Regular Board of Directors *Meeting Notes*

December 13, 2021

Recommendation to Execute a Merchant Card Services and Electronic Check Processing Agreement

The Board approved a recommendation to execute an agreement with BB&T (Truist Bank) for merchant card services and electronic check processing.

Presentation of Electric Rate Comparisons

Mr. Doug Lyles, Executive Director of Business and Customer Operations, presented a comparison of BTU's electric rates versus other municipal utilities, cooperatives, and retail choice providers.

BRYAN TEXAS UTILITIES KIOSKS

BTU Drive Thru – *205 E. 28th St. (Open 24 Hours)*
HEB Grocery – *Tejas Center on Villa Maria*
HEB Grocery – *Texas Ave. & Hwy 21*

WAYS TO PAY CASH CHECK CARD

Bring your BTU account number, BTU bill, keycard or reminder letter.

BRYAN TEXAS UTILITIES
BTU
THE DIFFERENCE IS YOU

BRYAN TEXAS UTILITIES
205 East 28th Street • Bryan, TX 77803
email: ContactBTU@btutilities.com

www.btutilities.com

Hours of Operation
Monday - Friday, 8 a.m. - 5 p.m.

Board of Directors
Mr. A. Bentley Nettles, Chairman
Ms. Rosemarie Selman, Vice Chairman
Mr. Pete J. Bienski, Jr., Secretary
Mr. John A. Bond
Mr. Paul Madison, Sr.
Mr. Greg S. Owens
Mr. Paul Turney
Mr. Jason Bienski, Ex-Officio
Mr. Buppy Simank, Ex-Officio

General Manager
Gary Miller

Executive Directors
Doug Lyles
Randy Trimble
Wes Williams
David Werley, Chief Business Officer

Division Managers
James Bodine
Nick Cook
Shawndra Curry
Ken Lindberg
Clay Lindstrom
Gary Massey
Vicki Reim

City of Bryan
Kean Register, City Manager
Will Smith, Chief Financial Officer
Bernie Acre, Chief Information Officer

Important Numbers

Billing/Collections/Connects
(979) 821-5700

Electrical Outage/Lines Down
(979) 822-3777

Distribution/Line Design
(979) 821-5770

SOCIAL MEDIA BryanTexasUtilities BTU_BryanTX cityofbryan cityofbryan

Stephanie Sale, Jim Singleton honored with

2021 DOWNTOWN IMPACT AWARD

Longtime Downtown Bryan supporters Stephanie Sale and Jim Singleton have been instrumental in much of the area's redevelopment efforts. Their investment in multiple aspects of Downtown has showed that downtown revitalization is alive and well in Bryan. That's why Sale and Singleton were honored with the 2021 Downtown Impact Award.

"We have deeply appreciated the opportunity to help with the many efforts that have been undertaken to bring life back into parts of Bryan that—over many years—experienced a sad decline," Sale said. "In receiving this accolade, we represent the many individuals, businesses, departments of city government, and elected officials who have joined in the effort to make Bryan a 'Texas Cultural District…where history meets community.'"

Sale and Singleton's impact on Downtown Bryan isn't limited to one project. Their dedication over a number of years and projects shows their investment in seeing Downtown Bryan thrive. They have been involved with several projects, including:

- The revitalization of the Queen Theatre
- The relocation of Twin City Mission
- The expansion of Downtown Bryan's Lights On! Event
- Bringing the Brazos Valley African American Museum to fruition
- Refurbishing, with the help of the Gloria Stephan Sale Trusts, the landscaping of St. Andrews Episcopal Church
- The creation and construction of Sale Park and the Depot
- Creating a new location for the Boys and Girls Club of the Brazos Valley in Downtown

Sale and Singleton join the ranks of dozens of other individuals and organizations whose positive impact on revitalization efforts have made Downtown Bryan a destination for everyone in the community and who have received the Mayor's Downtown Impact Award.

Mayor Andrew Nelson presented Sale and Singleton with the Downtown Impact Award at this year's Volunteer Awards Reception on Dec. 9.

"Downtown Bryan is thriving because of the individuals who have invested their time and talents into making it a place people want to gather," Nelson said. "These efforts continue to be supported by the city through partnerships to promote the vitality of Downtown and the unique variety of amenities it has to offer."

ELECTRICITY EXPLAINED: *Generation*

Roland C. Dansby Power Plant

The second edition in our Electricity Explained series discusses the production of electricity. Generation can be achieved by a few different methods; most commonly, a force is applied to spin a turbine. A turbine converts the kinetic energy of a moving fluid – liquid or gas – to mechanical energy. The generator, in turn, converts its mechanical energy to electrical energy based on the relationship between magnetism and electricity. In a steam turbine, steam is forced against a series of blades mounted on a shaft. The steam rotates the shaft connected to a generator to produce power.

Traditional Fuel Sources

Power generators can utilize many different fuel sources. Traditional sources of fuel such as fossil fuels (coal, natural gas and fuel oil) make up the majority of electrical generation in the United States. These fuels are considered nonrenewable because their supplies are finite and limited to the amount that can be extracted or mined from the earth.

Evidence of naturally occurring gas has been present since ancient times. The ancient Greeks wrote about natural gas seeping from the ground and igniting. Around 500 B.C., the Chinese began using bamboo pipes to transport gas from surface vents to then burn for boiling water. In 1821, William Hart dug the first successful natural gas well in the United States in Fredonia, New York. Today, natural gas is considered the most clean-burning fossil fuel. Ninety-nine percent of all natural gas used in the United States originates in North America. Natural gas fueled generators comprised about forty percent of electrical generation in the U.S. in 2020. Natural gas can be used to heat water to create steam or burned to produce hot combustion gases, similar to a jet engine, that pass through a turbine, spinning the blades. BTU has a natural gas fueled boiler and steam turbine (Dansby #1) at the Roland C. Dansby Power Plant located on the north shore of Lake Bryan. The plant is also home to two quick-start natural gas combustion turbines (Dansby #2 and #3) that produce gases to spin turbine blades around a rotor.

Coal is a combustible black or brownish-black rock comprised largely of carbon. Coal is made up of plants that lived millions of years ago. The combination of dirt, heat, pressure, and time compresses the plant materials and captures the stored energy, creating coal. Coal mining and production has a long history in the United States. The mining and utilization of coal ushered in the industrial revolution, powering steamships and railroad engines. It was also used to manufacture goods and create iron and steel. Coal was a primary source of U.S. electrical generation for many years, but has recently given way to more economical and environmentally friendly sources. Coal-fired generation dropped from the second to the third-largest energy source for U.S. electricity generation in 2020—about nineteen percent. Nearly all coal-fired power plants use steam turbines. A few coal-fired power plants convert coal to a gas for use in a gas turbine to generate electricity.

Petroleum can also be burned to produce hot combustion gases to turn a turbine or to make steam that turns a turbine. Residual fuel oil and petroleum coke, products from refining crude oil, are the main petroleum fuels used in steam turbines. Distillate (or diesel) fuel oil is used in diesel-engine generators, more commonly seen in remote areas such as Alaska or island communities. Petroleum was the source of less than one percent of U.S. electricity generation in 2020.

Uranium was first discovered in 1789. After the creation of the atomic bomb, interest in further use of nuclear energy peaked. The first nuclear reactor to produce electricity was built in Idaho in 1951. This experimental reactor produced a negligible amount of power, but inspired more research in nuclear energy. In 1953, President Eisenhower proposed his “Atoms for Peace” program that devoted significant research towards electrical generation. The first commercial reactor, Mark 1, operated in Pennsylvania from 1957 until 1982. Nuclear energy typically utilizes uranium, a nonrenewable, naturally occurring element whose atoms are split through a process called nuclear fission. Similar to fossil fuel sources, the nuclear fission process produces heat energy to turn water into steam that rotates a turbine to produce electricity. Nuclear generation accounted for approximately twenty percent of U.S. power production in 2020.

Renewable Energy Sources

The renewable energy sector is rapidly growing in the United States, comprising nearly twenty percent of electrical generation. Renewable energy sources are naturally replenished and are infinite, in theory. Renewable generation sources include wind power, hydropower, biomass, solar, and geothermal.

The "windmill" game on long road trips looks different today than it did a few decades ago. Throughout Texas and the Midwest, gigantic white turbines spin on hilltops with little red lights blinking on them at night. Some wind turbines are installed offshore to exploit oceanic winds. Wind power is produced by harnessing the kinetic energy from the wind to spin a turbine. Electrical generation from wind has increased significantly in the United States since 1980 and is still a fast-growing industry today. In 2020, wind power provided about eight percent of U.S. electricity generation.

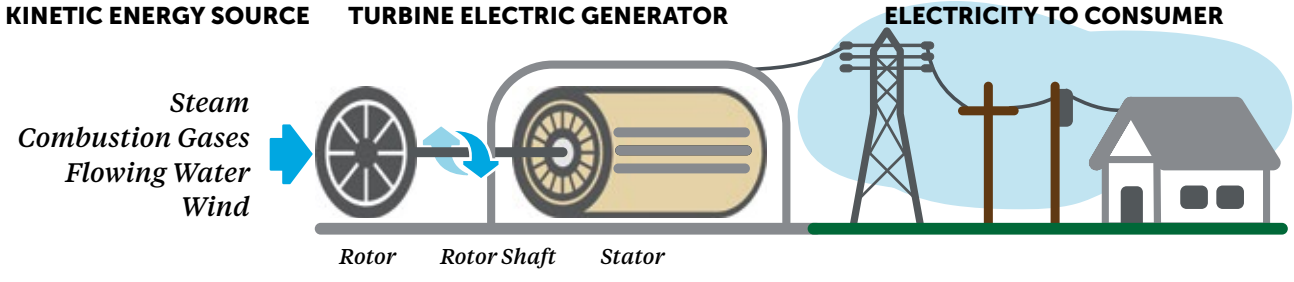
Hydropower, the source of approximately seven percent of total U.S. electricity generation in 2020, is a process in which flowing water spins a turbine connected to a generator. With roots stemming from water wheels powering grain mills, hydropower is one of the oldest sources of electrical generation. The two most common hydropower production facilities are either run-of-the-river systems that utilize existing river flow to rotate a turbine, or storage systems that use stored water in a reservoir to release through hydro turbines. Many of the largest hydroelectric dams are located in the western United States including Hoover Dam.

Solar power is produced using energy from the sun. Photovoltaic (PV) and solar-thermal power are the two main types of technologies used to convert solar energy to electricity. PV systems use a solar cell that contains semiconductors to absorb energy from sunlight. The energy is then transferred via negatively charged particles (electrons), acting as an electrical current. The current then passes on to more conductive metal contacts – the grid-like lines on solar panels. Solar-thermal power generators concentrate solar heat energy to warm a fluid and produce steam to drive turbines; think boiling water using tinfoil to concentrate solar heat like in your middle school science class. In 2020, about two percent of U.S. electricity generation came from solar energy.

Biomass is material derived from plants or animals that is burned to fuel steam-electric power plants. It can also be material that can be converted to a gas that can then be burned in steam generators, gas turbines, or internal combustion engine-generators. Biomass can include lumber and paper mill wastes and the food scraps, grass, leaves, paper, and wood in municipal solid waste (garbage), giving new meaning to the phrase "one man's trash is another man's treasure." Biomass also includes forestry and agricultural residues such as wood chips, corncobs, and wheat straw. Biomass accounted for 1.4 percent of total U.S. electricity generation in 2020.

Geothermal power comes from heat energy beneath the surface of the earth. In some areas of the United States, geothermal energy is close enough to the earth's crust to heat underground water into steam, which is then used at steam-turbine plants. Geothermal electricity generation was less than 0.5 percent of total U.S. electricity generation in 2020. Geothermal generation is more common in places like Iceland where active tectonic plates create many volcanoes, geysers, and hot springs.

Electrical generation is the first step in the process to bring power to homes and businesses. Electrical generation plants are typically staffed around the clock in all kinds of weather to ensure that each home is warm and lit. We all appreciate the unsung heroes that keep the generators running and the lights on daily. In the next issue of Texas Co-op Power Magazine, we will discuss the transmission of electricity, or moving electricity across distances.



REMEMBERING
John G. Eiman

Written by Bill White, BTU Distribution Operations

The Bryan Texas Utilities family mourns the loss of John G. Eiman, who passed away Sunday, November 7, 2021 at the young age of 52. John was a fixture in the BTU Electric Distribution department for more than 28 years. In that time, as he worked his way up through the ranks, he gained the admiration and respect of his co-workers and peers as well as the customers he often dealt with.

Born in Anchorage, Alaska, John lived in several states before graduating high school in Payson, Utah. John eventually settled in Franklin, Texas, where he met and married his wife Linda and raised their three children, Jonathan, Joseph, and Jena. He was an avid snow skier and outdoorsman from a young age. He never lost the love for being outdoors and spent his free time enjoying it as much as possible with family and friends. His outdoor interests away from work ranged from hunting and fishing, coaching and being involved with his children's sports activities, to golfing with his family and a close group of friends. Because of his love of being outdoors, John sought a career that would allow him the opportunity to spend his time outside. In April of 1993, John was hired by BTU as an Apprentice Lineman. He loved line work, and became quite skilled at climbing poles, operating the various pieces of equipment used in construction, and maintaining both overhead and underground power lines. John completed his apprenticeship and continued to develop his skills and abilities as a lineman.

In 2000, BTU promoted John to Lead Lineman and he became responsible for supervising, organizing and directing the work of a crew. As a Lead Lineman, John's abilities as a craftsman and leader really began to shine. Because of the knowledge and work ethic he possessed, John was a valuable asset to BTU Distribution. He was devoted to his job and tirelessly worked many hours, often in very undesirable conditions, to make sure that BTU customers would not be without power. Longtime friend and co-worker David Haddix says he will remember John as someone who was constantly there to help. "Whenever one of us needed assistance and was looking for someone to help, John's answer and favorite saying was, 'I'm your Huckleberry'."

In 2013, John was promoted to a management position overseeing the Service Department. He transitioned well into this role due to his vast knowledge and experience. John was like a walking encyclopedia when it came to BTU's underground electrical system. Even though he no longer worked as a Lead Lineman in the field, fellow linemen knew that John was always available to offer insight or advice on situations they may encounter. He would often receive late night calls from linemen who had become stumped by an issue with an underground trouble call. John could usually answer the questions and walk them through the repair over the phone, because he knew exactly where they were and what equipment was there. It was as if he had a map of the system in his head, and he could trouble shoot and formulate solutions to problems almost before crews arrived at the work site. John was also a great resource for the BTU Engineering department as he served on review committees offering comments and suggestions on new installations being designed as well as the ongoing overhead to underground conversion projects.

John led by example and was a strong proponent of working safely, especially during storm restorations. John was instrumental in training many apprentices and younger linemen through the years. He instilled a work ethic in them that urged them to get the job done in a timely manner by working efficiently and safely. He also encouraged them to understand that there was always a solution to a problem; you just have to keep looking until you find it. Giving up was never in John's vocabulary. As a result of John's training, many of his apprentices are now Linemen, passing on his knowledge to the next generation. Several of the linemen John trained have now become Lead Linemen themselves and are supervising crews of their own. There is no doubt

that John's influence and training will have a beneficial effect on BTU Distribution linemen for many years to come.

In spite of John's obvious physically strong appearance and often "matter-of-fact" manner, he was somehow given the nickname of "Pooh Bear." This name stuck well with him and his co-workers throughout BTU, and a large portion of the community knew him by that name. Several of the local electricians, builders and contractors that John would often work with commented that they never even knew his real name, only Pooh Bear. For those that were fortunate enough to know John closely, Pooh Bear was quite an appropriate name as he had a very compassionate and caring side as well. Whenever there was someone in need, John could be counted on to lend a hand in whatever way he could. Sonia Cerda, who worked closely with John for several years, had the following to say. "John is one of the most caring people I have ever met. He welcomed me into Distribution 7 years ago, and I learned so much from him. He treated me as an equal, and I am forever grateful for that. The halls of Distribution will never be the same. I will miss his giggles and him telling everyone "I'm your Huckleberry." I am honored to have known him and to call him my good dear friend."

The loss of John Eiman creates a void within BTU that will never completely be filled. His enthusiasm for the work, his knowledge and willingness to share it with others, his dependability, loyalty and honesty are character traits that will undoubtedly leave a lasting impression. BTU General Manager Gary Miller remarked that, "The value that John brought to BTU was extraordinary. He was well liked and admired by all employees that had a chance to work with him. Always happy and always with a smile on his face, John will be greatly missed both as an employee and more particularly as a friend."

Our Friend Pooh Bear

Pooh Bear was unlike any other man
If you told him you couldn't do it; then he would tell you, "Well, I can."

Through dark or light or thunder boom,
He had a smile and laugh that always lit up the room.

If you needed some help, you could give him a call,
He always knew just what to do, cause he had been through it all.

Whether a spark in the dark or climbing up poles,
He most loved to put pipe and wire in those underground holes.

There is no doubt about it, he will definitely be missed
Whether it's golfing, or just talking, or his grandbabies' last kiss.

God created this man unlike any other,
He was Pooh Bear, and he was our Brother.

Written by Mark Bryan, BTU Distribution Lineman
November 10,2021

Bryan Texas Utilities extends our heartfelt condolences to John's family and friends.

BRYAN TEXAS UTILITIES SPOTLIGHT

BIGSHOTS GOLF

NOW OPEN

ENTERTAINMENT & GOLF "FORE" EVERYONE

BigShots Golf Aggieland has partnered with the City of Bryan to bring an unrivaled entertainment and event venue to Bryan. BigShots Golf's first corporate location is situated in the redeveloped Travis Bryan Midtown Park at 400 West Villa Maria Road. The site provides a highly anticipated entertainment attraction in the area. The 40,000-square-foot, two-story venue features 60 climate-controlled tee boxes designed for all ages and skill levels. BigShots Golf Aggieland also boasts an 18-hole mini golf course, arcade style games, and an outdoor patio that includes yard games and fire pits. The venue also houses an 1,800-square-foot event space open to public reservations.

> "We are the solution for that dreaded 'there is nothing to do' complaint," BigShots Golf Aggieland Event Sales Manager, Rocio Stephens said.

BigShots Golf's philosophy is to be an entertainment space for all. Whether you have never held a club before or are an avid golfer; there is fun to be had by everyone. Interactive games such as Knockout and Pinball, are designed to give every level of player a chance to win while avid golfers can play full rounds on virtual golf courses from all over the world. BigShots Golf's proprietary technology utilizes a Doppler radar-based system to cover the entire tee box and outfield to provide eight of the most essential data points including carry and total distance, ball speed, height, launch angle, launch direction, side and from pin. The analytics can be sent to your email to study and improve your game.

Food and drinks are a key piece to any entertainment venue but often overlooked. For BigShots Golf, it's the hero of the experience with a full scratch kitchen and two sports bars serving bold and unexpected menu items, such as the PB & Jam Burger, signature cocktails and local craft beers. BigShots Golf Aggieland Director of Operations, Ryan Quinney describes their menu as "unpretentious and family-friendly." Handing out these good eats and cold drinks, the BigShots Golf team values service above all.

> "We're inspired by our community to provide great entertainment with intimate, personalized service," Quinney said.

BigShots Golf also provides local career opportunities. The venue has brought approximately 150 jobs to Bryan, with a potential for more part-time positions during the peak season. Additionally, the venue brings in a golf professional several days a week to give lessons to interested golfers.

BigShots Golf Aggieland provides an exciting new amenity in the Midtown area and also expands the tax base for the City of Bryan. Sales tax revenues comprise a large part of the City budget that is reinvested into City services, amenities, and infrastructure. The City of Bryan seeks to partner with wonderful businesses like BigShots Golf Aggieland to improve the citizen experience in Bryan in numerous ways.

> "We are excited to plug into and interject ourselves into the Aggieland community that has been so welcoming and supportive," Quinney said.