Regular Board of Directors *Meeting Notes*

November 8, 2021

Discussion of the TMPA Decommissioning Reserve Account

Mr. Will Smith, Chief Financial Officer, discussed the purpose of the Decommissioning Reserve account to fund the costs of decommissioning the Gibbons Creek Steam Electric Station. As the property has been sold, the funds are no longer needed for decommissioning. The Board approved a resolution to recommend the Bryan City Council approve reducing TMPA's Decommissioning Reserve Account to $0.00.

Resolution to Approve an Agreement with TAMU System for the RELLIS Substation

The Board approved a resolution to recommend the approval of an agreement outlining obligations and cost sharing for a joint substation between the TAMU System and BTU for the RELLIS Substation.

Approval of a Contract for Design of the RELLIS Substation

The Board approved a contract with POWER Engineers for the design of the RELLIS Substation. The TAMU System will reimburse BTU for the costs of engineering and design services.

RELLIS Campus

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
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Division Managers
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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

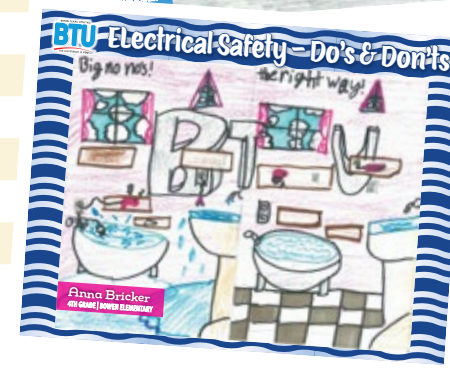
2022 BTU Kids Calendar
NOW AVAILABLE!

For over 25 years, Bryan Texas Utilities has collaborated with the art instructors at 19 elementary schools in our service area to produce the annual BTU Kids Calendar Contest. The theme of the 2022 Bryan Texas Utilities Kids Calendar is "Electrical Safety – Do's and Don'ts." We asked kindergarten through fourth grade students who live and go to school in the BTU service area to create artwork that focuses on how we can use electricity safely while avoiding electrical hazards.

This year's response was outstanding, as art instructors at the participating schools submitted nearly 400 art entries for the calendar – over six times more than last year's number of entries. Our judges had a difficult time narrowing down their choices to 21 entries from 11 different schools for placement in this year's calendar. BTU would like to thank and applaud all of the participating elementary art teachers and their students for the nearly overwhelming number of entries in this year's contest.

BTU 2022 Kids' Calendars are distributed to all elementary schools in the BTU service area, and are available on a first-come, first-served basis in the lobby of the BTU Administration Building, located at 205 East 28th Street in Bryan.

Placement	Name	Grade	School
Front Cover	Joleigh McClung	4th	Navarro Elementary
January	Zoe Perrott	3rd	Allen Academy
February	Dalilah Carpio	3rd	Kemp-Carver Elementary
March	Hattie Nash	4th	St. Joseph Catholic School
April	Aasia Collins	4th	Bowen Elementary
May	Jamey Dyson	2nd	Allen Academy
June	Alexandra Murillo	3rd	Crockett Elementary
July	Mary Moreno	4th	Bonham Elementary
August	Kaylee Williams	3rd	St. Joseph Catholic School
September	William Ball	2nd	Allen Academy
October	Marlene Gamboa	3rd	Navarro Elementary
November	Jazmyne Searcy	4th	Neal Elementary
December	Alexander Wang	3rd	Allen Academy
Back Cover	Anna Bricker	4th	Bowen Elementary
Honorable Mention	Callan Gaither	4th	Allen Academy
Honorable Mention	Lilah Mitchell	4th	Bowen Elementary
Honorable Mention	Caroline Johnson	4th	St. Joseph Catholic School
Honorable Mention	Rachel Hanrahan	4th	Fannin Elementary
Honorable Mention	Mackenzie Hartman	4th	St. Joseph Catholic School
Honorable Mention	Landri Ford	3rd	Allen Academy
Honorable Mention	Brielle Young	4th	Allen Academy



ELECTRICITY EXPLAINED:
A Brief History

Benjamin Franklin

It is hard for many of us to imagine life without electricity. We spend much of our time centered on electrical devices, appliances, and technology. From the simplest bulb that gives us light, to the innovative super computers that advance our knowledge, we interact with electricity by the minute. Despite its great importance in daily life, undoubtedly few people stop to think about what our existence would be like without electricity or how homes and businesses are powered today. For the next several issues of Texas Co-op Power Magazine, Bryan Texas Utilities (BTU) will explore the production and distribution of electricity – a class in "Electricity 101". Follow along to learn more about how BTU lights up your life.

Most of us know the story of Thomas Edison and his light bulb that spurred the adoption of electricity, but human interaction with electricity has existed for centuries. Civilizations have long been aware of electromagnetism. Early indigenous people could observe the interaction of electric currents and magnetic fields by witnessing natural occurrences such as lightning or electric eels. The ancient Greeks wrote about static electricity produced by rubbing animal fur against amber. However, it was not until the 1600s that scientists began to investigate and decipher the principles of electricity. Still another century later in 1752, Benjamin Franklin's famous kite test confirmed that lightning was indeed a form of electricity. This led to his invention of the lightning rod and the discovery of positive and negative charges that repel and attract objects.

Advancements came quicker during the 1800s with each new scientist leaving their mark on the progression of electricity, including those that have units of measurements named in their honor such as Alessandro Volta (volts), Andre Ampere (amps), and Heinrich Hertz (hertz). While Thomas Edison did not invent the first light bulb, he did invent the first practical one that would stay lit for hours. Previous versions of the light bulb failed after a minute or two, but by utilizing bamboo as a filament, Edison's bulb lasted for many hours. After patenting this extraordinary creation in 1880, he began to install electrical infrastructure to homes in New York funded by the legendary banker, J.P. Morgan. With Morgan's backing, Edison built the first centralized power plant in the United States, the Pearl Street Station in 1882. The first generators, known as dynamos, produced power in bulk and distributed electricity to homes and businesses via buried copper wire. This first electric grid was based on direct current (DC) – a current that runs continually in a single direction. Batteries today utilize direct current.

Direct current is not easily converted to higher or lower voltages, which is necessary to be able to serve varying kinds of customers and to transport electricity more economically. Nikola Tesla, a former employee of Edison's,

Thomas Edison
Credit: Bachrach Studios

Nikola Tesla
Credit: Napoleon Sarony

Rural Electrification Administration: Rural Electrification Act of 1936
Credit: National Archives and Records Administration

believed alternating current (AC) was the solution to the difficulties DC power encountered. Instead of flowing in the same direction, alternating current reverses direction a number of times per second. A transformer then converts AC power into different voltages.

Since Edison had invested heavily in the invention, production, and adoption of DC power, he soon began a crusade to discredit AC power. Asserting that AC power was much more dangerous than DC, he went so far as to publicly electrocute animals to prove his point. Edison even facilitated the production of the first electric chair, using alternating current, when the state of New York was looking for a more humane method of capital punishment than hanging. Raging throughout the late 1880s, this bitter dispute between AC and DC power was aptly dubbed the War of Currents. When the World's Fair came to Chicago in 1893, organizers bid out the electrification of the fair. Edison's General Electric Company lost the bid to a more economical proposal from Tesla and his financial backer, George Westinghouse. Despite Edison's best efforts, AC power won out thereafter and is the standard in the U.S., and most of the world, today.

While Edison and Tesla are well known names, another integral character seems to have escaped such fame. Samuel Insull, another former Edison employee, abandoned the allure of creating new inventions to perfect the electric business model. Insull was able to achieve "economies of scale" by focusing on how to get the best "bang for his buck". He consolidated small electric distributors and generators to bulk generation and delivery. He also found that the more customers he had, the more efficiently and inexpensively he could generate electricity. As many were only utilizing electricity for lighting during this time, there was less need for power during the daylight hours. Insull offered to power elevators, streetcars, and other daytime machines to insure a more consistent demand for electricity.

Diversifying his customer base even further, Insull began to spread electricity into the suburbs and rural areas. He found yet another efficiency by interconnecting power grids to increase reliability. This eliminated the need to build redundant generation, saving the industry a great deal of money. Still seeking to maximize profitability, Insull implemented standard electrical billing practices still used today. Since electricity must be generated and consumed simultaneously, customers that use a large amount of energy in a short time were troublesome. Large manufacturers typically have an enormous need for energy at certain points in their process, such as the brief heating of electric furnaces. Insull instituted a demand charge that allocated the cost of producing such large amounts of energy for a short time to the customer that required it. This style of innovative business savvy led to the rapid decrease in price per kilowatt-hour (kWh) for electricity. Insull made electrical service an affordable part of everyday life. A far cry from Edison's luxury product serving the rich and famous of New York's finest.

Despite the leaps of advancements made in the late 1800s, electrification was slow, and less than 100 years ago in 1925, only half the homes in the United States had electricity. Many were still using candles and kerosene lamps for light, iceboxes to refrigerate food, and wood-burning stoves to provide heat. Enter the Rural Electrification Administration (REA). Part of President Franklin D. Roosevelt's post-Depression New Deal, the REA was created by the Rural Electrification Act of 1936 to bring electricity to farms and rural communities throughout the United States. REA loans allowed the rapid growth of electrical infrastructure in the countryside, and by 1950, nearly 80 percent of farms had electric service. Over the next several decades, the technological revolution, powered by electricity, dominated American life.

The fascinating phenomenon that is electricity will continue to draw innovative minds to advance technologies like it has for hundreds of years. Today, much of the conversation revolving around electricity discusses fuel sources for electrical generation. A topic on the world's mainstage is climate change and the possible impact the burning of fossil fuels may have on the atmosphere. Look for our next series in "Electricity Explained" that will discuss electrical generation and production in the February issue of Texas Co-op Power Magazine.

BRYAN TEXAS UTILITIES **SPOTLIGHT**

GESSNER ENGINEERING

The history of the Bowie School in Bryan, Texas, dates back to 1905. The Bryan Graded School, the very first formal public school built in Bryan, was becoming crowded. The City of Bryan determined the need for an additional school, and at a $6,000 price tag, the West Side School, as it was originally known, was built. Located on West 26th Street, the school opened in the spring of 1906, and welcomed students from the first through seventh grades.

In 1907, Claude M. Bethany became the school's second principal. He would remain in that position for forty-two years. From 1918 to 1931, the Bowie School, as it had become known, had several additions. The original portion of the school was demolished, and a third floor, a cafeteria, and a gymnasium were added. The Bowie School served as anchor in the downtown area for the next 60 years, educating generations of Bryan children.

In 1991, it was determined that the cost to renovate the school would be greater than the cost to construct a new facility, leading to its closure in May of that year. For the next few decades, the school would remain untouched and began to deteriorate. Eventually in 2019, the City of Bryan Building and Standards Commission condemned the structure due to unsafe conditions and a lack of progress on proposed redevelopments. Simultaneously, Gessner Engineering and partners GVBM, LLC had begun a search for vacant land in the Bryan/College Station area as they had outgrown their office space. After months of searching without finding the perfect property, a local real estate team, Engel and Völkers, suggested the Bowie School. With creative minds and a little luck, GVBM saw potential in the space.

"Once I saw the building, I knew we had to make something happen,"
Johanna Gessner said.

Johanna and Thomas Gessner founded Gessner Engineering in 2003. Originally, the firm had 14 team members between two offices, one in College Station and the Construction Materials Testing (CMT) Lab in Brenham. Still headquartered in Bryan/College Station, they have now expanded with offices in Fort Worth, Georgetown, and San Antonio and grown to 87 employees. Gessner provides full service design and engineering including civil, structural, and geotechnical engineering, surveying and construction materials testing. Gessner Engineering's expertise involves commercial, educational, municipal, and residential developments including many local landmarks. Some notable projects include engineering and design services for the expansion of Kyle Field, Blue Bell Park, the RELLIS Campus, CapRock Hospital, the Brazos County Tax Office, and now the former Bowie School.

Through a collaborative effort between GVBM and the City of Bryan Economic Development Department, Bryan City Council, City attorneys, and the brokerage team, the Bowie School came under new ownership with a revitalized future. GVBM closed on the building July 31, 2019, saving it from demolition. With three stories and 31,000 square feet of space, the facility was large enough to accommodate Gessner Engineering with ample space for officemates. A self-proclaimed "team of makers, thinkers, doers, and tinkerers," Gessner Engineering went to work making their vision a reality.

"Anyone can put up a pre-engineered metal building, but that is boring. It is just a building. The Bowie School has character and soul," Johanna Gessner said.

The project sought to preserve the characteristic turn-of-the-century schoolhouse charm while maximizing efficiency for a professional space. With lead contractor and subsequent officemate, Vaughn Construction, immediate abatement, remediation, and restoration began. Significant repairs had to be performed to many of the supportive structures including foundation, columns, framing, and roof. Parking was also added around the building to accommodate future inhabitants. Vaughn Construction first moved into the renovated building in December 2020, with Gessner Engineering shortly following in April 2021. Part of the first floor is also now home to the Bowie Barbers, a full-service barbershop with strong ties to Downtown Bryan.

Special care was taken to preserve the original look of the exterior of the building including remaking some of the stone ledges and masonry repairs. The ancient oak trees around the perimeter of the property were also kept. Two chalkboards, wooden lockers, auditorium chairs, two school bells and desks were salvaged and restored for display in the building. Several of the interior walls still boast the original exposed brick.

"Just like in any renovation show on TV, there is always an 'oh no' moment where they discover something unexpected. We experienced many setbacks and surprises during construction, but we couldn't have done it without the City of Bryan," Johanna Gessner said.

The City of Bryan wanted to see the previous pillar of the community restored to its former glory and assisted with the project as much as possible. The City helped GVBM navigate the permitting, review, and approval process while also providing some funding assistance through redevelopment grants. Bryan Texas Utilities (BTU) assisted by facilitating the relocation of some electrical lines and poles to accommodate the project and improve aesthetics. In turn, GVBM relocated many high-wage professional jobs to Bryan where the economic impact can be realized by the City and its citizens. The professionals that work in the building spend their money at stores and restaurants in Downtown Bryan and several have moved to Bryan to be closer to work. This symbiotic relationship exemplifies the mutually beneficial link of a public/private partnership.

"When you spend many hours, day in and day out, in a school, it becomes like home. Many people in the community did not want to see the Bowie School torn down," Johanna Gessner said.

Johanna Gessner says she works in "human engineering." She facilitates the communication, project expectations, and human interactions of Gessner Engineering's projects. The human aspect makes or breaks a development in her eyes. She says she was so grateful to have seen the community's immense support of the Bowie School redevelopment. The community's backing and the positive experience of this restoration has inspired Gessner Engineering's growth plan to include similar projects in their other locations, working with and giving back to the communities that they value so deeply.

Government-in-Action YOUTH TOUR

Washington, D.C.

Hurry! APPLICATIONS DUE FEBRUARY 1

Are you a local high school sophomore, junior, or senior? Would you like to travel, experience a big city, and visit historic landmarks—all without spending a dime of your own money? Perhaps you would like to meet your congressional representative, or maybe you are looking for an inspirational experience in the company of other Texas teens. If that sounds like you, then the Government-in-Action Youth Tour trip to Washington, D.C., is your tour.

Winners of an essay contest could join more than 150 other Texas teens for a 10-day summer adventure to the nation's capital, June 12–21, 2022. From museums and memorials to the majestic U.S. Capitol and Supreme Court, there is a little bit of something for everyone in Washington, D.C. The all-expenses-paid trip includes visits to Arlington National Cemetery, Mount Vernon, the Smithsonian Institution, memorials and more. The Youth Tour is chockfull of splendid sights and memories in the making. It is sure to be the trip of a lifetime.

To apply, visit **btutilities.com/youthtour. Online applications are due February 1, 2022.** Visit **TexasYouthTour.com** or contact **Meagan Brown** at **mbrown@btutilities.com** for more information.

DOING HOME RENOVATIONS?

You probably need a permit

Are you planning for home renovations in 2022? Before you get started, make sure you check with the City of Bryan's Development Services Department to see if you need a permit to do the work.

Buildings permits ensure the work is done in a safe manner and the improvements are built to city-approved construction standards. No matter what the specific job may be, the enforcement of building codes protects public health and safety for construction projects and protects the investment you have in your home.

Obtaining a permit gives you legal permission to start construction and has these other positive benefits. It ensures that contractors do good work. Profit-driven contractors might be tempted to cut corners, but a building permit ensures that they use safe construction methods and materials. And, an inspection ensures you that the contractor did the work correctly. It also protects your home's value. Permits are public record, and potential home buyers can see whether improvements to the home were completed with the proper permits.

Which types of things need permits?

- Fences over 7' in height
- Masonry fences
- Masonry work (brick or stone veneer)
- Foundations
- New or replacement siding
- New or replacement stucco
- Doors / windows (new and replacements)
- Roofing, re-roofing, or roof replacement
- Mechanical / HVAC systems (new and replacements)
- Electrical systems
- Plumbing systems
- Decks over 30" off grade
- Storage buildings on concrete foundations
- Storage buildings on skids over 120 square feet in area
- New homes or structures
- Additions
- Exterior remodeling
- Interior remodeling
- Carports
- Garage enclosures
- Renovations
- Mobile/manufactured homes
- Prefabricated structures
- Temporary buildings
- Demolitions
- Driveways / sidewalks
- Water heater replacements
- Insulation
- Swimming pools / hot tubs 24" or more in depth
- Retaining walls over 4' in height
- Additions to the footprint of a commercial structure or commercial storage building

CITY OF BRYAN

The Good Life, Texas Style.™

What type of things do NOT need permits?

- Exterior painting (outside of historic districts)
- Interior painting, wall papering or similar finish work
- Cabinets and counter tops
- Swings and playground equipment
- Wood fences 7' or less in height
- Residential storage buildings on skids less than 120 square (must meet setback requirements and not be connected to utilities or located in easements or floodplain)

If your project needs a permit, you should obtain that permit before starting any of the construction. For more information on beginning the permitting process, go to **www.bryantx.gov/permits** or call **979.209.5030**.