A (RE)NEW OUTLOOK ON ENERGY: THE TEXAS LEGISLATURE'S RESPONSE TO STATEWIDE ENERGY PROBLEMS

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I. INTRODUCTION

Despite new incentives for Texas energy companies to increase their fossil fuel production, renewable energy production will not be diminished. Texas lawmakers began the 88th regular legislative session faced with lingering problems from the deadly Winter Storm Uri (Uri) in February 2021.[1] Days of freezing weather and disastrous power outages pushed the electricity grid near collapse.[2] Two bills—Senate Bill (SB) 2627[3] and House Bill (HB) 1500[4]—comprise a major attempt by the Texas Legislature to bolster the state's power sector in the wake of Uri.[5]

While SB 2627 and HB 1500 will become law, not every energy-related bill introduced by legislators during the last legislative session will be implemented.[6] For example, SB 2015[7] and SB 624,[8] which proposed onerous permitting requirements for wind and solar renewable energy facilities, did not make it out of the legislature.[9] Texas legislators sent a message saying the state is more interested in safeguarding and enhancing its current energy grid than imposing needless restrictions on the renewable energy sector based on the legislation that was passed and—perhaps more significantly—those that were not.[10]

This paper explains how renewable energy will not be diminished in Texas, despite the Legislature's attempt to hinder the industry. First, this paper explains the state of the Texas energy market following Winter Storm Uri and the 88th legislative session. Next, the paper addresses the economic impact of both passed and failed bills on natural gas producers and energy consumers within the state. Following that, the third part of the paper explains why the renewables industry will continue to grow in Texas, despite a legislative push otherwise. Lastly, the paper proposes legislative amendments to best balance renewable growth

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1. Emily Foxhall, *Fossil Fuels Got a Boost From Lawmakers Aiming to Fix Texas' Grid, While Renewable Energy Escaped Stricter Regulations*, TEX. TRIBUNE (June 5, 2023, 5:00 AM), https://www.texastribune.org/2023/06/05/texas-bills-energy-natural-gas-fossil-fuel-renewables/.

2. *Id.*

3. S.B. 2627, 88th Leg., Reg. Sess. (Tex. 2023).

4. H.B. 1500, 88th Leg., Reg. Sess. (Tex. 2023).

5. Mike Tomsu & Steve Weinberger, *Texas Passes SB 2627 and HB 1500 to Strengthen the Electric Grid and Energy Market*, VINSON & ELKINS LLP (July 6, 2023), https://www.velaw.com/insights/texas-passes-sb2627-and-hb1500-to-strengthen-the-electric-grid-and-energy-market/.

6. *What Happened to Texas' Anti-Renewable Agenda? Legislators Fail to Pass Energy-Related Bills that Would have Adversely Impacted Renewable Projects*, FOLEY & LARDNER LLP (June 7, 2023), https://www.foley.com/en/insights/publications/2023/06/what-happened-to-texas-anti-renewable-agenda [hereinafter *Texas' Anti-Renewable Agenda].*

7. S.B. 2015, 88th Leg., Reg. Sess. (Tex. 2023).

8. S.B. 624, 88th Leg., Reg. Sess. (Tex. 2023).

9. *Texas' Anti-Renewable Agenda*, *supra* note 6.

10. *Id.*

without diminishing the profitable and longstanding natural gas industry.

II. HOW DID WE GET HERE?

The Texas power grid has been independent since its creation.[11] The Federal Power Act, enacted in 1920, sought to regulate electric companies across state borders.[12] Energy companies in Texas avoided this federal act and decided to operate solely intrastate.[13] Texas is the only state with an independent grid.[14] Over 26 million customers and 90% of the state's population get electricity from a network controlled by the Electric Reliability Council of Texas (ERCOT).[15] The network controlled by ERCOT is often called the "grid."[16] ERCOT runs the grid.[17] It oversees electric delivery and payments for a majority of Texas residents, organizes and remits electricity daily, and coordinates power stations and electric utility companies in Texas.[18]

Texas has both a technical and organizational advantage operating under an isolated grid.[19] First, the technical advantage lies in ERCOT having a lesser role in balancing authorities than controllers of other networks.[20] As Texas does not exchange power with neighboring systems, balancing does not need to be coordinated at all.[21] Second, the organizational advantage of Texas's isolated grid provides the Texas Legislature with the ability to effect change on the grid more efficiently.[22] An example of this is the Competitive Renewable Energy Zone initiative (CREZ) implemented in 2005 by the Texas Legislature.[23] The goal of this initiative was to add and incentivize investment in renewables,

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11. Mary Pressler, *Why Does Texas Have Its Own Independent Power Grid*, QUICK ELECTRICITY (June 28, 2023), https://quickelectricity.com/texas-power-grid/.

12. *Id.*; 16 U.S.C. § 791a.

13. *See* Pressler, *supra* note 11.

14. *Id.*

15. *Id.*

16. Julie A. Cohn, *Connecting Past and Future: A History of Texas' Isolated Power Grid*, Rice UNIV.'S Baker INST. for PUB. POL'Y (Dec. 1, 2022), https://www.bakerinstitute.org/research/connecting-past-and-future-history-texas-isolated-power-grid.

17. *See* Pressler, *supra* note 11.

18. *Id.*

19. *See* Cohn, *supra* note 16.

20. "A balancing authority ensures, in real time, that power system demand and supply are finely balanced. This balance is needed to maintain the safe and reliable operation of the power system. If demand and supply fall out of balance, local or even wide-area blackouts can result." Sara Hoff, *U.S. electric system is Made up of Interconnections and Balancing Authorities*, U.S. ENERGY INFO. ADMIN. (July 20, 2016), https://www.eia.gov/todayinenergy/detail.php?id=27152.

21. *Id.*

22. *Id.; Transmission & CREZ Fact Sheet*, POWER UP TEXAS (Dec. 2, 2018), https://www.poweruptexas.org/wp-content/uploads/2020/11/Transmission-and-CREZ-Fact-Sheet.pdf.

23. Hoff, *supra* note 20; *Transmission & CREZ Fact Sheet*, *supra* note 22.

especially wind power, to the Texas grid.[24] Through lawmaking, the state's wind generation capacity doubled, and roughly 3,600 miles of new power lines were added across the state within nine years.[25] As only Texas's Legislature was needed in voting on the plan, and only the Public Utility Commission of Texas (PUCT) oversaw implementation, the initiative moved swiftly and relatively easily.[26]

While the benefits to Texas's isolated grid are applauded in prosperous times, the negatives of an isolated grid are exploited in arduous times. There is no better example of a difficult time for the Texas grid than the February 2021 Winter Storm Uri. Beginning on February 10, 2021, severe winter weather covered much of Texas, with temperatures dropping into the single digits in the early morning of Monday, February 15th.[27] The freezing temperatures caused nearly 10,000 megawatts (MW) of gas and wind power capacity to shut down due to fuel shortages or frozen equipment.[28] ERCOT entered emergency conditions and initiated rotating outages early in the morning of the 15th.[29] Later that same morning, more than 30 gigawatts (GW) of generation capacity were offline, over double the maximum of 14 GW that the state expected could go offline in its extreme winter planning scenario.[30] This strain on electricity coupled with the increasing demand for heat in homes across the state caused ERCOT to be unable to conduct the rotating outages.[31] Instead, much of Texas endured an extended power outage. It is estimated that Uri caused more than 4.5 million households to lose electricity at some point over the five-day span that Texas faced outages, and some households for the entirety of the five days.[32] A Texas-based economic research firm estimates that Texas sustained between $85.8 and $128.7 billion in economic losses.[33] Along with pure economic losses, it

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24. *See* Cohn, *supra* note 16.

25. *Id.*

26. *Id.* ("By comparison, similar efforts across the country involving multiple states . . . have been stalled for years.").

27. *When the Lone Star Froze Over: Winter Storm Uri and the Lived Experiences of Texas Low-income Communities*, TEX. ENERGY POVERTY RSCH. INST. (TEPRI) (July 23, 2021), https://tepri.org/2021/07/when-the-lone-star-froze-over-winter-storm-uri-and-the-lived-experiences-of-texas-low-income-communities/ [hereinafter *Lone Star Freeze*].

28. *Id.*

29. ERCOT, *ERCOT Calls for Rotating Outages as Extreme Winter Weather Forces Generating Units Offline*, (Feb. 15, 2021), https://www.ercot.com/news/release?id=9c552983-008a-3906-8066-8b76315ed3e7.

30. *Lone Star Freeze*, *supra* note 27.

31. *Id.*

32. Cassandra Pollock, *Gov. Greg Abbott Says Power is Almost Fully Restored Statewide and Grocery Stores Will Soon Be Restocked*, Texas Tribune (Feb. 21, 2021), https://www.texastribune.org/2021/02/21/texas-power-outage-grocery-stores-greg-abbott/.

33. *Preliminary Estimates of Economic Costs of the February 2021 Texas Winter Storm*, PERRYMAN GRP.(Feb. 2021), https://www.perrymangroup.com/media/uploads/brief/perryman-preliminary-estimates-of-economic-costs-of-the-february-2021-texas-winter-storm-02-25-21.pdf.

is estimated that there are over $18 billion in insurance claims for property damage and of the 264 confirmed storm-related deaths, an estimated 161 people died due to extreme cold-exposure related injuries.[34]

The damage alone demonstrated there was a problem with the Texas electrical grid. Many people did not understand why power generation failed and why power was not sourced from outside the state.[35] Texas and the rest of the nation turned their attention to ERCOT, the PUCT, and Texas legislators for answers. Coincidentally, Uri occurred during the 87th Texas Legislative Session, which allowed Texas lawmakers to promptly pass several key bills, quickly addressing the root causes of the grid failure. During this session in 2021, the lawmakers addressed grid issues primarily with two bills—SB 3[36] and HB 2000.[37] SB 3 mandated weatherization for power generation and transmission and implemented market reforms after the storm caused widespread outages.[38] HB 2000 allocated $2 billion of state funds to help finance upgrades to power plants in Texas to withstand more extreme weather conditions.[39] Lawmakers were concerned that a mandate to upgrade would cause companies to shut down power plants, making the state worse off.[40] Therefore, the State Utilities Reliability Fund (SURF), created by HB 2000, began offering financing tools, such as low-cost loans and grants, to for-profit power companies to upgrade their plants to better withstand extreme weather conditions.[41]

Despite the measures enacted directly after Uri, Texas must do everything in its power to avoid another winter storm blackout. ERCOT has to perform the balancing act of bringing Texans the cheapest power possible while supplying the fastest-growing state with enough power to function properly.[42] The Texas legislature has taken it upon themselves to guide ERCOT and retail electric companies down a path that they

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34. *See Lone Star Freeze*, *supra* note 27; "By circumstance and cause of death, 161 (65.4%) winter storm-related deaths were extreme cold exposure-related injuries comprising 158 (64.2%) deaths from hypothermia and three (1.2%) from frostbite." JOHN HELLERSTEDT, M.D., FEBRUARY 2021 WINTER STORM-RELATED DEATHS – TEXAS, TEXAS TEX. HEALTH AND HUMAN HUM. SERVICES SERVS. (Dec. 31, 2021).

35. *Lone Star Freeze*, *supra* note 27 at 7.

36. S.B. 3, 87th Leg., Reg. Sess. (Tex. 2021).

37. H.B. 2000, 87th Leg., Reg. Sess. (Tex. 2021).

38. Emma Penrod, *Texas Lawmakers Approve Bill Mandating Power Plant Weatherization, Market Reforms*, UTILITY DIVE (June 9, 2021), https://www.utilitydive.com/news/texas-lawmakers-approve-bill-mandating-power-plant-weatherization-market-r/601138/.

39. Erin Douglas, *Texas House Advances Plan to Subsidize Power Plant Weatherization*, TEX. TRIBUNE (May 3, 2021, 3:00 P.M.), https://www.texastribune.org/2021/05/03/texas-house-power-weatherization-fund/.

40. *Id.*

41. *Id.*

42. Emily Foxhall & Alex Ford, *What You Need to Know About Texas' Complex – but Important – Electricity Market Reform Plan*, TEX. TRIBUNE (Mar. 1, 2023, 5:00 AM), https://www.texastribune.org/2023/03/01/texas-power-market-public-utility-commission-electricity-credits/.

believe is best for the public. Two years after passing bills immediately servicing grid problems within the state, the legislature passed more bills in a continued effort to avoid the devastating results of winter storm Uri.[43]

III. BREAKING DOWN TEXAS'S NEW ENERGY LEGISLATION

The 88th regular session of the Texas Legislature saw an unusually high number of proposed bills with a focus of ensuring reliability of the Texas grid.[44] This session, which ended on May 29, 2023, clearly favored "dispatchable generation" (output within human control, such as coal and natural gas) over "non-dispatchable generation" (output controlled largely by forces outside of human control, such as wind and solar).[45] Two bills passed—HB 1500 and SB 2627—amend the Utilities Code in ways that exemplify the legislature's boost to the oil and natural gas industries.[46] On the surface, these bills appear to negatively impact the growth of renewables within the state. However, renewable resource developers can breathe a sigh of relief after being spared from several significantly more detrimental proposed bills which did not make it through the legislature.[47] Understanding these failing bills, and why they did not pass, is arguably as important as understanding HB 1500 and SB 2627, and why those bills passed.

A. Passed Energy Bills in the 88th Legislative Session

The passage of HB 1500 and SB 2627 was not only an attempt by lawmakers to bolster grid reliability, but an attempt to maintain the continued economic importance of the traditional oil and gas sectors in Texas.[48]

1. House Bill 1500

House Bill 1500 is a bill aimed at improving the operation of the state's electric market and further sets out and revises provisions governing the PUCT and ERCOT in Section 39.1594 of the Utilities Code.[49] HB 1500 places different guardrails on the PUCT's potential adoption

43. Tomsu & Weinberger, *supra* note 5.

44. Robert A. James and Robert L. Nelson, *Overview of the Impact of the 88th Legislative Session on the Oil, Gas and Renewables Industries in Texas*, PILLSBURY (June 14, 2023), https://www.pillsburylaw.com/en/news-and-insights/88th-texas-legislative-session-oil-gas-renewables.html.

45. *Id.*

46. *Id.*

47. *Id.*

48. James & Nelson, *supra* note 44.

49. H.B. 1500, 88th Leg., Reg. Sess. (Tex. 2023).

and implementation of the Performance Credit Mechanism (PCM).[50] The most notable of these guardrails is that "the net cost to the ERCOT market of the [PCM] does not exceed $1 billion annually."[51] Along with the monetary cap, HB 1500 provides that the PCM credits are available only for dispatchable facilities.[52]

Another significant aspect of HB 1500 is the requirement that non-battery storage ERCOT generators, signed into agreement after January 1, 2027, must meet certain performance standards.[53] These standards include requiring new power producers to be prepared to produce a set amount of power in certain times of high demand.[54] Failing to follow these standards could result in significant fines, which would force new power producers to either pay the fine or, more likely, obtain excess battery energy storage. This requirement adds extra costs for renewable power generators that lack on-site battery systems.[55]

HB 1500 also established a "reasonable allowance" for utility costs incurred while building new transmission lines to connect power generators, such as wind or solar farms, to the grid.[56] If companies exceed the allowance, they will bear any cost over that amount.[57] This provision has the practical effect of incentivizing generators to locate their facilities as close as possible to interconnecting transmission lines, so costs stay below the allowance amount.[58] In turn, this negatively impacts wind and solar resources that are located in more remote regions of the state.[59]

2. Senate Bill 2627

Senate Bill 2627, or the Powering Texas Forward Act, creates a taxpayer-funded, low-interest loan program for up to $7.2 billion.[60] The bill supports the construction, maintenance, modernization, and operation of dispatchable electric generation facilities such as natural gas plants.[61]

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50. Tomsu & Weinberger, *supra* note 5. The Performance Credit Mechanism would require electricity providers to pay more money to generators that promise to be available when grid conditions get tight. Ideally, this incentivizes companies either to build more of, or to extend the life of, dispatchable power facilities. *See* James & Nelson, *supra* note 44.

51. H.B. 1500, 88th Leg., Reg. Sess. (Tex. 2023).

52. *Id.*

53. *Id.*

54. Foxhall, *supra* note 1.

55. *Id.*; H.B. 1500, 88th Leg., Reg. Sess. (Tex. 2023).

56. H.B. 1500, 88th Leg. § 9, Reg. Sess. (Tex. 2023).

57. Foxhall, *supra* note 1.

58. Tomsu & Weinberger, *supra* note 5.

59. *Id.*

60. *See* Christopher Bowles & Meghan Dawson McElvy, *Key Takeaways for the Energy Industry from the 2023 Texas Legislative Session: What Passed and What Failed*, JDSUPRA (June 2, 2023), https://www.jdsupra.com/legalnews/key-takeaways-for-the-energy-industry-9890734/.

61. *Id.*

Non-dispatchable electric generation facilities (e.g., solar and wind facilities) and electric energy storage facilities will not be eligible to take advantage of this fund.[62] To comply with the Act, each loan must have a term of 20 years and an interest rate of 3%.[63] The loans may be used to finance upgrades to existing dispatchable generation facilities resulting in a net increase of at least 100 MW to the ERCOT power region or finance the construction of new dispatchable generation with at least 100 MW capacity.[64]

A. Failed Energy Bills in the 88th Legislative Session

Many bills did not pass through the Texas Legislature during the 88th legislative session. Not only would these failed bills have impacted Texas energy as a whole, two particular bills, SB 624 and SB 2015, would have had a highly negative impact on the renewables industry throughout the state.[65]

1. Senate Bill 624

Senate Bill 624 proposed new permitting requirements that would apply solely to renewable energy generation facilities.[66] Had the law passed, any new renewable energy generation facilities would have to obtain a permit from the PUCT to operate.[67] Obtaining a permit might not appear burdensome, but to apply for a permit, several items are required.[68] The bill stated that:

> A person may not operate a renewable energy generation facility in this state unless the person holds a permit issued by the [Public Utility] [C]omission . . . . A person may apply for a permit to operate a renewable energy generation facility by filing with the commission [nine different items].[69]

Included in those nine required items are: a copy of any information filed with the Federal Energy Regulatory Commission (FERC) related to the facility, an environmental impact review conducted by the Texas Parks and Wildlife Department, and a copy of any wind power

62. James & Nelson, *supra* note 44.
63. Tomsu & Weinberger, *supra* note 5.
64. *Id.*
65. James & Nelson, *supra* note 44.
66. *Id.*
67. Bowles & McElvy, *supra* note 60.
68. *Id.*
69. S.B. 624, 88th Leg., Reg. Sess. (Tex. 2023).

facility agreement or solar power facility agreement applicable to the facility.[70]

Along with the permitting requirements, SB 624 "would have required solar and wind power facilities to be placed at a minimum distance from property lines and habitable structures."[71] This requirement, along with the fact that the bill was retroactive, drew criticism from renewable energy companies.[72]

2. Senate Bill 2015

Similar to SB 624, SB 2015's purpose appeared to directly hinder the renewable industry in Texas. SB 2015 proposed a goal for at least half of the "megawatts of generating capacity" installed under ERCOT rule to be sourced from dispatchable generation.[73] This essentially prohibits more than half of the generation capacity within the state to be provided by renewables as those are controlled largely by non-dispatchable generation.[74] Additionally, the bill established a program where power generation companies that do not supply dispatchable generation must purchase credits to support dispatchable generation.[75] As if the bill's intent was not clear enough, in the author's statement of intent section it is written, "[t]oday, there is a proliferation of renewable generation in Texas . . . the state is seeking to incentivize additional dispatchable generation."[76] While the bill failed in the House, the Senate explicitly attempted to pursue its goal of boosting natural gas production in Texas.

IV. NEW LEGISLATION'S ECONOMIC IMPACT ON NATURAL GAS PRODUCERS AND ELECTRICITY CONSUMERS

ERCOT is the only successfully deregulated wholesale market in the United States that relies on bilateral forward contracting among market participants.[77] ERCOT operates an energy-only wholesale

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70. *Id.*

71. "3,000 feet from property line in the case of wind and 100 feet from any property line in the case of solar." James & Nelson, *supra* at note 44.

72. The bill was retroactive in that it forced facilities that interconnected before September 1, 2023 to apply for a permit. *Id.*

73. *Id.*; S.B. 2015, 88th Leg., Reg. Sess. (Tex. 2023).

74. *Id.*

75. *Id.*

76. *BILL Analysis*, Tex. S.B. 2015, 88th Leg., Reg. Sess. (Mar. 16, 2023), https://capitol.texas.gov/tlodocs/88R/analysis/html/SB02015I.html.

77. ERIC SHUBERT, ET AL., A PRIMER ON WHOLESALE MARKET DESIGN: MARKET OVERSIGHT DIVISION WHITE PAPER 2(2002); "Bilateral forward market transactions are voluntary transactions between a buyer and seller at a negotiated price for electricity. For example, an REP may agree to purchase wholesale electricity from a resource at a fixed price for a fixed term, such as all of calendar 2021. The buyer and seller will present that energy trade to ERCOT for settlement to cover some or all of the REP's wholesale energy obligation for that customer . . . . To the extent that a buyer does not

electricity market.[78] This market design pays generators only for the energy they provide to the grid.[79] This is unique in that other competitive markets in the U.S. typically pay generators for having capacity available in their systems as well.[80] There are different market participants at different stages in the production of electricity.[81] First and foremost, ERCOT manages the energy market.[82] "In many ways, ERCOT is like a stock exchange, making sure that energy market transactions between buyers and sellers are handled accurately and efficiently."[83] Put simply, ERCOT provides consumers with competitive rates for electricity.[84] The process of producing and delivering electricity occurs when a power generation company sells power to a Retail Electricity Provider (REP) and the REP works with Transmission and Distribution Service Providers (TDSP) to ensure electricity is delivered to customers in the correct service area.[85] This process forces the market to rely on the price of electricity alone to encourage investment in new generation.[86] Because of this, electricity prices will be heightened during periods when the system is strained.[87] Therefore, additional generation capacity that is added to the system can drastically change the prices of electricity in the market.[88]

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procure enough energy bilaterally via energy trades to meet its obligation, ERCOT administers a Day-Ahead Market and a Real-Time Market for energy." Jackie Benton, *ERCOT's Role: Keeping the Lights on in Texas: An Interview with Kenan Ögelman*, FISCAL NOTES (Aug. 2020), https://comptroller.texas.gov/economy/fiscal-notes/archive/2020/august/ogelman.php

78. *ERCOT's Market Structure and Oversight*, ERCOT (Sept. 17, 2019), https://www.ercot.com/files/docs/2019/09/17/Market_Structure_OnePager_FINAL_Revised.pdf.

79. *Id.*

80. *Id.*

81. The different types of companies that work in the electricity market are: Power Generators, Retail Electricity Providers, and Transmission and Distribution Service Providers. "Power generation companies own and operate facilities that create electricity. . . ." Through their variety of options and prices, retail electricity providers supply electricity to homes and business consumers. Transmission and distribution service providers are responsible for the transmission and distribution of electricity service to all homes and businesses in an area. *Texas Electricity Companies: Understanding Electricity Markets*, GEXA ENERGY, (Aug. 25, 2023), https://learn.gexaenergy.com/article/texas-electricity-companies-understanding-energy-markets [hereinafter *Texas Electricity Companies*].

82. Benton, *supra* note 77.

83. *Id.*

84. See *id.* for confirmation that "ERCOT centrally coordinates transactions between competitive wholesale power buyers and sellers and manages the financial side of the energy market by collecting money from companies that consume power and paying the resources that produce the power."

85. *Texas Electricity Companies*, supra note 81.

86. Christopher Holt, *Electricity Market Structure in Texas: Lessons for the Transition to Renewables*, KLEINMAN CTR. FOR ENERGY POL'Y (July 28, 2021), https://kleinmanenergy.upenn.edu/news-insights/electricity-market-structure-in-texas-lessons-for-the-transition-to-renewables/.

87. *Id.*

88. *Id.*

A. Economic Impact on Dispatchable Power Producers

The price sensitivity described above weighs heavily on companies' decisions to invest in or retire dispatchable power plants.[89] For example, the largest electricity generation firm in Texas, Luminant, has built only one power plant in the past 20 years (1,600 MW) and has retired twelve plants (8,700 MW).[90] This adheres to the notion that large generation companies have incentives in retiring plants because it decreases supply (amount of natural gas) in the market, which increases demand (need for gas), and thus increases the price of gas.[91] This is exactly the behavior the legislature attempted to combat with the legislation passed in the 88th session. During Uri, such a great amount of generation capacity was shut down, there was not enough electricity to transport to places in need. More power generation facilities could have allowed more electricity to be produced, limiting the damage that came with the deadly winter storm. Specifically, SB 2627 attempts to incentivize companies to invest in dispatchable power plants, instead of retiring them.[92]

HB 1500 and SB 2627 will have a positive economic impact on dispatchable power producers in the state, but not directly from the construction of more dispatchable power plants. The economic impact of these bills will likely occur from companies looking to achieve (1) profit maximization and (2) reliability of the grid to prevent losses, lawsuits, and bankruptcy. An example of maximizing profits is shown by Calpine, America's largest generator of electricity from natural gas and geothermal resources plants.[93] Calpine initiated a project in Texas benefitting from the new legislature.[94] The new project is the construction of a new 425 MW gas-fired power plant in Freestone County, Texas.[95] This is the type of project the new bills intend to promote. But this project is not necessarily indicative of how every natural gas producer in Texas will act. Many natural gas producers will continue to do what is best for their business—making profits. As stated above, the more power plants available, the greater the supply and the lower the price of gas, which might not be best for some businesses. Therefore, in this market, it is not always competitive for companies to increase the total amount of

89. *Id.*

90. *Id.*

91. *Id.*

92. *See* S.B. 2627, 88th Leg., Reg. Sess. (Tex. 2023).

93. *Who We Are,* CALPINE, https://www.calpine.com/who-we-are/.

94. *Calpine Affirms Ambitious Texas Power Development Program*, CALPINE (Apr. 12, 2023), https://www.calpine.com/About-Us/News/CALPINE-AFFIRMS-AMBITIOUS-TEXAS-POWER-DEVELOPMENT-PROGRAM.

95. *Id.*

dispatchable power.[96] Plus, if under SB 2627, power plants enter the market backed by state dollars, it is unlikely that future construction of dispatchable plants can compete without state dollars.[97] This would limit private companies' long-term business in the state.

Along with maintaining profitable business practices, companies will look to improve grid reliability. Improving the quality and efficiency of already-built power plants is one way to achieve such a goal. Much of the $7.2 billion allocated towards loans and grants in SB 2627 will likely keep older gas plants online and maintain current plants.[98] For instance, in October 2023 ERCOT made a request to bring retired gas and coal plants back from the dead to try to avert a possible energy emergency in the upcoming winter.[99] This request from ERCOT, along with the incentives provided by the legislature, indicates that companies will likely use the loans and credits provided by the state to attempt to "fix" retired plants. After Uri, several electric providers were forced to exit the market, and one large electric cooperative sought bankruptcy protection.[100] Keeping dispatchable power plants as reliable as possible might not necessarily bring drastic economic increases to the producers, but it will allow them to avoid major economic decreases.

B. Economic Impact on Energy Consumers in Texas

Unfortunately, energy consumers in the state likely bear the largest burden of these bills. Lieutenant Governor Dan Patrick claims these bills will not "put ratepayers first."[101] Instead, these bills provide preferential treatment for dispatchable power producers and impose significant costs on ratepayers.[102] Peter Lake, the PUCT chair, stated that ERCOT post-Uri "is no longer prioritizing providing Texans cheap

96. Brent Bennett, *The Texas Grid is Reaching a Turning Point, But There is Still Time to Fix it if We Start Now*, TEX. PUB. POL'Y FOUND., (June 20, 2023), https://www.texaspolicy.com/the-texas-grid-is-reaching-a-turning-point-but-there-is-still-time-to-fix-it-if-we-start-now/.

97. *Id.*

98. *Id.*

99. Cyrus Reed & Becky Bullard, *Zombie Gas and Coal Plants May Rise From Their Graves Across Texas This Winter*, SIERRA CLUB: LONESTAR CHAPTER (Oct. 11, 2023), https://www.sierraclub.org/texas/blog/2023/10/zombie-gas-and-coal-plants-may-rise-their-graves-across-texas-winter.

100. INDEPENDENT MARKET MONITOR FOR ERCOT, POTOMAC ECONOMICS, 2022 STATE OF THE MARKET REPORT FOR THE ERCOT ELECTRICITY MARKETS, iii (2023), https://www.potomaceconomics.com/wp-content/uploads/2023/05/2022-State-of-the-Market-Report_Final_060623.pdf.

101. Jeff Luse, *Texas Senate Energy Bill to Overhaul Power Grid Will Increase Costs for Ratepayers Across the State*, CONSERVATIVE TEXANS FOR ENERGY INNOVATION (Apr. 14, 2023), https://www.conservativetexansforenergyinnovation.org/50952/?utm_source=rss&utm_medium=rss&utm_campaign=5095-2.

102. *Id.*

power."[103] Its main focus is the grid's reliability, especially during extreme hot or cold weather.[104]

These times of high demand are exactly what the new regulations attempt to mitigate. HB 1500 provides guardrails to the PCM. The PCM will essentially pay power providers to be available to generate power during times of high demand.[105] This creates an extra revenue stream for generators; however, the cost to be available in times of need will be passed onto REPs.[106] The REPs will then pass any costs incurred in purchasing electricity from generators to the customers.[107] While there is uncertainty regarding the increase in the amount paid by rate payers, it can be estimated that each electricity bill will rise approximately 2%.[108]

V. WHY RENEWABLES WILL CONTINUE TO GROW IN THE STATE DESPITE THE PUSH OTHERWISE

"Texas leads the nation in renewable energy. Solar, wind, and other renewables exclusively power businesses, colleges and even one town in the state."[109] Renewable energy is not new to Texas, despite what the media and legislators might suggest. In 1999, the PUCT adopted rules for a state renewable generation requirement.[110] These rules required each retail electricity provider to acquire their proportional share of 10,000 MW of renewable capacity by 2025, with 500 of those MW not from wind.[111] In 2023 the state surpassed its 10,000 MW goal by nearly 2,500 MW solely from sources other than wind.[112] These trends of renewable energy growth in the state are promising that an increase in renewable energy will bolster the grid while increasing commerce. One

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103. Mitchell Ferman, *Texans Face Skyrocketing Home Energy Bills as The State Exports More Natural Gas Than Ever*, TEX. TRIBUNE (July 5, 2022), https://www.texastribune.org/2022/07/05/texas-energy-bills-natural-gas-export/.

104. *Id.*

105. Rebecca Bridges, *Texas Electricity Trends for 2023*, ELEC. PLANS (2023), https://electricityplans.com/texas-electricity-trends-for-2023/.

106. *Id.*

107. *Id.*

108. Lina Fisher, *The Good, The Bad, and the Pricey of Texas Energy Bills*, AUSTIN CHRON. (May 19, 2023), https://www.austinchronicle.com/daily/news/2023-05-19/what-do-lege-energy-bills-mean-for-austin-energy/.

109. Kristi E. Swartz, *Texas Has Gone Big With Renewable Energy. Why Can't It Go All the Way?*, TEX. TRIBUNE (May 25, 2023), https://www.texastribune.org/2023/05/25/texas-renewable-energy-wind-solar/.

110. Analysis of *Texas State Profile and Energy Estimates*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/state/analysis.php?sid=TX#130(last updated July 18, 2024).

111. *Id.*

112. *See* Table 6.2.B of *Electric Power Monthly: April 2023*, U.S. ENERGY INFO. ADMIN. *(*Apr. 2023*)*, https://www.eia.gov/electricity/monthly/archive/april2023.pdf.

analysis found that clean energy reduced wholesale electricity prices by nearly $28 billion from 2010 to 2022.[113]

The greatest threat to renewable energy so far seems to be the legislature. As indicated by the proposed bills in the 88th legislative session, the natural gas industry wants to hinder renewables by any means possible. There seems to be a false premise that the grid problems that Texas has faced stems from not enough gas-fired power plants and too much clean energy.[114] However, while the passed bills might not have helped renewables per se, "[c]lean energy dodge[d] a bullet."[115] Lawmakers failed to pass bills that would have crushed the state's clean energy industry.[116] For instance, one victory for renewable energy is the defeat of SB 6, and the passing of SB 7.[117]

Despite some Texas parties' insisting on slowing down renewable energy, it is clear that the economic attractiveness of renewables is still there. "The increased economic attractiveness of wind and solar technology and growing concerns about climate change have likewise motivated many investors in the energy industry to exit the fossil fuel space in favor of renewable energy projects . . . ."[118]

There are competing interests between renewable and non-renewable energy providers within the state that have yet to be resolved.[119] Unfortunately, the burden of Texas's energy battle has fallen on the ratepayers.[120] Thus, the only way this will change is through new legislation.

VI. LEGISLATIVE AMENDMENTS TO BEST BALANCE RENEWABLE GROWTH WITHOUT DIMINISHING NON-RENEWABLES

Amendments to the new Texas legislation is the best solution to increase the growth of renewable energy. Specifically, amendments to HB 1500 and SB 2627 will allow all parties to this state energy battle to thrive.

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113. Jeff St. John, *Clean Energy Dodges a Bullet in the Texas Legislature*, CANARY MEDIA (May 31, 2023), https://www.canarymedia.com/articles/politics/clean-energy-dodges-a-bullet-in-the-texas-legislature.

114. *Id.*

115. *Id.*

116. *Id.*

117. *Id.*

118. Teddy Gonzalez & Jillian Knox, *In the Dark: The Scapegoating of Renewables After Grid Failures*, 63 NAT. RES. J. 30, 40 (2023).

119. Emily Foxhall et al., *Texas Power Struggle: How the Nation's Top Wind Power State Turned Against Renewable Energy*, TEXAS TRIBUNE (May 25, 2023), https://www.texastribune.org/2023/05/25/texas-energy-renewables-natural-gas-grid-politics/.

120. Robert Bryce, *Texas Ratepayers Are Being Saddled With Nearly $38 Billion In Excess Energy Costs From Winter Storm Uri*, FORBES (June 11, 2021), https://www.forbes.com/sites/robertbryce/2021/06/11/texas-ratepayers-are-being-saddled-with-nearly-38-billion-in-excess-energy-costs-from-winter-storm-uri/.

The following statutes are the two relevant laws passed in the 88th legislative session. Along with the original text are suggested revisions.[121]

A. TEX. UTIL. CODE § 39.1592: Generation Reliability Requirements (Texas House Bill 1500)

1. Revised statute

(a) This section applies only to an electric generation facility in the ERCOT power region for which a standard generator interconnection agreement is signed on or after January 1, 2027, that has been in operation for at least one year~~, and that is not a self-generator~~.[122]

(b) [*If, n*]ot later than December 1 of each year, an owner or operator of an electric generation facility, other than a battery energy storage resource, shall demonstrate to the commission the ability of the owner or operator's portfolio to operate or be available to operate when called on for dispatch at or above the seasonal average generation capability during the times of highest reliability risk, as determined by the commission, due to low operation reserves, as determined by the commission. [*Such electric generation facility operator shall qualify for the Reliability Program laid out in Sec. 39.1594*]. The owner or operator must be allowed to meet the performance requirements described by this subsection by supplementing or contracting with on-site or off-site resources, including battery energy storage resources. The commission shall determine the average generation capability based on expected resource availability and seasonal-rated capacity on a standalone basis.[123]

2. Analysis of revision

These revisions to Section 39.1592 do not change much regarding a generator's ability to operate in times of need. However, the statute's language now reads to act more as a "carrot" and less as a "stick." This should incentivize companies, renewable and non-renewable alike, to be available in times of need. Leaving this portion of the statute as a punishment hinders renewables more than non-renewables. Now, renewables may choose not to make themselves available in times of need, but they will not be punished for failing to do so. Likewise, non-renewables

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121. Text in brackets are additions to the statutes and text that has a strikethrough are deletions from the statutes.

122. TEX. UTIL. CODE ANN. § 39.1592(a)(West 2023).

123. TEX. UTIL. CODE ANN. § 39.1592(b)(West 2023).

can gain extra compensation for doing what they would have been required to do anyway with the previous statute.

B. Tex. Util. Code § 39.1594: Reliability Program (Texas House Bill 1500)

1. Revised Statute

(a) Under Section 39.159(b), as added by Chapter 426 (S.B. 3), Acts of the 87th Legislature, Regular Session, 2021, or other law, the commission may not require retail customers or load-serving entities in the ERCOT power region to purchase credits designed to support a required reserve margin or other capacity or reliability requirement unless the commission ensures that:

(1) the net cost to the ERCOT market of the credits does not exceed $1 billion annually, less the cost of any interim or bridge solutions that are lawfully implemented, except that the commission may adjust the limit:

proportionally according to the highest net peak demand year-over-year with a base year of 2026; and

for inflation with a base year of 2026;

~~(2) credits are available only for dispatchable generation;~~[124]

2. Analysis of revision

This revision needs little explanation. It simply permits non-dispatchable generation to partake in the performance credit mechanism set up by the legislation. Taking out one subpoint of Section 19.1594 will drastically benefit renewables as a whole without taking anything away from the non-renewables.

C. TEX. UTIL. CODE § 35.004: Provision of Transmission Service (Texas House Bill 1500)

1. Revised statute

(d-1) The commission by rule shall establish a reasonable allowance for transmission-owning utility costs incurred to interconnect generation resources ~~directly~~ [*anywhere in the state*] with the ERCOT transmission system at transmission voltage. The allowance must take into account:

(1) the potential to reduce the costs to consumers of generation interconnection;

(2) historical generation interconnection costs; ~~and~~

124. TEX. UTIL. CODE ANN. § 39.1594(a)(West 2023).

(3) [*whether the generation is dispatchable or non-dispatchable*; and

[*(4)*] any other factor that the commission considers reasonable to accomplish the goal of this subsection.][125]

(d-2) Costs in excess of the transmission-owning utility allowance provided by Subsection (d-1) incurred to interconnect generation resources with the ERCOT transmission system must be ~~directly~~ assigned to and collected from the generation resource interconnecting through the facilities [*anywhere within the state*].[126]

(d-3) Not later than September 1 of every fifth year, the commission shall review and may adjust the allowance provided by Subsection (d-1) to account for inflation or supply chain issues.[127]

2. Analysis of revision

These revisions to the statute broaden who can take advantage of the "reasonable allowance" provided by the commission. This reasonable allowance is given to companies that incur costs from building new transmission lines connecting power generators to the grid. Once companies go over this allowance, the company bears the remainder of the costs, not the state. This is a positive incentive allowing more interconnection between generators and the grid. Because non-dispatchable generators, such as wind and solar farms, are generally in more remote regions of the state, they are further from the interconnecting lines. In turn, this makes it more expensive for non-dispatchable energy to connect to the grid.

The revisions to this statute would take into consideration what type of generation is interconnecting to the grid and will adjust the allowance accordingly. For instance, if there is a wind farm located in the Gulf of Mexico, it should receive a larger allowance to connect to the grid. Then, aligning with the original statute, if the plant spends beyond this allowance, they must continue paying out of pocket to complete the interconnection.

D. TEX. UTIL. CODE § 34.0104: Loans for ERCOT Power Region (Texas Senate Bill 2627)

1. Revised statute

(a) The commission may use money in the fund without further appropriation to provide loans to finance upgrades to

125. TEX. UTIL. CODE ANN. § 35.004(d-1)(West 2023).
126. TEX. UTIL. CODE ANN. § 35.004(d-2)(West 2023).
127. TEX. UTIL. CODE ANN. § 35.004(d-3)(West 2023).

> existing ~~dispatchable~~ electric generating facilities providing power for the ERCOT power region that result in a net increase of at least 100 megawatts of capacity for each facility or the construction of ~~dispatchable~~ electric generating facilities providing power for the ERCOT power region that each have a generation capacity of at least 100 megawatts. ~~For the purposes of this section, a generating facility is considered to be dispatchable if the facility's output can be controlled primarily by forces under human control. An electric energy storage facility is not eligible for a loan under this section.~~[128]

2. Analysis of revision

Section 34.0104 of the Texas Utility Code supports a multitude of things surrounding electric generation facilities, including construction, maintenance, modernization, and operation. This statute creates a taxpayer-funded, low-interest loan program maxing out at $7.2 billion. The sole problem is that the original statute only permits dispatchable generation facilities to apply for the loans.

My revisions are simple—allow both dispatchable and non-dispatchable generation facilities to apply for the loans. This does not hurt either "side" and it incentivizes more work to be done on generation plants throughout the state. This revision attempts to attack the real problem throughout the state—a lack of electricity in times of need. If the loan program is limited to solely dispatchable generation facilities, the state is limiting the ability of functioning electric generation facilities to bolster their systems, construct improved additions, or modernize their systems.

E. TEX. UTIL. CODE § 34.0105: Completion Bonus Grants (Texas Senate Bill 2627)

1. Revised statute

> (a) The commission shall provide, using money available in the fund for the purpose without further appropriation, a completion bonus grant for the construction of ~~dispatchable~~ electric generating facilities in the ERCOT power region. ~~For the purposes of this section, a generating facility is considered to be dispatchable if the facility's output can be controlled~~ ~~primarily by forces under human control. An electric energy storage facility is not eligible for a grant under this section.~~[129]

128. TEX. UTIL. CODE ANN. § 34.0104(a)(West 2023).
129. TEX. UTIL. CODE ANN. § 34.0105(a)(West 2023).

2. Analysis of revision

The reasoning behind the revisions to Section 34.0105 mirror the reasoning behind the prior revisions to Section 34.0104. Specifically, financial incentives should not be limited to dispatchable generation facilities. Texas has a real problem producing electricity in times of need. Any and every new electric generation facility, whether it be dispatchable or non-dispatchable, should be welcomed. Understandably, dispatchable energy is seemingly more efficient in times of need; therefore, the legislation wants to increase production of such, but this should not completely eliminate non-dispatchable plants from receiving completion bonus grants. A simple deletion of "dispatchable" in the statute eliminates this problem and allows dispatchable and non-dispatchable electric generating facilities to receive a completion bonus grant when constructed.

VII. CONCLUSION

Winter storm Uri took the Texas grid to its breaking point. The entire state-wide grid failed. Homes lost power, people froze, businesses suffered, and ERCOT took the blame. Luckily, the Texas Legislature immediately realized there was a long-term problem with the grid and understood that another Uri-like event could hurt the state and its people even more.

In an attempt to "fix" the grid, lawmakers began drafting legislation. However, as with all legislation, politics and business remained central on the lawmakers' minds. With such a thriving non-renewable energy market in the state, lawmakers took this opportunity to draft favorable legislation for those companies. The passage of H.B. 1500 and S.B. 2627 show the affinity for non-renewables. Both bills provide loans, allowance, and credits, but only for dispatchable (i.e., non-renewable) generation facilities.

While these bills don't per se hurt non-dispatchable generation facilities (i.e., renewable energy), the bills certainly do not help renewables. This lack of help given to renewables would likewise hurt the grid as a whole. However, renewables did dodge a few bullets during the last legislative session. The failure of S.B. 624 and S.B. 2015 are big wins for renewables. The bills, respectively, proposed onerous permitting requirements for renewable energy generation facilities and required at least half of the state's generating capacity come from dispatchable generation. These two bills would not just boost non-renewables (like the passed bills did) but actively diminish renewables.

Despite these incentives for non-renewables and proposals to diminish renewable production, renewable energy production will not fall. Instead, with a few legislative amendments, renewable and non-renewable energy can thrive. With both forms of energy maximizing

production, the Texas grid is better off and disasters like winter storm Uri can be avoided—benefitting energy producers and energy consumers alike.