



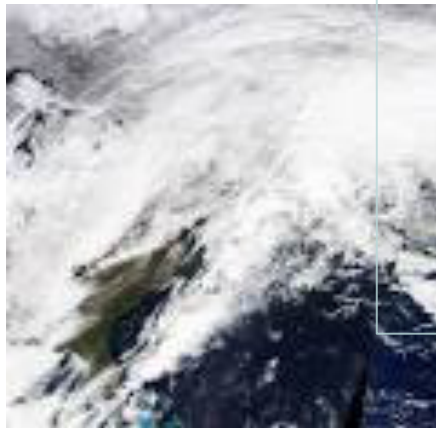
SIERRA CLUB
LONE STAR CHAPTER

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UMW Draw the Circle Wide

**Climate and the Texas
Grid: What Happened &
What the Legislature,
Governor Abbott and the
Public Utility Commission
are doing.. and not doing
to fix the grid.**

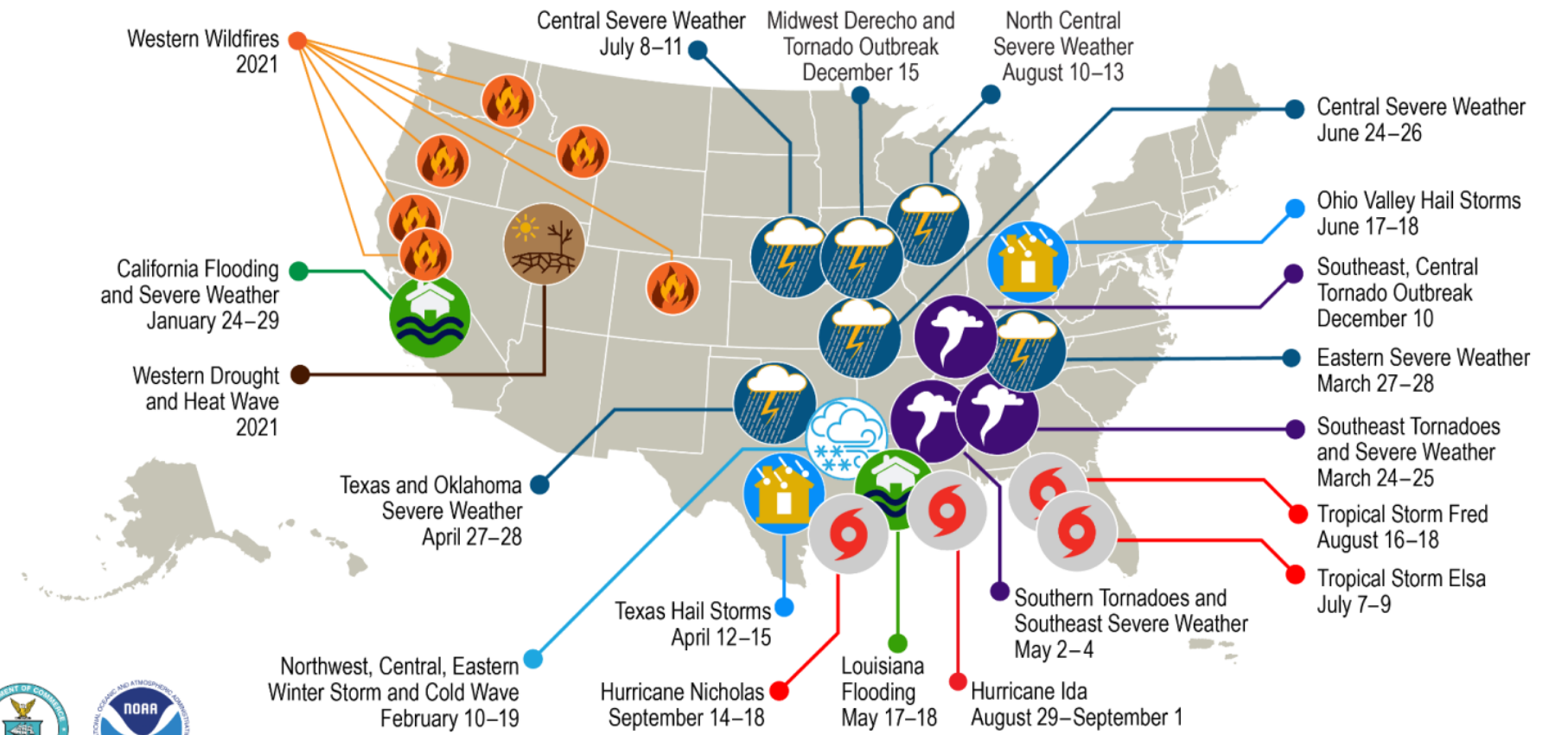
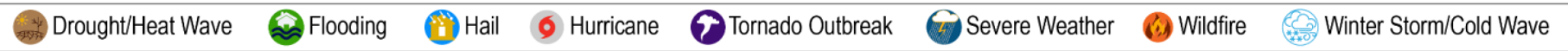


Reminder: People Suffered and there
Was Grace



2021 Again showed...Climate Change Real

U.S. 2021 Billion-Dollar Weather and Climate Disasters



This map denotes the approximate location for each of the 20 separate billion-dollar weather and climate disasters that impacted the United States in 2021

Overview

- Winter Storm Uri: What Happened?
- ERCOT 101
- Legislative Response: Hits and Misses
- SB 2 , SB 3 and SB 2154 & Securitization deep dive
- PUC, RRC and ERCOT post-session
- What happens next and why we need public involvement

Winter Storm Uri

- February 13-17, 2021
- Over 170 million Americans being placed under various winter weather alerts;
- More than 4.5 million homes and businesses were left without power in Texas, some for several days.
- Officially (state) approximately 250 people were killed directly or indirectly, but estimates as high as 702 killed as a result of the crisis. The system is estimated to have cost between \$190 and \$290 billion in estimated damages in Texas, making it the costliest winter storm on record, and second only to Hurricane Harvey for disasters in Texas
- Huge energy bills will be paid back over time, much of it on back of Texas consumers

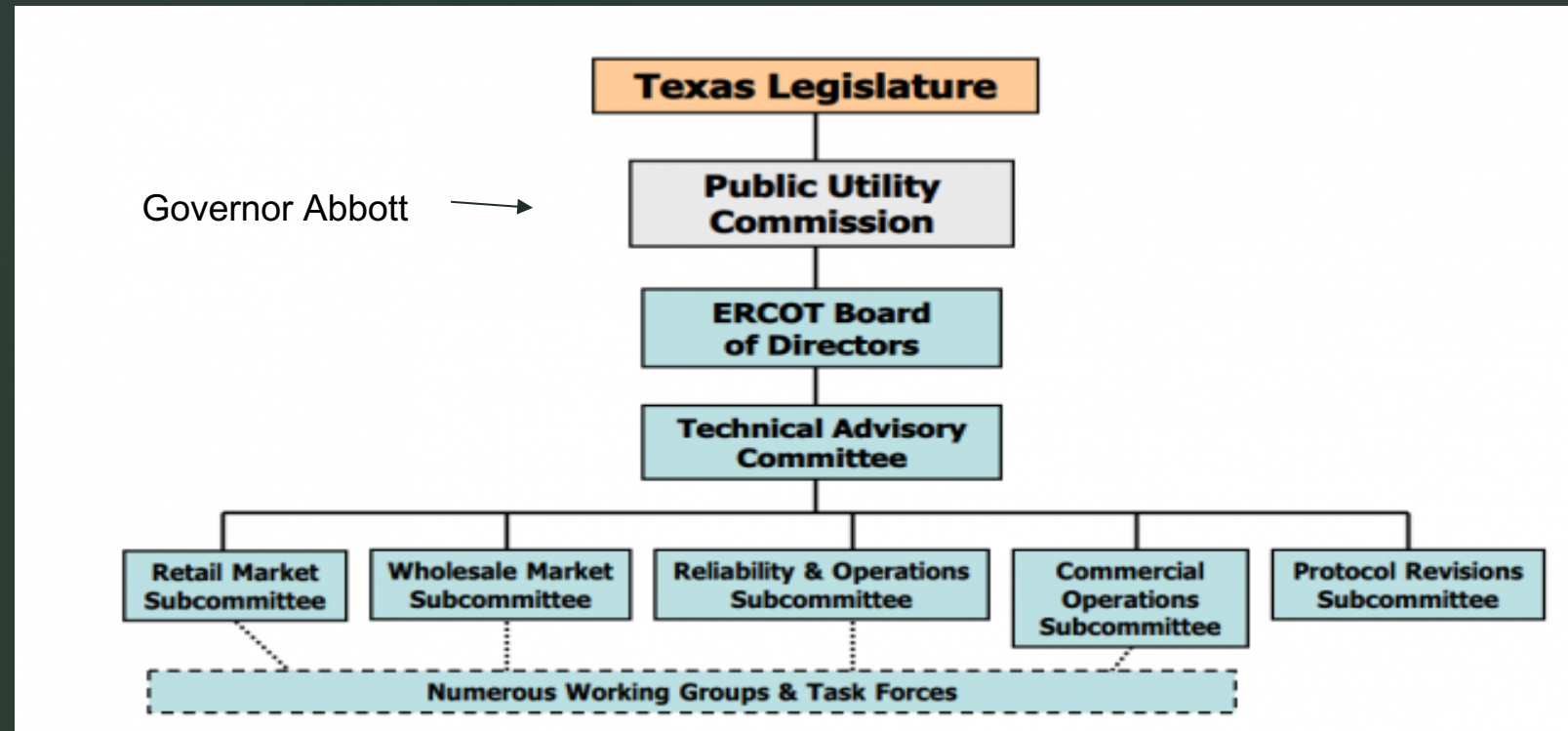
Other Impacts

- According to the Electric Reliability Council of Texas, the Texas power grid was about four minutes from complete failure when partial grid shutdowns were implemented.
- During the crisis, some energy firms made billions in profits, while others went bankrupt; Some firms were able to pass extremely high wholesale prices (\$9,000/MWh, typically \$50/MWh) on to consumers, while others could not, price was held at the \$9,000 cap by PUCTX for allegedly two days longer than necessary; some \$16 billion in extra costs which ultimately consumers will pay.
- Water woes and system shut-downs, huge gas prices on consumers.
- Air Pollution impacts due to shut-down, start-ups and releases
- Hit Texas's poorest the hardest especially those in older leaky homes.

Who was to blame?

- Wind and Solar?
- ERCOT?
- ERCOT's Out of State Directors?
- How about a changing climate?
- Relying on a non-weatherized gas supply?
- How about being warned in 1983, 1989, and 2011 by FERC and NERC that having a grid not weatherized and not connected to other grids was dangerous?
- How about not investing sufficiently in resilient buildings, demand response and energy efficiency?
- How about demand going up by 50% in some residential areas largely because of outdated Strip heating?

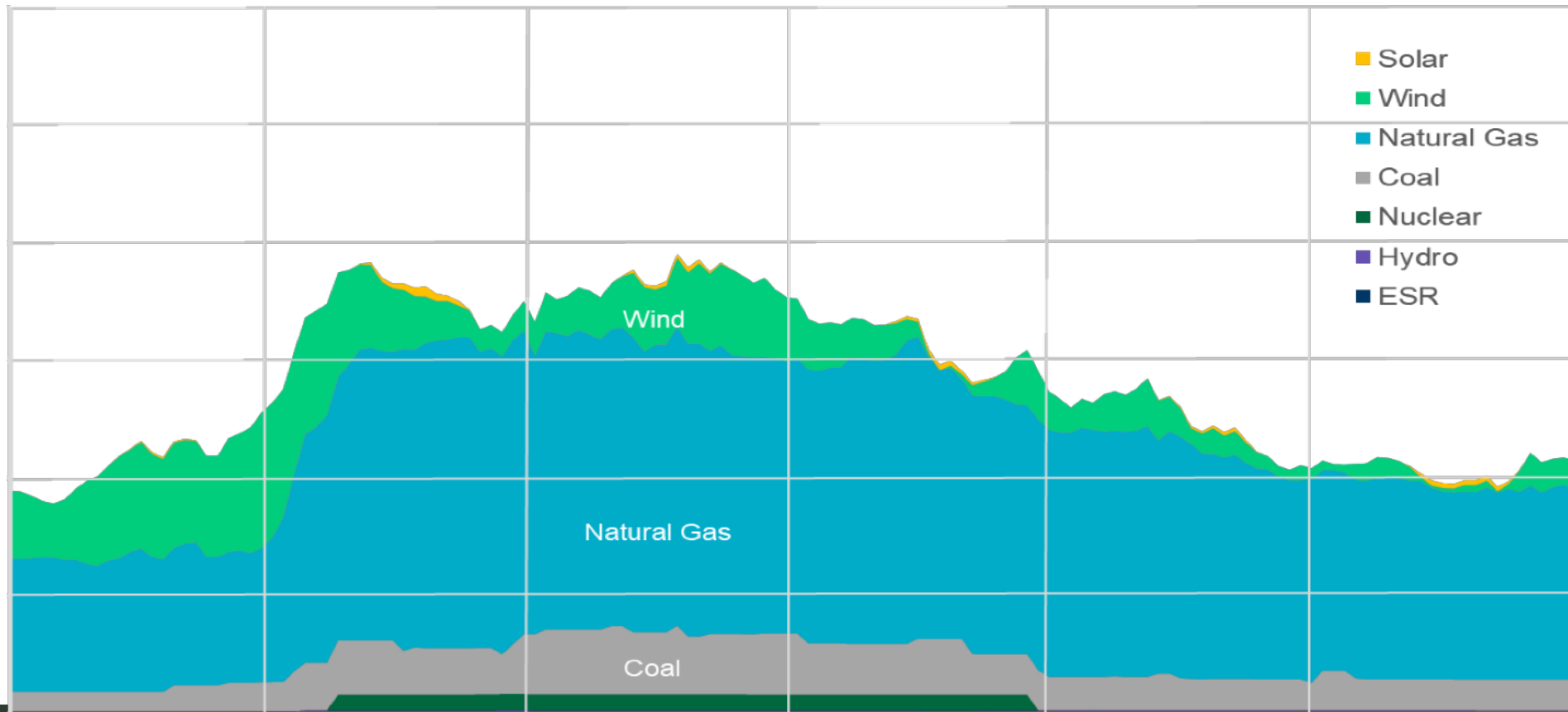
Reminder of who is in charge!



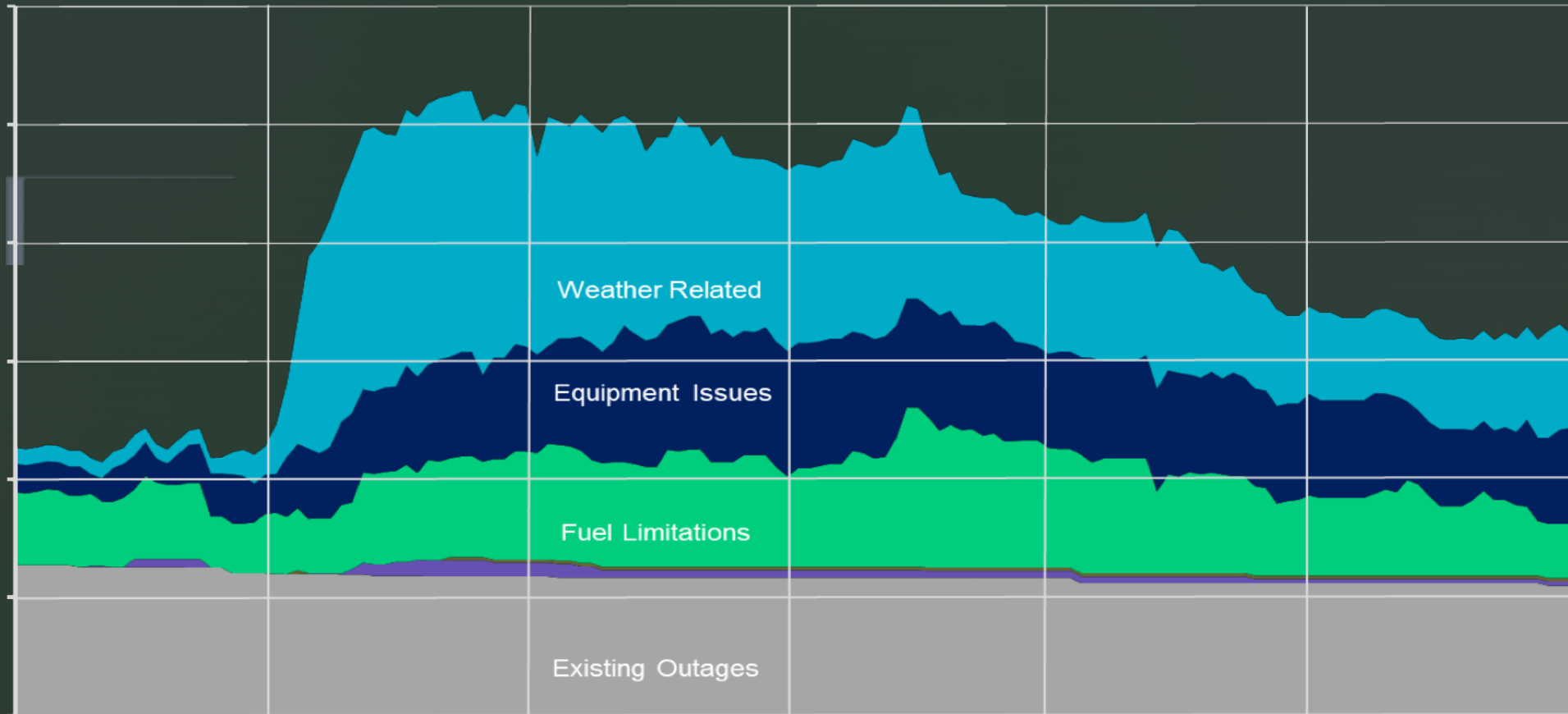
Winter Storm Uri: Net Generator Outages and Derates by Fuel Type (MW)

Full Report Available here:

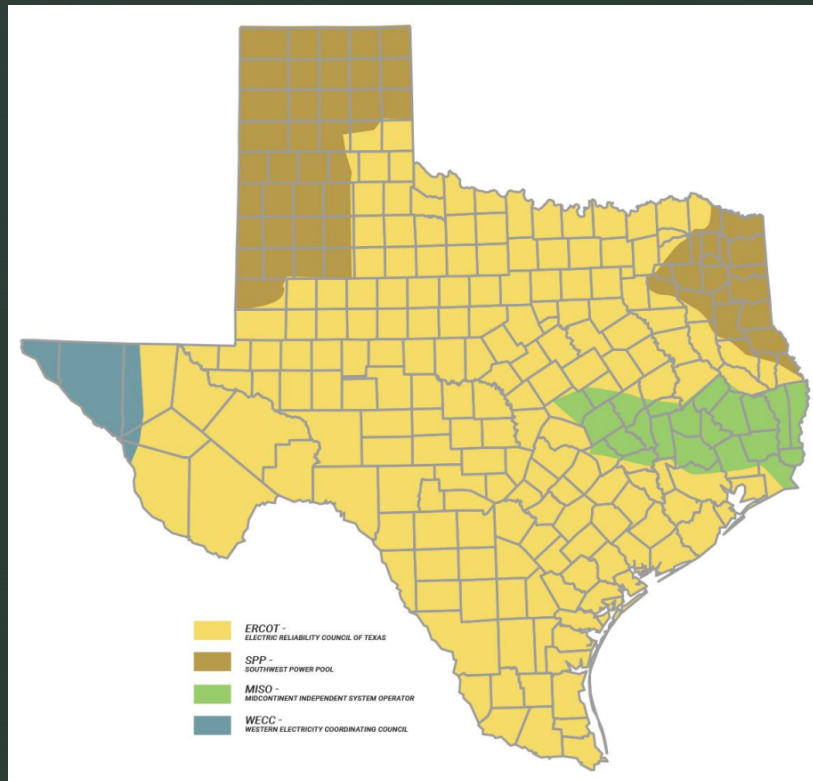
http://www.ercot.com/content/wcm/lists/226521/ERCOT_Winter_Storm_Generator_Outages_By_Cause_Updated_Report_4.27.21.pdf



Net Generator Outages or Derates for Natural Gas Generators by Cause

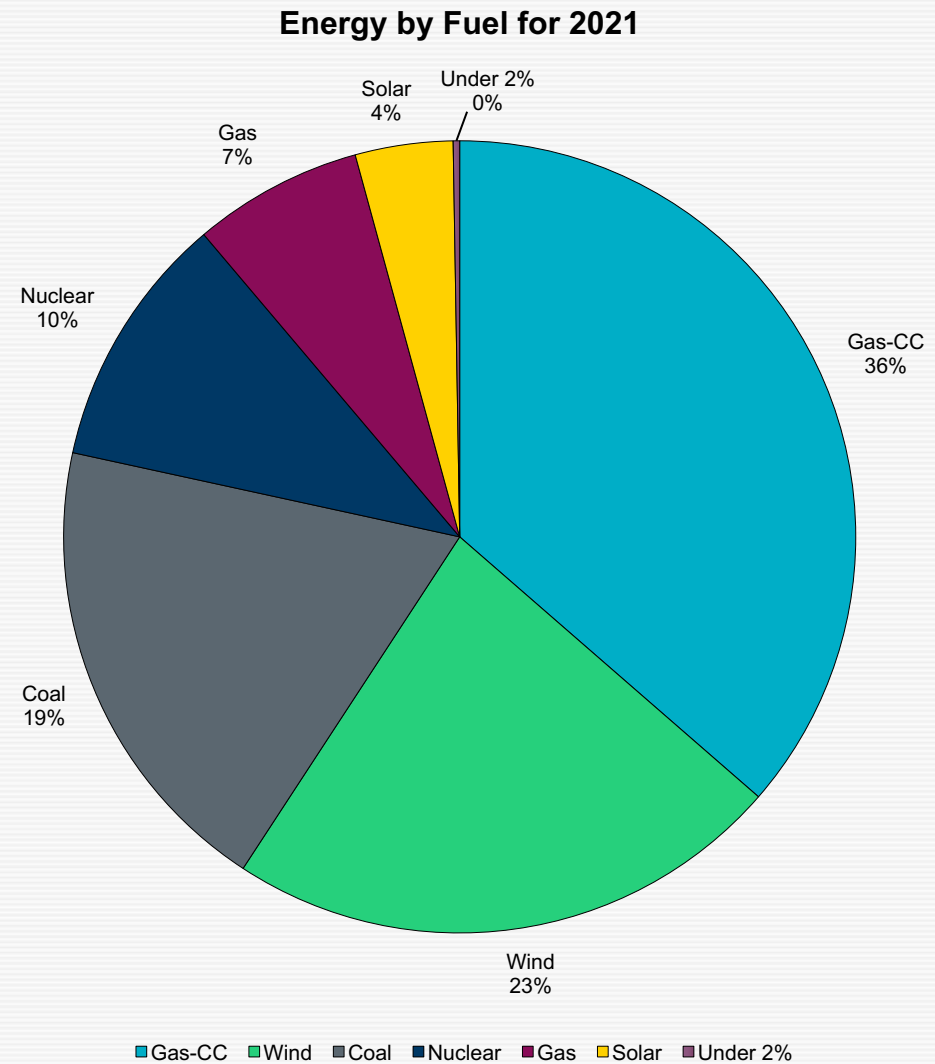


ERCOT (Electric Reliability Council of Texas) 101

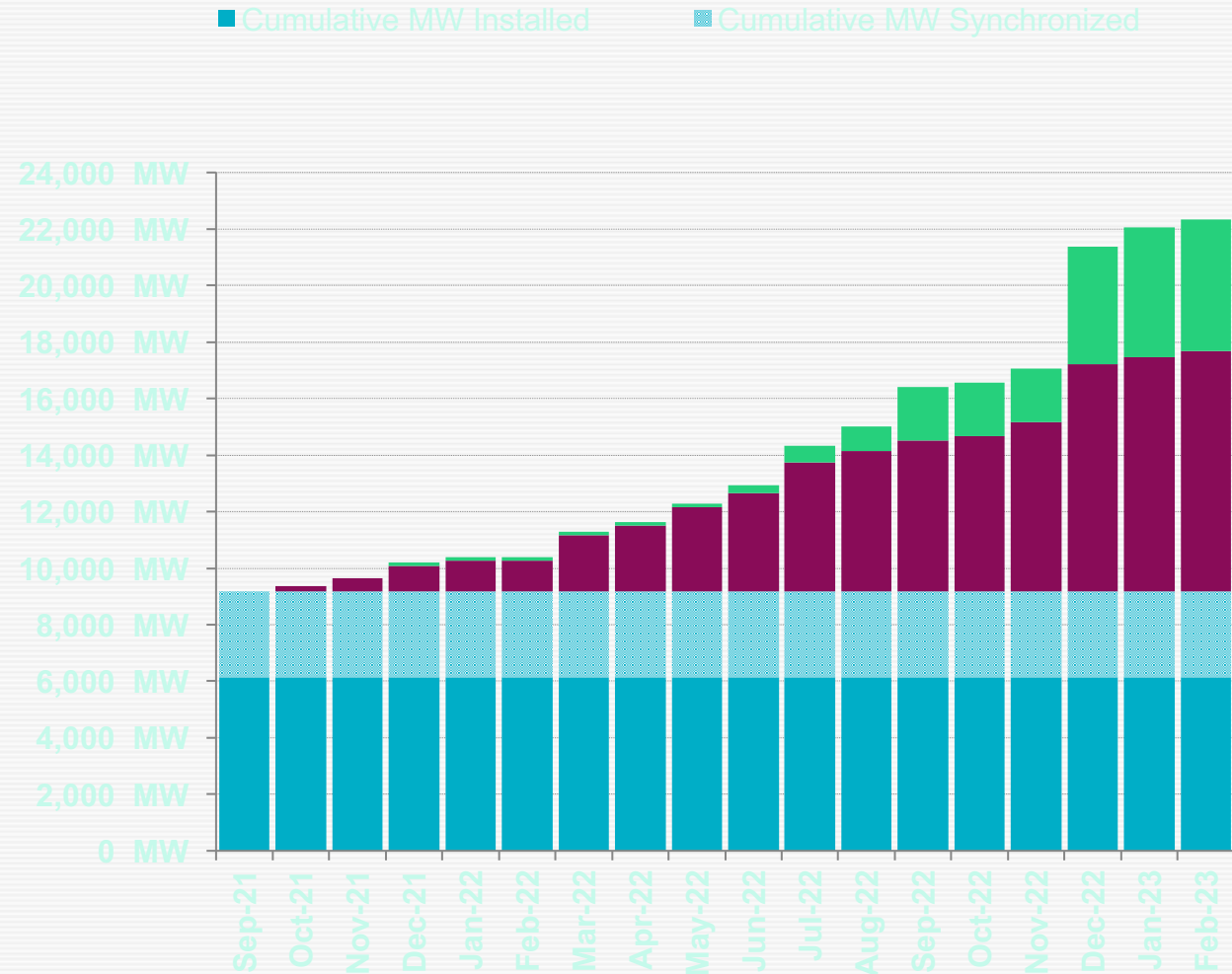


- ERCOT is currently an energy-only market (with a price adder)
- All units sell into the market and all loads buy from the market
- Load pays “load zone prices,” generators are paid “Nodal prices”
- Transmission and most interconnection costs are socialized
- System has a price adder that largely rewards energy produced at peak, but has led to boom and bust cycle for prices

Just the facts: How do we currently generate electricity in ERCOT



Renewables and Batteries Growing Fast **ERCOT Solar Additions by Year (as of Sep 30, 2021)**



Notes:

- The data presented here is based upon the latest information provided to ERCOT by resource owners and developers and can change without notice.

DOES RESIDENTIAL ENERGY MATTER?

**Thursday,
Nov. 16, 2017
7:15 a.m.
ERCOT Load:
36,795 MW
Temperature
in Dallas: 63°**



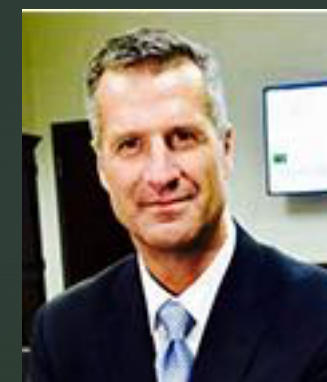
**← Wednesday,
Jan. 17, 2018
7:15 a.m.
ERCOT Load:
65,904 MW
Temperature
in Dallas: 15°**

Winter Weather Impacts on GRID by Customer Type

What did the Legislature/Governor do?

- Fired PUC Commissioners and ERCOT Board
- Changed from 3 to 5 Commissioners (PUC) - SB 2154
- Changed ERCOT Board to non-affiliated Texans named by a 3 person committee – SB 2
- Required much more robust “weatherization” of power plants with actual fines -- SB 3
- Required better coordination and communication and outage plans - SB 2
- Created a Texas Energy Reliability Commission
- Created a gas supply mapping exercise
- Required weatherization and back up power for water system
- Required some changes to ERCOT market, including “Dual Fuel” requirements and new “ancillary services” to encourage dispatchable generation
- Required an interim committee to examine PUC and market
- Put PUC, ERCOT, and OPUC on the 2023 Sunset process
- Securitized billions in extra gas and electricity charges, which eventually consumers will pay back over time

New Leadership: PUC and ERCOT



What the Legislature did not do

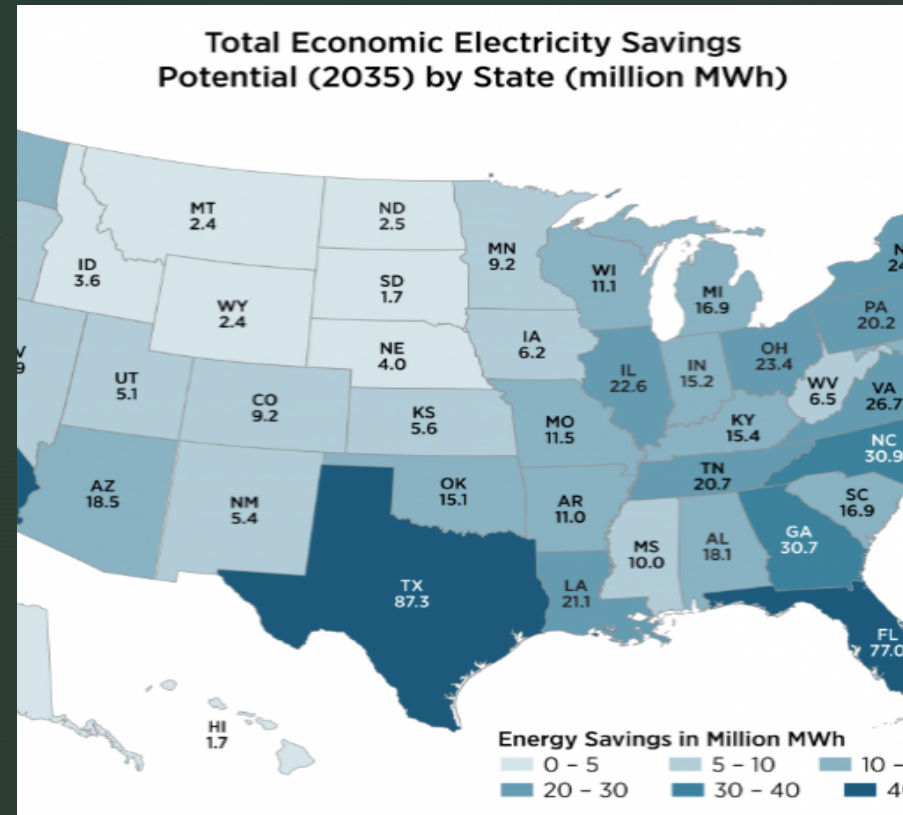
- Require robust weatherization on the gas supply through the Railroad Commission
- Increase penalties at the RRC
- Provide direct customer relief due to storm
- Do anything to require/improve/increase demand response, energy efficiency
- Make it easier for distributed generation to interconnect or provide energy
- Increase Energy Efficiency goals
- Make major changes to building codes
- Do anything specific on climate, other than consult with state climatologist

New ACEEE Report On reducing demand

- *“Rather than build new power plants at high cost, Texas could avert future blackouts at a lower price by instead improving the energy efficiency of its homes and using technologies to shift electricity use away from times of peak demand, according to a [report](#) released today by the American Council for an Energy-Efficient Economy (ACEEE).”*

We can't have a resilient, reliable grid without focusing on where people live and work: residential and small commercial buildings

- Texas was first state to enact an Energy Efficiency Resource Standard (EERS) – a required goal for transmission and distribution utilities - but is now ranked 27th of all states on EERS policy
- Texas IOUs help reduce peak demand by nearly 600 MWs (a coal plant worth) but our potential is much greater
- Texas' goal is based on 0.4% of peak demand, and currently only achieves 0.19% energy savings
- **If Texas were to adopt a median goal of what other states do (1%) we would quintuple the amount of savings from our programs (approximately 2,436,000 MWhs).**
- NOIEs are required to report DR and EE programs but have limited programs as well, though CPS Energy and Austin Energy have been leaders and meet a 1 percent goal



▶ The PUC of Texas Superfast Timeline on Proposed Market Changes

November 1st, 2021	Comments due on 10/26 strawman questions
November 4th, 2021	Work Session - Commissioners' discussion and questions for stakeholders that submitted comments on 10/26 strawman questions
November 18th, 2021	Morning Open Meeting Afternoon Work Session
November 30th, 2021	Commissioners discussion regarding Version two of Strawman
December 3rd, 2021	Commission staff to issue 2nd strawman of Blueprint
December 10th, 2021	Stakeholder comments due on 2nd strawman
December 16, 2021	Commissioners to vote and issue final strawman
January 10th, 2022	ERCOT release Phase 1 timeline and issues
February 15th, 2022	ERCOT release Phase 2 timelines and seek additional input

What happened on December 16th?



What big decisions were made this winter?

- Market Redesign: PUC Project 52373:
<http://interchange.puc.texas.gov/search/filings/?UtilityType=A&ControlNumber=52373&ItemMatch=Equal&DocumentType=ALL&SortOrder=Ascending>
- PUC adopted fixes that are slight improvements - Phase 1 provisions include Lower Price-Adder, expanded Emergency Response Service, Dual-Fuel, Expanded Ancillary Services, Paying Demand Response Higher Prices, and Some Attention
- They at least directed ERCOT to look at Bigger longer-term proposals that could undermine renewables and favor gas - Load-Serving Reliability Obligation (Chairman Lake & NRG Proposal) and Back-up Reliability Services
- A smaller proposal would be to create a Dispatchable Energy Credit program that would tend to favor storage and fast-acting gas resources

Other PUC Proposals

- High Offer CAP on Energy Bids: Proposal to Lower from \$9,000 to to \$5,000 per MWh and Price-adder to go to cap when reserves get to 3,000.
- Securitization of ERCOT short-fall and other storm-related costs
- Energy Efficiency and Demand Response? We are demanding they open up a rule!
- Increase Emergency Response Services
- PUC Weatherization Requirements: Step 1 done, Step 2 being developed
- Better integration of distributed generation? Maybe
- Better access to data for energy management and demand response? Maybe
- Bill relief? NO

Railroad Commission of Texas: Critical Infrastructure for Winterization Weak Rule

- Why the proposed rule won't prepare us for winter; Slightly Improved
- The RRC made "critical infrastructure" designation optional in its proposed rule. Only gas facility operators designated as critical will be held accountable to future weatherization requirements ([See SB 3, section 5](#)). So gas facility operators could essentially be allowed to opt out of weatherization requirements before the weatherization rule is even drafted.
- Thousands of Texans submitted comments against the rule, and final version was much better, but...

No final rules on requirements for winterization and likely won't happen until winter of 2023 and will only cover parts of gas supply

SUNSET is a unique opportunity

- All state agencies required to go through sunset once every 12 years
- Legislature changed the dates in 2021, putting OPUC, ERCOT and PUC under sunset review in 22-23, instead of 2025
- ERCOT, PUC and OPUC are inextricably linked; makes sense to review them at same time
- Legislature already made some changes to governance through SB 2 and SB 54 last session, but those governance changes must be reviewed and assessed

PUC.ERCOT.OPUC sunset timeline

Schedule

September 2021: Self-reports submitted and available on website

Sunset Staff Review: April-November

Sunset Staff Report: November

Public Hearing: December

Commission Decisions: January, 2023

We the public interest groups will begin our public work in April-May, we hope holding our own hearings on the 3 key agencies

Some key issues that we could collaboratively work on

u *Public Participation* in Rules, Protocols, Transmission, Rates, Energy Efficiency Dockets and the Administrative Procedures Act

u Communication/accessibility of information to public

u Consideration of *Climate Change* must be part of ERCOT and PUC load, transmission and generation projections and programs

u Role of *Consumer in Governance* (and issues) in PUC, OPUC and ERCOT

u Role of demand-side and distributed technologies

u Role of new technologies (storage, demand response) in key committees/issues

u PUC new water focus - better coordination with TWDB and TCEQ

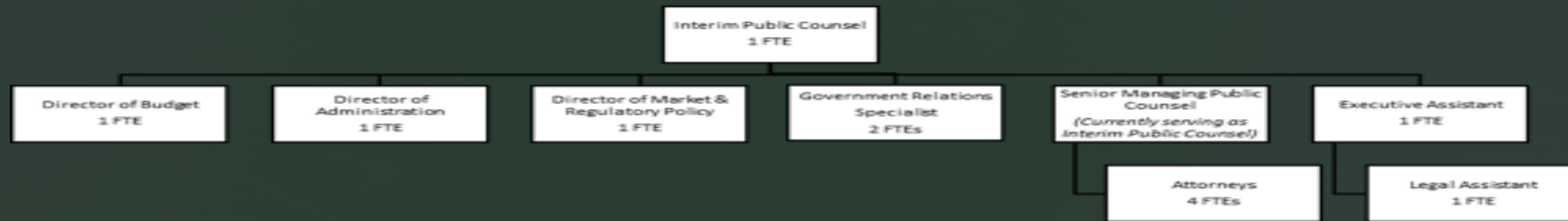
u Enforcement and Oversight

u Budget and resources

u Is our energy market competitive? Two companies control 75% of the competitive market

u Should PUC be also given some authority over gas supply and gas rates?

Don't forget OPUC - Office of Public Utility Counsel



Is 13 employees enough to represent 29 million electric and water consumers?

Should someone represent consumers on gas rates?

Broadband?

What can we do?

- Advocate for big climate federal infrastructure plan
- Sign our Action Alert asking PUC to hold a public hearing on any proposed market changes and for an energy efficiency rule (sc.org/FixTheGrid)
- Participate in our virtual vigils coming week of February 14th
- Get involved in ERCOT-OPUC-PUC Sunset through Sierra Club, CEER and Many others (<https://www.sunset.texas.gov/reviews-and-reports/agencies/public-utility-commission-Texas>)
- Ask your local utility to go big on clean energy, energy efficiency and local solar (<https://www.texascleanenergyscorecard.com>)