to be known as the "Lower Colorado River Authority" is created. The authority is a governmental agency and a body politic and corporate.”*

ERCOT Key Correspondence

- *“...ERCOT manages a generation interconnection process, which includes studies and testing, to confirm that new generation projects will not disrupt the reliable performance of the electric grid...”*
- *“ERCOT is not a state agency subject to Section 391.009 of the Texas Local Government Code.”*
- ERCOT is a membership-based 501(c)(4) nonprofit corporation, governed by a board of directors and subject to oversight by the Public Utility Commission of Texas and the Texas Legislature (*per their website*).

PUCT Key Correspondence

- **PUCT:** “*PUCT does not have the ability to affect the location or type of electric generation, including batteries. In the ERCOT region, power generation is largely deregulated. Companies do not need permission from PUCT. The type and location of electric generation is made by developers and investors of each project. . . A power generator must secure an interconnection agreement from the local electric distribution utility and ERCOT...the interconnection agreement does not dictate the location or type of electric generation.*”
- **PUCT:** “*Participation in these 391 Commissions is dependent on the jurisdiction of the state agencies involved. In the situation relating to battery projects, we are not aware of any existing state programs related to battery storage facilities that involved PUCT administration. We are unable to participate as requested.*”

PUCT Key Correspondence (4 notices sent)

- **HCESRPC:** “You must be aware that ERCOT, who is subject to oversight by the PUCT, is planning for the addition of 15.8 MW of battery energy storage capacity by 2029 as shown in ERCOT’s recent publication entitled “Advancing Reliability 2024 State of the Grid” in the graph on page 6 titled “By the Numbers”. The footnote states that “*2029 accounts for forecasted planned projects expected to be in-service between 2025 to 2029”...
- **HCESRPC:** “Further, according to your letter dated March 31, 2025, a company that wants to sell power in the wholesale market must register with the PUCT as a power generation company, including contact information and corporate ownership structure. Hence your statement that “in this situation relating to battery projects, we are not aware of any existing state programs related to battery storage facilities that involve PUCT administration” does not appear accurate.”
- **HCESRPC:** “If you are not aware of ERCOT’s plans and/or programs considering battery storage facilities, you absolutely should be in your oversight role.” “The state may not be the entity actually developing or installing the BESS facilities, but PUCT in its oversight role is clearly involved in the development of a plan for future generation capacity and the mix of supply thereof and it is clearly involved in the registration of all companies that want to sell power in the wholesale market.”

Public Input at PUCT Board Meeting (Oct. 23rd 2025)



PUCT Board Meeting - Public Input

- *“We have made you aware of very serious vulnerabilities and threats that BESS represents. Failure to take action to address these concerns or to ignore your statutory responsibilities could be considered gross and willful negligence of your duty of care as commissioners of the PUCT for which you may be held personally liable should a thermal runaway fire or cybersecurity attack take place at any BESS facility installed in Texas and connected to our critical grid infrastructure.”*
- Resulted in Mike Hoke, Director of Public Engagement, reaching out and attending our HCESRPC Board Meeting on Nov. 18, 2025.
 - He discussed the Authority of PUC Regarding BESS and took questions.
 - Mike admitted that ERCOT has not failed a single battery project due to cybersecurity concerns, despite over 300 missing attestations.
 - A video recording of the meeting is available at www.HCESRPC.com under “Board Meeting Videos” page.

Public Input at LCRA Board Meeting (Dec. 9th, 2025)



LCRA Board Meeting - Public Input

- *“We have made you aware of very serious vulnerabilities and threats that BESS represents. Failure to take action to address these concerns or to ignore your statutory responsibilities could be considered gross and willful negligence of your duty of care as commissioners of the PUCT for which you may be held personally liable should a thermal runaway fire or cybersecurity attack take place at any BESS facility installed in Texas and connected to our critical grid infrastructure.”*
- Phil Wilson, LCRA GM, stated that LCRA interpret BESS to be a generator under TX law, advised that cybersecurity is the responsibility of PUCT & ERCOT for enforcement, but stated that LCRA does a thorough review of proposed equipment for compliance. He also recommended we seek legislative assistance to strengthen local authority.
 - A video recording of the meeting is available at www.HCESRPC.com under “Board Meeting Videos” page.

Batteries as Power Generation in Texas Code

- **Texas Utilities Code** classifies electric energy storage equipment or facilities, including BESS, as **generation assets** when intended for selling energy or at wholesale. This treatment stems from the state's deregulated electric market structure, where such storage functions like dispatchable generation by discharging stored energy into the grid. Key provisions include:
 - **§ 35.152(a):** “Electric energy storage equipment or facilities that are intended to be used to sell energy or ancillary services at wholesale are generation assets.” Owners or operators must register as a power generation company under § 39.351(a), unless exempted (e.g., municipally owned utilities or cooperatives per § 35.152(d)). This section also authorizes contracts between transmission/distribution utilities and power generation companies for reliability services using storage, but limits sales to reserved capacity.
 - **§ 31.002(10):** Defines a “power generation company” to explicitly include “the owner or operator of electric energy storage equipment or facilities to which Subchapter E, Chapter 35 [§§ 35.151–35.153], applies,” reinforcing storage’s role in wholesale generation.
 - **§ 187.001(2):** Defines a “battery energy storage resource” as “an electrochemical device... that charges from the grid or a co-located generation resource and discharges that energy at a later time.” This applies to facilities ≥ 1 MW-hour with a commercial operations date on/after January 1, 2027, treating them as grid-integrated generation for safety and operational purposes.
 - **§ 303.001(3):** Similar definition for battery resources in facility agreements (≥ 1 MW-hour), linking them to co-located generation and discharge for power supply.
 - These classifications enable batteries to participate in ERCOT’s wholesale markets (e.g., as dispatchable resources for arbitrage or peaking), but exclude them from certain incentives like dispatchable generation credits under § 39.9044 (per recent legislative clarifications). For non-wholesale uses (e.g., pure distribution reliability without sales), ownership rules may differ, but **wholesale intent triggers generation status**.

Full text is available at the Texas Statutes website (<https://statutes.capitol.texas.gov/>). For PUCT rules interpreting these (e.g., ERCOT integration), see Project No. 52373 or BESTF guidelines.

Cybersecurity - Lack of Enforcement

- BESS cybersecurity risks: unmanned, controlled remotely and many have CATL batteries and various circuit boards and control equipment made in China.
 - Contemporary Amperex Technology Co. Limited (CATL), a China based company that is the world's largest battery maker and a dominant supplier of cells for U.S. BESS.
- In July 2023 the San Antonio grid infrastructure was taken over for 4 hours by Volt Typhon as a result of the Chinese made cameras that were connected.
- Lone Star Infrastructure Protection Act of 2021 now Chapter 117 of the Texas Business and Commerce Code (TBCC) aims to protect Texas' critical infrastructure (electric grid) by prohibiting contracts with, or access by companies or government entities from China, Iran, North Korea, and Russia. The Code was recently amended to include components made in China.
- The Governor's Executive Order GA 48 dated November 19, 2024 specifically requires all state agencies to require any company that submits a bid or proposal with respect to a contract for goods or services to the agency to certify that the company and any of its holding companies or subsidiaries is not listed in Section 889. **>300 attestations are missing!**
- Department of Energy's Office of Cybersecurity, Energy Security, and Emergency Response (CESER) found that **over 90% of grid-scale BESS deployed in the U.S. contain critical components manufactured in China**, including battery management systems (BMS), power conversion systems (PCS), and supervisory interfaces."
- **What are PUCT and ERCOT are doing to enforce TBCC Chapter 117 and GA 48 & 49 to ensure that the grid is protected from cybersecurity threats?**

Cybersecurity Coordination?

- Called Chief Nim Kidd with TDEM re BESS cybersecurity concerns & lack of enforcement 10/31/25
- TDEM Assist. Agency Director, Blair Walsh, returned my call on 11/6/25 and committed to setting up a joint meeting between TDEM, PUCT, ERCOT, LCRA and our 391 SRPC to discuss our concerns.
- TDEM has been invited to attend the next HCESRPC Board meeting on January 20th at 1:00 pm in the Gillespie County Courthouse, Commissioners Courtroom

Regulatory Strategy - 89th Legislative Session

- 12 House Bills and 7 Senate Bills were proposed
- Only 2 Bills passed both the House and the Senate
 - **HB 3824** requires BESS facilities to follow fire safety standards established by the State Insurance Commissioner (*State Fire Marshal is under this commission*). It also establishes strict standards, reporting, and operation plans. Applies to BESS with a commercial operations date on or after Jan. 1, 2027 as determined by the Commissioner. Also, forbids a city or county from superseding the bill with their own standards.
 - **HB 3809** mandates decommissioning requirements for BESS leases, other than those leased by an electric utility, & requires financial assurance to comply with these decommissioning obligations.

BESS Regulatory Strategy - Other Avenues:

- Concerned citizens can move public opinion and pressure government to stop distorting the energy market via subsidies, grants & loans by writing letters to media, and
- Send letters to the President, Governor, Lt. Governor, US Senators, US Representatives, State Senators, and State Representatives asking them to:
 - Stop installing unreliable renewable energy projects & BESS,
 - Stop offering government subsidies for unreliable energy and BESS,
 - Promote alternative reliable energy solutions and powerplant diversification (nuclear & nat. gas), upgrade transmission lines to reduce energy losses, and utilize smaller scale gas fired power plants closer to consumers (e.g. large urban areas, data centers & AI facilities), and
 - Ensure that sufficient regulations are in place regarding BESS installation and operation to protect the our landowners, communities, the environment, and our precious groundwater.

Are we having an impact?

Power project cancellations by technology

2025 cancelled capacity (MW)



Chart: Michael Thomas / Cleanview • Source: Cleanview project tracker • Created with Datawrapper



Questions on BESS or the 391 SRPC?

For more information, go to:

www.HCESRPC.com

All meeting minutes, meeting videos, correspondence,
presentations, etc. are available

Applicable BESS Fire & Safety Codes

- NFPA 1 (*National Fire Code*), 2021 Edition
- NFPA 101 (*Life Safety Code*), 2021 Edition
- NFPA 70 (*National Electrical Code*), 2021 Edition
- NFPA 855 (*Standard for the Installation of Stationary Energy Storage Systems*), 2020 Edition
- UL 9540 (*ESS safety standard ensuring that inverters and batteries are tested together for electrical, mechanical, and fire safety*), 2016 Edition
- *TX SFMO is planning to adopt later versions in 2026*

Fire Detection & Suppression Requirements

- NFPA 855 requires early warning fire detection systems and fire suppression systems for energy storage systems depending on the system size and type.
 - Typical detection systems include smoke detection, gas detection, and temperature monitoring systems. Fire suppression systems can be either water-based fire sprinklers or an alternative engineered fire suppression systems.
- On-site firefighting water is required at all times as prescribed by NFPA 1

*Source: 1/27/25
SFMO Presentation*

Inspection & Testing of BESS Facilities

- NFPA 855 mandates regular inspections and maintenance of energy storage systems.
 - includes visual inspections, functional tests, and documentation of all maintenance activities.
 - frequency and scope of inspection activities depend on the system type and size.
- Activities include, but are not limited to: inspection of battery enclosures for damage, corrosion, or leaks; inspection of wiring and connections for wear, fraying, or corrosion; inspection, testing, and maintenance of required fire detection and suppression systems; and thermal imaging to detect hotspots within battery arrays for failing cells or poor connections.

*Source: 1/27/25
SFMO Presentation*

Authorities Having Jurisdiction (AHJ)

1. County Commissioners' Court (CC)
2. ESD if contracted with the CC
3. County Fire Marshal if appointed by the CC
 - *State Fire Marshal's Office will inspect facilities for compliance once constructed, but only advise the AHJ of any deficiencies*
 - *Counties may also contract with fire & safety code experts who review plans & documentation submitted (within 30 day timeframe) and/or inspect facilities and advise the AHJ of any deficiencies*

TX Local Govt. Code re. Fire Marshal

- Local Government Code – Ch. 352, Subchapter B. (352.016(b))
- In counties that do not have the ability to adopt a fire code (*their population does not exceed 250k, nor borders another county with a population over 250k*), the county can still appoint a county fire marshal, who in turn can enforce the codes adopted by the State Fire Marshal's Office.
- Sec. A 352.016 (c) - The commissioners court by order may authorize the county fire marshal to charge a fee to the owner of a business, a multi-family dwelling, or commercial property for a plan review or inspection conducted under this section in a reasonable amount determined by the commissioners court **to cover the cost of the plan review or inspection***.

**Specifically, the time and cost of any Technical Expert or Fire Marshal*

Outside Expert Review & Testimony

- Dr. Robert Steele*, President of Columbia Power Systems, Inc.,
 - Recognized subject matter expert in the energy storage market sector with 42 years of progressive experience in interoperable power system design, analysis, and safety. He supports the Energy Storage Market Sector as a UL 9540 and UL9540A Technical Committee Member and a contributing author to NFPA 855.
- Dr. Erik Archibald*, P.E., Principal Engineer of Hazard Dynamics
 - Licensed PE with expertise in explosions, lithium-ion batteries and fire dynamics. Serves as structural specialist on Texas Task Force 1 Urban Search & Rescue team and was previously a volunteer firefighter in Pennsylvania and Mississippi.
- Scope of Work:
 - Review of Construction and Operations Permit Submittal Documentation for compliance with IFC, State of Texas, Kerr County Guidance and Regulations, NFPA 855, and UL 9540.
 - Silent participation in County/Project meetings, providing technical opinions only to the County unless otherwise authorized.
 - No direct interaction with Applicants without County authorization and participation.
 - Consultant does not act on behalf of the County but provides recommendations for mitigation. All correspondence will be through or approved by the County prior to Applicant engagement.

** highly recommended experts for BESS document review*

County Fire Marshal (CFM) Duties per Local Government Code, Title 11., Chapter 352

- The CFM shall investigate the cause, origin and circumstances of fires that occur within the county but outside municipalities that destroy damage property or cause injury.
- The CFM shall determine whether a fire was the result of negligent or intentional conduct.
 - *The CC shall adopt rules and procedures for determining which fires warrant investigation*
 - *The CFM shall inspect a structure for fire or life safety hazards **if called on to do so**...using any nationally recognized code or standard adopted by the state.*

County Fire Marshal (CFM) Duties per Local Government Code, Title 11., Chapter 352

- The CFM shall, **if required, and may, if requested**, review the plans of a business, single-family residence, multi-family dwelling, or commercial property for fire or life safety hazards.
- CC by order may authorize the CFM to charge a fee to the owner of a business, a multi-family dwelling, or commercial property for a plan review or inspection conducted under this section in a reasonable amount determined by the CC to cover the cost of the plan review or inspection.

Potential Fire Marshal Concerns – Q&A

- Will the creation of a CFM require the funding of a completely new department in order to fulfil its duties and obligations?
 - No, many counties have only a single CFM, and some work only part-time at the direction of the CC
- Will the CFM have to start inspections of all county properties to ensure compliance?
 - CFM will only have jurisdiction in unincorporated areas
 - Ingram would have to request the CFM to provide assistance
 - Older buildings are “grandfathered” to the standards & codes adopted at the time of construction
 - Qualified builders should have been aware of the fire and safety codes and built to those standards
 - CC may direct the CFM to prioritize structure inspections based on use, occupancy, and history of fires or complaints
 - Focus should be on helping business owners address critical safety hazards with a reasonable time provided
 - Part-time CFM will be constrained to focus on fire investigation and large scale new construction industrial projects

Van Zandt Fire Marshal Permit Fees

FY 2025 VAN ZANDT COUNTY FIRE MARSHAL OFFICE FEE SCHEDULE

BUILDING PERMIT FEE SCHEDULE

<u>TYPE OF PERMIT & SERVICES</u>	<u>FEES</u>
<p>NEW CONSTRUCTION PERMIT</p> <p>** Review of building plans ** Meetings with engineers, contractors, architects, etc. ** Conducting a minimum of 3 site inspections ** Final completion inspection ** Includes Fixed Pipe System Permit, Fire Alarm System Permit, and Fire Protection Systems Permit</p> <p>Additional meetings and inspections may be included, depending upon the scope of the project</p>	<p>The fee is based on the valuation of the project</p> <p>** For projects valued at less than \$200,000 the fee is \$500 ** For projects valued at \$200,000 but less than \$1,000,000 the fee is \$500 for the first \$200,000, plus \$1.75 per \$1000, or fraction thereof, for the value over \$200,000 ** For projects valued at \$1,000,000 but less \$5,000,000 the fee is \$2700 for the first \$1,000,000, plus \$1.00 for every \$1000, or fraction thereof, for the value over \$1,000,000 ** For projects valued at \$5,000,000 or more, the fee is \$10,140 for the first \$5,000,000, plus \$0.50 for every \$1000, or fraction thereof, for the value over \$5,000,000</p>

Van Zandt County received \$55,000 from their BESS developer based on a \$90 million project cost

Kendall County Fire Marshal Permit Fees

Fee Schedule

This fee is for processing building plans submitted for approval, and will be paid at the time of submission of the plans.

The base fee for all submitted plans and specifications is \$50.00.

Projects with a valuation over \$1,000.00 will use the following table:

Project Valuation	
\$1,000.00 and less	\$50.00
\$1,001.00 up to \$50,000.00	\$50.00 for the first \$1,001.00 plus \$7.00 for each additional thousand or fraction thereof.
\$50,001.00 up to \$100,000.00	\$393.00 for the first \$50,001.00 plus \$6.00 for each additional thousand or fraction thereof.
\$100,001.00 up to \$350,000.00	\$687.00 for the first \$100,001.00 plus \$5.00 for each additional thousand or fraction thereof.
\$350,001.00 up to \$700,000.00	\$1,888.00 for the first \$350,001.00 plus \$4.00 for each additional thousand or fraction thereof.
\$700,001.00 up to \$1,000,000.00	\$3,284.00 for the first \$700,001.00 plus \$3.00 for each additional thousand or fraction thereof.
\$1,000,001.00 and up	\$4,181.00 for the first \$1,000,001.00 plus \$2.00 for each additional thousand or fraction thereof.

A \$90 million project would pay \$53,000 in permit fees based on Kendall County fee schedule (no BESS permit applications have been received as on date)

BESS Projects under TROs

- **Van Zandt County**

- 100 MW BESS facility proposed at FM 47 and FM 1651 near Canton, TX.
- Plaintiffs (Van Zandt County) filed an application for a TRO against Taaleri Energia North America, LLC, BT Amador Storage, LLC, Amador BESS Holdings, Inc., Renewable Energy Systems Americas, Inc. and Belltown Texas Power 2, LLC. on 4/9/25 for violations of provisions of the fire code.
- UL 9540a battery tests failed thermal runaway & flammable gases categories.
- Injunction prohibits developer from delivering lithium-ion batteries to any site in Van Zandt County until such a time as the County Fire Marshal or the Court determines that all applicable NFPA Codes & Standards have been met.
- Revised documents sent on 12/10/25 are under review.

- **Gillespie County**

- 145 MW BESS facility along FM 2093 in Harper less than 1,000' from Harper ISD K-12 School and day-care, in close proximity to the Pedernales River and a public health and safety nuisance.
- Plaintiffs (neighboring residents) filed a Restraining Injunction on 9/5/25 against ROGERS DRAW ENERGY STORAGE, LLC (owned by Peregrine Energy Solutions) and CACTUS CONSTRUCTION.
- 12/2/25 Gillespie County joined the plaintiffs' injunction against ROGERS DRAW ENERGY, but not CACTUS CONSTRUCTION.

BESS Projects under TROs

- Franklin County –
 - Enel Green Power is developing a 210 MW solar + storage project
 - 14 landowners and 2,350 acres

Kerr County Options to Mitigate BESS Hazards & Safety Concerns

1. Hire a full time Fire Marshal
2. Hire a part-time Fire Marshal (contactor)
3. Approve a Fire Marshal permit & fee schedule
4. Contract a Fire & Safety expert to review BESS documents submitted by developers and to conduct inspections if facilities are constructed
5. Use State Fire Marshal's Office to inspect BESS developments and provide advise on deficiencies

Recommend 2, 3 and 4. Costs will be minimized and recovered from permit fees paid.