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**SENATE COMMITTEE ON BUSINESS & COMMERCE**

**TEXAS SENATE**

**INTERIM REPORT**

**A REPORT TO THE**

**TEXAS SENATE**

**87TH TEXAS LEGISLATURE**

**KELLY HANCOCK**

**CHAIRMAN**

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Senate Committee On  
Business & Commerce

January 11, 2021

The Honorable Dan Patrick  
Lieutenant Governor  
Members of the Texas Senate  
PO Box 12068  
Austin, Texas 78711

Dear Governor Patrick and Fellow Senators:

Thank you for the opportunity to address important issues facing Texas today through your charges for interim study. The Senate Committee on Business & Commerce is pleased to submit its final report with recommendations for consideration by the 87th Texas Legislature.

Respectfully submitted,

Handwritten signature of Kelly Hancock in black ink.

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Kelly Hancock, Chairman

Handwritten signature of Robert Nichols in black ink.

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Robert Nichols, Vice-Chair

Handwritten signature of Donna Campbell in black ink.

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Donna Campbell

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Brandon Creighton

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José Menéndez

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Angela Paxton

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***1. Unmanned Aerial Vehicles: Examine current state and local laws regulating unmanned aerial vehicles. Identify any legislative changes needed to streamline regulation in a manner that promotes commerce and innovation while protecting public safety and the privacy and property rights of Texans.***

***Background***

Unmanned Aerial Vehicles (UAV, colloquially drones) are aircraft subject to regulation by the Federal Aviation Administration (FAA). However, there is no comprehensive federal law that protects the privacy of personal data collected by UAVs<sup>1</sup>. Additionally, federal preemption does not extend to all state laws regulating public safety, privacy and property rights. The rapid growth of the Unmanned Aircraft Systems (UAS, also known as drones) industry has prompted localities and the state to regulate the industry or otherwise try to address the potential concerns related to UAS through legislation.

The FAA currently imposes a number of restrictions on UAS operations which include:<sup>2</sup>

- UAS weighing more than .55 pounds and fewer than 55 pounds must be registered with the FAA and the registration number be visible on the device.
- UAS operators must have their FAA registration certificate in their possession when flying the UAS and both recreational and commercial UAS operators must show their certificate to federal, state, and local law enforcement upon request.
- UAS commercial operators must obtain a remote pilot certificate so that FAA per-flight permission is unnecessary.
- UAS can not exceed a flight altitude of 400 feet above ground level.
- UAS flights can only be conducted within the operator's visual line of sight and during daytime hours.
- UAS flights over individuals not participating in the UAS operation are prohibited.

However, more complex operations may need additional FAA certifications or waivers that exempt UAS operations from certain FAA requirements. Based on the requirements of the U.S. Constitution Commerce and Supremacy clause, the FAA has authority over the National Airspace System (NAS).<sup>3</sup> While the FAA has explicit authority of the NAS, the U.S. Government Accountability Office (GOA) found that as of 2019 forty-six states have enacted laws that relate to utilization of airspace for UAS operations, and at least twenty-six of these states address privacy matters, including Texas.<sup>4</sup>

FAA Modernization Act of 2012 directed the FAA to initiate a five year program to establish six UAS test sites to support the FAA in integrating the UAS into the NAS.<sup>5</sup> In 2012, the Office of the Governor requested that the Texas A&M University System pursue the FAA competitive selection process, and

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<sup>1</sup> Written Testimony, Michael Sanders (LSUASC) Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, LSUASC, (Sep. 18,2020) (on file with the committee)

<sup>2</sup> 14 C.F.R Part 107 (2016)

<sup>3</sup> Written Testimony, Michael Sanders (LSUASC) Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, LSUASC, (Sep. 18,2020) (on file with the committee)

<sup>4</sup> *Id.* at 3.

<sup>5</sup> FAA Modernization Act of 2012, Pub L. No 112-95, § 332, 126 Stat. 11 2012

Texas A&M University-Corpus Christi lead the effort.<sup>6</sup> Since December 2013, Lone Star UAS Center of Excellence and Innovation (LSUASC) - Texas A&M University-Corpus Christi has served as a nationally designated UAS test site.<sup>7</sup> LSUASC has conducted operations utilizing UAS that cover a wide-range of research across several UAS cases such as: last-mile package and cargo delivery, small UAS Traffic Management (UTM), Beyond Visual Line of Sight Operations (BVLOS), and passenger carriage as part of the National Aeronautics and Space Administration (NASA) Advanced Air Mobility National Campaign.<sup>8</sup>

In 2013, as a response to the increase of UAV operations, the Texas Legislature enacted TEX. GOVT. CODE § 423 to govern UAV operations. The enactment of Chapter 423 created two invasion of privacy misdemeanor crimes:

- (1) “use[ ] an unmanned aircraft to capture an image of an individual or privately owned property . . . with the intent to conduct surveillance on the individual or property captured in the image” and
- (2) to capture such an image and possess, disclose, display, distribute, or otherwise use it...”

The chapter also specifies twenty-one enumerated exceptions that permit certain individuals and organizations to capture images using UAVs for information gathering for commercial purposes or scholarly research and development. *See* TEX. GOVT CODE §§ 423.002 (a)(1)-(21). The statutory definition of a critical infrastructure facility encompasses several categories such as freight transportation facilities, water treatment facilities, telecommunication services, and a number of facilities related to oil and gas. *Id.* at § 423.0045(a)(1-a). Additionally, the chapter lists UAVs operational restrictions on airspace over state buildings, sports venues, correctional facilities, and detention centers. *Id.* at §§ 423.0045, 423.0046. The provisions in Chapter 423 also make it illegal to intentionally or knowingly operate an UAV over such facilities at an elevation not higher than 400 feet.

FAA predicts that in 2024, there will be over 2.3 million small Unmanned Aircraft Systems (sUAS) non-governmental aircraft operating in the NAS, with 36% (~830,000) engaged in commercial use.<sup>9</sup> The accelerated integration of UAS in the multimodal transportation system can be partially contributed to online commerce demand for a fast, reliable, and affordable delivery service. Virginia Tech's study on the economic impact of drone delivery in Austin, TX, within five years of launch, found that drones could:

- Save the average resident up to 56 hours per year by reducing unnecessary errands and trips (up to 101 hours per year for a parent with children, or 203 hours per year for a working professional) in Austin. That is equivalent to \$582.5 million in time savings for residents
- Generate up to \$208,000 in additional sales each year for a local retailer, or up to \$284,000 each year for a restaurant. At scale, drone delivery could generate new business activity equivalent to 50-165% and 121-250% sales growth over the five year period and
- Save up to 294 million miles per year in avoidable travel, equivalent to taking 25,565 cars off the road.<sup>10</sup>

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<sup>6</sup> Written Testimony, Michael Sanders (LSUASC) Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, LSUASC, (Sep. 18,2020) (on file with the committee)

<sup>7</sup> *Id.* at 6.

<sup>8</sup> *Id.* at 6.

<sup>9</sup> Written Testimony, Michael Sanders (LSUASC) Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, LSUASC, (Sep. 18,2020) (on file with the committee)

<sup>10</sup> Written Testimony, Wing Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, Wing (Sep. 18,2020) (on file with the committee)

## ***Testimony***

### ***State Regulation***

The committee received written testimony that noted that the United States widespread deployment of commercial drones has been slow due, in part, to the lack of clarity about federal and state roles regarding drones and airspace management.<sup>11</sup> In "Which States are Prepared for the Drone Industry? A 50-state report card", the report contends that states should take the lead by creating drone highways that mirror the paths of public roads. Texas ranks tenth in the nation for readiness to get new technology in the sky.<sup>12</sup>

Texas law allows airspace to be leased above local roads, state roads, and state property, a factor that improved the state's score in the report card.<sup>13</sup> This law allows the state to create drone highways above state and local roadways. The Connected and Autonomous Vehicle Task Force within the Texas Department of Transportation is also viewed positively.<sup>14</sup> The task force was created in 2019 by Governor Abbott.<sup>15</sup> The task force members include representatives from the drone industry, and part of the task force's mission is to stimulate drone jobs and services in Texas.<sup>16</sup>

A NASA market study predicts that Urban Air Mobility (UAM) has the potential of being profitable between 2028-2030 with up to 750 million annual passenger trips in 15 metropolitan areas, and the total market projected on the low end at \$2.5 billion and on the high end of \$500 billion.<sup>17</sup> In order for future technological capabilities like UAM to thrive, Texas needs to continue to streamline UAV regulations to promote commerce and innovation. The committee received testimony from Hyundai UAM Division that notes that Texas has been proactive in creating a regulatory framework that allows for a favorable landscape for the future development of both the UAV and UAM industry. The Legislature passed H.B. 1643, 85th Leg., Reg. Sess. (Tx. 2017) that prohibited a political subdivision from adopting or enforcing an ordinance regarding the operation of UAVs, except in limited circumstances.<sup>18</sup> This bill has been instrumental in creating a harmonized landscape for UAV and UAM operations throughout the state.<sup>19</sup>

### ***Barriers for Unmanned Aerial Vehicles in Texas***

The committee received an ample amount of written testimony stating that current Texas law prohibiting UAS operations over various areas and facilities creates an unworkable patchwork of UAS no fly-

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<sup>11</sup> Written Testimony, Brent Skorup, Senior Research Fellow, Mercatus Center at George Mason University, Response to Senate Committee on Business and Commerce Request for Information of September 18,2020, Brent Skorup, Senior Research Fellow, Mercatus Center at George Mason University (Sep. 18,2020)(on file with committee)

<sup>12</sup> *Id.* at 11.

<sup>13</sup> *Id.* at 11.

<sup>14</sup> *Id.* at 11.

<sup>15</sup> *Id.* at 11.

<sup>16</sup> *Id.* at 11.

<sup>17</sup>Written Testimony, Michael Sanders (LSUASC) Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, LSUASC, (Sep. 18,2020) (on file with the committee)

[https://www.nasa.gov/sites/default/files/atoms/files/bah\\_uam\\_executive\\_briefing\\_181005\\_tagged.pdf](https://www.nasa.gov/sites/default/files/atoms/files/bah_uam_executive_briefing_181005_tagged.pdf)

<sup>18</sup> Written Testimony, Nathan Trail, Manager of State & Local Policy, Hyundai UAM Division of Hyundai Motor Group, Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, Hyundai UAM Division of Hyundai Motor Group (Sep. 18,2020) (on file with the committee)

<sup>19</sup> *Id.* at 18.

zones.<sup>20</sup> Testimony received by the committee contends that these laws are preempted by federal law because the operation of UAS in the NAS may only be regulated by the federal government. Furthermore, the FAA Extension, Safety, and Security Act of 2016 directs the Secretary of Transportation to establish a process to allow applicants to petition the FAA to establish no-fly zones over a narrow class of facilities, such as critical infrastructures. Industry stakeholders argue that the adoption of this statute is further evidence that Congress has occupied the field with regard to UAS operations.

The FAA has issued numerous letters to state and local governments cautioning against the adoption of no-fly zones. Consumer Technology Association (CTA) referenced the State and Local Regulation of UAS Fact Sheet that was released by the FAA Office of the Chief Counsel on December 17, 2015.<sup>21</sup> According to this fact sheet, "[s]ubstantial air safety issues are raised when state and local governments attempt to regulate operation or flight of aircraft" and "[a] navigable airspace free from inconsistent state and local restrictions is essential to the maintenance of a safe and sound airport system." Based on the preceding information, industry stakeholders recommend the state refrain from adopting legislation regarding UAS operations.

### ***Privacy and Security***

The testimony received from stakeholders recognized that federal preemption does not extend to all state laws impacting UAS operations, for example privacy laws. There is no comprehensive federal UAS-specific law that protects the privacy or security of data collected from a UAS. Texas has the authority to enact legislation to protect property and privacy rights.

Currently, Texas law does not expressly provide air rights to landowners. This raises the risk of litigation for drone operators, because landowners do not know the extent of their property rights.<sup>22</sup> In "Jump-Starting the Drone Industry: Which States are Ready to Fly?", the author argues that laws vesting air rights with landowners clarifies the state's right to exercise its policing powers and defines property rights. These laws can also inform drone operators and residents about the extent of homeowners' property rights, which mitigates the risk of litigation for drone operators and homeowners.

LSUAC recommends that the legislature consider studying compensation legislation to address privacy concerns and the unauthorized use of data collection from UAV operators for commercial purposes. Currently, low altitude commercial drone operators are not required to compensate property owners for the use of a landowners immediate airspace.<sup>23</sup> Also, UAV operators are not required to gain consent

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<sup>20</sup> Written Testimony, Douglas K. Johnson, Vice President, Technology Policy, CTA, Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, CTA (Sep. 18,2020) (on file with the committee)

<sup>21</sup> *Id.* at 20.

<sup>22</sup> Written Testimony, Brent Skorup, Senior Research Fellow, Mercatus Center at George Mason University, Response to Senate Committee on Business and Commerce Request for Information of September 18,2020, Mercatus Center at George Mason University (Sep. 18,2020)(on file with committee)

<sup>23</sup> Written Testimony, Michael Sanders (LSUASC) Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, LSUASC, (Sep. 18,2020) (on file with the committee)

from property owners or compensate property owners for the data that is collected and exploited for commercial purposes.

As noted by industry stakeholders and the Texas Department of Public Safety in their submitted written testimony, "surveillance" is not defined in this section of the Government Code. Therefore, it can be argued that anything not specifically listed in statute would be conducting surveillance in violation of the law.<sup>24</sup> It has been suggested to clarify the statute and define "surveillance" specifically in this section of the Government Code. In order to address the "right to privacy", LSUSAC recommends adding explicit language covering UAV photography and suggests studying Florida and California law that have such statutes.

Industry stakeholders stress the importance of having laws and regulations that address actions and not the technology used. Wing, the first FAA-certified Air Carrier for commercial drone operations, states in their testimony that restrictions for privacy or security should be technology neutral. For example, prohibitions on the collection of images should be expressed in terms of harm and intent, not in terms of the technology used for collection. Industry stakeholders caution that a technology-specific regulatory structure could impede the entrants of new technologies.

## ***Conclusion***

The expansion of UAS industry and the continued development of the multimodal transportation system has warranted the state to propose legislation that protects public safety, privacy and property rights. However, state laws affecting UAS operations should be harmonized with the federal regulatory framework to ensure air safety. The FAA lacks the authority to issue or enforce regulations to address privacy concerns.<sup>25</sup> While the code contains privacy provisions that pertain to images of private property and property owners, the code does not adequately address exploitation of data gathered by drone operators from a property owners immediate airspace. Furthermore, the code does not define "surveillance" and does not adequately address UAV operations that include surveillance. The Texas Legislature should continue to review and examine regulations and promote technology-neutral legislation that protects public safety, privacy and property rights and fosters an environment that allows the UAV industry to flourish.

## ***Recommendations***

The Committee recommends the following:

- The Legislature reexamine and, if found prudent, propose legislation that addresses matters relating to the use of surveillance in UAV operations and define "surveillance".
- The Legislature continues to study the exceptions that are in statute to ensure that the exceptions are FAA compliant and promotes air safety.

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<sup>24</sup> Written Testimony, Texas Department of Public Safety, Response to Senate Committee on Business & Commerce Request for Information of September 18,2020, Tex. Dep. of Public Safety (Sep. 18,2020) (on file with the committee)

<sup>25</sup> Unmanned Aircraft Systems: Current Jurisdictional, Property, and Privacy Legal Issues Regarding the Commercial and Recreational Use of Drones, <https://www.gao.gov/assets/710/709371.pdf>

***2. Electricity: Assess the electricity market in Texas. Examine changes in customer demand, such as on-site storage, distributed generation, and electric vehicles. Study the usage of "non-wires alternatives," including energy storage, and recommend legislative changes if needed. Identify barriers to the electric market at the state or local level. Make recommendations to maintain grid reliability and encourage the continued success of the electric market.***

## ***Background***

The Texas electric market has continued to evolve since the decision to deregulate the fully integrated electric utilities in ERCOT over 20 years ago. The passage of Senate Bill 7 by the 76th Legislature created an energy-only market design, defining distinct roles for electric generators, transmission and distribution providers, and retail electric providers in competitive areas of the state, while codifying the vertically integrated monopoly status of public power systems and electric cooperatives. Since that time, the mix of resources in the electric wholesale market has undergone much change, adding new resources to meet demand and replacing some assets with more fuel efficient alternatives.

Public power utilities own approximately 10,500 megawatts (MW) of generation capacity and other smaller public power companies contract through purchase power agreements in the wholesale market approximately 5,800 MW. Electric cooperatives own approximately 5,000 MW of generation in ERCOT and another 2,200 MW in other parts of the state.

The rest of the wholesale generation electric fleet is owned and operated by private entities. Opening the generation market to investors and allowing transparency in pricing signals to drive investment has reshaped the generation fleet to consist of more efficient and low-fuel-cost generation resources. This in turn has allowed the state to offer competitively priced wholesale power and maintain rigorous reliability standards, both of which are of paramount importance to attract businesses for which electricity is a significant portion of operating expenses such as manufacturing and high-tech.

ERCOT's all-time peak demand record of 74,820 MW was set on Aug. 12, 2019.<sup>26</sup> The Summer 2020 peak, however, occurred on Aug. 13, reaching 74,328 MW.<sup>27</sup> The slightly lower Summer 2020 peak is not directly attributable to the impacts of COVID-19, rather increased Summer 2020 wind production

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<sup>26</sup> ERCOT news release, 'ERCOT Reserve Margin Up for Summer 2020, Energy Alerts Still Possible.' May 13, 2020.

<http://www.ercot.com/news/releases/show/206275>

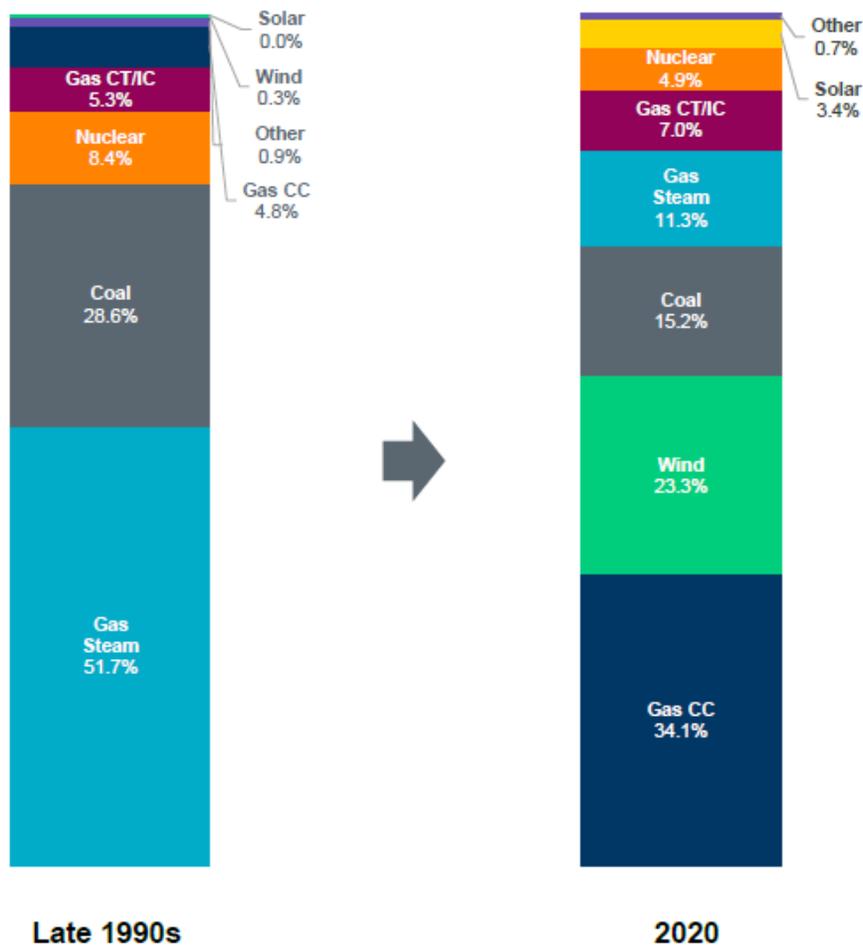
<sup>27</sup> Ibid.

and an increase of solar generation of approximately 2,100 MW since Summer 2019.<sup>28</sup> The latest ERCOT CDR, released in December 2020 forecasts a planning reserve margin for summer 2021 of 15.5%, based on resource updates provided to ERCOT from generation developers and an updated peak demand forecast.<sup>29</sup>

Aggregate demand is expected to continue to rise in the coming years. ERCOT's latest Capacity and Demand Report (CDR) estimates that 2021 demand will reach 78, 299 MW and 80,108 in 2022.<sup>30</sup>

The chart below shows the change in the composition of the electric generation fleet since the time of deregulation in the late 1990s to Fall 2020 that meets ERCOT's growing demand.

### Composition of ERCOT Generation Fleet Since Deregulation



<sup>28</sup> Public Presentation: *Summer 2020 Review*, October 13, 2020.

[http://www.ercot.com/content/wcm/lists/197392/2020\\_Summer\\_Review\\_FINAL.pdf](http://www.ercot.com/content/wcm/lists/197392/2020_Summer_Review_FINAL.pdf)

<sup>29</sup>ERCOT Report on Capacity, Demand, and Reserves (CDR) in the ERCOT Region, 2021-2030, December 16, 2020.

[http://www.ercot.com/content/wcm/lists/197379/CapacityDemandandReservesReport\\_Dec2020.pdf](http://www.ercot.com/content/wcm/lists/197379/CapacityDemandandReservesReport_Dec2020.pdf)

<sup>30</sup> Ibid.

The state's generation fleet has been transformed since deregulation. Notably, the overall share of coal-fired resources has shrunk from 28.6 percent of the overall generation capacity to 15.2 percent, while gas now occupies 52.4 percent of overall resources, the newest of which are primarily efficient combined cycle gas turbines, an outcome consistent with the falling price of natural gas.<sup>31</sup> During the last 20 years, natural gas has widely fluctuated, selling for an average annual spot price as high as \$8.86 per Metric Million British Thermal Unit (MMBtu) in 2008, trending down since that 20-year average annual high, and selling for an average annual spot price of \$2.56 per MMBtu in 2019.<sup>32</sup>

The emergence of wind and solar resources from nearly non-existent status to comprise 23.3 percent and 3.4 percent of the state's capacity, respectively, in ERCOT has been the most striking change. While Texas's geography supports these assets, the approximately \$6.8 billion investment in transmission lines known as Competitive Renewable Energy Zones (CREZ) was foundational to creating the infrastructure needed to transfer the electricity generated from those assets to the state's population centers. Senate Bill 20, passed in 2005 and codified in the Utilities Code Section 39.904, established Texas's Renewable Energy Program and directed the PUC to identify Competitive Renewable Energy Zones. A CREZ is a geographic area with optimal conditions for the economic development of wind power generation facilities. In response to this legislative action, the Texas Public Utility Commission (PUC) issued a final order in Docket No. 33672 in 2008, establishing five CREZ Zones in Texas (McCamey, Central, Central West, Panhandle A, Panhandle B) and designating a number of transmission projects to be constructed to transmit wind power from the CREZs to the highly populated metropolitan areas of the state.

A robust transmission system along with transparent price signals in the ERCOT market have led wholesale market participants, both existing companies and new entrants, to invest in more efficient generation assets that reflect the state's natural resources and geography.

The following is a snapshot of ERCOT's interconnection queue as of Fall 2020, which estimates new generation projects. The trends that have dominated the last 20 years are expected to continue: new, fuel-efficient resources, more wind and solar, but also the emergence of additional energy storage projects.

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<sup>31</sup> ERCOT Generation Fleet Data

<sup>32</sup> Energy Information Agency. Natural Gas Futures Prices (NYMEX). <https://www.eia.gov/dnav/ng/hist/rngwhhdA.htm>

## Planned Project Resource Mix in ERCOT



Electric generation resources that wish to connect to the grid must obtain necessary gas and air permits, sign an interconnection agreement, and complete an agreement with a Transmission Service Provider to connect the new project to the grid. The chart on the left includes potential resources in ERCOT's interconnection queue that have completed those necessary steps and are, therefore, eligible to be included in ERCOT's Capacity and Demand Report (CDR). The other planned resources are in the initial study phase and have not completed the requirements necessary to be considered in the CDR. Based on the resources in the interconnection queue, the ability of the ERCOT market to meet future increases in system-wide demand will be more dependent on intermittent resources. It is notable that solar resources, a smaller component of overall generation today, correlate more closely with Texas's electric demand profile since they produce at a higher capacity factor during summer peak hours.

### *Distributed Solar Generation*

ERCOT estimates that there are approximately 710 MW of distributed rooftop solar power currently in the competitive choice, municipal, and electric cooperative areas.<sup>33</sup> Estimates of growth vary widely based on a variety of modeling assumptions, but installations continue, and moderate estimates foresee as much as 3,000 MW by 2024. ERCOT continues to develop tools to more accurately reflect that resource so that its impact on reliability may be included in system-wide reliability assessments.<sup>34</sup>

### *Battery Storage in ERCOT*

While there is significant interest in battery storage projects by ERCOT market participants, there is only a small amount of battery storage capacity currently on the ERCOT grid, approximately 173 MW. Most of this capacity is limited duration resources designed specifically to participate in the ancillary service markets. More than 18,000 MW of new battery energy storage capacity is currently in the ERCOT interconnection queue. ERCOT also has a significant number of interconnection requests for battery projects that are co-located with wind and solar facilities since batteries can complement wind and solar resources and take advantage of other project savings. Newer projects are expected to be designed with longer storage durations and will likely be able to provide energy to serve customer demands during peak periods. ERCOT and stakeholders are discussing how to account for these resources in future resource adequacy assessments.

### *Electric Vehicles*

The Texas Department of Motor Vehicles (TxDMV) defines electric vehicles as those that are wholly powered by electricity and use battery packs to store and release energy. As of late 2019, TxDMV reported in that were 29,540 electric vehicles registered in Texas which equals about 0.12 percent of the market.<sup>35</sup> Although they are only a fraction of the total vehicles registered in Texas, EVs represented the largest proportional increase of any alternatively fueled vehicle type year-over-year, increasing 252 percent from 21,143 since FY 2016.<sup>36</sup> TxDMV will release an updated report on 2020's registered alternatively fueled vehicles in December of 2020.

Also of note, SB 604 passed in 86 (R) transferred certain TxDOT functions to the TxDMV. The bill required TxDMV to submit a report to the legislature by December 1, 2020 that included a study of the impact of alternatively fueled vehicles to the state. The report will include, among many fee and state highway impact measures, the projected impact of alternatively fueled vehicles to the state's power grids

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<sup>33</sup> Presentation at ERCOT's Supply Analysis Working Group:  
[http://www.ercot.com/content/wcm/key\\_documents\\_lists/195745/SAWG\\_April\\_2020\\_Solar\\_PV\\_Growth\\_Projection\\_Discussion.pptx](http://www.ercot.com/content/wcm/key_documents_lists/195745/SAWG_April_2020_Solar_PV_Growth_Projection_Discussion.pptx)

<sup>34</sup> Ibid.

<sup>35</sup> Texas Department of Motor Vehicles, 2019 Alternatively Fueled Vehicle Report,

<sup>36</sup> Ibid.

and electricity markets. According to the industry participants polled in the study, including wholesale, transmission, electric cooperatives, and municipally owned utilities, each segment expected to be able to meet the increase in electricity demand expected from increased demand from electric vehicles and any associated increases on electric infrastructure.<sup>37</sup>

ERCOT performs a biennial Long-Term System Assessment (LTSA) using scenario-analysis techniques to assess the potential needs of the ERCOT system up to 15 years into the future. The LTSA includes various forward-looking assessments to help ensure continued system reliability and efficiency. The last LTSA completed in 2018 included a scenario focused on emerging technology, including an assumed increase in electric demand based on the adoption of three million electric cars, 80,000 short-haul trucks and buses, and 200,000 long-haul trucks.<sup>38</sup> The 2018 LTSA Emerging Technology scenario included estimated electric usage that reflected the type of EV, and assumed charging patterns (power drawn from the electric grid corresponding to time of day). For this study, most cars were assumed to charge overnight, and trucks and buses were assumed to charge around noon and again overnight. These assumptions were built into a 2033 model along with other expected trends in electric consumption. This future scenario estimated the total peak charging demand to be over 18,500 MW at midnight. Approximately 5,000 to 6,000 MW of charging demand was expected during the hours from 3:00-6:00 PM, but increased EV demand in the evening was expected to shift the system-wide summer peak from the hour ending 6:00 PM to the hour ending 10:00 PM.

### ***Testimony***

The Senate Business and Commerce Committee heard in-person testimony on February 6, 2019 from the following participants:

**DeAnn Walker**, Chairman of Public Utility Commission of Texas;  
**Arthur D'Andrea**, Commissioner of Public Utility Commission of Texas;  
**Bill Magness**, President and CEO of ERCOT;  
**Steve Reedy**, Acting Director, Potomac Economics.

**Julia Rathgeber**, President of Association of Electric Companies of Texas (AECT);  
**Michelle Gregg**, Executive Director of Texas Competitive Power Association (TCPA);  
**Julia Harvey**, Director of Regulatory Affairs, Texas Electric Cooperatives;  
**Russ Keene**, Executive Director, Texas Public Power Association.

**Katie Coleman**, Government and Regulatory Counsel, Texas Association of Manufacturers;  
**Bill Peacock**, Vice-President of Research, Texas Public Policy Foundation;  
**Cyrus Reed**, Director, Lone Star Chapter, Sierra Club;

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<sup>37</sup> Texas Department of Motor Vehicles, Study on Imposing Fees on Alternately Fueled Vehicles, December 1, 2020. <https://www.txdmv.gov/reports-and-data>

<sup>38</sup> ERCOT System Planning: 2018 Long-term System Assessment for the ERCOT Region, December 2018, [http://www.ercot.com/content/wcm/lists/144927/2018\\_LTSA\\_Report.pdf](http://www.ercot.com/content/wcm/lists/144927/2018_LTSA_Report.pdf)

**Suzanne Bertin**, Executive Director, Texas Advanced Energy Business Alliance;

**Charlie Hemmeline**, Executive Director, Texas Solar Power Association;

**Tom Rose**, CMG Consulting;

**Josh Prueher**, CFO, Broad Reach Power;

**Pat Wood**, former PUC Chairman (1995-2001) and FERC Chairman (2001-2005).

***Chairman DeAnn Walker***

Chairman DeAnn Walker's testimony focused on actions the PUC has taken to address ERCOT reserve margins, which triggered energy emergency alerts (EEA) days the week of August 13, 2019, and some of the drivers of demand in Texas such as energy exploration in the Permian Basin and industrial growth on the Texas Gulf Coast. Chairman Walker noted an increased reserve margin forecast from the December 2019 Capacity Demand Report (CDR) for Summer 2020 of 10.6 percent, which is an increase from the 8.6 percent CDR forecast for summer 2018. Chairman Walker spoke about the PUC's decision to make changes to the operating reserve demand curve (ORDC), a scarcity pricing mechanism that increases power prices as reserve margins tighten, in January of 2019 that took effect in two parts. The purpose of this change was to give more accurate prices signals to the market and to increase availability from existing generation through maintenance and plant upgrades. Chairman Walker noted that this allows consumers to reduce load as prices climb and engage in demand response programs to voluntarily reduce power consumption.

***Bill Magness, CEO of ERCOT***

Mr. Magness noted that ERCOT entered Summer 2019 with a historically low reserve margin and that June and July were comparatively mild to prior years, but that August was very hot, and September was well above normal expectations. The ERCOT system reached a new all-time record for peak electricity demand set on Aug. 12, 2019 (74,820 MW). The changes to pricing mechanisms performed as expected, resulting in excellent generation performance and significant participation by consumers to reduce demand. Mr. Magness noted an anomaly in Summer 2019's consumption pattern, he pointed out that the tightest reserve margin conditions occurred earlier than the time of peak demand. ERCOT experienced two EEA days, reaching only EEA level one, in which ERCOT works with consumers that have agreed to temporarily curtail usage to balance the electric grid. The two EEA days, August 13 and 15, 2019, while not as high as previous system-wide peak days, resulted from a combination of an underperformance from wind generation and an increase in outages from other resources.

Mr. Magness noted that current electricity consumption in the ERCOT system consists primarily of natural gas resources, at about 47 percent of generated electricity, and that electricity produced from coal and wind resources were almost equal for the first time, at approximately 20 percent of the electricity for the ERCOT system. Looking ahead, the ERCOT interconnection queue, which reflects future electric generation resources, consists primarily of renewable resources with commercial solar expected to emerge as a category of its own.

Mr. Magness noted that ERCOT is one of the new regions in which electricity demand is growing consistently year to year, resulting from the growth in both population and industrial load, and recommended a number of measures that will be taken to manage the grid. Those include:

- Real-time Cooptimization, a market management efficiency system that will be fully implemented by 2024.
- Implementing market rules and IT systems for electric storage resources and distribution-level resources that are not on the traditional transmission system.

***Commissioner Arthur D'Andrea***

Commissioner D'Andrea's comments focused on cyber-security bills passed by the Senate B&C committee in 86 (R): SB 64, SB 475, and SB 936. The bills accomplished two big things:

- The creation of the Grid Security Council, which includes Chairman DeAnn Walker and ERCOT CEO Bill Magness, and an appointee of the Governor's office. The Council researches best practices for grid security, and analyzes how those might impact the state's emergency operations plans for recovery in the event of an attack on the electric grid. The Council is required to report their findings to the legislature.
- The creation of a Cyber Security Monitor, a contracted entity chosen by the PUC and ERCOT that meets with all of the utilities in the state - large and small - to share findings about emerging cyber security threats, share industry practices, and to identify and correct vulnerabilities. The Public Utility Commission has signed a contract with a private company called Securitas to perform these duties. The Monitor's findings will be reported to the Commission monthly, quarterly, and annually. The findings will be available to the legislature.

***Steve Reedy, acting director of the ERCOT Market Monitor group, Potomac Economics***

Mr. Reedy testified to the committee that shortage prices, which drive investment in an energy-only market, did not occur as expected in the summer of 2018 as they had in previous summers. In most years the price of electricity effectively tracks closely with the price of natural gas, indicating that the cost of electricity reflects the cost of production. However, in 2011 and 2019, there were significant shortage pricing, indicating that there was not sufficient electricity production to meet both demand and desired reserves. That shortage is important to incent future investment in an energy-only market. The January 17, 2019 decision to change the Operating Reserve Demand Curve (ORDC), which means the shortage pricing would be higher in most cases, is reflected in an increase in shortage pricing of summer 2019. These adjustments can result in changes to both the production (generation) side of the market, such as incremental increases in the ability of generators to produce more electricity, and to the load (consumption) side of the market, in which users may decrease their consumption when prices are higher. One indication of the effectiveness of price signals in ERCOT is the reduction in generator availability, which dropped significantly in 2019, when prices were expected to be high. Anecdotally, there was an increase in demand-response from large consumers.

***Julia Rathgaber, Association of Electric Companies of Texas (AECT)***

Mrs. Rathgaber testified to the committee that though the state entered Summer 2019 with historically low reserve margins, the grid was able to effectively meet demand and offer relatively low prices, all within these new constraints. AECT members responded to the reliability concerns with a variety of measures. Generation members made upgrades prior to the summer to maximize output, transmission and distribution utilities deferred maintenance and coordinated their activities with ERCOT, and retail electric providers offered low rates. The rates offered are on average approximately 10 percent lower than the rest of the United States for residential consumers and among the lowest in the nation for large commercial and industrial consumers. Concerns about adequate reserves in the future remain as a result of the expected increase in the Texas population and the growing economy at a time when investment in traditional thermal generation lags. Forward prices are increasing, but not to the level that justify additional investment in new thermal generation. AECT members plan to continue to complete the same summer preparation as needed at every level of the market. New energy technologies will also play a significant role in meeting demand, such as distributed solar generation, energy storage, and demand response, which are made possible with the market's push to install electronic smart meters. All these and other innovations will be required to power new technology such as electric vehicles, and AECT members are preparing to meet the increased demand expected in the state.

***Julia Harvey, Texas Electric Cooperatives***

Mrs. Harvey testified on the role of the integrated, member-owned, not-for-profit electric cooperatives in the Texas wholesale market. Cooperatives are authorized to own generation, transmission, and distribution resources to serve retail customers within a defined service area. Electric cooperatives make capital investment in generation to serve the customers in these areas at the least cost. Electric cooperatives own a diverse portfolio of generation resources, including coal, natural gas, and renewable resources, which allow them to provide stability to the customers they serve. As load grows in cooperatives' service territory, they will continue to invest in generation or procure wholesale power from the market, which serves overall resource adequacy in ERCOT as the cooperatives build in response to their own load growth. While members do pay for their own generation investments, market revenue from power generation is credited back to members to offset those costs. Market dynamics in ERCOT are important to electric cooperatives, and they adjust to wholesale markets with a measured approach toward risk when considering whether to invest in new thermal resources or procure power. In summer 2019, the cooperative generation fleet performed well, experiencing very few forced outages over peak periods. Cooperatives have made targeted investments to ensure the availability of their generation resources over peak demand periods, decisions that are driven by the market's price signals. In addition to generation, cooperative members made significant voluntary reductions during critical periods. Cooperatives provide stability in the ERCOT market through capital investment that responds to load growth and remains focused on system readiness to ensure reliable outcomes in future summers.

***Michelle Richmond, Texas Competitive Power Associates (TCPA)***

Mrs. Richmond testified that members of TCPA provide approximately 70 percent of the generating capacity in ERCOT. TCPA members' investments are primarily in thermal generation, and only make a return when they are selected to generate, as opposed to capacity payments in other markets that pay generators to be available. Therefore, generators must cover fixed and variable costs through market performance. Prior to Summer 2019, TCPA members invested hundreds of millions of dollars in Texas to produce additional generating capacity and also returned a "mothballed" facility to service, adding nearly 400 MW of additional capacity to the system entering the summer. Members plan to continue service of all existing facilities without retirements and make additional investment decisions based on expected return on investment. Members continue to invest in their generation fleets, though some have concerns about the extension of the federal wind production tax credit (PTC), which is expected to lead to further investment in wind resources but also to volatility, highlighting the importance of resources that can quickly start up to offer power to the system as needed. TCPA members collectively have approximately 600 MW of resources in the interconnection queue. Market principles have made ERCOT one of the most successful markets in the world and has served Texas well, and TCPA believes that remaining faithful to those without providing subsidies to new or existing technologies will help maintain a healthy market. TCPA members urge the committee to be vigilant about maintaining low transmission costs, which are borne by all market participants, and to not initiate further buildout of transmission that favors renewable resources that are coming online.

***Russ Keene, Texas Public Power Association (TPPA)***

Mr. Keene testified that TPPA includes 72 Municipally Owned Utilities in Texas serving urban, suburban and rural Texas. Members vary in size from large, vertically integrated utilities to small distribution systems, serving approximately 5 million Texans in these cities and towns. Sixty-two members operate within ERCOT and ten are on the Southwest Power Pool or Midcontinent Independent System Operator grids. Municipally Owned Utilities (or "MOUs") offer a long track record of stability and play an essential role in providing secure and reliable power to the Texas electricity market, with many member systems providing power to communities in Texas for over 100 years. MOUs have a diverse portfolio of generation assets and long-term power purchase agreements that contribute to cost-effective, secure and stable power supply. This diverse fuel portfolio contributes to stability and reliability to both TPPA communities and the ERCOT market. Nine TPPA MOUs own a total of 35 generation facilities totaling 10,551 MW. In high demand periods of 73,000 MW, at full production these assets would account for 14 percent of ERCOT's generation load. Ten larger TPPA members have 60 long-term PPAs resulting in 5,900 MW of new generation built since 2013 on-line/or being delivered through 2022. Sources include gas, landfill gas, solar, wind. A stable customer base and high bond ratings allow members to either build their own generation or enter into long-term power supply agreements with other public power and investor-owned generators based on market dynamics. Nine MOU systems that own generation have a very diverse fuel base including coal, gas, gas peakers, nuclear, and hydroelectric. ERCOT requires all utilities that generate power in ERCOT, whether public or private, to sell into the competitive wholesale power market, including MOUs, which serves retail

providers of electricity that buy generation from the market to serve their customers. During summer 2019 MOU generation and transmission assets performed very well and played an important role in a successful summer for the ERCOT market. MOU generation and transmission activities are regulated by the PUC and ERCOT. TPPA member company managers and operators participate in the PUC's summer readiness workshop, and the MOU segment has long held a board seat at ERCOT. MOUs participate in demand response programs in ERCOT, reducing demand when the power supply was tight. MOUs stand ready to engage with policymakers and stakeholders, to ensure that Texans continue to maintain the stability, reliability, affordability and safety of the ERCOT grid.

***Katie Coleman, Texas Association of Manufacturers (TAM)***

Ms. Coleman testified that TAM members are the largest electric consumers in the state. Electricity costs are often in the top three production costs for TAM members, up to 70 percent of total overhead costs for some. Cost of electricity is something that manufacturers consider when deciding where to invest. TAM members consider the summer of 2018 and 2019 an indication of the success of the energy-only market that allows demand and supply to balance one another. This results in a highly efficient market without mandates to pay for unnecessary reserves, unlike other Real Time Operating Systems (RTOs) that have reserve margin requirements of 15 percent or more. ERCOT went through the last two summers with reserve margins between 8 and 10 percent without genuine reliability concerns. ERCOT's lean and efficient market saves customers money and promotes economic development without compromising reliability. Other RTOs where TAM members operate continue to call maximum generation events even with full regulation and mandated reserve margins. TAM members believe the key to maintain success in ERCOT is to concentrate performance incentives across peak demand periods. Generators make much of their profit when they meet peak demand in times of scarcity, which creates both strong performance incentives for the generators and allows sophisticated consumers to respond to high prices by reducing electric consumption. TAM members take advantage of demand response incentives and would like to see this opportunity for lower consumption market participants take advantage of prices in this way as well.

***Cyrus Reed, LoneStar Chapter of the Sierra Club***

Mr. Reed testified that the Sierra Club believes the market is working well and that an efficient market favors newer, cleaner technology. Over the last two years, the percentage of coal plants' contribution to electricity in ERCOT has reduced from approximately 35 percent to about 20 percent. New gas development consists of faster more efficient peaker plants, and there is a significant amount of energy storage in the queue. Regarding the ORDC, the Sierra Club believes that an ORDC shift was necessary, but that the measures taken were perhaps a little generous. The Sierra Club favors real-time cooptimization and believes the battery working group at ERCOT is improving the market for that resource in the future. The group urges further transparency regarding participation in demand response products and distributed generation resources.

The Sierra Club suggested certain policy goals such as:

- Improved customer access to their own smart-meter usage data, which would allow third-party access to small consumers' data and allow them to better participate in demand response.
- More robust energy efficiency programs. Texas has an energy efficiency goal for our utilities, which have accomplished much, but focus largely on demand response. Those programs could focus more on energy-efficiency in order to be directed at residential consumers as demand response becomes more of a market mechanism.

***Bill Peacock, Texas Public Policy Foundation (TPPF)***

Mr. Peacock testified that Texas' electric energy-only market provides reliable and affordable electricity, but the market is threatened by increased market interventions which can distort price formation and result in a higher cost for a less reliable resource. The most significant market interventions include renewable energy subsidies and the ORDC, which fundamentally alter the competitiveness of the market. Renewable energy subsidies are the genesis of the need for ORDC price signals. TPPF estimates that renewable generation companies received over \$2.5 billion in federal subsidies, and that the ORDC added up to \$3.9 billion to electricity costs for consumers. These measures have not contributed to the reliability of the system, yet unreliable resources continue to dominate new planned generation. Rather than create another market subsidy such as the ORDC to balance the distortions of federal renewable subsidies, the proper response should be to remove state-level subsidies such as Chapter 312 and Chapter 313 tax abatements that many wind and solar generators have taken advantage of, as well as eliminating the state's Renewable Portfolio Standard. Those measures will not be sufficient to remove the distortions of the federal production tax credit and investment tax credit for renewable resources. The state should develop mechanisms that require renewable generators to pay for the costs that they place on the grid.

***Suzanne Bertin, Texas Advanced Energy Business Alliance (TAEBA)***

Ms. Bertin testified that advanced energy technologies bring many opportunities to the State of Texas, and in particular the development of competitive, market-based resources such as distributed energy resources (DERs), which include distributed generation, energy storage, energy efficiency, demand response, and electric vehicles. DERs are often smaller, but can be aggregated to form a virtual power plant or micro-grid. They are distributed closer to the load they serve, and are connected to the distribution grid rather than the bulk transmission grid. DERs are typically modular, flexible in size - able to be added in increments - and they are two-way, able to consume from the grid and deliver power back to the grid, providing benefits to each level of the grid. DERs are a low-cost tool to add reliability and resiliency to the grid, and are able to contribute to sustainability and renewable energy goals, either policy-mandated or corporate.

During the 86 (R) session, Chairman Hancock proposed legislation (S.B. 1941) that focused on battery energy storage and would have clarified that storage is a competitive service rather than an asset to be owned directly by utilities. This bill also would have created new opportunities for utilities to contract for battery-based “non-wires solutions” to reap some of the savings discussed above by deferring or avoiding traditional infrastructure buildout. S.B. 1941 passed the full Senate unanimously, and

successfully passed out of the House State Affairs Committee, but failed to receive a vote before the full House of Representatives. TAEBA appreciates that the Legislative leadership has charged this committee with continuing to consider DERs and in particular opportunities for non-wires solutions. TAEBA supported and participated in the multi-stakeholder group to establish a proposed non-wires solution process framework for ERCOT. Going forward, TAEBA would like to see the concepts set forth in S.B. 1941 expanded to include DERs more broadly — not just batteries — though without a market-wide cap that would limit the opportunity for these competitive solutions to develop.

***Charlie Hemmeline, Texas Solar Power Association (TSPA)***

Mr. Hemmeline testified that TSPA members serve customers in both wholesale and retail markets, and include largescale power plant developers, manufacturers, residential and commercial rooftop integrators, and others across the full supply chain. The solar industry employs over 13,000 Texans. The cost of electricity from solar has fallen almost 90 percent in the last 10 years. Homeowners and commercial facilities are increasingly investing in solar as a way to self-generate and lower their electricity bills. Larger corporate customers too have become particularly active. Companies such as Anheuser-Busch, Target, Google, Honda, McDonalds, and others have all recently signed long-term contracts for generation from solar power plants in Texas. Solar's low, predictable prices are affordable and help companies meet corporate sustainability goals.

By the summer of 2022, solar is projected to add over 7,000 MW of on-peak power and grow to about 10 percent of ERCOT's total peak generation capacity. Solar is expected to boost ERCOT's planning reserve margin well above the 13.75 percent target, without which the reserve margin would remain below the target. Fifty different counties have large-scale solar projects online or a signed agreements for grid interconnection. Solar installations are modular, able to be placed almost anywhere and sized to the a given need, which developers are using to place solar resources where they works best in the market, using existing grid infrastructure. The industry plans to bring Texas a new wave of low-cost, on-peak power they can depend on for years to come.

***Tom Rose, NET Policy Group***

Mr. Rose testified that Electric Vehicles (EVs) projections vary widely, which requires Texas policymakers to make a measured approach as it relates to the impact on the electric grid. There are three types of chargers, levels one, two, and three. Level one chargers which serve typical consumer vehicles use standard 120V circuits common to homes and used by most electronics, and are unlikely to have significant impact on the grid. Level two chargers use 240V electrical circuits similar to home appliance, and are used in most public charging stations. A charge from this sort of station could equal the load the size of nearly half of a home. Level three, or fast-DC chargers, use ultra high-power 480V stations, and can equal a load equivalent of the power consumed by 7-10 homes. The growth in electric vehicles can plausibly accumulate to equal thousands of megawatts of electricity on the grid. To prepare for this sort of growth, the grid should look toward providing rules to automate and integrate EVs as resources with the grid, primarily on the distribution system, including digital control systems monitor

and manage intermittent generation and loads in real time and more efficient design and operation of the system using automated data systems.

Policy makers can do a few things to prepare for increased use of electric vehicles in ERCOT:

- Consider whether the proper incentives exist for utilities to meet the needs of additional infrastructure to meet the increased demand associated with EVs.
- Evaluate utility planning and regulatory processes to ensure utilities efficiently invest in traditional and non-traditional technologies to manage reliability and cost of adding DERs/EVs
- Provide consumer education on charging electric vehicles, especially during peak load periods
- Clear the way for “Time of Use” pricing to incent charging during off-peak periods in both the regulated and competitive markets with regulated “time of use” rate tariffs and competitive “Free nights and weekends” type of pricing plans.

***Josh Prueher, Broad Reach Power***

Mr. Prueher testified that Broad Reach’s core business thesis is to locate energy storage assets in markets where we can operate them on a “merchant” basis, earning revenues in the wholesale electricity markets, as opposed to the traditional approach of contracting projects for the long-term with a utility, corporate, or retail electricity offtaker. In well-functioning markets such as ERCOT, energy storage projects can earn an attractive merchant returns while improving the efficiency and reliability of the electrical grid. Broad Reach builds energy storage systems to operate on land drilling rigs, artificial lift pumps, and gas compression sites in Texas and around the world. In 2016, lithium ion battery costs began to fall rapidly as global manufacturing capacity grew to meet electric vehicle demand and today, those low costs have enabled the beginning of widespread deployment of energy storage on the grid.

ERCOT is a particularly inviting market for energy storage primarily because its wholesale power and ancillary service prices are market-driven. The long-term trend toward increased renewable generation while lowering energy prices also creates localized price volatility that incentivizes energy storage projects. Increased load in certain areas, due to the state’s economic growth, creates congestion and additional localized price volatility. Because ERCOT leaves system sizing to the developer’s discretion, shorter duration energy storage projects that more economically address system reliability and efficiency are able to economically operate.

In response to these ERCOT market signals, Broad Reach submitted 52 interconnection applications with several of the Texas Transmission Distribution Service Providers for individual 9.95 megawatt energy storage projects in 2019. Of those, 18 were accepted by ERCOT and the company is currently preparing those projects for completion in 2020. These projects will interconnect at the distribution level and participate in the ERCOT markets. These projects are in locations where grid system constraints generally cause higher prices and higher price volatility and where energy storage can help alleviate those constraints.

Broad Reach is also developing a number of additional sites in Texas with an ultimate goal of deploying 1 gigawatt of energy storage in the state by the end of 2021. Many of these sites have the same 9.95 megawatt configuration as the current projects, but several are larger – as large as 200 megawatts – located in remote areas of the state where transmission constraints are most severe.

Broad Reach offers a strong endorsement of Texas utilities they partner with to bring storage to the market and to ERCOT’s current market rules that allow market participants to build and operate energy storage at lower costs and improve system reliability for Texas electricity customers.

***Pat Wood , Former Chairman of both the Public Utility Commission of Texas and the Federal Energy Regulatory Commission***

Chairman Wood offered a high-level historical view of the process of deregulating the Texas market, which began with the notion of putting the consumer first as opposed to governmental authority. He highlighted the benefits of the competitive market in Texas, noting the rate change since the time of deregulation, which adjusted for inflation, is a reduction of nearly half. The savings that have come to ERCOT since deregulation are derived from three main sources:

- Putting power plants into an efficient marketplace, which required them to bear the costs of their management and operational decisions.
- Reduced profit margins. Rather than receiving a formula-based rate from the commission, producers now receive a market-based return that rewards efficient operations.
- Excess cost of capacity. A competitive market bears the risk of the excess cost of generation capacity. This allows the market to efficiently sort and reward the best power producers.

Chairman Wood highlighted the continuing benefits of an open ERCOT, which has created fertile ground for new tools and innovations such as demand response, which allows the market to regulate against abuse rather than relying on regulators. Other innovations such as small modular nuclear generation is being developed and may become more economical.

Chairman Wood pointed out several ways to keep the ERCOT market attractive to new investment and innovation:

- Put the customer first,
- Continue to ring-fence the monopoly TDUs,
- Welcome new technological innovation and business models to the market by reducing barriers to entry and allow new ideas to flourish.
- Maintain a stable, bi-partisan regulatory environment in the legislature and the state.

The full audio and video recording of the hearing is available on the Texas Senate archive.

## ***Recommendations***

As the interconnection queue indicates, Texas continues to attract interest from power generation investors from a variety of generation resources. The committee should strive to maintain a stable regulatory environment that allows our market-driven design maximum consistency and transparency so that energy investors and businesses continue to see Texas as a destination. It is notable that the interconnection queue consists almost entirely of intermittent wind and solar resources, and that electric energy storage is expected to advance in the near future, all at a time in which the state's aggregate power demand continues to grow. These resources can be complimentary, and the committee should look for opportunities to foster an environment in which these smaller, modular resources can effectively contribute to grid stability and resource adequacy to meet the needs of the state's growing economy.

***3. Health Care Costs: Study the cost of health care in Texas. Make recommendations to increase access to affordable quality health care. Explore potential opportunities and recommend best practices to continue to curb rising health care costs. Study and report on ways to increase consumer health care options, provide flexibility in the market, and decrease the uninsured rate in Texas, including 1115 and 1332 waivers.***

***Background***

Across the nation and in Texas, healthcare costs are increasing.<sup>39</sup> A recent study finds that health care costs in Texas in 2018 exceeded the national average of about \$5,900.<sup>1</sup> Nationally, spending jumped 18 percent to about \$5,900 from about \$5,000 in 2014, but not necessarily because patients are seeing doctors more frequently, according to the report.<sup>40</sup>

Reports show that the increase is attributable to the rising pharmaceutical and medical prices. Those costs account for 74 percent of the increases that occurred between 2014 and 2018. In Texas, drug spending climbed 17 percent to \$1,196 in 2018 while the cost of a hospital visit increased 10 percent to \$1,205.<sup>41</sup> Out-of-pocket costs, or those that insurance does not pay for, also increased by 14.5 percent, or \$114. Spending on emergency room visits increased most dramatically, from an average of \$368 in 2014 to \$503 in 2018, a 36 percent difference.

A recent study found that pricing failure, over-treatment, low-value care, and fraud and abuse are responsible for 50 percent of wasteful spending in health care — pricing failure alone accounts for 30 percent of U.S. health care waste.<sup>42</sup>

The Senate Committee on Business and Commerce is focused on passing legislation targeted at protecting Texas' most vulnerable patients. The Committee continues to look for ways to help Texans afford their health care by reviewing best practices and reporting on ways to increase health care options, access and to decrease the cost.

***Testimony***

***Lower Health Insurance Premiums - 1332 Waivers***

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<sup>39</sup> Irene Papanicolas, Liana R. Woskie, and Ashish Jha, *Healthcare Care Spending in the United States and Other High-Income Countries* (Nov. 2, 2020, 2:15PM), <https://www.commonwealthfund.org/publications/journal-article/2018/mar/health-care-spending-united-states-and-other-high-income>.

<sup>40</sup> *Health Care Expenditures by State of Residence* (in millions), Kaiser Family Foundation, available at <https://www.kff.org/other/state-indicator/health-care-expenditures-by-state-of-residence-in-millions/?state=TX>

<sup>41</sup> *Id.*

<sup>42</sup> William H. Shrank, MD, MSHS, Teresa L. Rogstad, MPH; Natasha Parekh, MD, MS, *Waste in the US Health Care System*, JAMA, (Nov. 2, 2020, 2:00PM), <https://jamanetwork.com/journals/jama/article-abstract/2752664>.

One way to address the rising cost of health insurance premiums is for Texas to apply for a 1332 waiver. A 1332 waiver allows states to forgo portions of the Affordable Care Act (ACA).<sup>43</sup> Also called State Innovation Waivers, these waivers were available beginning January 1, 2017. In 2018, the federal government revised the guidance on Section 1332 waivers making them easier to get approved and more attractive for states to participate in. The waivers are approved for five-year periods with an option to be renewed, and must not increase the Federal deficit.<sup>44</sup>

In recent years 16 states have submitted 1332 waivers to help reduce health insurance premiums in the individual and small group insurance markets, and those waivers have been approved by the Centers for Medicare and Medicaid.<sup>45</sup>

The Committee received written testimony from the Texas Department of Insurance (TDI) that explains that the agency is using authority granted in SB 1940 (86R, 2019) that allows TDI to revise and administer, through the use of a 1332 waiver, the temporary health insurance risk pool or another type of reinsurance model to the extent federal funds are available. TDI is currently reviewing requests for proposals (RFP) for an actuarial analysis as authorized by TEX. INS CODE § 1510.002.<sup>46</sup>

The actuarial analysis will examine the costs and options for three possible 1332 waiver strategies:

- A reinsurance program to cover a portion of claim costs above an attachment point for each insured individual.
- A high-risk pool, in which high-risk individuals are rated separately and possibly offered different plans from healthy individuals, and waiver funds cover a portion of claim costs for the high-risk pool.
- An invisible high-risk pool, in which high-risk individuals are offered the same plans and rated the same as healthy individuals, and waiver funds cover a portion of claim costs for high-risk individuals.

The actuarial analysis will enable stakeholders to evaluate the potential effects of a waiver on: overall enrollment in the individual market; enrollment by county and on/off exchange; enrollment by age and health status; average premium by rating area and on/off exchange; estimated federal pass-through funding; and estimated cost to the state.<sup>47</sup>

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<sup>43</sup>Section 1332: State Innovation Waivers, Centers for Medicare & Medicaid Services (Nov. 2, 2020, 2:00 PM), [https://www.cms.gov/CCIIO/Programs-and-Initiatives/State-Innovation-Waivers/Section\\_1332\\_State\\_Innovation\\_Waivers-](https://www.cms.gov/CCIIO/Programs-and-Initiatives/State-Innovation-Waivers/Section_1332_State_Innovation_Waivers-).

<sup>44</sup> Written testimony, TDI Response to Senate Business and Commerce Committee Request for Information of September 18, 2020, Tex. Dep't. of Insur., (Sep. 18, 2020) (on file with committee).

<sup>45</sup> Tracking Section 1332 State Innovation Waivers, Kaiser Family Foundation, available at <https://www.kff.org/health-reform/fact-sheet/tracking-section-1332-state-innovation-waivers/> (Nov. 3, 2020 at 1:00PM)

<sup>46</sup> Written testimony, TDI Response to Senate Business and Commerce Committee Request for Information of September 18, 2020, Tex. Dep't. of Insur., (Sep. 18, 2020) (on file with committee).

<sup>47</sup> *Id.*

Most patient advocacy groups and other stakeholders that submitted testimony to the committee wrote in support of the use of a 1332 waiver in order to reduce the cost of premiums in the individual and small group health insurance markets.<sup>48</sup>

### *Access to Care and Competition*

The Committee received testimony addressing the issue of industry competition.<sup>49</sup> Hospital systems, provider groups, drug companies, lab companies, pharmaceutical benefit managers, pharmacies and insurance companies are all consolidating and expanding to have a more competitive advantage in the marketplace.<sup>50</sup> When this happens, many times the industries claim that the patient or consumer will be offered better care, more access or more affordable services, products and care.<sup>51</sup> In reality, more processes, products, provider types, terminology and non-transparent practices are also developed so that the entire encounter of accessing and affording healthcare becomes more difficult for the patient, and they are left with less choice.<sup>52</sup>

Texas Academy of Family Physicians submitted testimony addressing ways to improve and simplify access, care and cost to family physicians. They support moving away from the fee for service model for primary care in order to make way for value-based models, like prospective payments, and they would like to foster direct contracting for primary care (DPC).<sup>53</sup> Direct contracting is described as having patients or groups pay the provider a regular, monthly fee that covers various services. DPC is not health insurance, so it is not regulated by the Texas Department of Insurance.

The Texas Academy of Family Physicians support TDI accessing claims data that would allow researchers to paint a fuller picture of where health care dollars go and the types of health care visits that patients make. The testimony explains that 18 states have or are establishing All Payer Claims Databases (APCD) to facilitate this data collection. The largest claims database in Texas is currently the Center for Health Care Data housed at the University of Texas School of Public Health in Houston, which collects health care utilization data for almost 80 percent of the Texas population.<sup>54</sup>

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<sup>48</sup> Written testimony, Texans for Healthcare Access (Sep. 19, 2020) (on file with committee); written testimony from Texas Medical Association (Sep. 19, 2020); written testimony, Texas Conservative Coalition Research Institute, Comments to the Senate Committee on Business and Commerce (Oct. 2, 2020).

<sup>49</sup> See written testimony, Texas Pharmacy Association (Oct. 2, 2020) (on file with committee); written testimony, Texas Association of Health Plans (Oct. 2, 2020) (on file with committee); written testimony, Texas Conservative Coalition Research Institute, Comments to the Senate Committee on Business and Commerce (Oct. 2, 2020) (on file with committee).

<sup>50</sup> See Tara Barrow, *Healthcare Consolidation Goes Beyond the Usual Players*, Modern Healthcare (Nov. 3, 2020, 1:30PM), <https://www.modernhealthcare.com/mergers-acquisitions/healthcare-consolidation-goes-beyond-usual-players>.

<sup>51</sup> Karyn Schwartz, Eric Lopez, Matthew Rae, and Tricia Neuman, *What We Know About Provider Consolidation*, Kaiser Family Foundation (Nov. 2, 2020, 2:45PM), <https://www.kff.org/health-costs/issue-brief/what-we-know-about-provider-consolidation/>.

<sup>52</sup> See *id.*

<sup>53</sup> Letter, Texas Academy of Family Physicians, Interim Charge on Health Care Costs (Sep. 25, 2020)

<sup>54</sup> *Id.*

Texans for Healthcare Access, a coalition representing 30 organizations, contend that competition and access to care can happen by ending the requirement that an advanced practice registered nurse (APRN) have delegated authority from a doctor.<sup>55</sup> This could potentially allow APRNs to provide more care in both the hospital and rural settings by allowing them to open their own practice. Currently APRNs spend \$6,000-\$50,000 annually on delegation contracts with doctors.<sup>56</sup> Nurses reimbursements for services average 8 percent lower than physician reimbursement rates, and can be a more affordable, accessible option for patients, especially in rural or underserved areas of Texas.

### ***Private Equity Role in Increasing Costs***

Testimony mentioned that healthcare costs are rising due to private equity and venture capitalist firms investments. Texas Association of Life and Health Insurers (TALHI) included in their testimony that private investment in U.S. health care has grown significantly over the past decade due to investors in health start-ups, addiction treatment facilities and physician practices.<sup>57</sup>

In 2018, the number of private equity deals approached 800, and the total value of those businesses totaled more than \$100 billion. One of the most popular investments has been the purchasing physician and dental practices, and while this can help the physicians and small practices stay in business, it can also lead these entities price gouging the patients without adding additional patient benefits.<sup>58</sup>

### ***Prescription Drug Cost***

Pharmacy groups included in testimony that they believe the rising cost of drugs is in part due to the role of pharmaceutical benefit managers (PBMs).<sup>59</sup> PBMs' role has been unregulated and they have consolidated so that three companies set prices and are paying for around 80 percent of the drugs dispenses in the country.<sup>60</sup>

Pharmacists point to certain practices of PBMs, including collecting direct and indirect remuneration, or DIR fees, and requiring specialty accreditations or steering to certain pharmacies with the accreditations. Pharmacists also explain that PBMs often require patients to obtain specialty drugs from mail order pharmacies owned by the PBMs themselves. Overall, these practices may save the payors, such as the insurance companies and PBMs money, but they are also limiting the choice of the patient on how and where to get their prescriptions.

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<sup>55</sup> Written testimony, Texans for Healthcare Access (Sep. 19, 2020) (on file with committee).

<sup>56</sup> *Id.*

<sup>57</sup> Written testimony, Tex. Assoc. Life and Health Insurers (Sep. 19, 2020) (on file with committee), including Louisa Gustafsson, Shanoor Seevai and David Blumenthal, *The Role of Private Equity in Driving Up Health Care Prices*, Harvard Business Review, Oct. 19, 2020, available at: <https://hbr.org/2019/10/the-role-of-private-equity-in-driving-up-health-care-prices>.

<sup>58</sup> Louisa Gustafsson, Shanoor Seevai and David Blumenthal, *The Role of Private Equity in Driving Up Health Care Prices*, Harvard Business Review, Oct. 19, 2020, available at: <https://hbr.org/2019/10/the-role-of-private-equity-in-driving-up-health-care-prices>.

<sup>59</sup> Written testimony, Texas Pharmacy Association (Oct. 2, 2020) (on file with committee).

<sup>60</sup>

PBMs and the Texas Association of Health Plans testify that their role is necessary in order to control and limit the rising costs of drugs.<sup>61</sup> In recent years the use of the rebate offers by the PBMs have come under scrutiny. Recently, the U.S. Supreme Court heard oral arguments *Rutledge v. Pharmaceutical Care Management Association*, a case that centers around whether a federal law should preempt a state law that regulates PBM payments to pharmacies.<sup>62</sup> The federal court sided with the PBMs, and we are still awaiting the Supreme Court's decision.

### ***Deregulation and Telehealth***

Many stakeholders noted the explosion in the use of telehealth and loosened regulations during the pandemic of COVID-19, and its tremendous impact on accessing healthcare.<sup>63</sup> Early data shows that the growth of telehealth can improve access to care, especially in rural areas where a patient can connect with a doctor within seconds, rather than driving long distances for an office visit.

The Texas Association of Life and Health Insurers warn in their testimony that not every service can be translated from an in-person visit to a virtual visit while maintaining the same level of care. There needs to be a keen focus on what kinds of services are being provided, if additional providers can offer services, and if providers across state lines should be permitted use telehealth, all the while ensuring safety.<sup>64</sup>

The Foundation for Government Accountability provided testimony that supports broadening the use of telehealth services for providers such as nutritionists to help manage diabetes and expanding telehealth and telemedicine across state lines.<sup>65</sup> The National Association of Mental Illness's testimony highlighted the cost savings of around \$20-\$120 per visit and the viable alternative to in person visits it is for those with mental health illness.<sup>66</sup>

### ***Recommendations***

The Committee remains focused on the vulnerable Texas patient population and will work to ensure they have access to meaningful, more affordable insurance coverage and healthcare services. As one option, the Committee will continue working with Texas Department of Insurance after the agency receives the actuarial data to inform a 1332 waiver application. The 1332 waiver is a promising mechanism to lower health insurance premiums and allow for more access to coverage in the individual and small group health insurance marketplaces.

The Committee will examine the executive orders issued by Governor Abbott during COVID-19 that loosen regulations to help both patients and health professionals maintain access to services while ensuring safety.

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<sup>61</sup> See Written testimony, Tex. Assoc. of Health Plans (Oct. 2, 2020) (on file with committee);

<sup>62</sup> Jennifer Nessel, Supreme Court to Tule on States' Right to Regulate Pharmacy Benefit Managers, Pharmacy Times, (Nov, 3, 2020 at 2:15PM).

<sup>63</sup> Written testimony, Tex. Assoc. Life and Health Insurers (Sep. 19, 2020) (on file with committee); Written Testimony, the Foundation for Government Accountability, (Oct. 1, 2020) (on file with committee).

<sup>64</sup> *Id.*

<sup>65</sup> Written Testimony, The Foundation for Government Accountability, (Oct. 1, 2020) (on file with committee).

<sup>66</sup> Written Testimony, The National Association of Mental Illness, (Oct. 1, 2020) (on file with committee).

**4. Monitoring: Monitor the implementation of legislation addressed by the Senate Committee on Business and Commerce passed by the 86th Legislature, as well as relevant agencies and programs under the committee's jurisdiction. Specifically, make recommendations for any legislation needed to improve, enhance, or complete implementation of the following:**

**Senate Bill 14, relating to broadband service or facilities provided by an electric cooperative;**

***Background***

The Senate Business and Commerce Committee heard testimony and voted out S.B. 14, 2019 Leg., 86 Reg. Sess. (TX 2019), and the bill was subsequently signed by the Governor on June 7, 2019. The bill authorized an electric cooperative or an affiliate to construct, operate, and maintain fiber optic cables and other facilities for providing broadband service, allowing electric cooperatives and affiliates to install fiber optic cables along real property, personal property, rights-of-way easements, and other property rights that were owned, held, or used by the cooperative. Electric cooperatives are member-owned non-profits who have over 300,000 miles of distribution lines throughout rural Texas. The bill defined "broadband service" as internet service with the capability of providing a download speed of 25 megabits per second or faster and an upload speed of three megabits per second or faster.

SB 14 required rates charged by an electric cooperative for attaching broadband facilities to the cooperative's poles could not be less than the rates the cooperative charged other broadband service providers for pole attachment. The bill also prohibited the practice of "cross-subsidization" by requiring that the rates charged by an electric cooperative for the provision of electric service could not include any broadband service costs or any other costs not related to the provision of electric service. Electric cooperatives providing broadband service must now maintain separate books and records of broadband service operations to ensure this practice does not occur.

***Testimony***

Texas Electric Cooperatives, along with other providers of rural telecommunications services, the Texas Telephone Association, and the non-profit groups Connected Nation Texas and the T.L.L. Templeton foundation provided written testimony regarding the implementation and effectiveness of SB 14. They also included recommendations to further the provision of rural broadband service.

The benefits of access to high-speed broadband are well understood and highlighted like never before by the challenges of dealing with the COVID-19 pandemic. With broadband connectivity, communities can link to the state and global economies, enabling local businesses to expand and create new industry

and jobs. Rural schools can train their students for digital age opportunities, and health care for rural citizens improves with access to new technologies enabled by broadband service. Electric cooperatives providing broadband are one component of the solution to closing the digital divide in rural Texas.

### ***Implementation of Senate Bill 14***

S.B. 14, 2019 Leg., 86 Reg. Sess. (TX 2019), streamlines the process by which cooperatives may use their electric easements and the facilities along these easements for the provision of broadband service. The bill has reduced the barriers to cooperative deployment of broadband service and has facilitated the expansion of the service in rural areas.

According to electric cooperatives deploying broadband today, SB 14 has lowered the cost and shortened the timeline for deployment. Before the passage of SB 14, adjusting each individual easement to include fiber for broadband was a very costly and time-consuming undertaking.

Electric-only easements limited the use of the easement to infrastructure related to providing electric service. Prior to SB 14, such easements allowed for adding fiber in the easement to operate the cooperative electric system, but they did not allow for using that same fiber in the easement to provide high-speed broadband service. The process created by SB 14 for addressing the electric-only easement issue now means less time and money spent on each individual easement and more spent on providing service.

Texas Telephone Association (TTA) members have invested in and serve much of rural Texas, and initially had concerns about SB 14. TTA members and their affiliates welcomed broadband competition in their rural areas, so long as their customers were protected and the competition occurred on a level playing field. For that reason, TTA worked to suggest amendments to SB 14 that might alleviate the consumer protection and competitive concerns its members had while still ensuring that SB 14 allowed electric cooperatives to use their easements as desired. SB 14 was amended to include those safeguards. The law now protects electric and broadband customers by preventing “cross-subsidization,” and it protects broadband competitors from anticompetitive or discriminatory pole attachment fees by requiring “just and reasonable” attachment fees.

### ***Status of electric cooperative deployment of broadband***

Today, there are 64 not-for-profit electric distribution cooperatives operating in Texas. Ten cooperatives are currently deploying broadband service, and at least 16 other electric cooperatives are studying possible deployment in the future.<sup>[1]</sup> Almost 40,000 consumers currently receive high-speed broadband service from their electric cooperative. The number of consumers served by electric cooperatives is expected to increase significantly going forward, as several systems are just now beginning their deployment. Electric cooperatives are providing high speed broadband service to over a dozen school districts and 39 individual schools. Most electric cooperatives that provide broadband services are providing public Wi-Fi hotspots to students and their families, while others are offering high-speed broadband service to disadvantaged students.

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<sup>[1]</sup> TEC Response to Senate Business and Commerce Request for Information of September 18, 2020, TEC Letter (dated October 1, 2020) (on file with committee).

A number of co-ops are also in discussions with neighboring telephone cooperatives about partnering to provide broadband over the electric cooperatives' easements. TTA represents 33 small and rural wireline telephone providers in Texas, known as incumbent local exchange carriers or "ILECs."<sup>[2]</sup> Most of the Association's members serve fewer than 5,000 customers, each in sparsely populated areas, and many of its members are not-for-profit, member-owned telephone cooperatives.<sup>[3]</sup> TTA members together serve about 46% of Texas's landmass (almost 125,000 square miles).<sup>[4]</sup> Rural Texans that live in almost half of Texas's land area rely on TTA's ILEC members for telecommunications services.<sup>[5]</sup> There is great promise of collaboration to utilize each of these groups' expertise within the SB 14 policy framework to identify and serve regions with a lack of access to high speed, quality internet service.

TTA members and their affiliates have already invested millions in the state network which enables voice, broadband, and other services to many rural Texans today. In the future, TTA expects that additional broadband initiatives may be considered in order to continue expanding broadband to more rural Texans. Since the passage of SB 14, some TTA members or their affiliates have been working on potential partnerships that would expand broadband services to more rural Texans, so long as future initiatives include the dual safeguards that SB 14 includes. These safeguards are: (1) prohibiting cross-subsidization and increasing transparency for consumers; and (2) requiring just and reasonable pole attachment fees. TTA expects that additional players may be able to join its members and their affiliates in bringing broadband to more unserved or underserved rural Texans.

### ***Future Support for Rural Broadband***

Connected Nation Texas, a statewide initiative funded by the Texas Rural Funders to support all Texans in accessing broadband, has developed broadband coverage maps for every Texas county and advocates for better economic and life opportunities by expanding access, adoption, and use of high-speed internet.

Connected Nation Texas has found, 333,070 households in Texas still lack access to internet at basic speeds of 25 Mbps/3 Mbps representing an estimated 926,859 Texans without access at home, and that of these unserved Texans, 823,920 live in rural areas.<sup>67</sup> To bridge this divide, Connected Nation Texas recommends further dedication to closing the Digital Divide through state broadband planning, data collection and analytics, and reduced barriers for providers to build out and offer service.

The T.L.L. Temple Foundation, a non-profit committed to economic development in rural East Texas, similarly, sees SB 14 as part of a supportive set of policies.<sup>68</sup> The Foundation notes that an independent analysis conducted for the Deep East Texas Council of Governments (DETCOG), shows that zip codes

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<sup>[2]</sup> TTA Response to Senate Business and Commerce Request for Information of September 18, 2020, TTA Letter (dated October 2, 2020) (on file with committee).

<sup>[3]</sup> *Ibid.*

<sup>[4]</sup> *Ibid.*

<sup>[5]</sup> *Ibid.*

<sup>67</sup> Connected Nation Texas, Response to Business and Commerce Request for Information of September 18, 2020, Connected Nation Letter (dated October 2, 2020) (on file with committee).

<sup>68</sup> T.L.L. Temple Foundation, Response to Business and Commerce Request for Information of September 18, 2020, T.L.L. Temple Foundation Letter (dated October 13, 2020) (on file with committee).

in DETCOG's 12 counties have no better than 10 Mbps/1 Mbps speed internet access, which is not considered broadband.<sup>69</sup> Additionally, residents of the DETCOG region, on average, pay 400% more per megabit than do residents of the Dallas Fort Worth Metroplex.<sup>70</sup>

The Temple Foundation supports initiatives to achieve a minimum speed for broadband of 25 Mbps/3 Mbps as defined by the Federal Communication Commission with an always-on connection, which should be the minimum goal for all rural Texans. The Foundation urges policymakers to investigate whether other policy barriers or financial hurdles exist for the almost 50 co-ops not currently offering or studying the feasibility of offering broadband to their customers. The Temple Foundation notes that Texas is one of only six states that does not have a statewide broadband plan, the absence of which makes Texas less competitive for certain federal funding. Additionally, they encourage the state to create a dedicated and staffed broadband office to ensure the state plan is supported and implemented.<sup>71</sup>

### ***Recommendation***

As of September 1, 2020, ten of the 64 not-for-profit electric distribution cooperatives operating in Texas were deploying broadband service, and at least 16 other electric cooperatives are studying possible deployment in the future. The Senate Business and Commerce Committee should continue to monitor these efforts and look for opportunities to facilitate further deployment by electric cooperatives, remove barriers to entry, and foster partnerships with other telecommunications providers where there remains a genuine lack of access to broadband service to consumers and school districts.

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<sup>69</sup> Deep East Texas Council of Governments and Economic Development District, *The Case for Broadband in Deep East Texas*, [www.detcog.gov/broadband](http://www.detcog.gov/broadband) (last visited October 13, 2020).

<sup>70</sup> Ibid.

<sup>71</sup> T.L.L. Temple Foundation, Response to Business and Commerce Request for Information of September 18, 2020, T.L.L. Temple Foundation Letter (dated October 13, 2020) (on file with committee).

**5. Monitoring: Monitor the implementation of legislation addressed by the Senate Committee on Business and Commerce passed by the 86th Legislature, as well as relevant agencies and programs under the committee's jurisdiction. Specifically, make recommendations for any legislation needed to improve, enhance, or complete implementation of the following:**

**Senate Bill 1264, relating to consumer protections against certain medical and health care billing by certain out-of-network providers.**

*Background*

*Balance Billing and Surprise Billing Explained*

Balance billing is the practice of physicians or facilities charging patients for the portion of medical expenses not covered by the patient's insurance, beyond usual charges such as co-pays.<sup>72</sup> While some balance billing is to be expected, in many cases, these bills are a complete surprise. Surprise balance billing most commonly occurs with emergency departments, freestanding emergency rooms (FSERs), or when a facility-based physician or other practitioner does not have a contract with the same health benefit plans that have contracted with the facility in which they practice. A patient who is admitted into one of these facilities for a procedure or an emergency often becomes ultimately responsible for an unexpected, or surprise, bill.

During the 86th Legislative Session, Senate Bill (S.B.) 1264 was passed by the Legislature.<sup>73</sup> The bill prohibits surprise balance billing of consumers by out-of-network providers for emergency services, facility-based services at a network hospital, and lab and diagnostic imaging services that are related to a network service. In other words, in situations where the consumer has no choice over who provides their care, they cannot receive a surprise balance bill for services rendered on or after January 1, 2020. S.B. 1264 eliminated surprise balance billing for at least 5 million Texans with private health benefit plans that are regulated by the Texas Department of Insurance (TDI) and those that have coverage through state employment from Employee Retirement System (ERS) and Teacher Retirement System (TRS).

*How does S.B. 1264 work?*

S.B. 1264 requires health benefit plans, including preferred provider organizations (PPOs), exclusive provider organizations (EPOs), and health maintenance organizations (HMOs), to reimburse claims at

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<sup>72</sup> *How Texas protects consumers from surprise medical bills*, Tex. Dep't of Ins, Nov. 4, 2020, 10:20AM), <https://www.tdi.texas.gov/takefive/texas-protects-consumers-from-surprise-medical-bills.html>.

<sup>73</sup> Act of June 14, 2019, 86th Leg., R.S., ch. 1342 § 5.01, 2019 Tex. Sess. Law Serv. 3977 (hereinafter referencing the applicable Texas Insurance Code provision). (The Act applies to health plans regulated by TDI as well as the Texas Employees Group Benefits plan (ERS) Tex. Ins. Code § 1551.015; Teacher Retirement System (TRS-Care) § 1575.009; and TRS-ActiveCare § 1579.009).

usual and customary rate. The bill also prohibits surprise billing of consumers for out-of-network lab work and imaging. The patient, or "consumer", maintains responsibility for their applicable co-pay, coinsurance, and deductible amounts.<sup>74</sup> S.B. 1264 clarifies that a patient is not liable for any additional amount after the health benefit plan insurer determines their cost-sharing. The Attorney General and other agencies that regulate the parties involved were given enforcement authority. Additionally, the law requires health benefit plans to provide notice to the provider for the amount the provider is able to bill the patient. Lastly, S.B. 1264 instructs TDI to provide quarterly data calls to study the implementation of the legislation.<sup>75</sup>

### ***Two Dispute Resolution Processes—Mediation and Arbitration***

S.B. 1264 allows for two dispute resolution processes — mediation and arbitration. The current mediation process administered by TDI may be used to resolve all billing disputes between health benefit plan insurers and facilities (e.g. hospitals and freestanding ERs). According to TDI, surprise bill mediation has saved Texas patients nearly 68 million dollars in out-of-pocket healthcare costs since 2015, when the agency began tracking this data. Arbitration is used to allow providers (e.g. surgical assistants, radiologists, anesthesiologists) and health benefit insurers to resolve claim payment disputes.<sup>76</sup> The arbitrator selects the most reasonable payment amount by choosing one of the following: the initial provider billed charge, the initial insurer payment, a revised billed charge or payment amount or, an offer made by either party in the mandatory informal teleconference call between the parties. The bill also allows the arbitrators to use benchmark data to determine the most reasonable reimbursement rate. The dispute resolution time limit for arbitration is 45 days after the informal teleconference call, which begins the process. TDI implemented rules to allow the bundling of disputed claims of up to 5 thousand dollars per provider.

### ***Rulemaking and Current Data***

TDI worked diligently with stakeholders during the rulemaking process in order for consumer protections and S.B. 1264 processes to be in place by January 1, 2020, the effective date of the legislation. TDI reports that from January through September 2020, the agency received a sizable increase of more than 24,000 requests for arbitration or mediation. In 2019, under the dispute resolutions system then in place, TDI received 8,400 mediation requests.<sup>77</sup>

In July of 2020, TDI published a preliminary report on implementation of S.B. 1264 including the launch of an online portal for providers, health plans, and facilities to request arbitration or mediation. As the report notes: “Six months into the implementation of S.B. 1264, provider complaints about billing disputes have decreased more than 70% from the same period a year ago, and consumer complaints about balance

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<sup>74</sup> See *Texas Passes A Law to Protect Patients From Surprise Medical Bills*, NPR (June 18, 2019), <https://www.npr.org/sections/health-shots/2019/06/18/733369370/texas-is-latest-state-to-attack-surprise-medical-bills> (Until the U.S. Congress passes a federal law prohibiting surprise bills, patients covered by federally-regulated plans (which make up at least 40 percent of the Texas health insurance market) may still receive a balance bill from providers.)

<sup>75</sup> Act of June 14, 2019, 86th Leg., R.S., ch. 1342 § 5.01, 2019 Tex. Sess. Law Serv. 3977.

<sup>76</sup> IDR Update for October, Tex. Dep't of Ins (on file with committee).

<sup>77</sup> Written testimony, Tex. Dep't of Ins (Oct. 1, 2020) (on file with committee).

billing have fallen by more than 95%.”<sup>78</sup> S.B. 1264 requires TDI to issue a more comprehensive report on the impacts of the legislation each biennium. The first such report is due December 1, 2020, and the agency has issued a data call to collect more detailed information for that report.

### ***Rule on S.B. 1264 Exception***

One important aspect of the bill was an exception provided that allows a consumer to choose an out-of-network doctor or provider at an in-network facility by signing a waiver of acknowledgement. Although the rulemaking was initially started by the Texas Medical Board, it was later returned to TDI. TDI issued an emergency rule to meet the January 1, 2020 implementation date and made it permanent through the normal rule-making process.<sup>79</sup>

The rule specifies that the waiver must be written in consumer-friendly language and must be signed at least 10 business days before the patient receives out-of-network care if the provider wants to balance bill the consumer.<sup>80</sup> The provider still has the option of requesting arbitration or mediation if the 10 business day deadline is not met. This timeline ensures that the patient will not be rushed and there will be no surprises.

TDI also had to identify a database that could provide the data required by S.B. 1264 and meet the legislation's requirements on conflicts of interest. TDI has made submissions to the benchmarking database optional, but allows health benefit plans that contribute data to get free access to other submitted data.<sup>81</sup>

### ***Employee Retirement System and Teacher Retirement System***

The suspension of elective surgeries due to COVID-19 and the overall impact of COVID-19 on the healthcare industry has not provided usual initial data of the statute to explain the impact to ERS, TRS and TRS ActiveCare. Each system explained in the written testimony provided that they anticipated the arbitration process to cost more than it has so far and that they are continuing to monitor the results.<sup>82</sup>

### ***Testimony***

Consumer advocacy groups recommend prohibiting surprise medical bills from emergency medical transportation/ambulance services.<sup>83</sup> They also recommend data collection be improved so that TDI can better monitor the impact of arbitration and billed charges as a part of arbitration to determine the impact on health care spending, market consolidation, and the need for modifications to the law.

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<sup>78</sup> *SB 1264: Six Month Preliminary Report*, Tex. Dep't of Ins. (July 23, 2020), available at: <https://www.tdi.texas.gov/reports/documents/SB1264-preliminary-report.pdf>.

<sup>79</sup> TDI adopts rule on SB 1264 waiver, Tex. Dept. of Ins. (Dec. 18, 2019).

<sup>80</sup> SB 1264 Waiver Form, Tex. Dep't of Ins. (Dec. 18, 2020), available at <https://www.tdi.texas.gov/forms/lhlifehealth/ah025.pdf>.

<sup>81</sup> Written testimony, Tex. Dep't of Ins. (Oct. 1, 2020) (on file with committee).

<sup>82</sup> Written testimony, Employee Retirement System (Sep. 23, 2020) (on file with committee); written testimony, Teacher Retirement System of Texas (Oct. 2020) (on file with committee).

<sup>83</sup> Written testimony, AARP and Every Texan, October 2, 2020 (on file with committee).

These stakeholders are also interested in knowing how revised bill charges and revised insurance reimbursement rates are impacting arbitration decisions. The advocacy groups AARP and Every Texan also believe that we should consider monitoring the impact of the new law on small and independent physician practices versus the large private equity backed physician practices.<sup>84</sup>

Multiple stakeholders also noted that the other regulatory agencies responsible for licensing impacted providers, such as the Texas Medical Board, the Health and Human Services Commission, the Texas Nursing Board should also adopt rules that align with S.B. 1264's language and legislative intent. Another recommendation is to end the use of billed charges as a benchmark standard in the arbitration process because many times the billed charges are inflated and very large. UT Health Science submitted feedback suggesting that the Center for Healthcare Data (CHCD) be considered to host the benchmarking database.<sup>85</sup>

### ***Federal Surprise Billing Ban and Other States' Response***

Most insured Texans have an employer sponsored self-funded health insurance plan that is federally regulated by the Employee Retirement Income Security Act of 1974 (ERISA).<sup>86</sup> As of September 2020, 16 states have passed comprehensive surprise billing bans, and 15 states have a limited ban.<sup>87</sup>

During the 86th Legislative Session, Senate Bill (S.B.) 1530, a bill related to balance billing, aimed to allow ERISA regulated health benefit plans offered by employers to opt into the S.B. 1264 protections. This bill passed out of the Texas Senate, but failed to pass out of the Texas House of Representatives.

In December 2020, after two years of the debate at the federal level, Congress passed legislation to protect consumers with self-funded insurance plans against surprise medical bills. The measure was included in the omnibus coronavirus economic relief package. Stakeholders at the state level are currently studying what the new legislation means for the recently enacted S.B. 1264.

### ***Recommendation***

The passage of the federal surprise billing legislation in December of 2020 is a huge relief for Texas patients. Protections are now in place against receiving unexpected medical bills for both patients with state regulated and federally regulated health insurance plans.

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<sup>84</sup> Written testimony, AARP and Every Texan, October 2, 2020 (on file with committee).

<sup>85</sup> Written testimony, The University of Texas Health Science at Houston (October 2, 2020) (on file with committee) ("As a state academic institution, without direct affiliation to providers and health plans, the CHCD could be an appropriate choice for an impartial and independent entity to provide an accurate, efficient claims database to reduce and resolve balance billing practices. The CHCD has successfully demonstrated its expertise in claims data analyses and transparency reporting through its work with TDI and the External Quality Review Organization.").

<sup>86</sup> The Employee Retirement Income Security Act of 1974 (ERISA), U.S. DEP. OF LAB., <https://www.dol.gov/general/topic/health-plans/erisa>.

<sup>87</sup> *State Balance-Billing Protections*, The Commonwealth Fund (Sep. 16, 2020), [https://www.commonwealthfund.org/sites/default/files/2020-09/Hoadley\\_state\\_balance-billing\\_protections\\_09162020.pdf](https://www.commonwealthfund.org/sites/default/files/2020-09/Hoadley_state_balance-billing_protections_09162020.pdf).

The committee is working with stakeholders and TDI to determine the details of the passage of the federal surprise billing legislation, including examining when it will be fully implemented and how the federal legislation impacts Texas' surprise billing law.

While COVID-19 has skewed healthcare utilization, making it difficult to see the results of the bill's implementation and its overall impact on health care costs, it is clear that S.B. 1264 has significantly reduced consumer complaints about surprise medical bills for state regulated health insurance plans. The mediation portion of the statute has saved Texas patients nearly 68 million dollars in out-of-pocket healthcare costs since 2015, when TDI began tracking this data. Additionally, TDI data shows that just three physician staffing firms represent 85 percent of all arbitration requests and emergency physicians account for 85 percent of all arbitration requests. Most ER claims come from large ER physician staffing firms – not independent physicians and small practices.<sup>88</sup> The committee will continue to monitor that data around surprise medical bills.

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<sup>88</sup> Written testimony, Tex. Dep't of Ins. (Oct. 1, 2020) (on file with committee).

**6. Monitoring: Monitor the implementation of legislation addressed by the Senate Committee on Business and Commerce passed by the 86th Legislature, as well as relevant agencies and programs under the committee's jurisdiction. Specifically, make recommendations for any legislation needed to improve, enhance, or complete implementation of the following:**

**House Bill 2536, relating to transparency related to drug costs.**

***Background***

Of American adults currently taking prescription drugs, almost one-fourth of adults and seniors say it is "difficult" to afford their prescriptions. One in ten adults—overall and in the senior population—say it is "very difficult."<sup>89</sup> According to a 2019 study, "particular groups are much more likely to report difficulty affording medication, including those who are spending \$100 or more a month on their prescriptions (58 percent), those who report being in fair or poor health (49 percent), those who take four or more prescription drugs (35 percent), and those with incomes less than \$40,000 annually (35 percent)."<sup>90</sup>

In addition, 29 percent of adults report not taking their medicines as prescribed during the past year because of the cost, and eight percent say their condition got worse as a result of not taking their prescription as recommended.<sup>91</sup>

***Transparency: Rising cost of prescription drugs***

To better understand the cause of the rising price of prescription drugs, the Legislature passed House Bill (H.B.) 2536, a drug price transparency bill that requires the Health and Human Services Commission (HHSC) and the Texas Department of Insurance (TDI) to collect data from pharmaceutical drug manufacturers, pharmacy benefit managers, and health benefit plan issuers.<sup>92</sup> The objective is to publicize information about prescription drug pricing and the complex system of rebates and discounts within the supply chain.

H.B. 2536 directs a pharmaceutical drug manufacturer to submit an annual report to the HHSC Commissioner with wholesale acquisition cost (WAC) information for drugs that cost \$100 or greater for a 30-day supply and are sold in or into this state. The legislation also requires HHSC to develop a

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<sup>89</sup> *Poll: Nearly 1 in 4 Americans Taking Prescription Drugs Say It's Difficult to Afford Their Medicines, including Larger Shares Among Those with Health Issues, with Low Incomes and Nearing Medicare Age*, Kaiser Family Foundation (Mar. 1, 2019), <https://www.kff.org/health-costs/press-release/poll-nearly-1-in-4-americans-taking-prescription-drugs-say-its-difficult-to-afford-medicines-including-larger-shares-with-low-incomes/>

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> Drug Price Transparency Act, 86th Leg., R.S. ch. 1291 § 44.001 Tex. Gen. Laws.

dedicated link on the HHSC website that is easy for the public to access.<sup>93</sup> A key portion of the bill requires a pharmaceutical drug manufacturer to report an increase in drug price if the cost of the drug is raised by 15 percent or more.

Pharmaceutical benefit managers must annually report information regarding the rebates, fees, price protection payments and other payments to the Insurance Commissioner in an aggregated form, including the amount of the rebate retained as revenue. H.B. 2536 also requires that each pharmacy benefit manager file a one-time report detailing the information above for the three preceding calendar years.<sup>94</sup>

Health benefit plan issuers must submit an annual report to the Insurance Commissioner that includes the names of the 25 most frequently prescribed drugs, percent increase in annual net spending for drugs, percentage of specialty drugs with utilization management requirements across all health benefit plan issuers, and premiums reductions that were attributable to the drugs.

### ***Implementation Status***

HHSC, in coordination with DSHS, and TDI are responsible for implementing the provisions of this bill. To comply with the bill's provisions, HHSC and DSHS created a drug cost transparency website, [www.texasrx.org](http://www.texasrx.org), that is available to the public and is both downloadable and searchable.

Pharmaceutical drug manufacturers reported 2020 wholesale acquisition cost (WAC) information for U.S. Food and Drug Administration approved drugs sold in or into Texas. For the 2020 report, WAC price information was submitted from 341 pharmaceutical drug manufacturers for a total of 18,653 national drug code (NDC) descriptions. Pharmaceutical drug manufacturers were required to submit their 2020 annual WAC information before April 15, 2020. For the 2021 report, they are required to submit WAC prices by January 15, 2021.

HHSC reported that information on drug price increases was first collected on June 15th for drugs that increased at or above the 15 percent threshold. Price increases with effective dates from January 1, 2020, through June 14, 2020, were due by August 15, 2020; that information is now posted on the drug cost transparency website.<sup>95</sup> Drug price increases with effective dates after June 15, 2020 are due within 30 days of the price increase effective date; this information is updated and posted on the drug cost transparency website within 60 days of submission as specified in code.

TDI is required by H.B. 2536 to obtain information annually from pharmacy benefit managers and health benefit plan issuers related to prescription drug cost transparency, aggregate that information and post it on the agency's website. The health benefit plan issuer reports include a comparison of changes in spending and premiums related to prescription drugs from 2018 to 2019. The pharmacy benefit manager

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<sup>93</sup> Written testimony, Health and Human Services Commission Formal Request for Information (Sep. 18, 2020) (on file with committee).

<sup>94</sup> *Id.*

<sup>95</sup> *Id.*

report includes data from 2016 through 2019.<sup>96</sup> TDI posted the first collection of aggregated data in May of 2020.

## *Testimony*

The Health and Human Services Commission recommended that the Legislature clarify that the term “drug” includes only prescription drugs, change the reporting requirements to a one-time report if a price increase occurs, add enforcement authority, move the program to the Department of State Health Services, and provide a funding mechanism.<sup>97</sup>

The Texas Medical Association together with many other provider advocacy groups submitted testimony recommending continued examination of disclosure and reporting requirements, for example, they recommend reducing the reporting threshold for drug price increases.<sup>98</sup> Further, the association believes that prior authorizations of prescription drugs should be examined as a way to provide relief to patients and physicians.<sup>99</sup>

The Texas Association of Health Plans (TAHP) and the Pharmaceutical Care Management Association (PCMA), who represent the pharmacy benefit managers, point out that pharmaceutical drug manufacturers delayed submitting the required information to the agency and that there appears to be gaps in the information that was submitted. These groups recommend that the Legislature ensure that HHSC fully implements and enforces H.B. 2536 so that all required information for applicable price increases is reported and posted on a public-facing, consumer-friendly website in a timely manner.<sup>100</sup> They assert that enforcing all of H.B. 2536’s reporting requirements will improve transparency around drug pricing and potentially slow price increases by shining a public light on them.

Pharmacy Benefit Managers (PBMs) testify that they drive competition using drug formularies and rebates.<sup>101</sup> In spite of dramatic increases in drug list prices, with total gross sales increasing from 22 billion dollars in 2012 to 54 billion dollars in 2019, net costs have been flat with total net sales of 13 billion dollars in 2012 and 13 billion dollars in 2019. They explain in testimony that this is due to PBM-negotiated rebates, statutory rebates, and other manufacturer discounts. PBMs report that they are creating innovative programs that limit consumer out-of-pocket (OOP) insulin costs, promoting affordable access, and operating clinical programs that improve care and patient outcomes.<sup>102</sup>

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<sup>96</sup> Written testimony, TDI Response to Senate Business and Commerce Committee Request for Information (Sep. 18, 2020) (on file with committee).

<sup>97</sup> Written testimony, Health and Human Services Commission Formal Request for Information (Sep. 18, 2020) (on file with committee).

<sup>98</sup> Written testimony, Texas Medical Association and Associations Response to Interim Charge on House Bill 2536 (Oct. 1, 2020)(on file with committee)..

<sup>99</sup> *Id.*

<sup>100</sup> Written testimony, Texas Association of Health Plans Comments on House Bill 2536 Interim Charge (Oct. 1, 2020) (on file with committee); Written testimony, Pharmaceutical Benefit Manager Association (PCMA) Comments on House Bill 2536 Interim Charge (Oct. 1, 2020)(on file with committee).

<sup>101</sup> Written testimony, Pharmaceutical Benefit Manager Association (PCMA) Comments on House Bill 2536 Interim Charge (Oct. 1, 2020)(on file with committee).

<sup>102</sup> *Id.*

AARP highlighted that insulin prices by one pharmaceutical drug manufacturer has increased by 1200% from 1996 to 2019.<sup>103</sup>

Testimony from PhRMA does not agree that the drug prices are the only issue. PhRMA cites a Milliman study that demonstrated that, “even if health insurers shared all the negotiated rebates with patients, plan premiums would increase at most by 1 percent, while patients could save up to 800 dollars each year on their medicine costs.”<sup>104</sup> PhRMA suggests that another legislative solution could require health insurance companies and PBMs to share at least part of their negotiated savings with patients at the point of sale at the pharmacy counter.<sup>105</sup>

### ***Recommendation***

Prescription drug prices continue to be a top issue for Texas patients. When H.B. 2536 passed during the 86th Legislative Session, it was reported as one of the strongest drug price transparency bills in the nation.<sup>106</sup> The Committee continues to recognize the multitude of factors driving the price increases on medications, and the committee will continue to monitor this issue and the implementation of H.B. 2536.

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<sup>103</sup> Written testimony, AARP Comments on House Bill 2536 Interim Charge (Oct. 2, 2020) (on file with committee).

<sup>104</sup> Written testimony, PhRMA Comments on House Bill 2536 Interim Charge (Oct. 1, 2020) (on file with committee).

<sup>105</sup> *Id.*

<sup>106</sup> Jeremy Blackman and Allie Morris, *Texas House passed one of the nation’s toughest drug-pricing bills. But will it stand?*, Hous. Chronicle (May 19, 2019), <https://www.houstonchronicle.com/politics/texas/article/Texas-House-passed-the-nation-s-toughest-13848884.php>.

**7. Monitoring: Monitor the implementation of legislation addressed by the Senate Committee on Business and Commerce passed by the 86th Legislature, as well as relevant agencies and programs under the committee's jurisdiction. Specifically, make recommendations for any legislation needed to improve, enhance, or complete implementation of the following:**

**Senate Bill 1004 (85th Legislature), relating to the deployment of network nodes in public right-of-way.**

***Background***

In 1999, the 76th Legislature enacted Tex. Loc. Gov. Code §283 (Chapter 283) to eliminate local licensing and regulatory practices that enabled legal monopolies and protected incumbent local exchange carriers (ILECs). Chapter 283 applies to the municipal regulation and fees imposed on and collected from a certificated telecommunications provider (CTP). In particular, Chapter 283 provides a methodology for assessing municipal fees on the access lines of a CTP. Chapter 283 provides that a CTP that provides telecommunications services within a municipality is required to pay only the municipal fees determined pursuant to Chapter 283 as compensation to the municipality for use of the public rights-of-way (ROW). A CTP complying with Chapter 283 may erect poles or construct conduit, cable, switches, and related appurtenances and facilities and excavate within a public ROW to provide telecommunications service. Chapter 283 states that the Commission shall have the jurisdiction over municipalities and CTPs necessary to enforce the statute. Consistent with this grant of jurisdiction, the Public Utility Commission has previously determined that the protections of Chapter 283 extend to the facilities constructed by a neutral host provider in providing a distributed antenna service.

The Texas Legislature passed Senate Bill (S.B.) 1004 in 2017 containing a new Tex. Loc. Gov. Code §284 (Chapter 284) of the Local Government Code addressing municipal fees for network nodes, transport facilities, and node support poles constructed by a network provider. This bill became effective September 1, 2017. Chapter 284 provides that a municipality may not require a network provider to pay any compensation other than the compensation authorized for the right to use a public ROW for network nodes, node support poles, or transport facilities for network nodes. A network provider is authorized, as a permitted use, to construct network nodes and node support poles, and, with certain restrictions, may install its own transport facilities or obtain transport from another provider.

## *Status of Litigation*

McAllen, Dallas and 38 other cities filed a suit in 2017 challenging the constitutionality of S.B. 1004.<sup>107</sup> The Travis County District Court declined to enter a preliminary injunction, and the case is still pending more than three years after the bill passed.<sup>108</sup> Since the bill's passage, the industry has deployed thousands of small cells across the state and the Federal Communications Commission's (FCC) Small Cell Order has been largely affirmed by the 9th Circuit Court of Appeals.<sup>109</sup> If Chapter 284 were found to be unlawful, the FCC Order would continue to require cities to allow the deployment of small cells in the public ROW in accordance with standards that are not appreciably different than S.B. 1004.<sup>110</sup> In some cases, the FCC small cell standards would be less advantageous, including significantly less time to process permits for new poles and no annual increases in ROW fees.

After three years and thousands of small cell installations, the State is experiencing service gains primarily where cities recognize and welcome the benefits of small cell technology. Conversely, parts of the State are at risk of being left behind due to noncompliance with Chapter 284.

A subsequent piece of legislation reforming the right of way access fee that passed in 2019, S.B. 1152, was added to the S.B. 1004 lawsuit by Texas Municipal League in August of 2019.<sup>111</sup> This was the cities' 4th Amended Petition. There are now at least 57 cities who have joined the lawsuit. The cities' request for a temporary injunction (TI) of the right of way reform issue of the lawsuit was heard in Travis County district court on February 19, 2020 and denied on March 12, 2020. During the February 19 temporary injunction hearing in Travis County district court, Judge Lora Livingston presided. This was the second TI filed, and second denied in this lawsuit. The original lawsuit was filed in 2017, and there has been no action on the cities' part to ask for permanent relief. Judge Livingston has encouraged the parties to set the case for final trial with undue delay.

## ***SB 1004 and the Public Utility Commission's (PUC) jurisdiction over network nodes in the public right-of-way***

On November 17, 2017, the PUC issued a declaratory order that concluded that it does not have authority under Chapter 284 as adopted by S.B. 1004.<sup>112</sup> The PUC has express duties under Chapter 283 and, therefore, has authority to construe other statutes, including Chapter 284, when necessary to ascertain or administer its statutory duties under Chapter 283. By enactment of Chapter 284, the Legislature established a comprehensive and pervasive regulatory scheme intended to exclusively

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<sup>107</sup> *City of McAllen, et al. v. State of Texas*, Cause No. D-1-GN-17-004766, 353rd District Court of Travis County, Texas

<sup>108</sup> AT&T Response to Senate Business and Commerce Request for Information, September 18, 2020, AT&T letter (dated October 6, 2020) (on file with committee).

<sup>109</sup> *City of Portland v. United States*, Case No. [18-72689](#), (August 12, 2020); reh'g denied (October 22, 2020).

<sup>110</sup> AT&T Response to Senate Business and Commerce Request for Information, September 18, 2020, AT&T letter (dated October 6, 2020) (on file with committee).

<sup>111</sup> *City of McAllen, et al. v. State of Texas*, Cause No. D-1-GN-17-004766, 353rd District Court of Travis County, Texas

<sup>112</sup> *Ibid.*

address network providers' access to municipal rights-of-way for network nodes, node support poles, or transport facilities, as those terms are defined in Chapter 284. Consequently, effective September 1, 2017, the Commission does not have authority under Chapter 283 to set the compensation for, or address complaints regarding, a certificated telecommunications provider's (CTP's) access to municipal rights-of-way if that CTP is also a network provider and the access is for network nodes, node-support poles, or transport facilities.<sup>113</sup>

### ***Testimony***

The Senate Business and Commerce Committee received written testimony from various telecommunications providers and stakeholders including Crown Castle, AT&T, TX 5G Alliance, and Verizon.

### ***Implementation***

S.B. 1004 established a uniform framework for access to municipal public rights-of-way by wireless providers, so that small cell networks may be deployed efficiently with reasonable municipal oversight in conformance with applicable law. Prior to 2017, Local Government Code provisions covering right-of-way access for telecommunications providers did not account for new technologies such as small cells necessary for capacity and coverage where new macro towers are not practical.

The foresight of the Legislature to pass, and the Governor to sign, S.B. 1004 has made the State of Texas a leader in advanced telecommunications infrastructure and technology and a model for the rest of the country. As of today, 30 states have adopted legislation regulating network nodes, many of which contain provisions similar to those in S.B. 1004.<sup>114</sup> The model nature of Texas's comprehensive framework for network node deployment is demonstrated in the fact that many provisions similar to those found in S.B. 1004 were incorporated into the FCC's Order "Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment", adopted on September 26, 2018 ("September 2018 FCC Order" or "FCC Order").<sup>115</sup> Fortunately, S.B. 1004 was enacted in 2017 which allowed providers to deploy network nodes in many cities throughout the State prior to the present pandemic, and without it the ability to meet the explosive demand required during this unprecedented time would have been greatly diminished.

Since the passage of S.B. 1004, Crown Castle notes that the company has deployed approximately 1900 network nodes in the public right-of-way in 24 Texas cities.<sup>116</sup> The majority of those network nodes were deployed in Houston and Dallas. While there are always improvements that can be made, the

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<sup>113</sup> Ibid.

<sup>114</sup> AT&T Response to Senate Business and Commerce Request for Information, September 18, 2020, AT&T letter (dated October 6, 2020) (on file with committee).

<sup>115</sup> *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling and Third Report and Order, 33 FCC Rcd 9088 (2018).

<sup>116</sup> Crown Castle Response to Senate Business and Commerce Request for Information, September 18, 2020, Crown Castle letter (dated October 1, 2020) (on file with committee).

leadership at the Mayoral and staff level in both cities has led to a mutual understanding of the need for this critical infrastructure. Crown Castle states that they have been able to effectively partner to achieve a level of certainty in the process that has allowed the investment of hundreds of millions of dollars worth of infrastructure between the two cities<sup>117</sup>. Similarly, AT&T states that the company has filed and/or received approval in over 300 jurisdictions in Texas, and Verizon notes that the company has continued to expand throughout the state. Thousands of small cells are now on-air, providing significantly improved capacity across Texas.<sup>118</sup>

Texas 5G Alliance (TX5GA) members have also made significant inroads in Texas as it relates to 5G deployment, especially as cities are hyper-focused on implementing smart city initiatives for greater efficiencies across their region. TX5GA notes that Ericsson has switched on a 5G network in Texas and Crown Castle worked with the City of Dallas to develop “smart poles” for deployment across the city. Additionally, TX5GA states that the wireless carriers members AT&T, Verizon, Sprint and T-Mobile have launched 5G service in more than 15 cities and 12 additional counties.<sup>119</sup>

Additionally, Accenture noted in a recent report that “deploying the next generation of high-speed wireless networks could create up to three million jobs and \$500 billion in economic growth.” The report also indicates that streamlining local permitting and regulations are critical pieces to that growth.

Most Texas cities have been responsive to the legislation and realize the benefit that small cells provide to economic recovery and growth, even offering streamlined processes to quickly troubleshoot any unexpected delays. Some cities, however, have resisted compliance with S.B. 1004 with unreasonable timelines and other barriers that prevent their citizens from receiving the much-needed benefits of small cells.

The major compliance issues affecting timely deployment of small cells in Texas are unreasonable application of “shot clock” provisions, burdensome permitting processes and excessive aesthetic demands. Some of the onerous permit processes that have been implemented include limits on the number of simultaneous applications, noticing requirements, and pre-application reviews that add to application delays. Some cities have also implemented aesthetic requirements including minimum separation distances between nodes and poles, ground equipment spacing and setbacks, as well as zoning restrictions based on proximity to residential, park, school, and "historic" designated areas.

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<sup>117</sup> *Accenture Strategy, Smart Cities: How 5G Can Help Municipalities: Accenture Wireless Industry Contribution Model* (2018). Statewide, the wireless industry contributes \$50.9B a year to the State economy and supports 461,800 wireless-related jobs. The deployment of 5G in Houston is expected to include \$3.54B estimated growth in GDP, 21,707 new jobs, and \$1.91B in network investment by 2024 while the deployment of 5G in Dallas is expected to include \$2.04B estimated growth in GDP, 12,555 new jobs, and \$1.10B in network investment by 2024.

<https://api.ctia.org/docs/default-source/default-document-library/how-5g-can-help-municipalities-become-vibrant-smart-cities-accenture.pdf>

<sup>118</sup> AT&T Response to Senate Business and Commerce Request for Information, September 18, 2020, AT&T letter (dated October 6, 2020) (on file with committee).

<sup>119</sup> Samuel Contreras, *5G Coverage Map: Every US City with AT&T, Verizon & T-Mobile*, androidcentral, (November 1, 2020), <https://www.androidcentral.com/heres-every-us-city-5g-coverage-right-now>

## ***Ongoing Deployment Challenges and Recommendations for Improvement***

While S.B. 1004 was a groundbreaking step forward, there are opportunities for improvement which will benefit the residents and economy of the State.

Those cities that resist network node deployment cause a resulting lack of investment and critical infrastructure necessary to handle the exponential increase in demand on these networks. Without implementing the following changes at the state level and/or the city level, many cities will be left behind and will not experience all of the benefits of a reliable, advanced 5G communications network.

### ***Design Manuals - Aesthetics and Spacing Requirements***

Following the passage of S.B. 1004, many cities adopted Design Manuals that include onerous spacing restrictions on the placement of network nodes, node support poles, and ground-based enclosures. Some cities have adopted boilerplate Design Manual provisions that prohibit placing: 1) network nodes and new node support poles within 300 feet of existing utility poles and 2) ground-based enclosures from 250 feet of intersections. Following the passage of S.B. 1004, at least 45 mid-sized to large cities adopted varying forms of these spacing restrictions<sup>120</sup> Such spacing restrictions make it nearly impossible to deploy network nodes and violate the existing provisions in S.B. 1004. These types of spacing restrictions violate provisions of S.B. 1004 because they are discriminatory and not “competitively neutral with regard to other users of the public right-of-way”. These provisions also violate statute because they do not fall “strictly within the requirements and limitations” of the state law. An early draft of S.B. 1004 included spacing restrictions but those restrictions ultimately were removed.

- ***Industry Recommendation:*** Any amendment to S.B. 1004 include a provision which prohibits municipalities from adopting spacing restrictions for network nodes, new node support poles, and ground-based enclosures from existing utility poles, intersections, or other existing infrastructure unless the City can demonstrate a specific and reasonable safety concern on a site by site basis.<sup>121</sup>

A number of cities continue to not adhere to S.B. 1004 standards by refusing to approve permits in the time frames specified in the law.<sup>122</sup> The September 2018 FCC Order included many of the provisions of S.B. 1004.<sup>123</sup> One set of provisions that differed, however, were the timelines (known as “shot clocks”) for municipal application review and approval of network nodes. Currently, Texas statute specifies that a municipality has 30 days to determine whether an application is complete and once an application is

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<sup>120</sup> Crown Castle Response to Senate Business and Commerce Request for Information, September 18, 2020, Crown Castle letter (dated October 1, 2020) (on file with committee).

<sup>121</sup> Ibid.

<sup>122</sup> AT&T Response to Senate Business and Commerce Request for Information, September 18, 2020, AT&T letter (dated October 6, 2020) (on file with committee).

<sup>123</sup> *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling and Third Report and Order, 33 FCC Rcd 9088 (2018).

complete, the municipality has a) 150 days to approve or deny a network node on a new support pole or b) 60 days to approve or deny a network node on an existing structure. S.B. 1004 also requires that if a municipality denies the application, the network provider has the opportunity to remedy any deficiency and the municipality then has a further 90-day review period to approve or deny that corrected application. In total, if these timelines are stretched to the maximum amount of days, a municipality could have 9 months to approve or deny a single application for a network node on a new node support pole. The FCC adopted the following shorter timelines: a) 90 days to approve or deny a network node on a new support pole or b) 60 days to approve or deny a network node on an existing structure. If a municipality notifies an applicant of an incomplete application within 10 days of submission, the applicable shot clock period restarts.<sup>124</sup>

Austin continues to stand out as the most challenging small cell environment. Though the City of Austin committed in 2018, at the last interim hearing on small cells, to streamline its processes and comply with the Act, the City continues to erect barriers to innovation and investment. Small cell permits are subject to a bifurcated permit process requiring carriers to first obtain a Small Cell Permit which can take up to 90 days (S.B. 1004 limited the number of days to 60). Carriers are then required to obtain four more permits including for Traffic Control, ROW, and Excavation and Electrical Service from City-owned Austin Energy. Once these three additional permits are obtained, it takes more than 120 days to secure a transport permit required to connect the node to the public switched network. In contrast, most other cities are issuing transport permit in just 20-30 days. Additionally, Austin requires carriers to obtain written confirmation that there are no facilities conflicts from all open permit holders within 1500-feet of the build site. Construction cannot begin until all permit holders have responded which can often take several months. The City provides no escalation path when permit holders fail to respond.<sup>125</sup>

- **Industry Recommendation:** Any amendment to S.B. 1004 should incorporate the timelines adopted in the FCC Order<sup>126</sup>, which would allow for the faster deployment of this critical telecommunications infrastructure.

### ***Zoning and Land Use***

S.B. 1004 allowed for municipalities, on a discretionary basis, to prohibit the deployment of new node support poles on streets that are 1) not more than 50' wide and 2) adjacent to a single-family residential lot or other multifamily residence or undeveloped land that is designated for residential use by zoning or deed restrictions. Unfortunately, many, if not most, cities in the State have refused to permit new node

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<sup>124</sup> See September 2018 FCC Order, para. 143.

<sup>125</sup> AT&T Response to Senate Business and Commerce Request for Information, September 18, 2020, AT&T letter (dated October 6, 2020) (on file with committee).

<sup>126</sup> The shot clocks adopted in the September 2018 FCC Order have been upheld by the U.S. Court of Appeals for the Ninth Circuit. See *City of Portland v. United States*, No. 18-72689 (9th Cir. Aug. 12, 2020), *pet. for reh'g en banc filed* (9th Cir. Sept. 28, 2020).

support poles (and some have refused any network nodes<sup>127</sup>) in these residential areas, thereby prohibiting these residents from use of this critical telecommunications infrastructure.

- **Industry Recommendation:** Consider removing the section of statute that allows municipalities to prohibit new network poles in residential areas.<sup>128</sup>

Other barriers erected by cities are simpler issues of non-compliance with the provisions in S.B. 1004.

### ***Collocation Restrictions.***

Some cities compound deployment challenges by also interfering with collocation rights by categorizing major thoroughfares as “Designated Underground Utility Areas” even though the streets already have above-ground utility poles. The Design Manual may also prohibit ground furniture needed for a small cell site when utility pole owners refuse to allow meters and other equipment on their structures. Other cities have created a requirement for expensive replacement poles when an existing pole can support a small cell. For example, some cities require a wireless provider to replace wooden poles with metal or composite fiberglass poles and turn over ownership and control to the City. This dramatically increases the cost of doing business and is inconsistent with language in S.B. 1004 prohibiting in-kind payments.<sup>129</sup>

### ***Dual Permitting.***

Deploying in TxDOT ROW presents additional challenges. Cities have no authority over TxDOT ROW, but nevertheless require permits for state roads. Wireless providers and TxDOT worked cooperatively over many months to negotiate a master license agreement and design standards allowing placement of small cells on state roads in order to bring much needed capacity to travelers and nearby homes and businesses. The agreement respects city aesthetic and safety concerns by requiring providers to comply with lawful city codes and design standards, but specifies that city permits are not required. However, several municipalities, including Austin, Webster and Alvin, continue to not allow deployment in TxDOT ROW without a city permit.<sup>130</sup>

In addition to the industry recommendations above, there are several other recommendations that would result in clarity for both the network providers and municipalities, including:

- A clarification that current statute does not limit a network provider to a total of 30 network nodes being reviewed by a municipality at any one time.

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<sup>127</sup> Any municipality that strictly prohibits network nodes from these residential areas is in clear violation of SB 1004 as Section 284.104 only applies to new node support poles. Unfortunately, some cities are clearly violating the law.

<sup>128</sup> Section 284.104 also allows for discretionary approval of node support poles in the public right-of-way in municipal parks. For the reasons cited above, including public safety, Crown Castles recommends that any restriction on deployment in municipal parks be removed, as well.

<sup>129</sup> AT&T Response to Senate Business and Commerce Request for Information, September 18, 2020, AT&T letter (dated October 6, 2020) (on file with committee).

<sup>130</sup> AT&T Response to Senate Business and Commerce Request for Information, September 18, 2020, AT&T letter (dated October 6, 2020) (on file with committee).

- A clarification that network nodes and new node support poles cannot be prohibited in Historic and Design Districts.
- A clarification that when an existing pole, such as a streetlight or decorative streetlight is being replaced, the antenna height is limited to 3 feet above the replacement pole, not the existing pole.

### ***Recommendation***

The increased need for access to telecommunications networks resulting from COVID-19 for students, businesses, and working Texans, has made it more critical than ever for the parties involved in the litigation surrounding S.B. 1004 to resolve the dispute and comply with the timelines and structures outlined in statute created by the legislation without further delay.