DATA CENTERS, WATER, & ECONOMIC DEVELOPMENT

LUBBOCK ECONOMIC DEVELOPMENT ALLIANCE™

DATA CENTER: DEFINED

“A physical room, building, or facility that houses IT infrastructure for building, running, and delivering applications and services.” (IBM). The industry commonly consists of five types of data centers, each serving different operational and customer needs.

5 TYPES OF DATA CENTERS

ENTEPRISE

These facilities are built and operated by a single company to support its own business operations.

COLOCATION

Think of these as shared facilities. Multiple businesses rent space for their servers, while the data center provides the building, power, cooling, and internet connectivity.

HYPERSCALE

These are some of the largest data centers in the world. They support services like cloud computing, artificial intelligence, online storage and other digital platforms used by millions of people every day.

EDGE/INFERENCE

Smaller facilities located closer to homes and businesses, they process information near where it’s needed.

CARRIER HOTELS

These are connection hubs where internet service providers, cloud companies, and telecommunications networks exchange data.

WATER NEEDS FOR EACH TYPE OF DATA CENTER VARY SUBSTANTIALLY.

COMMUNITY & POLITICAL DYNAMICS

Building data infrastructure requires thoughtful planning, strong partnerships, and community support. Here are some key considerations for communities surrounding the data center industry.

DATA CENTERS ARE CRITICAL INFRASTRUCTURE

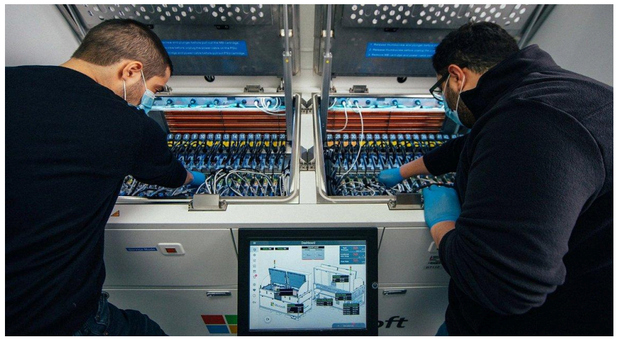
Datacenters are essential to the modern digital economy, enabling services and operations that were once locally situated to function on a global scale.

GRIDS ACROSS U.S. WERE NOT PREPARED

Electric infrastructure planning occurs on decade-long cycles. The rapid acceleration of data center demand caught utility systems across the country off guard, creating bottlenecks and delays. At the same time, the traditional economic law of supply and demand remains relevant: as electricity demand grows faster than available generation and infrastructure, competition for limited capacity can push costs up and reinforce the need for expanded supply.

THE INDUSTRY IS LISTENING TO COMMUNITIES

As developers adopt innovative technologies to reduce impacts and improve community compatibility, data centers within city limits typically face the highest levels of local regulatory review.



DATA CENTER DESIGN

Here are the main components of a Data Center and their functions. Understanding these components helps illustrate the physical infrastructure and resources required to operate a data center.

KEY COMPONENTS OF DATA CENTERS

SERVERS

Servers are powerful computers that process, store, and deliver data. They run applications, host websites, support artificial intelligence workloads, and enable cloud computing.

STORAGE

Modern data centers rely on a combination of high-speed solid-state drives, hard drives, and cloud-based storage architectures to manage enormous volumes of data

NETWORKING

Networking equipment such as switches, routers, and fiber-optic connections allows data to move rapidly between users, businesses, and cloud platforms.

POWER & COOLING

Data centers consume significant amounts of electricity and generate substantial heat. To operate reliably, they require redundant power systems, backup generators, batteries, and cooling technology.

POWER & COOLING DESIGN DICTATES HOW MUCH WATER A DATA CENTER USES.

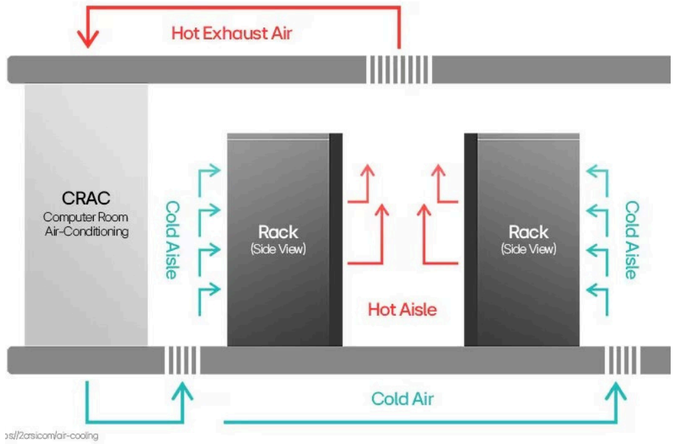
PROPOSED DEVELOPMENT STANDARDS

Requirements aimed at minimizing water use and eliminating the need for continuous water withdrawals from the City's public water system.

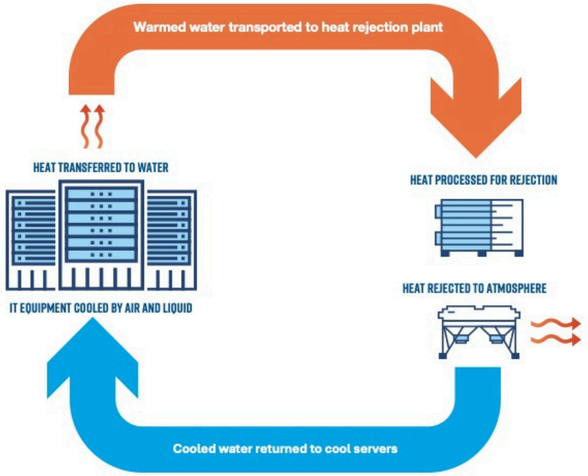
WATER-EFFICIENT COOLING TECHNOLOLGY

Local communities are considering standards designed to promote responsible water use and reduce the impact of data center development on community resources. The following are examples of technologies and requirements that can help conserve water, reduce initial water demand, and provide greater transparency regarding long-term community impacts.

AIR COOLING SYSTEMS



CLOSED LOOP COOLING SYSTEMS



Water-Use Disclosure: Require proposed cooling systems and projected water use at full build-out as part of the application.

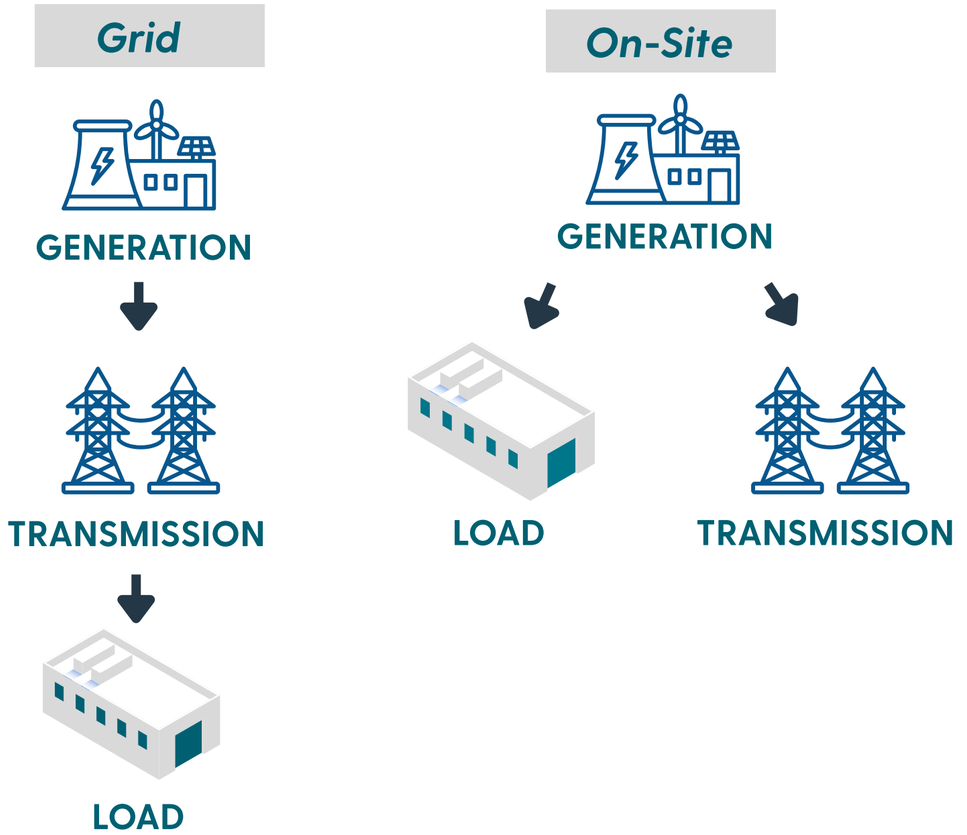
Cooling Technology: Requires closed-loop, air/dry cooling, or similar technology to minimize water use.

POWER

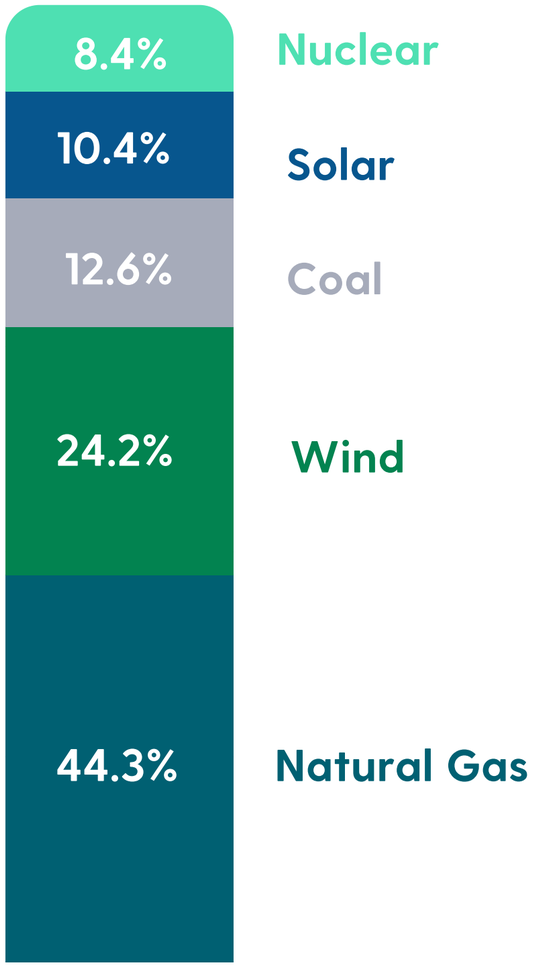
A snapshot of ERCOT's forecasted demand, generation capacity, interconnection pathways, and the energy mix powering growing loads.

POWERING DATA CENTERS IN ERCOT

INTERCONNECTION PATHWAYS



Growth Outlook for ERCOT 2026-28



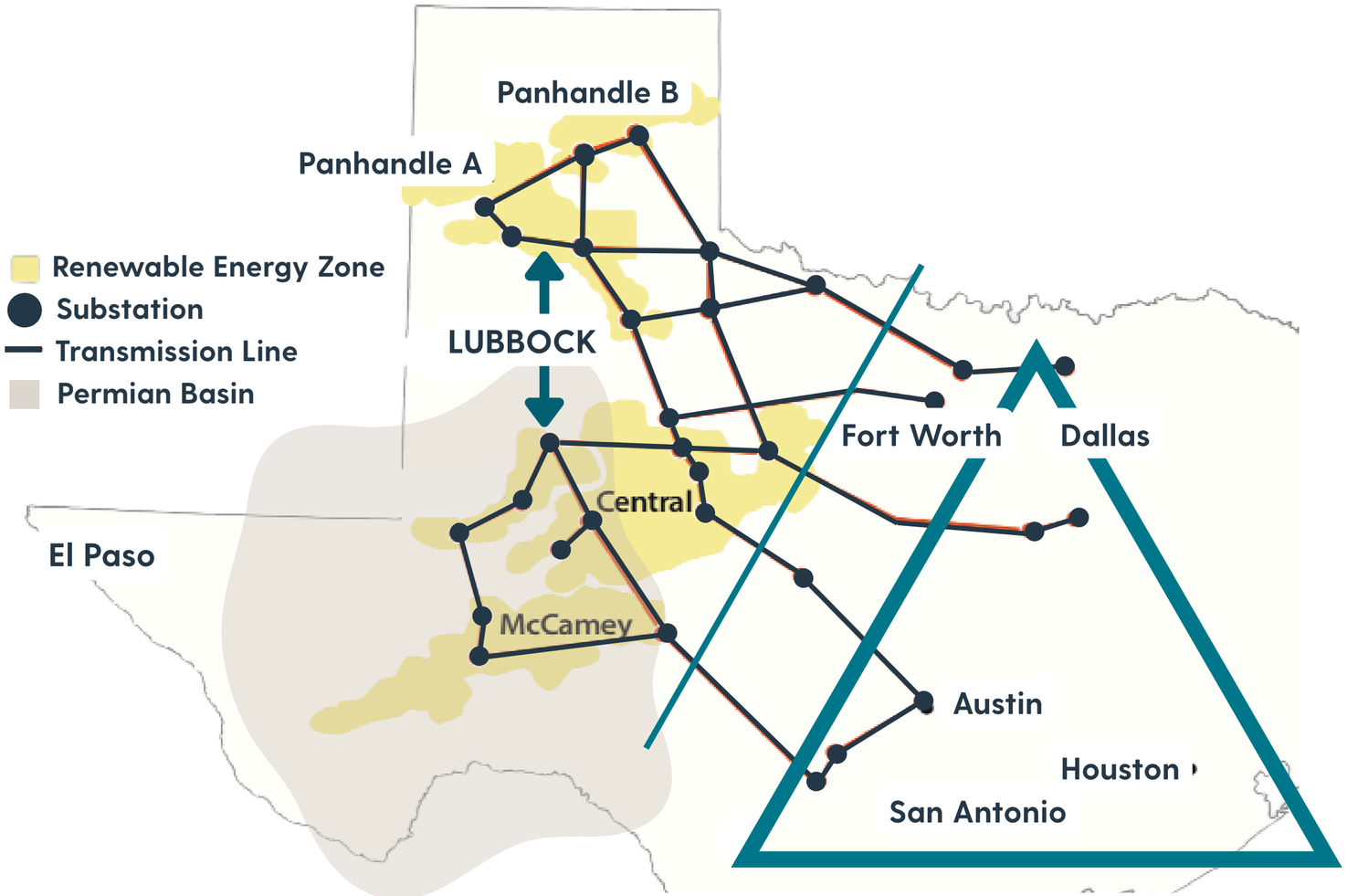
ERCOT GENERATION MIX 2025

DATA CENTER: GROWTH TX

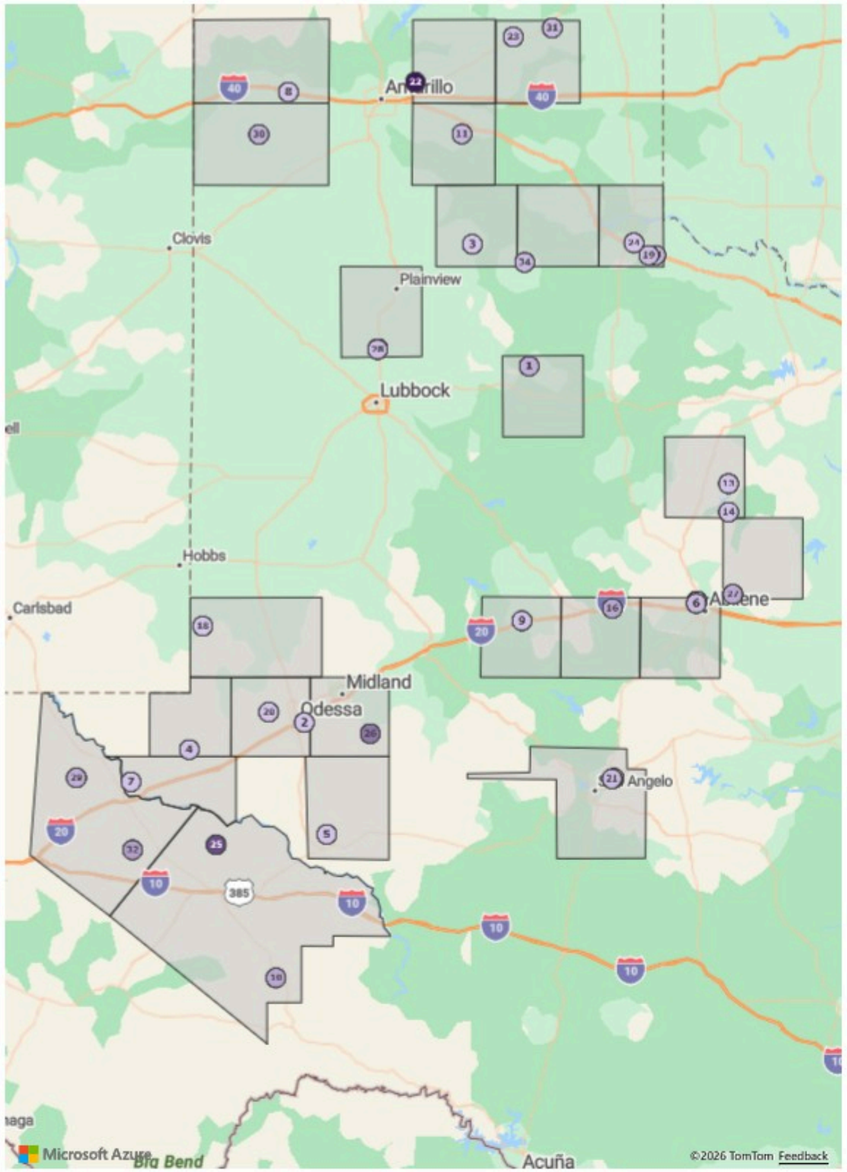
Lubbock has long played a key role in the ERCOT grid, supported by significant transmission infrastructure developed through the CREZ buildout to move West Texas energy to growing markets.

INFRASTRUCTURE POSITIONS WTX FOR GROWTH

Transmission infrastructure has positioned the region with access to large-scale power capacity and transmission, making it increasingly attractive to data centers. As AI, cloud computing, and broader digital demand accelerate, data centers are creating a new source of significant power demand and positioning Lubbock to play an expanding role in Texas' digital infrastructure.



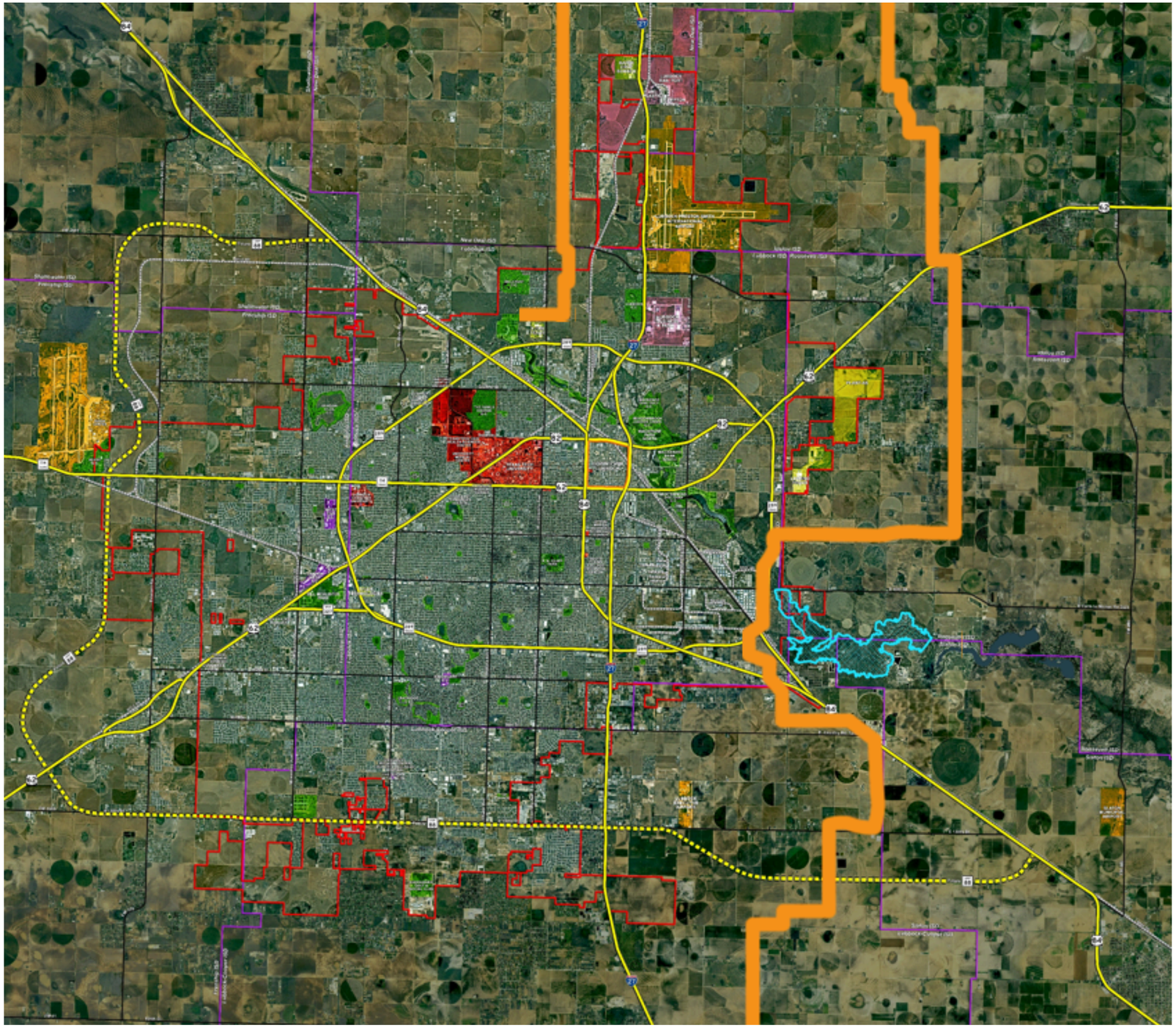
$429 BILLION TOTAL INVESTMENT | 49 TOTAL GW USAGE | 30 OF 34 PROJECTS DEVELOPED IN THE COUNTY



1	2021	Galaxy Helios	Dickens	Afton	County	$5,800,000,000	1,600	Operating, expanding
2	2022	Cipher Odessa	Ector	Odessa	City	$1,800,000,000	207	Planned
3	2022	Project Dorothy	Briscoe	Floydada, Silverton	County	$860,000,000	98	Operating, expanding
4	2023	Black Pearl	Winkler	Wink	County	$2,360,000,000	300	Under construction
5	2023	Hut 8 King Mountain	Upton	McCamey	County	$2,500,000,000	280	Operational
6	2024	Crusoe Abilene	Taylor	Abilene	City	$4,000,000,000	900	Under construction
7	2024	Ionic Digital Cedarvale	Ward		County	$2,100,000,000	234	Operational
8	2024	Hut 8 Vega Campus	Oldham	Vega	County	$1,600,000,000	205	Operating
9	2024	Cipher Barber Lake	Mitchell	Colorado City	County	$2,300,000,000	300	Under construction
10	2025	Project Horizon	Pecos	Fort Stockton	County	$17,400,000,000	2,000	Under construction
11	2025	Project Goodnight	Armstrong	Claude	County	$9,000,000,000	1,066	Under construction
12	2025	Fluidstack/Antrhopic Abernathy	Hale	Abernathy	County	$1,800,000,000	240	Under construction
13	2025	Google Haskell North	Haskell	Haskell	County	$2,440,000,000	280	Under construction
14	2025	Google Haskell South	Haskell	Haskell	County	$3,050,000,000	350	Under construction
15	2025	Cipher Colchis	Tom Green	San Angelo	County	$8,800,000,000	1,000	Planned
16	2025	IREN Sweetwater	Nolan	Sweetwater	County	$17,300,000,000	2,000	Planned
17	2025	Stargate Abilene	Taylor	Abilene	City	$9,600,000,000	1,200	Operating, expanding
18	2025	Project Stingray	Andrews	Andrews	County	$790,000,000	100	Under construction
19	2025	IREN Horizon	Childress	Childress	County	$6,800,000,000	750	Operating
20	2025	Texas Critical Data Centers	Ector	Odessa	County	$2,200,000,000	250	Under construction
21	2025	Skybox San Angelo	Tom Green	San Angelo	City		800	Planned
22	2025	Project Matador	Carson	Amarillo	County	$176,000,000,000	11,000	Under construction
23	2025	Pampa Natural Gas Data Center	Gray	Pampa	County	$3,500,000,000	400	Planned
24	2025	Soluna Project FEI	Childress	Childress	County	$880,000,000	100	Planned
25	2025	GW Ranch	Pecos	Fort Stockton	County	$67,000,000,000	7,650	Planned
26	2025	FO Permian Partners	Midland	Midland	County	$1,300,000,000	5,000	Under construction
27	2025	Stargate Frontier	Shackelford	Abilene	County	$25,000,000,000	1,820	Under construction
28	2026	Project Caprock	Hale	Abernathy	County	$5,940,000,000	648	Under construction
29	2026	Core Scientific Pecos AI Data Hall	Reeves	Pecos	County	$2,000,000,000	1,500	Under construction
30	2026	Project Roman	Deaf Smith	Hereford	County	$2,000,000,000	1,474	Planned
31	2026	Meitner Energy Center	Gray	Pampa	County	$8,400,000,000	1,000	Planned
32	2026	Microsoft Pecos Data Center	Reeves	Pecos	County	$23,000,000,000	2,500	Planned
33	2026	Lancium: Childress Campus	Childress	Childress	County	$4,000,000,000	1,000	Planned
34	2026	QTS Turkey	Hall	Turkey	County	$7,810,000,000	1,001	Planned

LUBBOCK ACCESS TO POWER

Now that Lubbock is connected to ERCOT, it is in a strategic position to leverage West Texas's power generation for long-term growth opportunities.



IMPACTS IN RURAL AREAS

As of August 2026, Abbott has directed PUC/ERCOT to implement several requirements, while he has said he intends to work with the Legislature to codify additional protections into law.

CHALLENGES OF UNINCORPORATED AREAS

LIMITED LOCAL REGULATORY AUTHORITY	ENFORCING COMMUNITY PROTECTIONS	STATE VS. LOCAL ENFORCEMENT
Unincorporated areas generally do not have the same zoning and land-use powers as cities, which can make local oversight of data center development more difficult.	Abbott's standards call for setbacks, noise mitigation, light controls, traffic improvements, and protections for neighboring properties, but rural counties may have more limited mechanisms for regulating these issues locally.	Because local authority can be limited, implementation may depend heavily on state-level oversight through the PUC and ERCOT rather than traditional city zoning and permitting.

CONSIDERATIONS FOR RURAL COMMUNITIES

WATER RESOURCES	ELECTRIC INFRASTRUCTURE	QUALITY OF LIFE
Identify water sources and usage, increase water reuse, and use water-efficient cooling.	Data centers should pay for infrastructure associated with their demand rather than shifting those costs to residents.	Address noise, lighting, traffic, setbacks, and emergency-response needs to reduce impacts on nearby rural residents.

COMMUNITY FISCAL IMPACT

IMPACT OF ADDING $1 BILLION IN TAXABLE VALUE TO THE CITY OF LUBBOCK

TAXING ENTITY	2025 TAX RATE	PROJECT TAXES PAID TO TAXING ENTITIES	POTENTIAL SAVINGS TO AVG HOMEOWNER	% SAVINGS ON TOTAL TAX BILL TO AVG HOMEOWNER
CITY	0.47219	$4,721,910	$42.58	4.01%
COUNTY	0.32743	$3,274,250	$23.69	3.22%
HIGH PLAINS WATER	0.002950	$29,500	$0.10	1.45%
LUBBOCK COUNTY HOSPITAL	0.099660	$996,600	$6.24	2.79%

IMPACT OF ADDING $5 BILLION IN TAXABLE VALUE TO THE CITY OF LUBBOCK

TAXING ENTITY	2025 TAX RATE	PROJECT TAXES PAID TO TAXING ENTITIES	POTENTIAL SAVINGS TO AVG HOMEOWNER	% SAVINGS ON TOTAL TAX BILL TO AVG HOMEOWNER
CITY	0.47219	$23,609,550	$183.44	17.30%
COUNTY	0.32743	$16,371,250	$104.93	9.89%
HIGH PLAINS WATER	0.002950	$147,500	$6.00	0.57%
LUBBOCK COUNTY HOSPITAL	0.099660	$4,983,000	$28.06	2.65%

COMMUNITY IMPACT

There is a 137% increase in savings for the average City of Lubbock homeowner if a project of this size is located within the City Limits rather than outside the City Limits.

$1 BILLION IN NEW TAXABLE VALUE

PROJECT LOCATED INSIDE CITY OF LUBBOCK

Estimated annual savings to average homeowner in Lubbock

$72

PROJECT LOCATED OUTSIDE CITY OF LUBBOCK

Estimated annual savings to average homeowner in Lubbock

$30

$5 BILLION IN NEW TAXABLE VALUE

PROJECT LOCATED INSIDE CITY OF LUBBOCK

Estimated annual savings to average homeowner in Lubbock

$322

PROJECT LOCATED OUTSIDE CITY OF LUBBOCK

Estimated annual savings to average homeowner in Lubbock

$139

WATER SUPPLY

Lubbock's 100+ year water strategy combines diverse groundwater and surface water sources with conservation, reuse, and continued infrastructure investment, providing long-term water security to support population, industrial, and economic growth.

CITY OF LUBBOCK

71.35 MGD System Capacity

33 MGD Canadian River Water Municipal Authority (CRMWA)

20 MGD Lake Alan Henry

18 MGD Bailey County Wellfield

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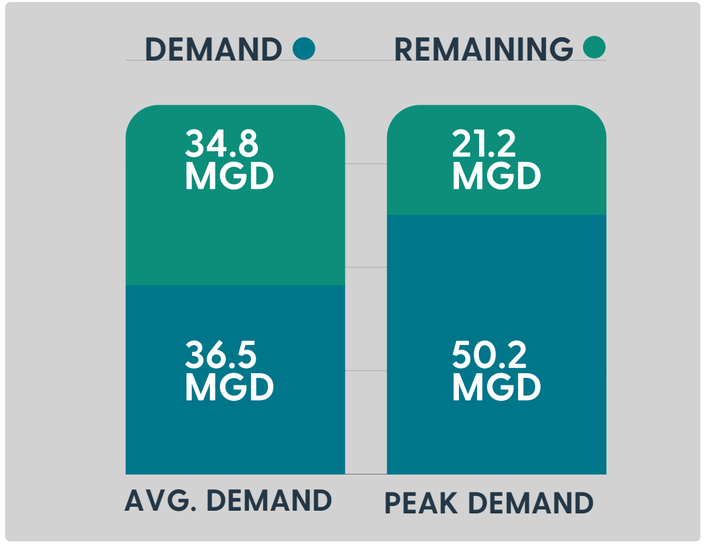
12 MGD *Lake 7 (2032) Reuse Water Supply*

CITY OF LUBBOCK WATER SYSTEM

Supply vs. Demand



COMMUNITY APPROACH

LEDA does not pursue every project presented to the community. Each opportunity undergoes a thorough evaluation. Since 2024, Lubbock has declined more than $25 billion in proposed projects that did not align with the community's long-term water resources and sustainability priorities.

CITY OF LUBBOCK WATER USERS

USERS	AVERAGE GPD	RANK VS. TOP 20 USERS
BELL FARMS	387,767	4/5
REGAL PARK	595,612	3/4
TECH TERRACE	240,422	6/7
LUBBOCK BUSINESS PARK	30,406	0
PROJECT DATA CENTER	110,000	13/14
640 ACRE COTTON FARM	384,657	4/5

MARKET AND COMMUNITY NEEDS

INDUSTRY IS ADAPTING

Over the past four years alone, projects have changed dramatically in both technology and scale. Below are two sample projects that are three years apart. One of the most notable differences is the amount of water required to cool the projects.

PROJECT MARGARITA

2023 RFI

TYPE:	*Enterprise*
ACRES:	*30-50 acres*
CAPEX:	*$200 million*
MW:	*50 megawatts*
WATER:	***1 MGPD***

PROJECT INFRARED

2025 RFI

TYPE:	*Inference/Edge*
ACRES:	*14 acres*
CAPEX:	*$540 million*
MW:	*27 megawatts*
WATER:	***1500 GPD***

THE FUTURE OF THE INDUSTRY

New approaches to water, power and partnership are reshaping how data centers integrate with communities.

ALTERNATIVE WATER

Expanding the use of non-potable water sources can reduce reliance on community freshwater supplies.

ADVANCED NUCLEAR

Researchers are exploring advanced nuclear power paired with desalination of produced water to provide reliable energy and alternative water supplies.

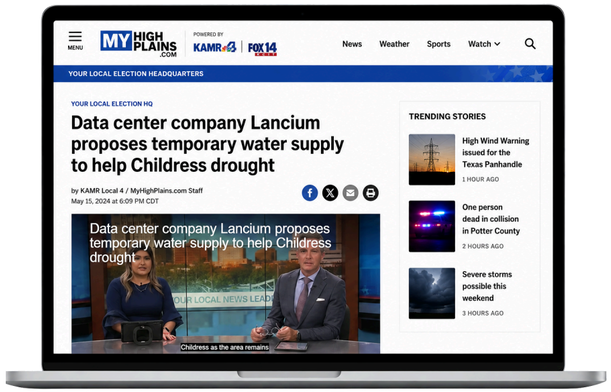
Texas Produced Water Consortium

Natura Resources

ACU

COMMUNITY PARTNERSHIP

Lancium proposed providing temporary water to Childress during drought, demonstrating how data centers can support the communities they call home.



NEXT-GENERATION POWER

Solid oxide fuel cells offer a scalable, efficient pathway to reliable on-site power for future data centers.

THANK YOU!

SCAN FOR PRESENTATION

LUBBOCK
ECONOMIC
DEVELOPMENT
ALLIANCE™