



STRATEGIC PLAN

2024-2028



CEO STATEMENT



Pablo Vegas
President and CEO of ERCOT

As the grid operator serving the majority of Texans, ERCOT is at the forefront of the energy transition. As we manage and operate through today's grid challenges, we will continue to lead the way by delivering a reliable, resilient, and affordable grid to Texans.

The power industry is evolving, and so must we. Our long-term Strategic Plan defines our roadmap for the next five years, illuminating a path that will solidify our position of being the premier grid and market operator in the country and make ERCOT the global standard in energy innovation.

As the leading fully deregulated energy market in the United States, ERCOT has responded to a significantly changing energy landscape by adapting and evolving our grid operations to meet the continued rising demand of the world's 9th largest economy.

ERCOT has a history of leading the way. From the deployment of the country's largest wind generation supply to the fastest adoption of solar generation and battery storage, ERCOT is positioned to continue leading the way for energy resource innovation.

Our next steps are critical. With energy markets changing rapidly, appropriate planning and new management techniques are required to maintain reliable and flexible grid operations. Innovative technologies and tools are needed as we develop new metrics and methods to address resource adequacy challenges now and in the future. We remain committed to our efforts to improve operations as we meet emerging challenges.

Texas is accustomed to being a leader. With momentum on our side, and by working together, we will continue to lead the energy transition by delivering a reliable, resilient, and affordable grid to all Texans.

A handwritten signature in white ink that reads "Pablo Vegas". The signature is stylized and fluid, written in a cursive-like script.

Pablo Vegas
President and Chief Executive Officer
Electric Reliability Council of Texas



Paul Foster
Chair

As our industry faces dynamic changes, ERCOT must continue to be an industry leader in innovation and reliability. As the Chairman of the ERCOT Board of Directors, I can assure Texas that the Board and ERCOT are evolving and making adjustments that will enable the grid to meet the demands of a growing population and economy. Working together, our task is to provide a grid that is both reliable and resilient – now and in the future.

The 2024-2028 Strategic Plan lays out the strategy to make ERCOT the grid of the future and to continue to be a leader in our industry. Our new direction will allow us to better focus on the daily demands of the grid, while putting an emphasis on implementing necessary long-term strategies.

We have a tremendous responsibility to provide Texans with a reliable and resilient grid now, and in the future, and we are committed to this responsibility.

Paul Foster
Chairman of the ERCOT Board of Directors

2023

1,873+

active market participants that generate, move, buy, sell, or use wholesale electricity

1,250+

generating units, including PUNs

54,100+

miles of high-voltage transmission

\$3.3 billion

transmission projects endorsed in 2022

2019

1,800+

active market participants that generate, move, buy, sell, or use wholesale electricity

650+

generating units, including PUNs

46,500+

miles of high-voltage transmission

\$1.3 billion

transmission projects endorsed in 2019

ABOUT ERCOT

Founded in 1970, ERCOT is an independent, not-for-profit organization responsible for overseeing the reliable and safe transmission of electricity over the power grid serving most of Texas.

As the Independent System Operator (ISO) since 1996, ERCOT has been the broker between competitive wholesale power buyers and sellers. In 1999, the Texas Legislature restructured the Texas electric market by unbundling the investor-owned utilities and creating retail customer choice in those areas. ERCOT was assigned four primary responsibilities:

- » System reliability – planning and operations
- » Wholesale market settlement for electricity production and delivery
- » Retail registration process for customer choice
- » Open access to transmission

ERCOT provided the platform upon which Texas' electric utility industry made the transition to retail competition on January 1, 2002. Today, ERCOT manages the flow of electric power to more than 26 million Texas customers – representing about 90 percent of the state's electric load. As the ISO for the region, ERCOT schedules power on an electric grid that connects more than 54,100 miles of transmission lines and 1,250+ generation units. It also performs financial settlement for the competitive wholesale bulk-power market and administers retail switching for more than 8 million premises in competitive choice areas.

ERCOT is a membership-based 501(c)(4) nonprofit corporation, governed by a 12-member Board of Directors and subject to oversight by the Public Utility Commission of Texas (PUC) and the Texas Legislature. Its members include consumers, cooperatives, generators, power marketers, retail electric providers, investor-owned electric utilities, transmission and distribution providers, and municipally-owned electric utilities.



How ERCOT is funded

The PUC has authorized ERCOT to charge the ERCOT System Administration Fee to fund its budget. As ERCOT is not included in the State of Texas General Appropriations Act and is not a part of the state's budget, this fee is ERCOT's primary source of revenue. ERCOT converts the fee into a charge to each Qualified Scheduling Entity using the formula set forth in the ERCOT Protocols, which is based on actual volume consumption of electricity. A typical residential consumer will pay less than a \$1 per month through this fee. ERCOT submits a biennial budget to its Board and, ultimately, the PUC for final approval.

Vision



Lead with independent insight on the future of electricity reliability, markets, and technology in Texas in order to facilitate grid and market change for the benefit of all stakeholders.

Mission



We serve the public by ensuring a reliable grid, efficient electricity markets, open access, and retail choice.



**Scan here
to learn more
about ERCOT**



ERCOT CORE VALUES



Innovation



Leadership



Trust



Accountability



Expertise



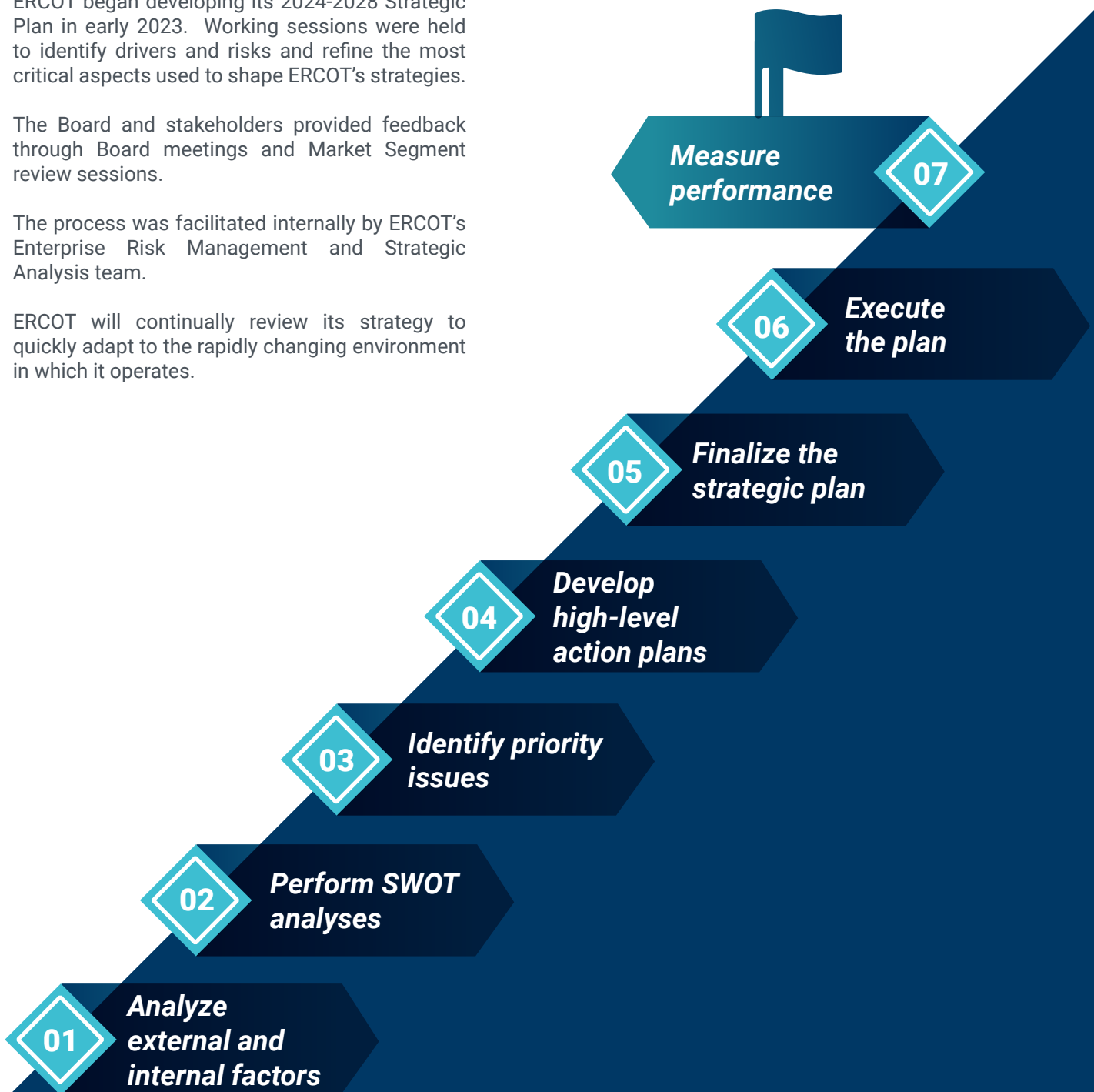
STRATEGIC PLANNING

ERCOT began developing its 2024-2028 Strategic Plan in early 2023. Working sessions were held to identify drivers and risks and refine the most critical aspects used to shape ERCOT's strategies.

The Board and stakeholders provided feedback through Board meetings and Market Segment review sessions.

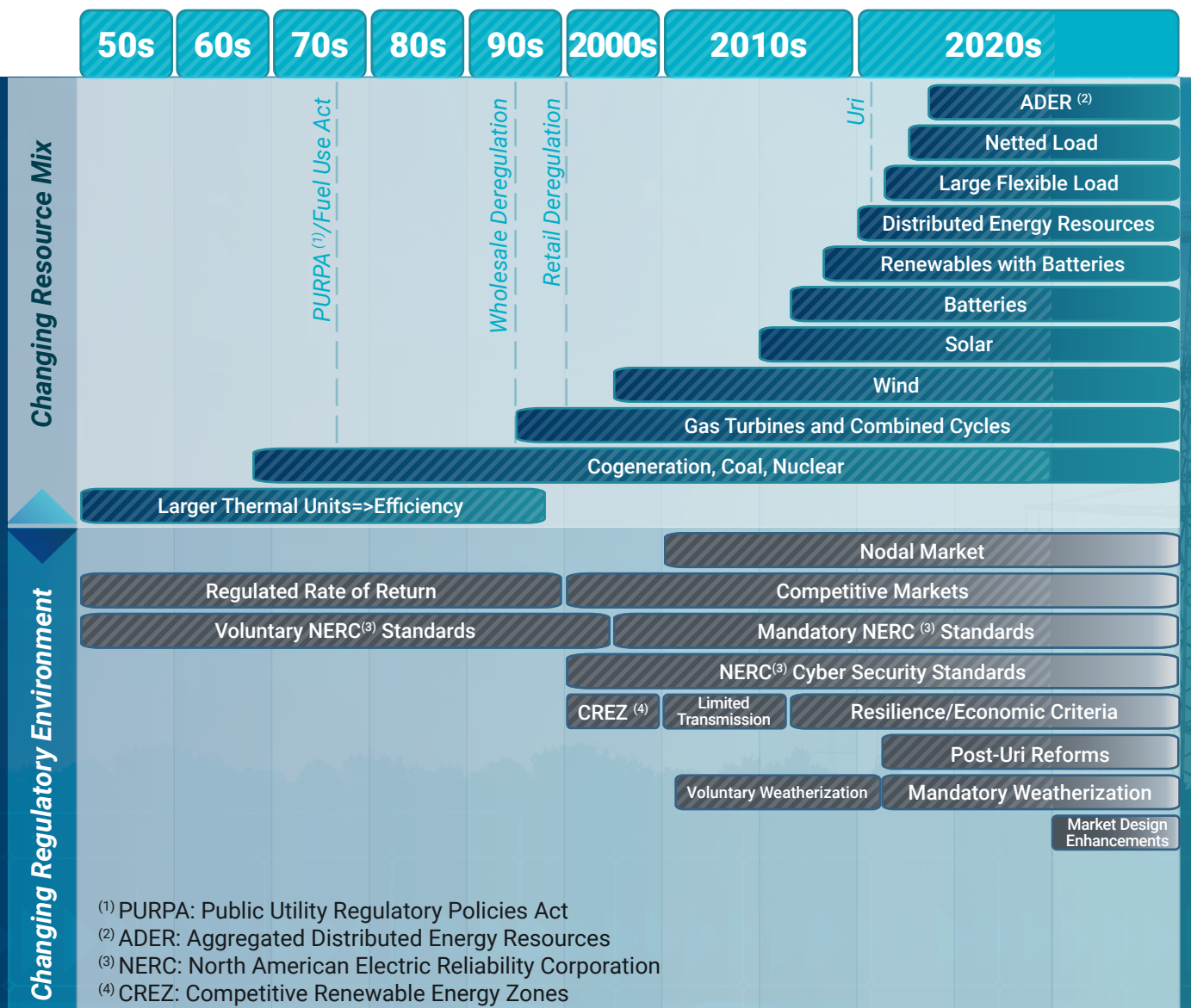
The process was facilitated internally by ERCOT's Enterprise Risk Management and Strategic Analysis team.

ERCOT will continually review its strategy to quickly adapt to the rapidly changing environment in which it operates.



DRIVERS OF CHANGE

The ERCOT region has witnessed significant changes in its resource mix and regulatory environment. One notable trend has been the evolution of the types and numbers of participants that ERCOT interacts with. Over the last decade, wind and solar generation has increased as well as the development of energy storage. The participants have grown and evolved as well and now include large flexible loads and distributed energy resources. In terms of regulations, ERCOT has undergone reforms aimed at improving grid reliability and resilience, particularly in response to extreme weather events. These changes have focused on enhancing communication, strengthening weatherization standards, and implementing measures to ensure system stability. Overall, the ERCOT region has experienced a dynamic transformation, embracing new energy sources while striving to enhance the reliability of its power infrastructure.



KEY STRATEGIC DRIVERS

Grid modernization and complexity

The electric grid is experiencing change at a rate much higher than seen in the past. This is evaluated in terms of the changing resource mix, the types of demand that are connecting to the grid, and the level of regulatory compliance. Many recent regulations at the state and federal levels have come in response to system events and have required expeditious implementation.

Historically, supply and demand grew at predictable rates, which led to a steady pace of change in the electric industry. Driven by public policies, economics, and technological innovations, the pace of change has accelerated such that modeling, rules and regulations, and analytical tools and methods have struggled to keep up.

The ERCOT system is evolving towards having the nation's highest penetration of wind and solar resources with a relatively static level of thermal dispatchable generation. This change will result in increased stability limitations, increased modeling complexity, decreased system inertia, and increased volatility. New and alternative technologies, such as grid-forming inverters and synchronous condensers, are needed to keep the grid stable in the future. Additionally, there are uncertainties with respect to distribution-connected resources, battery energy storage systems, and large flexible loads, both from a stability modeling and market-based behavior perspective.

These challenges require ERCOT to proactively model these changes and anticipate reliability issues and market design implications associated with the changing resource mix. As the grid evolves, ERCOT and the broader industry will need to increase their capabilities to meet the rapidly changing needs of the system and customers.

Changing distribution system and operational impacts

Generation on the distribution system has been increasing exponentially. There are visibility challenges to ERCOT regarding load and supply resources on the distribution system. Changes on the distribution system influence the transmission system, which creates technical challenges for mapping and modeling. The future of how distribution system operations and transmission control centers will work together is unclear. However, the potential to leverage distribution resources for grid reliability, efficiency, and resiliency makes further research critical to determine how to best optimize those networks.

Market design and behavior changes

The PUC and the Texas Legislature establish policy and rules for the ERCOT market. ERCOT must be prepared to participate, evaluate, and implement market design changes, ensuring that market outcomes reflect design intentions.

Reputation, public perception, and trust of ERCOT, Inc.

ERCOT has experienced increased awareness and criticism in the wake of Winter Storm Uri. ERCOT is committed to upholding its mission, instilling the trust of Texans, and continuing to attract and retain the best talent to execute on its strategies.

KEY STRATEGIC DRIVERS

Technological advancement

While the grid is rapidly changing, there is a corresponding advancement in digitalization and the convergence of operational technology (OT) and information technology (IT). ERCOT will have to adapt and innovate on the tools, technologies, and processes to support the grid transformation. There are more sensors and devices that are on the edge of the grid that provide vast amounts of data, such as thermostats, appliances, home battery systems, electric vehicle chargers, etc., that could be used by grid operators. Handling the exponential growth of data requires investments not only in cloud-based technologies but also in data analytics, leveraging the advancements in computation and artificial intelligence and machine learning (AI/ML). The use of AI/ML has led to significant advances in several industries, and it is not hard to anticipate using AI as a co-pilot for grid operators. The next iteration of data centers will be a hybrid between cloud and on-premise, ensuring scalability and security. To ensure delivery of quality software products, ERCOT will need to leverage advancements in software development, continuous deployment, and test automation.

Cyber and physical security vulnerabilities

Cyberattacks continue to be a significant threat to all organizations, including those in our industry. As the sophistication and volume of cyberattacks continues to rise, the ongoing focus on cybersecurity is critical. Likewise, the uptick in physical security attacks to grid equipment demands closer monitoring and engagement with public safety authorities. ERCOT continuously evaluates and implements improvements to keep our systems, facilities, and resources protected against these threats.

Changing workforce dynamics and increasing competition for talent

The workforce and workplace have changed rapidly in recent years as a result of the pandemic and shrinking labor pool. Expectations have changed regarding how and where people work. ERCOT has adapted to these changes. ERCOT will keep an informed perspective regarding how the future of work continues to shift and change over time. In addition, companies and people continue to move to Texas at an unprecedented rate. The increased competition for talent has changed the way ERCOT will recruit, retain, and develop talent in the coming years.

STRATEGIC OBJECTIVES

Our strategic objectives are clear. First, to position ourselves as an industry leader for grid reliability and resilience, safeguarding the consistent delivery of power to our stakeholders. Second, we aim to enhance the ERCOT region's economic competitiveness with respect to trends in wholesale power rates and retail electricity prices, thereby benefitting both consumers and businesses. Finally, we are committed to advancing ERCOT, Inc. as an independent leading industry expert and an employer of choice, cultivating a culture of innovation, investing in our talented workforce, and instilling a strong sense of purpose in fulfilling our critical mission.

1

Be an industry leader for grid reliability and resilience

2

Enhance the ERCOT region's economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers

3

Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission

PRIORITY ISSUES



Be an industry leader for grid reliability and resilience

- 1.1** Anticipate and rapidly respond to changes in market, operational, and planning needs
- 1.2** Facilitate the reliable market operation of new and existing generation and load resources at both the transmission and distribution level
- 1.3** Develop and implement a long-term transmission strategy meeting Texas' policy objectives
- 1.4** Lead the development of cost-effective changes to regulations or standards impacting the ERCOT grid
- 1.5** Advance ERCOT, Inc.'s resiliency, security, business continuity, and disaster management capabilities



Enhance the ERCOT region's economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers

- 2.1** Advocate and support efficient markets while delivering on reliability and resiliency expectations
- 2.2** Evolve toward more organizational agility and improved quality assurance so ERCOT, Inc. can implement changes efficiently and effectively to manage a rapidly changing energy environment
- 2.3** Promote innovation, continuous improvement, and transparent data-driven decision making



Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission

- 3.1** Cultivate a highly skilled workforce creating a rewarding work environment and driving success for the organization
- 3.2** Implement a workforce and learning strategy creating greater capacity for developing internal expertise and thought leadership
- 3.3** Strengthen ERCOT, Inc.'s culture by improving internal communications and enhancing employee experience
- 3.4** Continue building credibility and trust with all stakeholders through proactive and transparent communications of policy objectives, grid and market conditions, and organizational achievements
- 3.5** Expand ERCOT, Inc.'s position as a leading industry expert by increasing external collaboration and leveraging knowledge transfer

STRATEGIC OBJECTIVE 1

Be an industry leader for grid reliability and resilience

1.1 Anticipate and rapidly respond to changes in market, operational, and planning needs

The ERCOT system and power market are continuously changing as new technologies are adopted, economic growth drives new demand, extreme conditions become more normal, and the behaviors and expectations of market participants and end-use consumers evolve. As the independent organization whose charges include ensuring reliability and adequacy of the regional grid and non-discriminatory access to the market for all buyers and sellers, ERCOT, Inc. must proactively identify and prepare for these changes to serve customers.

To achieve this goal, ERCOT, Inc. will develop processes, tools, and resources to anticipate and evaluate the impacts of these changes on its market, operational, and planning functions. ERCOT will undertake initiatives like gathering newly important types of information and incorporating new critical conditions within operational and planning studies. It will improve market simulations and market-driven forecasting as well as modeling and analysis of system disturbances exacerbated by inverter-based resources. It will develop a roadmap for addressing increasing stability challenges. By undertaking these types of initiatives, ERCOT, Inc. will continue to position itself to anticipate and rapidly respond to changes in market, operational, and planning needs.

1.2 Facilitate the reliable market operation of new and existing generation and load resources at both the transmission and distribution level

The variety of new resource types that are entering the ERCOT System continues to increase. Some end-use consumers of electricity are varying their demand in response to electricity prices more frequently and more quickly than in the past, and these large variances in demand pose challenges for maintaining the voltage and stability of the grid. Additionally, ERCOT, Inc. has observed increasing interest in the development of utility-scale solar resources, energy storage resources, and distributed energy resources, including the aggregation of small, distributed energy resources. ERCOT, Inc. must work towards implementing appropriate technical requirements and market-driven incentives to maintain reliable operations while incorporating these new resource types into its system and markets. ERCOT, Inc. will need to evolve its processes and tools to adequately study and monitor the impacts to the ERCOT system of these new resources. To the extent legal or regulatory changes are needed, ERCOT, Inc. should serve as a source of facts and expertise for lawmakers and regulators regarding these challenges and the options for resolving them.

1.3 Develop and implement a long-term transmission strategy that meets Texas' policy objectives

ERCOT, Inc. should collaborate with the PUC on a proactive and holistic strategy to ensure robust transmission infrastructure is ready and available to promptly deliver power from utility-scale generation to loads and load centers in a reliable, economic, and resilient manner. There needs to be a comprehensive and longer-term strategy with the PUC and utilities to speed up the transmission planning and development process. This will entail proposing policy options to the PUC and then implementing their recommendations.

1.4 Lead the development of cost-effective changes to regulations or standards impacting the ERCOT grid

ERCOT, Inc. has a wealth of expertise on operational and market matters that are independent of the competing financial interests of the various stakeholder entities and groups. The organization should strive to be considered a trusted advisor, providing facts, context, and considerations for policy makers. To the extent ERCOT, Inc. identifies operational or market benefits or concerns with proposed laws, rules, or regulations, ERCOT, Inc. should inform the decision makers, so that they benefit from ERCOT's expert opinions.

1.5 Advance ERCOT, Inc.'s resiliency, security, business continuity, and disaster management capabilities

Improving organizational resiliency, security, business continuity, and disaster management capability is crucial in today's dynamic and unpredictable environment. ERCOT, Inc.'s core functions are vital to the public interest. Because ERCOT, Inc. must ensure it always does its work well, including in times of crisis, it must have robust business continuity and disaster management programs. These include being prepared for increased occurrences of extreme weather, cyber or physical attacks, and failures by other entities that could impact ERCOT, Inc.'s ability to carry out its duties. This has implications not only for its facilities and its own crisis operations, but also for managing the bulk power system in times of extreme weather, attack, or other external threats. By improving organizational resiliency, business continuity, and disaster management capability, ERCOT, Inc. is better equipping itself to be able to thrive in today's rapidly changing landscape.

STRATEGIC OBJECTIVE 2

Enhance the ERCOT region's economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers

2.1 Advocate and support efficient markets while delivering on reliability and resiliency expectations

While reliability is the organization's primary objective, costs should always be considered. ERCOT, Inc. will strive to identify and champion market outcomes and solutions that result in the most competitive wholesale power rates and retail electric prices without compromising reliability or resilience. When deciding among multiple market outcomes and solutions options that equally impact reliability and resilience, ERCOT, Inc. will choose the most cost-competitive option. In support of continuous improvement, ERCOT will evaluate reliability and market efficiency outcomes post- implementation to determine if goals were achieved.

2.2 Evolve toward more organizational agility and improved quality assurance so ERCOT, Inc. can implement changes efficiently and effectively to manage a rapidly changing energy environment

Organizational agility is critical in today's fast-changing environment. It is becoming increasingly important for ERCOT, Inc. to be more agile and quickly respond to, and benefit from, change. Agility refers to ERCOT, Inc.'s ability to adapt to external and internal needs, improve efficiency, and lead change. Agility requires a stable platform that does not change while many things are changing around it. This involves being both stable and dynamic on structure, process, systems, and people. ERCOT, Inc. will evaluate and improve internal processes and tools to be able to change more quickly. It will also invest in enterprise change management and quality assurance to help ensure any additional flexibility does not adversely impact reliability or resilience.

2.3 Promote innovation, continuous improvement, and transparent data-driven decision making

Innovation is one of ERCOT, Inc.'s core values, and promoting it has never been more critical to organizational success than it is now. ERCOT, Inc. will leverage technology innovation to streamline systems and efficiently achieve goals by implementing the latest technologies, automating manual processes, reducing errors, and optimizing resources. Embracing modern technology allows ERCOT, Inc. to continue to deliver on its mission and meet evolving stakeholder needs.

Decisions driving ERCOT, Inc.'s success should be supported by sound underlying data, and the volume of that data is growing at a rate of 25% per year. To improve transparency and make decision-making information more easily accessible, ERCOT, Inc. will modernize its data architecture, data engineering, and data analytics practices. That will help the organization be able to establish single sources of truth for market, operational, and financial data. Advancing data accessibility and analytics is crucial to gain insights and make data-driven decisions.

STRATEGIC OBJECTIVE 3

Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission

3.1 Cultivate a highly skilled workforce, creating a rewarding work environment and driving success for the organization

ERCOT, Inc. will prioritize the development of internal skills and create more growth opportunities within the organization. By focusing on enhancing the abilities of its employees, it can cultivate a highly skilled workforce that will create a rewarding work environment and drive success for the organization. To achieve this goal, ERCOT, Inc. will evaluate skillset gaps and implement a plan to provide its employees with the necessary tools and resources to develop their skills and expertise. ERCOT, Inc. will also establish mentorship programs and cross-functional training initiatives to foster a culture of continuous learning and growth. Additionally, it will create a system for identifying high-potential employees and provide them with targeted development opportunities to help them reach their full potential within the company.

3.2 Implement a workforce and learning strategy, creating greater capacity for developing internal expertise and thought leadership

In a time of significant change, ERCOT, Inc. will develop a staffing strategy to continually align its workforce with its objectives. ERCOT, Inc. will continue to work to optimize its talent, which is its greatest asset, so that it can achieve its objectives, anticipate future needs, attract and retain top talent, increase employee engagement and job satisfaction, and improve overall business performance. These efforts will include, but are not limited to, improving its recruiting efforts, developing a resource plan for strategic initiatives, improving enterprise staffing forecasting and planning, and creating a greater capacity for thought leadership and innovation.

3.3 Strengthen ERCOT, Inc.'s culture by improving internal communications and enhancing employee experience

Strengthening company culture is crucial for ERCOT, Inc. to adapt to the changing environment, attract and retain top talent, and achieve its objectives. Additionally, the organization will showcase the cutting-edge work and thought leadership

from people within the organization. From the day you start at ERCOT, Inc., it should be apparent that it is a great place to belong and work on important mission-driven work.

Internally, ERCOT, Inc. will implement a comprehensive communications program that will engage, inform, and unite employees. It is important that employees feel proud to work at ERCOT, Inc.

3.4 Continue building credibility and trust with all stakeholders through proactive and transparent communications of policy objectives, grid and market conditions, and organizational achievements

Externally, ERCOT, Inc. continues to rebuild trust and improve its overall reputation by communicating clear and reliable information on grid conditions with all stakeholders, including state leaders, market participants, industry representatives, media, and general public. ERCOT, Inc. will work to establish its leaders as resources for the media, legislators, and other government officials. Effective, two-way communication helps build trust and credibility and helps mitigate crisis situations. Investing in improving external communications is a strategic priority as ERCOT, Inc. continues to establish strong relationships with its external stakeholders.

3.5 Expand ERCOT, Inc.'s position as a leading industry expert by increasing external collaboration and knowledge transfer

Increasing collaboration and knowledge transfer is critical for ERCOT, Inc. to strengthen its position as a leading industry expert and broaden perspectives. By increasing collaboration and leveraging industry experts, ERCOT, Inc. can tap into a greater knowledge base and keep up to date with the latest trends and innovations. This can lead to more informed decision-making, increased innovation, and improved overall performance. Additionally, by fostering collaboration within the organization, ERCOT, Inc. can encourage enterprise teamwork and idea sharing. This can create a more inclusive and supportive workplace culture, leading to higher employee engagement and job satisfaction. Therefore, increasing collaboration and leveraging outside expertise is an essential strategy for ERCOT, Inc. to achieve its mission.

PLAN CONCLUSION

ERCOT's Strategic Plan sets forth a bold and transformative roadmap, aligning our efforts with the evolving energy landscape and the needs of our consumers. We will hold a steadfast commitment to grid reliability and resilience in an everchanging world. By enhancing economic competitiveness, we aim to provide accessible and affordable electricity to our consumers. As we nurture a culture of innovation and invest in our people, ERCOT will solidify its position as a leading industry expert and employer of choice, dedicated to serving our mission with passion and purpose.

To measure Strategic Plan progress, ERCOT will utilize a combination of key performance indicators, objectives and key results, and measures of success. Metrics will be tailored to each strategic objective, allowing us to track grid reliability and resilience through measures like system performance and forecast accuracy. Economic competitiveness will be assessed by analyzing trends in wholesale power rates and retail electric prices relative to other areas in the United States. Advancement as an industry expert and employer of choice will be monitored through employee engagement metrics and retention rates. Regular progress reviews and data analysis will ensure effective tracking of our Strategic Plan's implementation and guide us towards successful outcomes.

Together, we embrace the challenges and opportunities ahead, driving forward with a focus on balance, flexibility, and innovation for the ERCOT region and beyond. Through collaboration and partnering with our stakeholders, we will accomplish our strategic objectives and continue to be at the forefront of shaping a brighter tomorrow.






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