

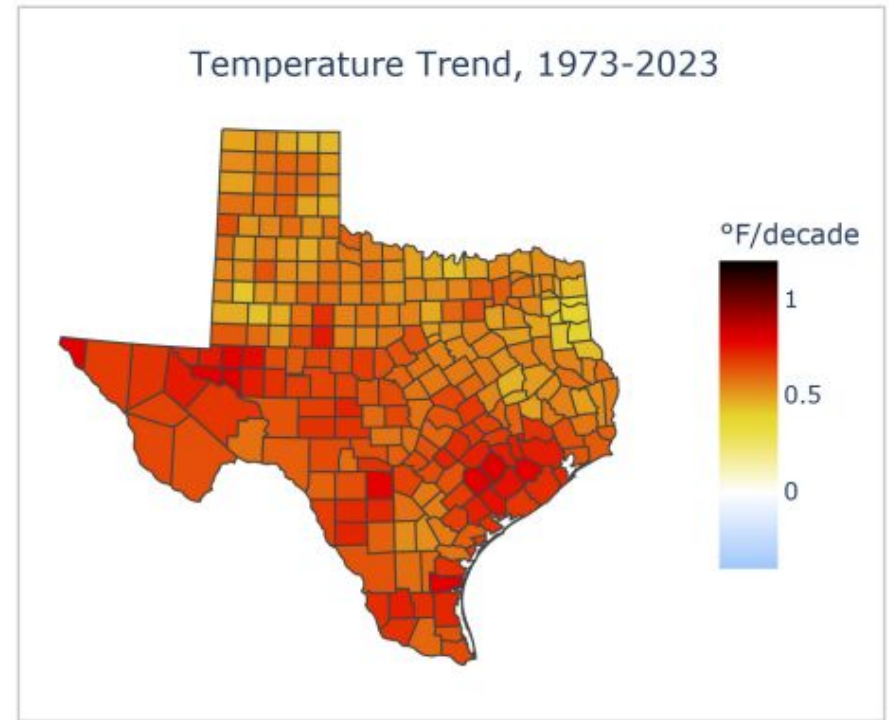
Texas Climate and Energy Policy Workshop

Becca Edwards
Climate Action Fellow
Texas Impact and
UMC General Board of Church and
Society



★ **TEXAS IMPACT**
PEOPLE OF FAITH WORKING FOR JUSTICE

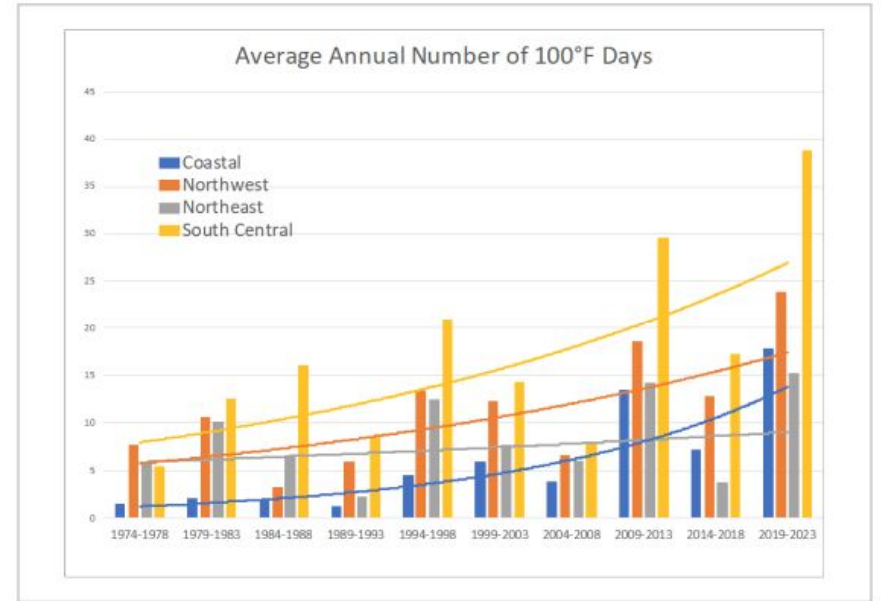
Texas and Climate Change



Temperature trends since 1973 according to NCEI nClimDiv data.

“Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036,” Office of the Texas State Climatologist

Texas and Climate Change



“Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036,” Office of the Texas State Climatologist

Texas and Climate Change

- Increase in frequency of 100 degree days
- Increase in frequency of extreme precipitation
- Increase in wildfire frequency and severity
- Coastal flooding
- Worsening drought

“Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036,” Office of the Texas State Climatologist

Types of Electrical Generation



Thermal Generation

Generates electricity by heating water to turn a turbine. Heat most often comes from burning a fossil fuel like natural gas or coal



Renewables

Generate electricity using renewable sources like wind or sunlight. Wind and solar are carbon neutral once installed.



Battery Storage

Networks of high-performance batteries used to store energy until it can be used. When paired with renewables, batteries smooth out the intermittency of those resources



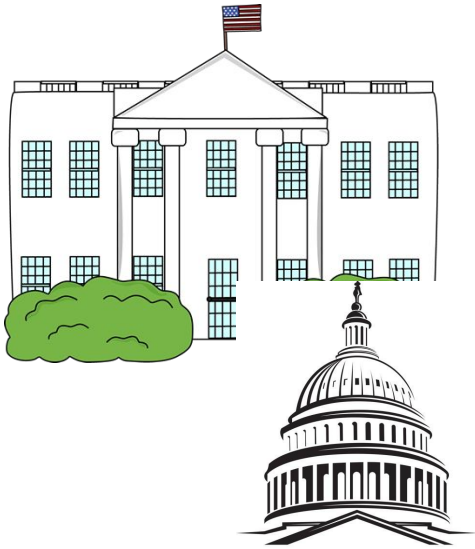
Other types of generation



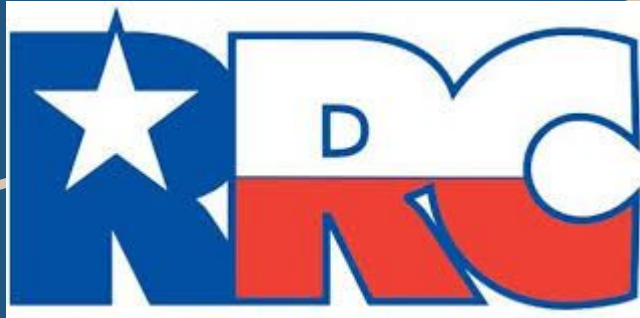
Climate Change and Energy Policy



Climate Action Requires Cooperation from All Levels of Government



Agencies that Handle Energy and Environment Regulations



Texas Railroad Commission

“The Railroad Commission of Texas is the state agency with primary regulatory jurisdiction over the oil and natural gas industry, pipeline transporters, natural gas and hazardous liquid pipeline industry, natural gas utilities, the LP-gas industry, critical natural gas infrastructure, and coal and uranium surface mining operations.”

Agencies that Handle Energy and Environment Regulations



Texas Commission on Environmental Quality

- “The Texas Commission on Environmental Quality strives to protect our state’s public health and natural resources consistent with sustainable economic development. Our goal is clean air, clean water, and the safe management of waste.”
- Monitors and regulates air emissions, air quality, water, waste disposal, and land cleanups
- Ensures compliance with federal Clean Air Act and Clean Water Act requirements

Agencies that Handle Energy and Environment Regulations



Public Utility Commission of Texas

- “The Public Utility Commission of Texas regulates the state’s electric, telecommunication, and water and sewer utilities, implements respective legislation, and provides customer assistance in resolving consumer complaints.”
- Oversight of electricity markets
- Regulates transmission and distribution utilities

Agencies that Handle Energy and Environment Regulations



Electric Reliability Council of Texas

- As an Independent System Operator, ERCOT is primarily responsible for maintaining system reliability, facilitating competitive wholesale and retail marketplaces, and ensuring open access to transmission. ERCOT does not own or operate any assets on the Texas power grid.
- Manage the generation portfolio, i.e. what sources generate electricity at a given time and how much

Climate-friendly policy benefits everyone!



Future Energy Needs of Texas

Current ERCOT capacity: 170 GW
(including natural gas, coal,
nuclear, wind, solar, batteries, and
hydro)

2039 Estimated Demand: **425-500
GW of capacity**

And, 25 GW from aging power
plants will retire over that period

Source: Long Term Assessment Report

Future Energy Needs of Texas

Current ERCOT capacity: 170 GW
(including natural gas, coal,
nuclear, wind, solar, batteries, and
hydro)

2039 Estimated Demand: 425-500
GW of capacity

**MEANING: ERCOT will need 280
to 350 GW of net new capacity**

Source: Long Term Assessment Report

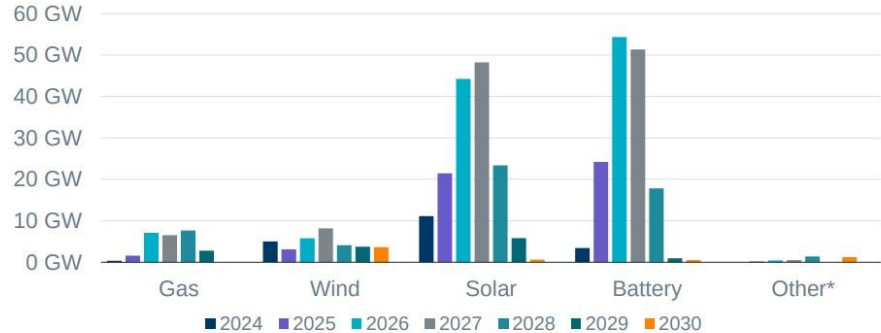
Future Energy Needs of Texas

Of the 371 GW of generation in the interconnection queue, 83% is solar and battery storage

Generation Interconnection Requests

1,872 active generation interconnection requests totaling 371 GW as of October 31, 2024
(Solar 155 GW, Wind 33 GW, Gas 26 GW, and Battery 153 GW)

(Excludes capacity associated with projects designated as Inactive per Planning Guide Section 5.2.5)



A break-out by zone can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: <http://www.ercot.com/gridinfo/resource>

* Other includes petroleum coke (pet coke), hydroelectric, fuel oil, geothermal energy, other miscellaneous fuels reported by developers, and fuel cells that use fuels other than natural gas.

Key Takeaway: Solar and Battery Energy Storage account for approximately 83% of the amount of generation seeking interconnection.

Renewables Benefit Rural Communities

- Utility-scale solar, wind, and battery storage projects will contribute \$20 billion in total tax revenue over their lifetimes
- Texas landowners receive \$29.5 billion in revenue from renewable energy installation over their lifetimes
- 75% of Texas counties receive significant tax revenue from renewable projects
- This revenue supports schools, community services, and infrastructure

“The Economic Impact of Renewable Energy and Energy Storage Investments in Texas” by Dr. Joshua Rhodes

Renewables Benefit Rural Communities

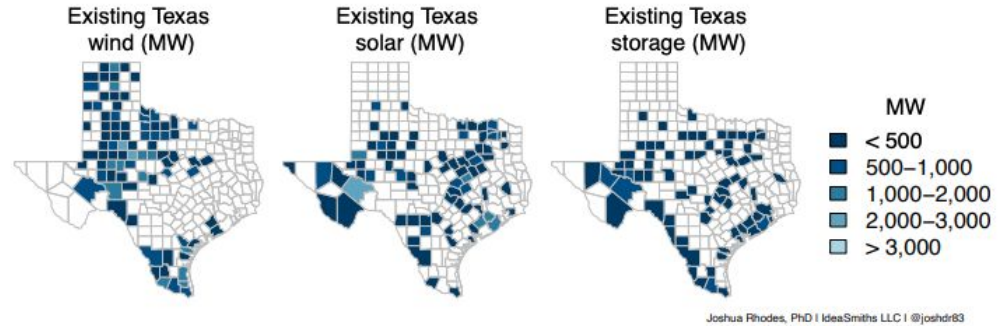


Figure 1: Figure showing the existing capacities of wind, solar, and energy storage, by county (Data from ERCOT MORA reports and EIA 860 data).

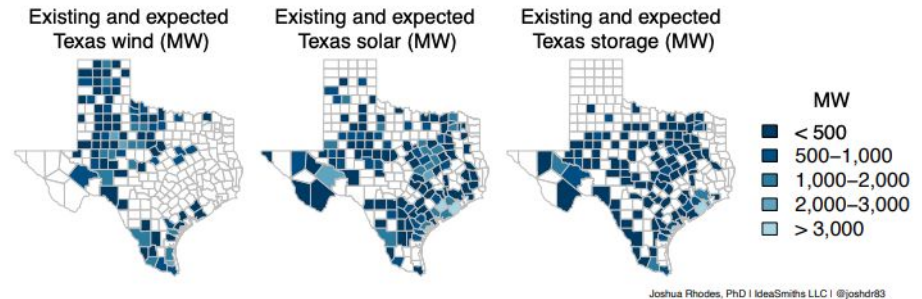


Figure 2: Figure showing the existing and expected capacities of wind, solar, and energy storage by county (Data from ERCOT MORA reports, ERCOT GIS reports¹⁴, and EIA 860 data).

“The Economic Impact of Renewable Energy and Energy Storage Investments in Texas” by Dr. Joshua Rhodes

Renewables Benefit Rural Communities

"Wind has been a Godsend – it allows flexibility in budgeting by providing a constant source of revenues that you know will be there when you need them."

— Don Allred, Former Oldham County Judge.

"Wind energy sales produce a passive income that does not materially interfere with the AG operations or other uses of the property. In times of drought, electric power sales continue to create rainfall-independent financial stability like the oil and gas sector provided for so many other ranchers... The developer's infusion of fresh capital will give our economy the time it needs to recover [from losing the county's largest employer and COVID-19]."

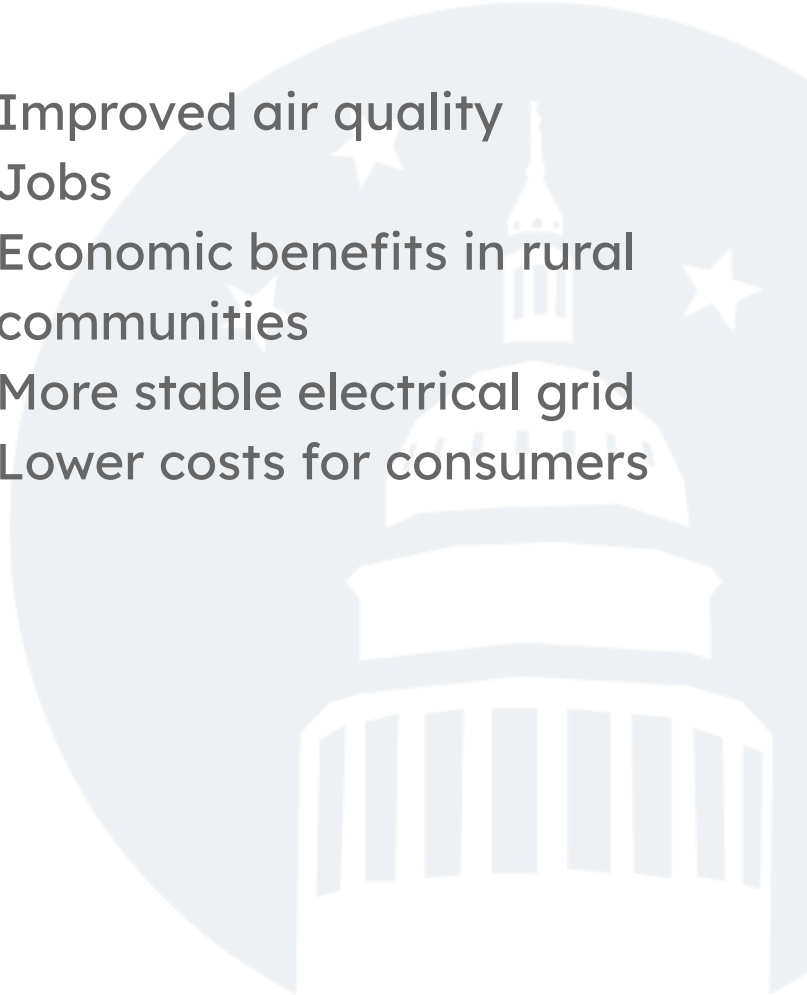
– Michael Manning, Bar T-Black Angus Ranch

"I wouldn't have been able to keep my land in the family if it were not for the landowner payments associated with the wind farms and their supporting infrastructure."

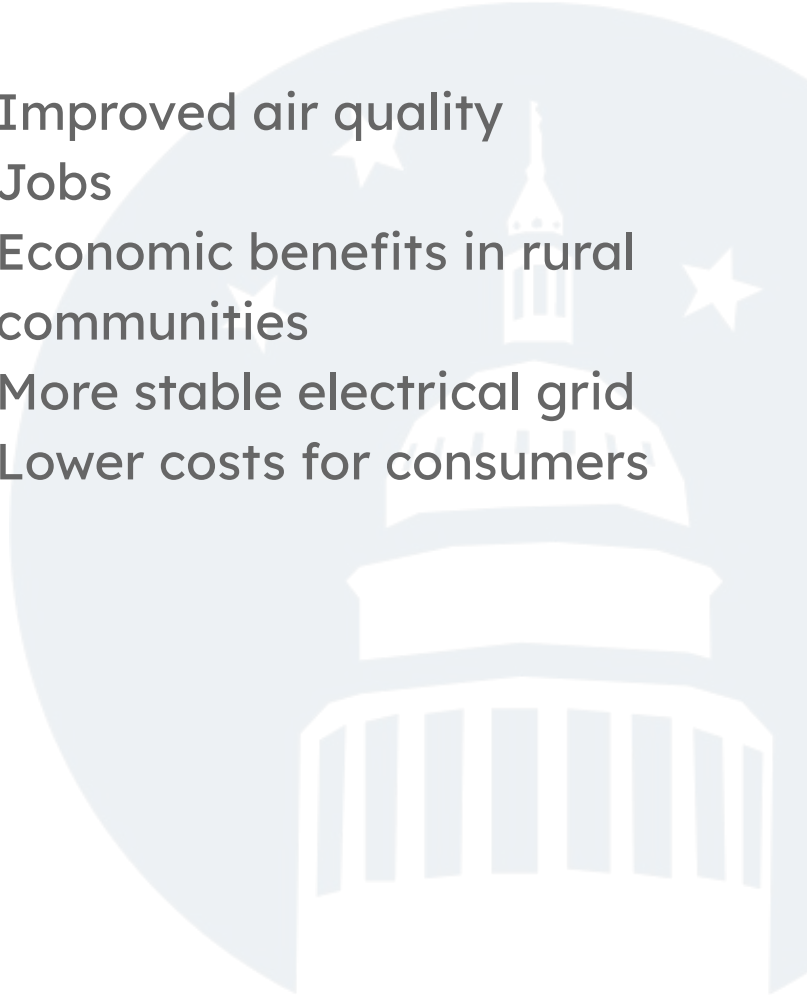
– Miesha Adames (Executive Director, SEED MDD)

"The Economic Impact of Renewable Energy and Energy Storage Investments in Texas" by Dr. Joshua Rhodes

More Benefits to Renewable Energy Expansion

- Improved air quality
 - Jobs
 - Economic benefits in rural communities
 - More stable electrical grid
 - Lower costs for consumers
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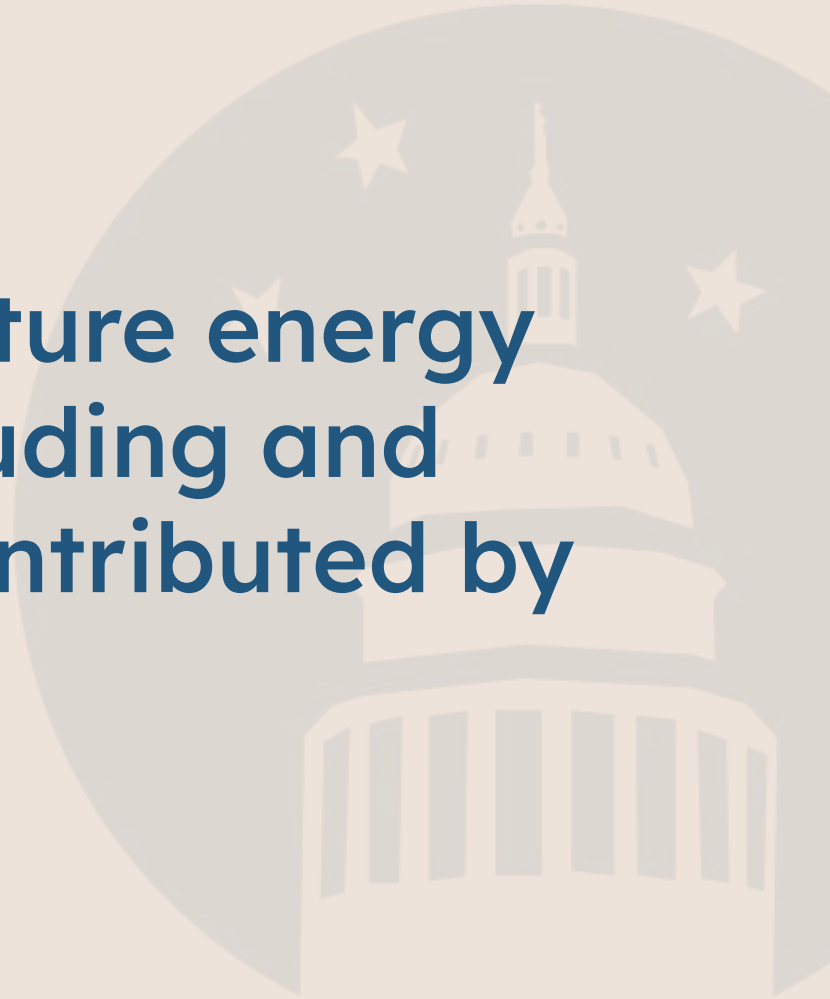
What do I tell my elected officials?



Renewable energy benefits rural residents and rural communities



We can't meet our future energy demand without including and growing the share contributed by renewables



Renewable energy is a quick way to add capacity to the grid now, and it saves money for consumers



A stable climate is critical for the future prosperity of Texas. We should reduce our emissions of greenhouse gases

(by increasing the share renewables hold in our electricity portfolio)

Thank You

Becca Edwards

becca@texasimpact.org

