



WATTS HAPPENING

TRINIDAD AND TOBAGO ELECTRICITY COMMISSION
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VISION - Leadership in Energy
Delivery, Excellence in
Customer Service...
enhancing the quality of life
for all.

MISSION - To provide a safe,
reliable, high quality electricity
supply, in an environmentally
responsible manner, utilizing best
practices, through empowered
employees committed to
excellence and customer
satisfaction.



- Cove power station expansion underway
- New T&TEC Mobile App launched
- 10 new Mobile Substations for disaster preparedness
- T&TEC is ISO Certified

Happy
New
Year
2018

Editorial

Ending on a high note

There is no doubt that 2017 has been a challenging one for us at T&TEC. Financial constraints demanded that each Division and Department had to make changes and do more with less.

While non-critical projects and activities have been temporarily shelved, others that impact on the quality of service we offer to our customers went on as planned. In the last quarter of the year project teams operationalised the new T&TEC call center and launched the much anticipated mobile app; successfully completed the final external audit for the Commission (as a whole) to be awarded ISO 9001-2008 QMS certification; commissioned

mobile substations for disaster preparedness and commenced the expansion of the Cove Power Station. In the spirit of 'doing what is necessary' it was impossible not to recognise long-standing employees for their service. So, despite the cancellation of the gala Employee Recognition and Awards Ceremony, all employees still received a personalised award in recognition of their service. Persons who achieved 40-plus years of service and those who attained 35 years and are due to retire by March 2018 were honoured at a special luncheon with the Board and Senior Executive.

It was fulfilling to document these triumphs to share with

Watts Happening readers.

Though it is expected that 2018 maybe no less challenging than 2017, it is certainly a boon to end this year on a high note and channel the joy of accomplishment into inspiration to get started in the coming year.

Cover

The Prime Minister of Trinidad and Tobago, Dr. the Hon. Keith Rowley and the Chief Secretary of the Tobago House of Assembly, the Hon. Kelvin Charles turn the sod to commemorate the start of the project to expand the 64MW Cove Power Station on December 4. Looking on (from l-r) are T&TEC's GM, Kelvin Ramsook; MP the Hon. Ayanna Webster-Roy; Minister of Public Utilities, Sen. the Hon. Robert Le Hunte; MP the Hon. Shamfa Cudjoe; Assemblyman Clarence Jacob, Secretary of Settlements, Urban Renewal and Public Utilities; and T&TEC's Chairman, Keith Sirju.

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More power to Tobago with Cove expansion



Prime Minister Dr. the Hon. Keith Rowley, greets Minister of Public Utilities, Senator the Hon. Robert Le Hunte, upon his arrival at the Cove Power Station, while Chief Secretary of the THA, the Hon. Kelvin Charles and T&TEC's Chairman, Keith Sirju, look on.

The limitations of the de-rated 40-year old submarine cable from Trinidad to Tobago, the reduced availability of power during maintenance of existing engines at the Cove Power Station and the increase in demand on the island, have contributed to the need to increase the generation capacity in Tobago. So said T&TEC's Chairman, Keith Sirju, at a sod-turning ceremony for the expansion of the power plant on Monday December 4. He described the 20MW expansion of the Cove Power Station, from

64MW to 84MW, as a timely investment that will "ensure that the Commission honours its obligation to provide a reliable supply of electricity to its customers."

Not many islands the size of Tobago can boast of having 84MW of power available to them from a 'world class' service, according to the Prime Minister of Trinidad and Tobago, Dr. the Honourable Keith Rowley. He explained that the installation of a new gas turbine and ancillary

infrastructure is a 132 million dollar capital investment funded by the Government of Trinidad and Tobago under the Ministry of Public Utilities' Public Sector Investment Programme, with monies allocated within the previous and current annual budgets. The Prime Minister, who joined the Chief Secretary of the Tobago House of Assembly, the Honourable Kelvin Charles; Minister of Public Utilities, Senator the Honourable Robert Le Hunte; and Members of Parliament, the Honourable



MP for Tobago East, the Hon. Ayanna Webster-Roy has the attention of her colleagues, MP for Tobago West, the Hon. Shamfa Cudjoe and Secretary of Settlements, Urban Renewal and Public Utilities, Assemblyman Clarence Jacob after the ceremony.

Ayanna Webster-Roy and the Honourable Shamfa Cudjoe for the event, said that the expansion will provide Tobago with the generating capacity that is “well beyond its immediate needs as the economy of Tobago expands.”

In his address to the audience, which also included officials from LS Energia Inc. (Panama) Limited (the project contractor), Minister Le Hunte praised T&TEC for its work towards improving its level of service to the people of Tobago and “especially for the foresight that they have exhibited in the implementation of this Cove

Expansion Project...that will enable T&TEC to better serve Tobago 10, 20 and 30 years from now.”

Whilst the existing generation capacity on the island may appear to adequately meet its current demand with a peak of 56 megawatts, with Tobago’s electricity demand showing an increase of about three megawatts annually, this new generator, according to Mr. Sirju, “forestalls any deficit in generation caused by any challenges with the existing infrastructure,” and will cater for the “increased load growth anticipated from planned large scale development projects.”

The 20MW upgrade includes the installation of a new General Electric LM2500 dry, low emission gas turbine, in keeping with T&TEC’s commitment to clean energy. Civil works have started and are expected to be completed by the end of February 2018. Load tests will be done by July 2018, after which the plant will be handed over to the Commission.

T&TEC is now ISO 9001:2008 certified

Seven years later and with several milestones along the way, T&TEC has finally achieved Commission-wide ISO 9001:2008 certification. The good news was confirmed by Manager, Corporate Support Department, Gerard Emmanuel-Rodriguez, who shared that following the visit by the auditors from NQA, the certification/registration body, who conducted audits from October 30 to November 7, 2017 T&TEC was successful in its bid for multi-site certification on December 8, 2017. Mr. Emmanuel-Rodriguez advised that the certificate is being processed and is expected to be received by end of January, 2018.

The audits to determine the conformity or continued conformity to the Quality Management System (QMS) and to evaluate its overall effectiveness, were the final requirements for certification. They took place after the last of T&TEC's five Distribution Areas, Distribution Tobago, received certification in June 2016 and after all Departments completed ISO awareness training and after most were included in the scope of the QMS

It should be noted that a number of Departments, including Health, Safety and the Environment, Security, Legal/Secretarial, Public

Time line to multi-site (Commission-wide) certification

- **Distribution South**
- September 27, 2010
- **Distribution Central**
- June 17, 2015
- **Distribution North**
- September 10, 2015
- **Distribution East**
- December 2015
- **Distribution Tobago**
- June 18, 2016
- **Head Quarters**
- December 2017
- **Multi-site**
- December 2017

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Head, Corporate Support, Gerard Emmanuel-Rodriguez (4th from left), is joined by members of the Quality Assurance Section of his Department and representatives from Transmission Division, Distributions North and East and Supplies, Communications and System Planning and Research Departments, who participated in the sample audits to acquire multi-site certification.

Systems Analyst, Farrell Christopher (right) shows the workings of the new T&TEC mobile app to the Minister of Public Utilities, Sen. the Hon. Robert Le Hunte (centre), while T&TEC's Chairman, Keith Sirju looks on.



T&TEC, first utility to launch mobile app



Whether it may be to report an electricity outage, check an outstanding bill amount, or report other issues, the country's first utility app provides consumers with an easier and quicker alternative form of communication with their electricity provider. This is possible through T&TEC's Mobile Application and Upgraded Interactive Voice Response (IVR) System, which was launched on November 20.

The event was held at the S.P. Ottley Building and Minister of Public Utilities, Senator, the Honourable Robert Le Hunte, applauded T&TEC for responding to customers' needs in a way that illustrates its understanding of the important role that it plays in the continued development of

our country. He commented that with the prevalence of smart devices, where we connect with each other and share information, news and ideas, "It follows...that every service provider, especially those that deliver essential services like electricity, should take advantage of this new opportunity" to interact with their customers.

The app is a transformative advancement, according to T&TEC's Chairman, Keith Sirju, who noted that the software facilitates a response

to customers that will make a difference to them in electricity emergencies. He added that T&TEC will continue to "respond to the needs of our customers and implement appropriate initiatives that will make us more accessible and responsive."

Farrell Christopher, Systems Analyst, Distribution Planning and Support, who led the

street lights; check their bill balance; make a bill payment (routed to the Commission's secure website); follow up on reports; and locate their Area office and nearest customer service centre.

Also launched was the upgraded IVR, which provides an improved 24-hour call centre service. Through the

attention. The enhanced IVR is first available to customers in central Trinidad, and will be rolled out across the country next year.

The IVR is a component of the Outage Management System (OMS) which has already begun to revolutionise the way T&TEC responds to customers' outages and complaints. Through a suite of applications, including Advanced Metering Infrastructure (AMI), Customer Information System (CIS), Geographical Information System (GIS), Supervisory Control and Data Acquisition (SCADA), Interactive Voice Response (IVR) and Calls Manager, our dispatchers, operators, emergency crews, etc., are provided with relevant, up-to-date information to assist in restoring power and minimising the inconvenience to customers.



Mr. Christopher performs a live demonstration of the app for members of the audience.

project team, performed a live demonstration of the app, which is available for download through the Apple and Android app stores free of charge. The audience saw how they can report outages; report issues concerning infrastructure maintenance including hanging wires, leaning poles and defective

toll-free hotline, 800-BULB, customers can still make their outage reports via phone, but with this smarter telephone system, they can either wait to speak to a customer service representative or make a report through an automated system which will take note of their location and other relevant details for immediate

The development of the app was a collaborative effort among employees of the Distribution Division and the Information Systems, Commercial and Corporate Communications Departments.



The Minister of Public Utilities, Sen. the Hon. Robert Le Hunte (4th from left) poses for a picture with (left to right) Harold Lee, Manager, Distribution Planning and Support; Glenford Cyrille, Deputy Chairman; Kelvin Ramsook, General Manager, Keith Sirju, Chairman; Mark Laughlin CEO, ProCom Ltd; Clifford Campbell, Commissioner, T&TEC; Arlene Johnson Lawrence, Senior Project Manager Sectorial Programmes and Projects, Ministry of Public Utilities and Glen Wortman, Technical Manager, ProCom Ltd following the commissioning of the mobile substations.

T&TEC increases readiness for disasters

Under the late morning sun on November 15, the Minister of Public Utilities, Senator the Honourable, Robert Le Hunte joined T&TEC's Chairman, Keith Sirju and disaster preparedness stakeholders, to formally launch 10 new mobile substations.

Mr. Sirju, speaking at the commissioning ceremony at T&TEC's Central Warehouse in King Village, stated that the "trailer-mounted, containerised substations will be primarily used for disaster response and occasionally, to maintain the supply to

customers during planned or unplanned outages."

Minister Le Hunte, in his feature address, explained that the acquisition of the substations was based on the fact that the electrical power

One of the newly commissioned mobile substations on display at T&TEC's Central Warehouse.



grid in Trinidad and Tobago is primarily an overhead line system. "This made it vulnerable to disruptions in supply caused by severe weather such as storms and hurricanes," he said. The Minister commended T&TEC for its "forward thinking" and in "being able to identify the use of mobile substations as a suitable and viable relief measure."

Eight of the mobile substations were on site at the commissioning function; the other two were being used in the Maracas area. A video presentation, depicting how the mobile substations

have been used, gave invitees a better appreciation of its electricity supply capabilities. Viewers saw the mobile substation operational after an unplanned wide-area outage, due to a major landslide, in the north coast.

The substations were built in France by SDMO at a cost of TT\$36 Million, with funds provided by the Ministry of Public Utilities under the Public Sector Investment Programme for Disaster Preparedness. Of the 10 mobile substations, 5 are rated at 12kV and 5 at 6.9kV. Each mobile substation consists of a generator, a step-up transformer, a 12kV circuit

breaker and fuel storage housed in a 40 foot container. They each have the capacity to provide electricity for up to three hundred residential customers, depending on their load profile.

The units would be strategically positioned at all five of the Commission's Distribution Areas. Harold Lee, Manager, Distribution Planning and Support department and project co-ordinator confirmed that one will be placed in central, three in south, two each in north and east Trinidad and two in Tobago.

Executive appointment

Neil Balgobin joined T&TEC on December 1, 2017 as its Chief Financial Officer. This position replaces the previously titled Assistant General Manager – Finance. Collen Licorish retired from this position on September 30, 2017.

Mr. Balgobin is a Chartered Professional Accountant and a Certified Management Accountant from the Society of Management Accountants of Ontario, Canada. His core competencies include strategic financial planning, corporate governance, budget development and management, staff leadership and development, policy and procedure development, forecasting, and risk management. Mr. Balgobin's most recent posting was at National Quarries Company Limited where he held the position of Chief Financial Officer.



We wish Mr. Balgobin a successful and enjoyable tenure with the T&TEC family.



*The newest batch
of EIT's at the
Port of Spain
Training Facility*

Building technical capacity

Training programmes, established almost from the organisation's inception in the 1950s, ensure that T&TEC continues to have the technical competency to carry out its mandate to provide a safe, reliable supply of electricity for its customers. Sixty years later and, after several name changes and syllabus reviews, the Electrician and Linesman Training, Engineers-in-Training (EiT) and Senior Supervisor-in-Training programmes continue to provide the backbone of the Commission's skill-based development. These training programmes are executed by the Human Resources

Department and are designed to prepare the trainees for work in T&TEC's operations.

The Electrician and Linesman Trainees, called Craft Trainees, began their training with an orientation week of HSE fundamentals, Code of Ethics, customer relations and the rules and guidelines of the training policy to set the tone for the training and to discuss expectations. The newest intake of Craft Trainees, 23 in all, joined the Commission on August 14, 2017. They will undergo three and a half years of training on a theory

and practical based syllabus that, on successful completion, will produce T&TEC's latest Linesmen and Electricians.

Goutam Heeraman, Human Resources Officer I – Technical Training, explained that the trainees will be given foundation training in electrical installation and workshop technology/practice and core training in Electrician and Linesman duties/work. The trainees will spend the first year of the programme at the Penal Training Facility, after which they will be assigned, based on their specialty, to

Distribution/Transmission Areas/Departments for practical training.

Almost one month after the Craft Trainees were inducted, eight electrical engineers and three civil engineers joined the EiT programme.

Their selection, based on a needs assessment of the organisation's manpower, gives these young engineers the opportunity to successfully complete a two-year intensive programme, scheduled to be completed in 2019.

Nalini Rampath, programme co-ordinator and Human Resources Officer I, Training and Development, informed that a new approach to the mentor-mentee programme was one of the development support areas that will continue to assist the EiTs in this training programme. She shared that "every year we try to improve the programme to curate and extract the best competencies and skills to perform the Commission's

duties." The mentorship programme was launched on October 27 at the Stanley P. Ottley Building, Mount Hope. Roles and responsibilities were explained by external consultant, Carol Ward and the session gave the participants an opportunity to meet for the first time. The two females and nine males will gain experience from all the Distribution/Transmission/Engineering Areas/Departments on a rotation basis over the two-year period.

The last intake of employees selected for technical training for the year comprised a group of 13 employees inducted into the Senior Supervisors-in-Training Programme. With diverse backgrounds, including Electrician 'A', Linesman 'B', Consumer Investigator,



Senior Instructor, Michael Nelson gets hands on with Craft Trainees

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Senior Supervisors-in-Training at one of their classroom sessions.

Capacity upgrade at Bamboo

One of the most critical substations in the country, the Bamboo 132kV Substation in Caroni, was recently upgraded with the installation of a new Toshiba 132/66kV 70/100MVA transformer to replace the existing 50/70MVA transformer. This increases the total capacity of this substation from 270MVA to 300MVA. This upgrade will meet and exceed the load demand from customers in the east, central and north.

All of Trinidad's bulk power is generated from the Trinidad Generation Unlimited and PowerGen Penal Power Stations, both in the south, and the PowerGen Point Lisas and the Trinity Power Stations, both in Central Trinidad. Just under 50 percent of this power is transmitted, via an overhead network of 132kV lines, from the Point Lisas Substation to the Bamboo Substation. From there it is distributed to the northern part of the country, making the Bamboo Substation vitally important to the supply in the north.

John Colthrust, Manager, System Planning and Research Department explained that the significant benefit of the upgrade is that, should any one of the three transformers, which share the load equally, be out of service, two identical 100MVA transformers would remain in service. This brings the firm capacity of the interface to 200MVA, up from 140MVA.

T&TEC workers supervise the arrival of the new Toshiba 132/66kV 70/100MVA transformer at the Bamboo Substation

The project to install and commission the new transformer began on September 27, 2017. Despite some periods of heavy rainfall which impeded the transformer tests, the mammoth project was completed in just under one month, largely due to the tremendous collaborative effort of several Areas and Departments.

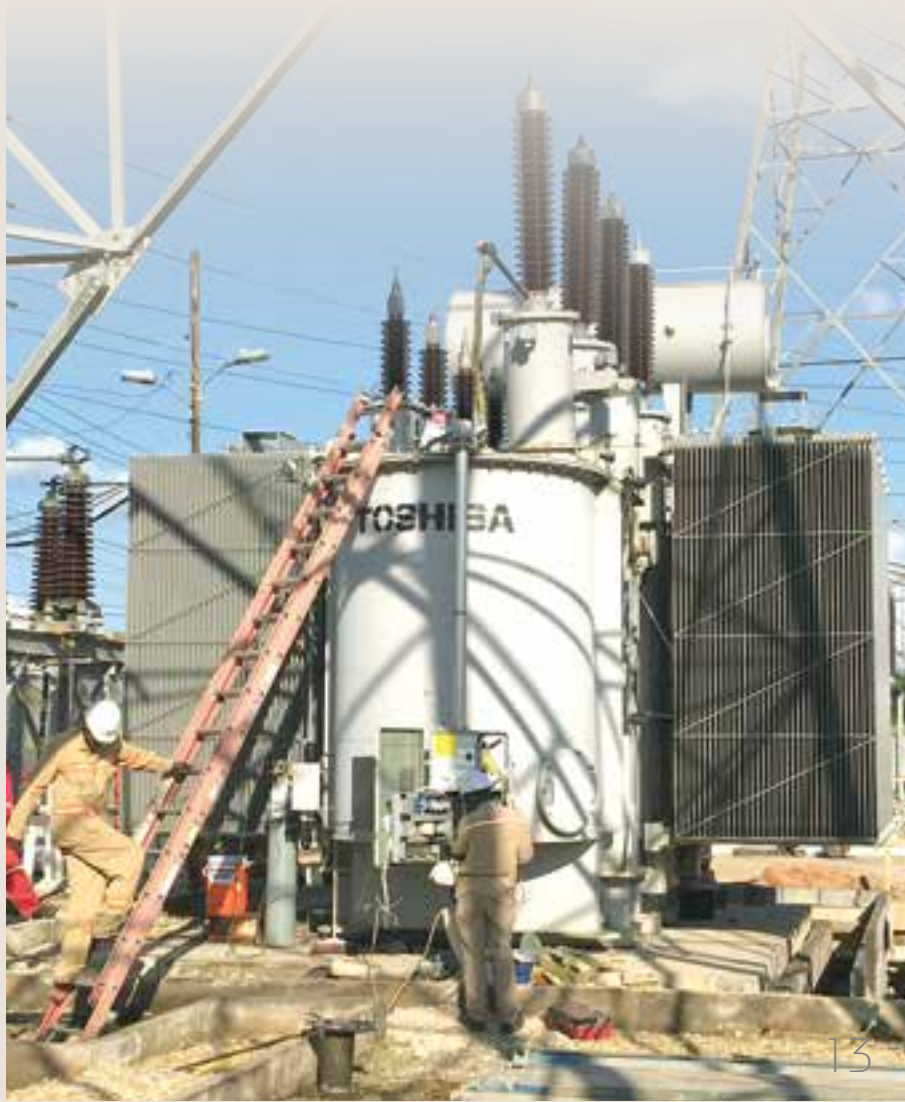
Key among these were the Transmission Development and Engineering Services Department, which managed the overall project with assistance from employees of Transmission Maintenance, who installed and commissioned the transformer. Protection and SCADA personnel performed the required tests and verified the results, giving the all clear to proceed, and Central and East Distribution Areas and the Transmission Division worked together to transport and re-position the transformer safely.

Also involved was the System Planning and Research Department which analysed the system and recommended a program of temporary system reconfigurations and

load transfers. This was done ahead of the transformer replacement so execution could be done with minimum risk to customers' supply. Distributions East, Central and North and System Control and Generation Interface Department coordinated those load transfers – they are credited for having no system outages during the execution of the works. Employees from Communications Department also assisted with the removal of fibre networking to facilitate transportation and unloading of the new transformer onto the plinth.

The OSAKA 132/66kV 70MVA transformer that was removed from Bamboo Substation was relocated to the Brechin Castle 220/132/66/12kV Substation as the third 132/66kV transformer at that location. This additional capacity will improve system reliability, cater for future load growth and reinforce the sub-transmission system in central. To accommodate this transformer, a new bay was added to the 66kV bus at the Brechin Castle Substation. This transformer is expected to be put on load in the first quarter of 2018.

The new Toshiba 132/66kV 70/100MVA transformer undergoes testing by T&TEC workers



Celebrating long serving awardees

Having contributed to more than half of T&TEC's existence, seven retirees and six employees expected to retire in early 2018, were celebrated at a luncheon hosted on December 8 in honour of their 40 and 35 years of service respectively.

In delivering the welcome remarks at the Stanley P. Ottley Building, Mount Hope, T&TEC's General Manager, Kelvin Ramsook, told awardees "you here represent over 600 years of service and you have developed certain skills... very important skills that have been used in this organisation to make it successful."

Speaking after Mr. Ramsook, Chairman, Keith Sirju, added that because the awardees' collective service has helped to fulfil T&TEC's mission, "It is therefore fitting that despite our financial challenges, employees who have stayed loyal for such a long time are recognised for their service to company and country. This is truly an occasion that warrants our admiration, our appreciation and our applause."

Mr. Ramsook also took the opportunity to capitalise on the intimate gathering and highlighted the performance, personality and skill of every awardee in attendance. Some of the people he mentioned were former Crew Supervisor Ian Serrette and his dedication to the job; Meter and Relay Supervisor, Errol Moe and his role in restoring supply when the Rio Claro Substation switchhouse burnt down; Senior Supervisor, Reynold Ganpat and his persona as a humble, hardworking and easy going go-getter; former Training Facility Supervisor, Paul Jacob, described as a teacher who, for decades, trained hundreds of apprentices; and former Ganger, Neville 'Self' Holder, who was said to possess irreplaceable skills, mostly in mechanical excavation, cables and rigging. Mr. Ramsook also described Crew Supervisor, Mervyn Richardson, as an action man, who always went over and beyond to assist customers, even going up on the poles himself to ensure customer satisfaction. "Many people do not understand the significant work that occurs behind a switch...it is the

employees who go beyond the call, who make it happen," he said.

Commenting on Mr. Ramsook's anecdotes, Mr. Sirju acknowledged the "sacrifice, struggles, and disappointments" which were all included in each awardee's journey and the "memories that they won't easily trade." He also challenged those who have not yet retired to go beyond fulfilling the prescribed mandate of providing electricity for all and be "Technologically strong, Trustworthy, Empathetic and Committed [T&TEC]" because "this utility touches everyone."

As part of the formalities, each awardee was presented with a medal commemorating his/her service and a hamper. They were also entertained by T&TEC's Naga Sangama and Dispatcher II, J'Leise Orr. The afternoon ended with a delicious lunch and photo opportunities with awardees and their families.



Clint Thompson and Tevin Jarvis put the finishing touches on the Christmas tree framed by posters of the long service awardees at the luncheon venue.



Awardee Neville Holder and his guest admire his commemorative poster.



Simone Chin Choy-Assee and awardee, Gilbert Taylor, get a close-up of J'Leise Orr during her performance.



T&TEC's group of longest-serving employees for 2017 gather for a photo. From l-r, Mervyn Richardson, Ian Serrette, Ramdath Bissessar, John Quashie, Errol Moe, Peter Mendoza, Reynold Ganpat, Gilbert Taylor, Benny Jadoonanan, Roland Bernard, Kimraj Jeboudsingh, Paul Jacob and Neville Holder. Missing are Sandra Tangwell, Bertrand Pope, Wazir Mohammed and Godfrey John.

T&TEC engineers attend smart grid symposium



Goutam Heeraman, T&TEC's Human Resources Officer I, looks on as Wendell Bhagirath, Assistant Area Manager, Distribution North, welcomes the audience at the opening ceremony of the Smart Grid Technologies Symposium.

Smart grid applications, clean energy resources, electric cars and load flexibility were some of the topics addressed at the Smart Grid Technologies Symposium held at the Radisson Hotel in Trinidad from October 23 to 26. The Caribbean Electric Utility Services Corporation (CARILEC) and United States Agency for International Development (USAID) organised event was themed 'Digital transformation: the modern utility' and was attended by T&TEC's staff and local and foreign interest groups.

digital communication between the utility and its customers; detecting and reporting issues along the transmission and distribution lines and other infrastructure; and the integration of computers, automation, equipment and technologies.

Through its more recent initiatives, T&TEC has incorporated some of these 'smart' components within its operations, including the advanced metering infrastructure (AMI), or smart meters, Geographical Information Systems and

A packed agenda of presentations, panel discussions and displays gave attendees a comprehensive insight into the key components of smart grids. Considered to be the digital utility of the future, a 'smart grid' is one that incorporates a number of features, including two-way

upgraded IVR system, all part of the Outage Management System, (see page 6). Using success references, and best practices from utilities around the world, presenters revealed how similar technology-based approaches could be beneficial to utilities.

"It pays to make load flexible... there should be lesser need for fossil-fuel based peaker plants," said keynote speaker Pramod Jain, a leading expert in wind power, energy storage and the internet of things. His remarks set the tone for the four days as participants were informed about the benefits of enabling renewables on island grids, the digital utility of the future, smart sensors and grid security.

Citing from National Renewable Energy Laboratory data on the production cost of electricity in the Caribbean in 2016, Vani Dantam, Executive, Landis+Gyr, shared that Trinidad was listed as having a production cost of \$0.04/kWh with generation fuel [acquired]

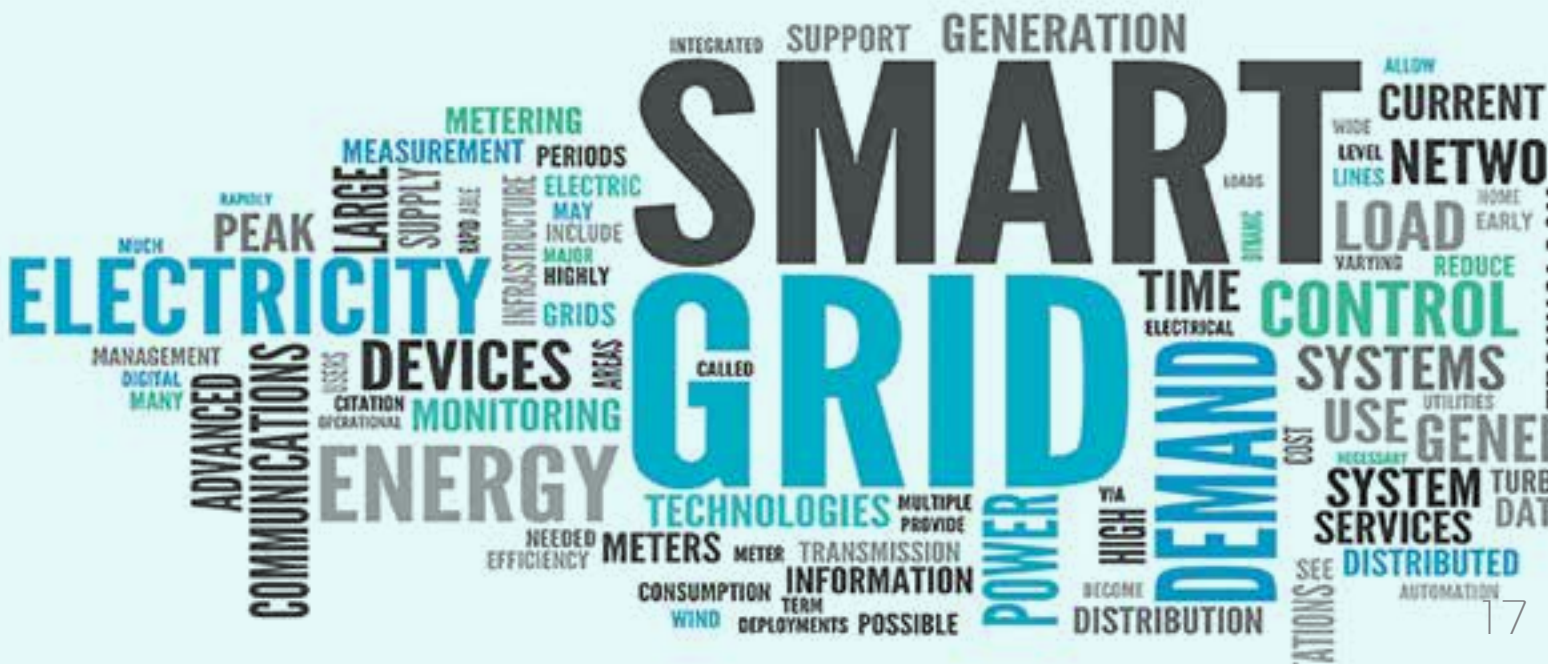
from 99% natural gas. The same report also showed Guam at \$0.20/kWh, with a usage of 100% natural gas. Mr. Dantam was speaking on the topic "Enabling renewables on island grids – applying the lessons from projects on mainland." Notwithstanding this data, he suggested that in assessing available technology, new opportunities, such as smart grid technology and clean energy resources, have "enabled many regions to attain 100% renewables," a realistic goal that is beginning to reach grid parity. Mr. Dantam acknowledged however, that this statement was made against the backdrop of several challenges facing utilities, including reduction of carbon footprints, increased variation in grid load and an increasingly smarter/better informed customer base.

Like many of the speakers, Technical Director at Security Consultant Firm, Javed Samuel cautioned that notwithstanding its reliability and versatility, it is still essential to ensure robust cyber-security protection on a smart grid. He offered detailed information and suggestions on cyber-security requirements, recent smart grid attacks and authentication and authorisation.

But it was information from Ian Smart, CEO of Smart Energy, that grabbed the attention of the audience when he quoted from ttsmartenergy.com data which showed, according to a 2013 CO2 metric tons per capita report, that Trinidad was ranked the second highest with 43.5 metric tons. Other countries

were more in line with five metric tons of CO2. Mr. Smart shared the advantages of using electric vehicles, saying that electric cars using electricity from natural gas gave 325 miles, while a gasoline vehicle on 1 million BTU of gasoline gave 200 miles.

The Smart Grid Symposium concluded on the topic "Grid modernization: Why develop a smart grid road map" by presenter Hala Ballouz, USAid Caribbean Clean Energy Program. Armed with this and other information acquired during this event, T&TEC's participants are further inspired to continue planning for use of renewables on the grid and the electrification of transportation in Trinidad and Tobago.



National scholarship winners

Anastasia Francis and Sarah Maharaj, two children of T&TEC employees, received national scholarships after successfully completing this year's CAPE examination. The Commission joins with their parents in congratulating Anastasia and Sarah for their outstanding accomplishments and wish them success in their tertiary studies.



"We are all elated," proud father Kendel Francis exclaimed as he shared the news that his daughter, Anastasia Francis, won an additional scholarship in Natural Science.

Mr. Francis, Assistant Area Manager at Distribution

East and his wife, Ingrid "thank God for gracing them with a dedicated, highly motivated and contented daughter." He acknowledged that "these attributes have, so far, resulted in her successful endeavours" and, with their continued support, she will achieve all her aspirations.

Anastasia, a former student of Bishop Anstey High School, Port of Spain, wants to become a Doctor of Veterinary Medicine. Her goal is to specialise in Avian Veterinary, "to care for winged companions and educate owners to recognise illness from an early stage." Not wasting any time, Anastasia has already begun studies at the University of the West Indies, St. Augustine.

On the accomplishment of his daughter, Mr. Francis advised parents to "create an environment where children can make well informed choices and nurture them every step of the way."

Sarah Maharaj, a past student of St. Joseph's Convent, San Fernando is the recipient of an additional scholarship in Environmental. Sarah is the daughter of Roszan and Ryan Maharaj, a Senior Supervisor - Transmission and Distribution, at the Transmission Maintenance Department.

Described by her parents as "very disciplined, hardworking, dedicated and focused," Sarah has been accepted at the UWI, Faculty of Medicine at Mt. Hope to pursue a Bachelors of Medicine and Surgery degree. She will begin studies in 2018.

Sarah hopes to further her studies abroad by specialising in neurology however, she remains "open to discovering new career paths as time

progresses. Whatever her choice, her proud parents are confident she will continue to excel in the future. Their advice to other parents, "support your child, ensure family time and make time to listen."

We look forward to celebrating the success of these two new doctors with their parents in the future.





Eastern Area victorious at Inter-Area football

The Knowles Street Ground, Curepe, was the venue for the final set of games of the Inter-Area football league competition, which saw six teams – Central, Eastern, Mt. Hope, Southern and Northern Area Sports Clubs and the Penal Training Facility – battle for football supremacy. The last event hosted by the General Sports and Cultural Club (GSCC) for the year took place on December 14 and was such a fierce contest for bragging rights that by the end of the evening of football, three teams – East, South and Central – won four out of their

five matches to emerge on top with 12 points each.

But ultimately, goals win matches and it was left to the goal difference to determine the winner. With a whopping 30 goals scored overall and 8 goals conceded, Eastern Area Sports Club was declared the champion team with the biggest goal difference of 22. Southern Area Sports Club followed with 12 goals and in third place was the Central Area team, with 8 goals.

This rounds off the GSCC's year of sports and culture,

which started with the eventful Power Monarch competition in February and included other regular but always anticipated events like board games and cricket competitions.

We look forward to covering more exciting events in 2018.

Hidden aspects of Divali

Do you know why Mother Lakshmi is associated with the story of Ram and Sita? Do you know why deyas are lit or what is Rangoli? In commemoration of Divali, held this year on October 18, the Watts Happening has highlighted some of the lesser known aspects of this festival of lights in Trinidad and Tobago.

What is Divali

Deepavali, also spelt Divali and Diwali, is a Sanskrit word, which generally means the lighting of a row of lamps. It is celebrated over five days, beginning on the 13th lunar day of the Krishna Paksh (Hindu calendar). The first day is marked by Dhanteras of Dhanvantari Triodas, the start of Divali. The second day is Kali Chaudas or Narak Chaturdasi, when Lord Krishna destroyed the demon Narakasur.

Divali celebrations on the third day consist of worship of the Goddess Lakshmi. The fourth day is Annakut, a spiritual harvest festival and the fifth day is Bhratr Dooj, a day dedicated to sisters.

The Ramayana Story

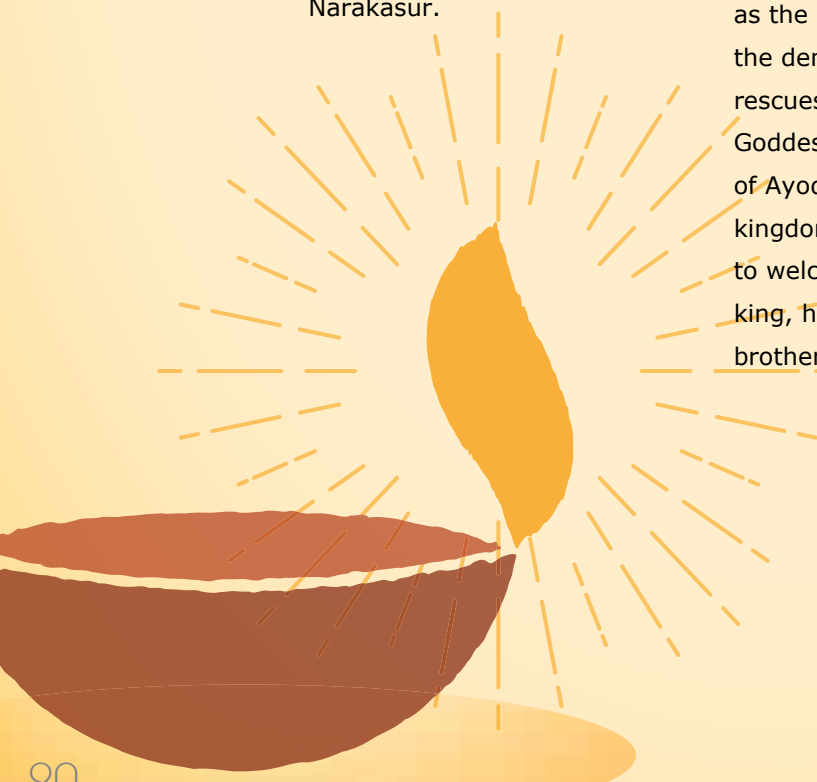
According to the epic Ramayana, Divali commemorates the return of Lord Rama, an incarnation of Krishna, from his 14-year exile as the noble king. After killing the demon Ravana, Ram rescues Sita, the avatar of the Goddess Lakshmi. The people of Ayodhya illuminated the kingdom with earthen deyas to welcome the return of their king, his wife Sita and his brother Lakshmana.



Mother Lakshmi

Lakshmi's iconography shows her with four hands, which represent the four goals of human life, considered important to the Hindu way of life. The first God, dharma provides for hunger, thirst and safety needs; the second God, kama - fulfills desires in the world; artha - fulfills desires in ways consistent with the whole of the flow of the universe and moksha, the final god liberates all of the deep driving impressions that continually play out in the mind and the world, which cause us to come and go from bodily form.

Mother Lakshmi is associated with the lotus flower which carries symbolic meanings -



knowledge, self-realisation and liberation in the Vedic context and represents reality, consciousness and karma (work, deed) in the Tantra context.

Rituals

Prior to the festival of Diwali, in respect of the purity of Mother Lakshmi, worshippers purify their minds and bodies through abstinence from meat and alcohol and clean their homes and surroundings.



Eight deyas, representing the eight forms of the Mother Lakshmi, called Aashta Lakshmi, are lined up in front of a murti of the Goddess. Lakshmi puja is performed in a clean space at an altar or puja room at home or at a temple, outdoors at the sandya, or holy hour, at dawn, midday or



dusk. For Diwali it is usually at 6:00 p.m.

Howan, offerings of parsad, sweet rice and sweets mixed with ghee, is thrown into the fire or howankoon, to be cleaned by fire. Sweets and parsad are shared after the howan with friends and family.

Arti, a Hindu practice, is performed to honour older members of the family. It is done after the puja.

As a mark of respect on the passing of a family member, Diwali cannot be celebrated until after bandara, one year later. The family can do

Lakshmi puja on Diwali but can only offer sweet rice in the howan. It is not offered to friends.

Rangoli

Rangoli, an art form originating in India, is created at Diwali and other Hindu celebrations. Rangoli designs depict traditions, folklore and practices. Patterns are created on the floor in living rooms or outside spaces using materials such as colored rice, dry flour, colored sand or flower petals.



Building technical capacity continued

Maintenance Technician II and Crew Supervisor, upon successful completion of the programme, they will be offered the post of Senior Supervisor, Transmission and Distribution in either the Transmission or Distribution Division. At the formal launch on December 1, at the Human Resources training room, CEB Building, Mr. Heeraman signaled that it would be an "intense year", advising the

trainees to conduct their own research beyond the provided information, in order to achieve successful results during the programme. Topics to be covered include core training in substation/ lineswork, finance, rates, industrial relations, supervisory skills, customer relations, technical report writing, project management, conflict management, personality awareness,

and counselling to enhance performance.

T&TEC's technical training programmes continue to provide quality in-house training for potential and existing employees. It remains an important resource for the Commission's work force, as evidenced by the skills of its hundreds of linesmen, electricians and engineers serving more than 420,000 customers across the nation.

T&TEC is now ISO 9001:2008 certified continued

Lighting, as well as some under the Finance Division, were not included in the scope for multi-site certification at this time. According to Mr. Emmanuel-Rodriguez, an organisation determines the scope of its QMS and there are other management systems in the ISO family that can address management systems for T&TEC's HSE and Security, while Finance in general has other international accounting

standards by which they operate. He explained, "The QMS is a living organism and its scope can be adjusted at any time. Hence inclusion of certain departments and exclusion of others at any point in time is acceptable."

With ISO 9001:2008 certification, employees can perform their duties under a Quality Management System that streamlines

operations and ultimately improves customer services. Certification will be valid to June 2018 pending transition to ISO 9001:2015.



Surges are caused by a disturbance in the distribution of power such as lightning strikes, damaged or defective wiring and faulty overhead lines. To protect your appliances and smart home gadgets which are sensitive to power fluctuations, it is recommended that users invest in power surge protectors.

Why protect electronics?

Frequent power surges can reduce the lifespan of your appliances causing them to malfunction. Surge protectors can divert any unusual high flow of energy, protecting your investments, including refrigerators, washing machines and televisions, from damage.

The difference between surge protectors and power strips

The power strip is a block of electrical sockets put together to offer more opportunities for plugging in devices. The length varies from a few meters to as long as 30 meters.

A surge protector, while it also offers multiple outlets, mainly functions to protect devices. Sometimes power spikes in your electrical system can damage your electronic appliances and you may not be able to shut down everything manually, as with a lightning strike. The surge protector has a circuit breaker that automatically prevents power from reaching your device during a power surge, protecting it from damage.

Choosing a surge protector

Surge protectors vary in size and capacity. Several are designed as a plastic strip with many receptacles for plugging in your devices. The surge protector is plugged into the electrical outlet, serving as a bridge between your electronics and appliances and the electrical supply.

Before purchasing a surge protector consider the following:

- ✔ Surge protectors have a shelf life.
- ✔ The protectors use joules of power. The higher the number of joules, the better the device (200-600 Joules).
- ✔ Clamping voltage indicates the limitation of the surge protector (330V, 400V, 500V).
- ✔ Limit the number of devices connected to one surge protector - heavy appliances can obliterate the usefulness of the surge protector if many are connected to one device.

A surge protector is a good investment that will save money and time. Ask your electronics store or hardware customer representative to assist in your purchase.

Employee Update

Appointments, Promotions, Moving On and Accomplishments

PROMOTIONS

NAME	POSITION	AREA/DEPARTMENT
Abigail Sabad-Drakoulakou	Clerk II	Human Resources Department
Allan Gunpat	Dr – Vehicles < 25000 Lbs.	Distribution South
Amar Singh	Senior Software Developer I	Information Systems
Atiba Hamilton	Dr – Vehicles < 25000 Lbs.	Distribution South
Carlance Charles	Accounting Assistant	Chief Accountant
Cebastian Bailey	Dr – Vehicles < 25000 Lbs.	Distribution South
Chandrawatie Hosein-Rambarran	Senior Clerk	Distribution East
Cherisse Garcia-Singh	Clerk II	Human Resources Department
Cordero Gould	Dr – Vehicles < 25000 Lbs.	Distribution South
Damian Ramdeo	Engineer-In-Training	Human Resources Department
Davan Deoraj	Engineer-In-Training	Human Resources Department
David Ramoutar	Climber/ Line Clearer	Distribution South
Deena Roopan	Clerk II	Protect & Scada
Deochand Chanan	Dr – Vehicles < 25000 Lbs.	Distribution South
Desil Lewis	Dr – Vehicles < 25000 Lbs.	Distribution South
Dinesh Beepath	Dr – Vehicles < 25000 Lbs.	Distribution South
Dominique Doyle	Clerk II	AGM – Finance
Earla Bruce	Clerk II	Distribution Central
Gerald Callender	Dr – Vehicles < 25000 Lbs.	Distribution South
Harry Rampersad	Communications Supervisor	Communications Department
Hasan Khan	Engineer-In-Training	Human Resources Department
Inshan Mohammed	Dr – Vehicles < 25000 Lbs.	Distribution South
Jaime Jagassar	Mechanic 'B'	Distribution Central
Jefferson George	Dr – Vehicles < 25000 Lbs.	Distribution South
Jeffrey Ranghill	Climber/ Line Clearer	Distribution South
Jimi Jorsling	Dr – Vehicles < 25000 Lbs.	Transmission Maintenance
Kareem Alves	Welder 'B'	Distribution Central
Keith Gill	Dr – Vehicles < 25000 Lbs.	Distribution South
Kenny Humphrey	Dr – Vehicles < 25000 Lbs.	Distribution South
Kern Wilson	Clerk II	Distribution East
Kevin Duntin	Dr – Vehicles < 25000 Lbs.	Distribution South
Khadja Antoine	Senior Clerk	AGM – Distribution
Kiran Sahadeo	Linesman 'C'	Distribution Central
Krishna Seenath	Systems Analyst I	Information Systems
Lendl Perez	Climber/ Line Clearer	Distribution South
Madonna Robinson	Clerk II	Distribution South
Marc Rojas	Dr – Vehicles < 25000 Lbs.	Distribution South
Marlon Roopansingh	Dr – Vehicles < 25000 Lbs.	Distribution South
Matthew Peters	Linesman 'C'	Distribution Central
Melissa Lall	Senior Software Developer I	Information Systems
Michael Mc Clean	Dr – Vehicles < 25000 Lbs.	Distribution South
Michelle Beddoe	Stenotypist	Commercial
Michelle Bellille-Corraspe	Subsection Leader	Distribution Central

Nicholas Victor	Climber/ Line Clearer	Distribution South
Nico Garib	Climber/ Line Clearer	Distribution South
Osei Ochoa	Climber/ Line Clearer	Distribution South
Raesen Williams	Linesman 'C'	Distribution Central
Ramdeo Singh	Dr – Vehicles < 25000 Lbs.	Distribution South
Roger Ghisyawan	Dr – Vehicles < 25000 Lbs.	Distribution South
Rohit Mungroo	Linesman 'C'	Distribution Central
Ronnie Guerra	Climber/ Line Clearer	Distribution South
Ryan Bissoondial	Dr – Vehicles < 25000 Lbs.	Distribution South
Samuel Ramgewan	Dr – Vehicles < 25000 Lbs.	Distribution South
Shane Kallicharan	Dr – Vehicles < 25000 Lbs.	Distribution South
Shashi Shah	Linesman 'C'	Distribution Central
Shevon King	Climber/ Line Clearer	Distribution South
Stacey Williams-Ephraim	Clerk II	Distribution North
Stephen Bynoe	Dr – Vehicles < 25000 Lbs.	Transmission Maintenance
Steve Ramtahal	Line Clearer Supervisor (T)	Distribution Central
Sunil Singh	Dr – Vehicles < 25000 Lbs.	Distribution South
Timmons Mohan	Dr – Vehicles < 25000 Lbs.	Distribution South
Timmy Duncan	Engineer-In-Training	Human Resources Department
Trevis Tobas	Dr – Vehicles < 25000 Lbs.	Transmission Maintenance
Trevorn Felix	Engineer-In-Training	Human Resources Department
Vashist Ballack	Climber/Line Clearer	Distribution South
Vashti Dinoo-Gooding	Senior Clerk	Internal Audit
Victor Lewis	Ganger (Distribution)	Distribution North
Wayne Lawrence	Dr – Vehicles < 25000 Lbs.	Transmission Maintenance

DEPARTURES

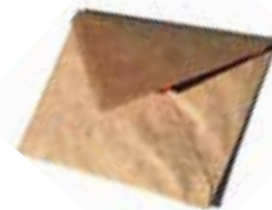
NAME	POSITION	AREA/DEPARTMENT
Andrew Grant	Estate Constable	Security – Distribution Tobago
Clyde Emanuel	Assistant Cable Supervisor	Distribution North
Clyde Persad	Substation Supervisor	Distribution South
Curtis Harris	Crew Supervisor	Distribution South
Elvin Sookram	Crew Supervisor	Distribution South
Errol Campbell	Estate Constable	Security – Distribution North
Gary Cooper	Crew Supervisor	Distribution South
Goodwin Robinson	Line Clearer	Distribution Tobago
Ian Moore	Dispatcher	Distribution Tobago
Jennifer Baird	Stewardess	Communications Department
Kimraj Jeboudsingh	Driver – Dist. Line Truck	Distribution East
Mervyn Richardson	Crew Supervisor	Distribution South
Michael Gill	Estate Constable	Security – Head Office
Ricardo Betancourt	Telecom Operator	Distribution East
Ronald Baboolal	Driver – Aerial Lift Truck	Distribution South
Seepersad Seemungal	Mechanical Assistant	Distribution Tobago
Selwyn Williams	Hotline Assistant	Distribution Tobago
Stephen Fanovich	Crew Supervisor	Distribution South
Suliman Salick	Customer Services Officer	Distribution East
Tony Balfour	Estate Constable	Security – Distribution Tobago
Winston Sankar	Control Operator (PTH)	System Control & Gen. Interface

Fun
colouring
page



LETTERS

The following are excerpts of some letters and emails that have been received over the last quarter.



October 30th, 2017

Mr. Kelvin Ramsook
General Manager
T&TEC

I would like to say a very special, sincere and heartfelt thank you to one of your Security Officers who offered an amazing service to my mom and myself on our visit to your Pensions Department, at Frederick Street on October 30, 2017.

I arrived at lunch time – 12:30 p.m. to transact business.

The Officer enquired of my visit and whether he could be of assistance. Since most of the office staff would be on lunch, having related to him my situation, he offered us a seat and immediately via telephone and in person, contacted someone internally who came out with relevant documentation. Within five minutes I completed my transaction.

I live abroad and regularly conduct business in Trinidad I have never experienced such

professional and gracious work attitude from Security Personnel, especially during a lunch time. It was really a heart-warming experience. T&TEC is indeed in great hands.

I would officially like to express my gratitude and commendation to your Security. Officer, Manuchan Butkoon. Great going Officer, thanks again!

Sincerely
Barbara Maharaj Alleyne

November 01st, 2017

Area Manager
Distribution North

Dear Sir,

As citizens of Trinidad & Tobago, it is far too seldom that we feel compelled to laud the actions of staff, especially those of the nation's Public Utilities, but I am happy that I have encountered one such exception.

On October 18th, 2017 (Divali) the power supply on my side

of the street was interrupted for several hours. This may have been as a consequent of the torrential rainfall and strong winds but all the same, it resulted in a good deal of inconvenience and, with the approaching nightfall, I was very anxious, indeed.

Calls to the hotline returned a promise of technical support which materialised in the form of Kevin Julien and the No. 171 crew who worked assiduously while patiently treating with questions and

concerns. The team cut branches and cleaned up after themselves and, in effect, restored more than the supply of electricity to the area. They also restored my confidence in T&TEC.

I wish to commend Kevin and the No. 171 crew for their care and professional diligence and ask that this [letter] be placed in their employment records.

Thank you for your consideration.

Rennette U. Feracho
Diego Martin



January 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 FM	2	3	4	5	6
7	8 LQ	9	10	11	12	13
14	15	16 NM	17	18	19	20
21	22	23	24 FQ	25	26	27
28	29	30	31 FM			

1st - New Year's Day

February 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12 FM	13 FM	14	15 NM	16	17
18	19	20	21	22	23 FQ	24
25	26	27	28			

12-13th - Carnival Monday and Tuesday

March 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 FM	2	3
4	5	6	7	8 LQ	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30 FM	31

30th - Spiritual/Shouter Baptist Liberation Day and Good Friday

April 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 FM	2 FM	3	4	5	6	7
8 LQ	9	10	11	12	13	14
15 NM	16	17	18	19	20	21
22 FQ	23	24	25	26	27	28
29 FM	30					

1st - Easter Sunday 2nd - Easter Monday

May 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7 LQ	8	9	10	11	12
13	14	15 NM	16	17	18	19
20	21 FQ	22	23	24	25	26
27	28	29 FM	30 FM	31 FM		

30th - Indian Arrival Day 31st - Corpus Christi

June 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6 LQ	7	8	9
10	11	12	13 NM	14	15 *	16
17	18	19 FM	20 FQ	21	22	23
24	25	26	27	28 FM	29	30

19th - Labour Day * Eid-ul-Fitr - T.B.A.

July 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6 LQ	7
8	9	10	11	12 NM	13	14
15	16	17	18	19 FQ	20	21
22	23	24	25	26	27 FM	28
29	30	31				

August 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 FM	2	3	4 LQ
5	6	7	8	9	10	11 NM
12	13	14	15	16	17	18 FQ
19	20	21	22	23	24	25
26 FM	27	28	29	30	31 FM	

1st - Emancipation Day 31st - Independence Day

September 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2 LQ	3	4	5	6	7	8
9 NM	10	11	12	13	14	15
16 FQ	17	18	19	20	21	22
23	24 FM	25	26	27	28	29
30						

24th - Republic Day

October 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 LQ	3	4	5	6
7	8 NM	9	10	11	12	13
14	15	16 FQ	17	18	19	20
21	22	23	24 FM	25	26	27
28	29	30	31 LQ			

November 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7 *	8	9	10
11	12	13	14 NM	15	16	17
18	19	20	21	22 FQ	23	24
25	26	27	28	29 FM	30	

* Divali - T.B.A.

December 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 FM
2	3	4	5	6	7 NM	8
9	10	11	12	13	14	15 FQ
16	17	18	19	20	21	22 FM
23	24	25 FM	26 FM	27	28	29 LQ
30	31					

1st - World AIDS Day 25th - Christmas Day 26th - Boxing Day