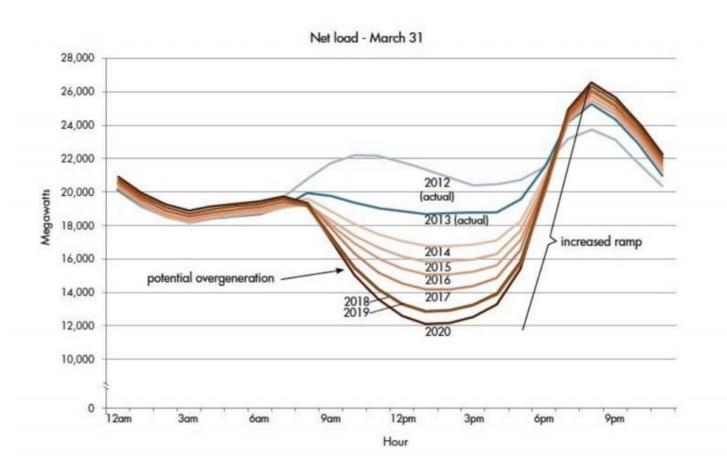
Bitech Technologies Boasts 11 BESS Projects Totaling 840 MW in the ERCOT Market for Accelerated Growth

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Newport Beach, California Oct 23, 2024 (<u>Issuewire.com</u>) - Bitech Technologies Boasts 11 BESS Projects Totaling 840 MW in the ERCOT Market for Accelerated Growth

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According to a recent report from ICF, an energy and climate consulting firm, the United States is expected to see a 9% average rise in electricity demand and a 5% average increase in peak demand by 2028. This growing demand could also result in an average cost increase of 19% for utilities. Given these insights, our management team at Bitech Technologies [OTCQB: BTTC] has determined that it is essential to focus on investing in the Battery Energy Storage System (BESS) sector.

(BESS Business Operations - Courtesy of Bitech Technologies & ERCOT)

We believe this sector has significant potential to generate sustainable revenue for our company, particularly with our first flagship project, Redbird, set to reach its Commercial Operation Date (COD)

next year in Texas. With a focus on strengthening our national grid's stability and resilience, our company strategy involves leveraging Investment Tax Credits (ITC) and advanced technology to drive profitability and expand into this thriving sector of the renewable energy industry.

"The EIA has indicated that over 70% of the transmission lines and transformers in the US power grid are over 25 years old. This situation creates an urgent need for grid modernization to ensure stability, a demand that has intensified due to the increasing energy requirements of AI data centers. Texas is not exempt from this challenge," commented Dr. Benjamin Tran, CEO of Bitech Technologies.

With 11 BESS projects totaling 840 MW AC power in the ERCOT market of Texas, our management has determined that the state of Texas will be our major focus in the coming 12 months due to the significant growth in BESS capacity with ERCOT (Electric Reliability Council of Texas). ICF also reported that as of late September 2024, the ERCOT capacity had reached approximately 6.2 GW, showcasing a consistent upward trend from the previous month's figure of 5.9 GW, as investors continue to gain more interest in Texas's energy storage market. This growth is indicative of the rising demand for BESS in ERCOT's evolving ancillary services market as it aids in balancing fluctuations in renewable energy sources.

(Bitech Technologies BESS Projects Geology Map - Courtesy of Bitech Technologies)

The Electric Reliability Council of Texas (ERCOT) is a heated market for renewable energy today, with several factors contributing to its intensity as follows:

• The Booming Texas Economy Spurs Surge in Electricity Demand on the Grid

First and foremost is the strong economic growth of the state, which continually adds new load to the ERCOT system at an unprecedented rate. In recent years, Texas's economy has experienced significant growth, leading to an increase in demand for electricity on the grid. This surge in demand is happening at a faster rate and in larger quantities than ever seen before, making it imperative for the state's power infrastructure to keep up. As businesses continue to expand and new industries emerge, the need for electricity is only expected to grow. To meet this demand, the energy sector must be able to produce and deliver electricity efficiently and reliably. This requires continuous investment in modernizing and upgrading existing power plants and transmission systems. Furthermore, innovative solutions such as renewable energy sources must be explored to ensure sustainable growth for both the economy and the environment. With careful planning and strategic investments, Texas can effectively address its growing demand for electricity on the grid while continuing its upward trajectory of economic success.

"As a result of Texas' continued strong economic growth, new load is being added to the ERCOT system faster and in greater amounts than ever before," said ERCOT President and CEO Pablo Vegas in ERCOT's press release on April 2024. "As we develop and implement the tools provided by the prior two legislatures, ERCOT is positioned to better plan for and meet the needs of our incredibly fast-growing state." With an estimated additional 40,000 MW of load growth by 2030 as compared to last year's forecast, the focus at ERCOT will ensure efficient and innovative approaches in planning are leveraged to prepare the ERCOT market for this accelerated growth. While it is going to take time to implement the valuable tools enabled by prior legislative sessions, Vegas noted that all the key stakeholders are aligned in supporting this economy-driven growth while simultaneously bolstering the grid's reliability and resiliency.1

• The Scorching Reality: Texas' Summer Heat Drives Unprecedented Demand for

Electricity, Shattering Records

The relentless heat that Texas experienced last summer 2024 has resulted in a significant increase in electricity demand, breaking records multiple times. This increased demand for electricity has put a strain on the power grid and raised concerns about potential blackouts. However, amidst these challenges, there is some positive news - the records being broken by solar and battery technologies. The use of solar energy and battery storage systems has been steadily increasing in Texas, providing a much-needed boost to the state's electricity supply. These clean energy sources have proven to be reliable and efficient, breaking their own records for output during this peak demand period. This not only helps alleviate strain on the grid but also contributes towards reducing the state's carbon footprint. As Texas continues to battle against extreme heat, it is comforting to know that solar and batteries are stepping up to meet the rising demand for electricity. 2

The intense heat of Texas summers further intensifies the demand for electricity, creating a challenging environment for renewable energy resources (RECs) to maintain their output and reliability. As such, ERCOT serves as a heated market where RECs face significant challenges but also have immense potential for growth and development. In Texas, there has been a significant uptick in the use of weather-dependent and clean energy sources such as solar and wind. As a result, the traditional methods of powering the state have undergone a fundamental shift. The reliance on fossil fuels has decreased as renewable energy sources become more prevalent. These weather-dependent sources require specific conditions to generate electricity, making it necessary for power companies to adapt their strategies to keep up with the fluctuating nature of these sources. This shift has prompted innovations in energy storage technology and grid management, as well as changes in policies and regulations. It is clear that this transition towards cleaner forms of energy production is reshaping the dynamics of power generation in Texas, ultimately leading towards a more sustainable future for the state.

(Courtesy of Canary Media Report on August 28, 2024.)

Data centers and cryptocurrency mining in Texas drive strong power demand growth

In the United States, Texas is experiencing the most rapid growth in electricity consumption, with the Electric Reliability Council of Texas (ERCOT) overseeing approximately 90% of the state's power grid load. A significant driver of this increasing demand comes from large-scale computing operations, including data centers and cryptocurrency mining activities; however, future demand levels remain uncertain. According to our latest Short-Term Energy Outlook (STEO), we project that electricity demand from customers classified by ERCOT as large flexible load (LFL) will reach 54 billion kilowatthours (kWh) by 2025, marking nearly a 60% increase compared to anticipated demand in 2024. This expected LFL demand would account for roughly 10% of the total forecasted electricity consumption on the ERCOT grid in the coming year. 3

(Courtesy of U.S. EIA)

 ERCOT's Growing Dependence on Intermittent Resources Raises Concerns for Grid Stability

ERCOT is the Texas-based grid operator responsible for managing and monitoring the electricity market in the state of Texas. As a major player in the energy industry, ERCOT strives to ensure reliable and affordable electricity supply for its customers. However, due to the increasing demand for renewable energy sources and environmental concerns, ERCOT has become heavily reliant on intermittent resources such as wind and solar power. This means that during peak demand periods,

when electricity usage is at its highest level, ERCOT must rely on these intermittent resources to meet the demand. While this may seem like a step towards cleaner and more sustainable energy production, it comes with its own set of challenges. The unpredictable nature of these resources can lead to fluctuations in supply which can cause issues with balancing the grid and ensuring a stable power supply. Therefore, it is crucial for ERCOT to effectively manage and integrate these intermittent resources into their operations while also maintaining backup plans in case of any unforeseen circumstances.

According to Modo Energy, ancillary services continue to dominate the battery revenue stack but the proportion of revenues from energy has more than doubled. Analysts at Modo Energy showed that only 15 percent of ERCOT battery revenue came from energy shifting in 2023; the bulk came from ancillary services. (Modo Energy)

The Texas Storage Industry is Booming as ERCOT Becomes a Thriving Hub of Ancillary Services for the U.S. Grids

With the increasing adoption of renewable energy sources, ancillary services have become an essential part of the storage industry in ERCOT. These services include frequency regulation, voltage control, and reserves that are crucial for maintaining grid stability. Due to the intermittent nature of renewable energy, ancillary services play a vital role in balancing supply and demand in the system. This not only ensures grid reliability but also helps in integrating a higher percentage of renewables into the energy mix. Additionally, with the implementation of advanced technologies such as battery storage systems, ancillary services have become more efficient and cost-effective. As a result, they have given the storage industry a foothold in ERCOT and have contributed to its continued growth while complementing the expansion of renewables in the region.

Texas boasts significant comparative advantages for both power plant construction and battery development, making it a highly desirable location for these industries to thrive. Its vast and open landscape offers ample cheap real estate, creating an ideal environment for building power plants. Additionally, the permitting process in Texas is relatively straightforward and efficient, especially when compared to other states that have implemented policy mandates to promote energy storage adoption, such as California and New York. This streamlined process significantly benefits developers looking to establish projects in Texas. Furthermore, interconnection – the crucial step of gaining approval from the grid operator to connect a project to the electrical system – is generally swift in Texas, providing a reliable pathway for success.

Efficiency in construction is a critical factor to consider, but it becomes even more crucial when there are practical uses for the asset. Fortunately, the state of Texas excels in this area as well. It is widely known that ERCOT boasts the most liberal energy markets in the United States. Unlike many other states where energy storage integration into the grid is only possible through long and arduous testing by the local monopoly utility company, regardless of previous successful implementation elsewhere in the country, ERCOT allows companies to enter into competition simply by investing their own resources into battery technology.

As a result of ERCOT's policy to share dispatch data retrospectively, it is now feasible to examine the daily operations of batteries in greater detail than anywhere else. This reveals that the majority of batteries in Texas initially generated profits by providing lesser-known grid support services, but are now transitioning to a more prominent role in bulk energy shifting, as illustrated during warmer spring evenings.

Bitech Technologies is Enhancing BESS Capacity in ERCOT: A Critical Response to Increasing Energy Demand

The energy industry is constantly evolving, and the emergence of renewable sources such as solar power has brought about significant changes. In ERCOT, the most instantaneous power ever consumed was 85.5 gigawatts during last summer's heat wave.2 This surge was largely due to the increased usage of solar energy, which is gradually replacing more expensive options like gas and coal. However, this also creates challenges for grid operations when solar facilities cease operations at night and other plants have to compensate for the deficit in power supply. These fluctuations can cause disruptions in the grid's frequency, which must be maintained within a narrow range to ensure overall system stability. As a result, this volatile environment presents ideal conditions for BESSS business to thrive as they can help regulate power output during both times of surplus and deficit.

(Texas Duck Curve- Courtesy of Amperon)

In light of the rapidly growing market for Battery Energy Storage Systems (BESS) in Texas, it is imperative that our company <u>Bitech Technologies</u> maintains a vigilant approach and closely monitors this landscape. This will enable us to understand the changing demands and trends of the market, allowing us to make strategic investment decisions. With the increasing demand for sustainable and reliable energy supply, it is crucial that we continue to invest in expanding our BESS capacity. By doing so, we will not only be able to meet the growing demand but also ensure a consistent supply of energy to our customers. As a responsible energy provider, it is our duty to support the transition towards cleaner and more efficient sources of energy, making it essential for us to keep pace with the evolving needs of the industry. Hence, through constant growth and innovation in our BESS capacity, we can secure a strong position in this market and contribute towards a greener future for Texas.

Notes

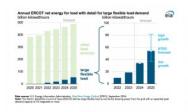
- ERCOT Enters New Era of Planning to Meet Future Economic Growth
- How Texas became the hottest grid battery market in the country
- Data centers and cryptocurrency mining in Texas drive strong power demand growth

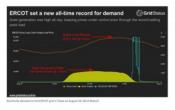
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