ENGINEER'S DAY
SEPTEMBER 15

Hydel Bullet

A Monthly Publication of the Kerala State Electricity Board Engineers Association

Making Indian Engineering World-class

The theme for Engineer's Day for this year is "Making Indian Engineering World-class". This will be a day which is celebrated across the whole country,as a celebration of our engineering expertise and also in remembrance of those dedicated engineers who have laid their lives in building up the institutions and standards, the fruits of which we currently enjoy..

"World-class" engineers denotes the engineers of tomorrow with a broad range of competencies and skills to synthesize new ideas; and develop new processes and technologies to address contemporary challenges to suit global needs anywhere in the world. The word "World-class" is a relative term and is very difficult to define as there is no datum or fixed standard to classify any engineering work as "World-class". The phrase has different connotations in countries from different categories, viz. Developed, Developing and Under-developed, based on their economic and social standards.

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TECH SERIES 14-15 KSEBEA KANNUR

A technical session was conducted at Engineers House, Kannur on 29.08.14 on the subject "Transformer Oil". Er. Biju M T, AEE PET Sdn Kannur, was the faculty. Various characteristics of Oil, Filtering Procedures, Testing Procedures and Indian Standards were discussed. Along with association members, Engineers, Contractors & Apprentices from various offices of KSEB from kannur and kasaragod attended the session.

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Vol - 2 Issue - 8 August 2014

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However, the engineers, who are the harbinger of development of any country, always strive for enrichment of their knowledge and skill to upgrade the quality of life and their performance. The pursuit for betterment is a continuous process. There is no end to development and engineering progress. The process of upgradation from one standard to the other, is a continuous process, which is led by the engineers after taking into account the prevailing socio-politico-economic conditions of the country.

Engineers have key roles in the inclusive development of the world. A world-class engineer, regardless of the job he is engaged in, is always considered an asset to the nation and the society; as it is he who makes a reality of the potential value of science by translating scientific knowledge into tools, resources, energy, and labour to bring science into technology for the service of the country.

The best engineers are problem solvers and innovators. Good engineers arrive at solutions, based on their experiences, or invent a new one. They look at the "traditional" capabilities of a system or component, and see new, untapped potential. A good engineer need only a few days to learn about a new component or technique, and has the ability to apply fundamental technical knowledge within the context of an overall design. Learning the "poetry" of engineering requires much more time and effort, but allows good engineers to incorporate new concepts into original and elegant solutions.

It is a challenge to conclude about the class to which the Indian engineers belong to. In the diversified, heterogeneous nature of development inour country, the engineers have to work from construction of rural roads and power plants to manufacturing of spaceships to Mars. Both are equally important for accelerating the development of the country. There is no scope to undermine the contemporary skill and knowledge of the engineers of our country. It is a matter of pride that Indian engineers, whether working in the country or outside, are a force to reckon with globally. The knowledge, skill, and wisdom of Indian engineers is no less than that of their counterparts from other so-called "advanced" countries. Due to the socio-politico-economic structure of our country, engineering is still very much labour-intensive. Unlike in other parts of the developed world, Indian engineers are quite capable of blending the modern mechanized systems with prevailing traditional human-oriented activities.

Like good engineering, experience has multiple levels. Understanding a particular component or technique may be relevant to future designs, but understanding the underlying principles

can be even more important. Understanding the underlying concepts usually leads to a very short learning curve when using something new. The reverse is seldom true. A solid understanding of the fundamentals become extremely important when a problem occurs, or the design is too slow, too big, or too expensive. A good engineer will often find a way to rearrange things, or tweak one part of the design without creating new problems elsewhere.

However, it does not mean that the pursuit for self-enrichment by Indian engineers will not be perceived. India requires large numbers of qualified and competent engineers to address the numerous challenges faced in the developmental journey. To produce large numbers of competent engineering and technical personnel to take on the global challenges, India will need to complete some activities to transform the curriculum for training and skill upgradation.First of all, it has to generate awareness about the global nature of the profession,in-tune with growing challenges and opportunities and develop a comprehensive understanding in the respective engineering discipline to tackle complex, real-world problems .It also needs to accept challenges and solve them with wisdom and shared knowledge and acquire knowledge and expertise through lifelong education and continuous learning Building familiarity in other engineering and scientific disciplines is very crucial so that interdisciplinary solution approaches can be evolved along with pursuing opportunities to apply skills in both traditional and non-traditional fields to address societal challenges. Communication and interaction with other highly recognized international leaders in engineering cannot be neglected at any cost and last but not the least,establishing themselves as personalities with ethical and noble values is utmost important.

Engineers of the present generation needs to combine the general Information and Communication Technology(ITC) skills,communication skills,mathematical skills and problem solving skills in order to be specific about the problem,breaking the problem down and explaining it to someone, so that there may be a significant breakthrough in arriving at the solution.

Achieving excellence is a journey that needs considerable effort. It requires a transition from a reactive, compliance-based approach to a proactive, contributory and value-add mindset to create an environment of sustained operational progress. Over the long-term, world-class engineers will create a set of approaches and best-practices that will improve tomorrow's world, create long-term value, and institutionalize business sustainability.

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SIR MOKSHAGUNDAM VISVESVARAYA

(Popularly known as **Sir MV**; 15 September 1860 – 14 April 1962)

Was a notable engineer, scholar, statesman and the Diwan of Mysore during 1912 to 1918. He was a recipient of the Indian Republic's highest honour, the Bharat Ratna, in 1955. He was knighted as a Knight Commander of the Indian Empire (KCIE) by King George V for his contributions to the public good. Every year, 15 September is celebrated as Engineer's Day in India in his memory. He is held in high regard as a pre-eminent engineer of India. He was the chief designer of the flood protection system for the city of Hyderabad in Telangana, as well as the chief engineer responsible for the construction of the Krishna Raja Sagara dam in Mandya.

Early years

Mokshagundam Visvesvaraya was born in 1860 September 15, in a Telugu Brahmin family to Mokshagundam Srinivasa Shastry and Venkatalakshmamma in Muddenahalli village, 40 miles from Bangalore, Mysore State (now Karnataka), India. Mokshagundam is a village in Prakasam District's Cumbum Tahasil (then Kurnool District) of Andhra Pradesh where the ancestors of Visvesvarayya emigrated from. Visvesvaraya lost his father at the age of 15. He enrolled for kannada medium primary school in Chikballapur and attended high school in Bangalore. He earned his Bachelor of Arts from Central College, Bangalore then affiliate of the University of Madras in 1881 and later studied civil engineering at the prestigious College of Engineering, Pune.

Career as an engineer

Upon graduating as an engineer, Visvesvaraya took up a job with the Public Works Department (PWD) of Mumbai and was later invited to join the Indian Irrigation Commission. He implemented an extremely intricate system of irrigation in the Deccan area. He also designed and patented a system of automatic weir water floodgates that were first installed in 1903 at the

Khadakvasla Reservoir near Pune. These gates were employed to raise the flood supply level of storage in the reservoir to the highest level likely to be attained by a flood without causing any damage to the dam. Based on the success of these gates, the same system was installed at the Tigra Dam in Gwalior and the Krishna Raja Sagara (KRS) Dam in Mandya/ Mysore,Karnataka. In 1906–07, the Government of India sent him to Aden to study water supply and drainage system and the project prepared by him was implemented in Aden successfully.

Visvesvaraya achieved celebrity status when he designed a flood protection system for the city of Hyderabad. He was instrumental in developing a system to protect Visakhapatnam port from sea erosion. Visvesvaraya supervised the construction of the KRS Dam across the Kaveri River from concept to inauguration. This dam created the biggest reservoir in Asia when it was built. He was rightly called the "Father of modern Mysore state" (now Karnataka): During his period of service with the Government of Mysore state, he was responsible for the founding of, (under the Patronage of Mysore Government), the Mysore Soap Factory, the Parasitoide Laboratory, the Mysore Iron & Steel Works (now known as Visvesvaraya Iron and Steel Limited) in Bhadravathi, the Sri Jayachamarajendra Polytechnic Institute, the Bangalore Agricultural University, the State Bank of Mysore, The Century Club, Mysore Chambers of Commerce and numerous other industrial ventures. He encouraged private investment in industry during his tenure as Diwan of Mysore. He was instrumental in charting out the plan for road construction between Tirumala and Tirupati. He was known for sincerity, time management and dedication to a cause.

Career In Brief

- Joined service as Assistant Engineer in Bombay, 1884; served in Nasik, Khandesh and Poona;
- services lent to Municipality of Sukkur in Sind, 1894: designed and carried out the water works of that Municipality, 1895;
- Executive Engineer, Surat, 1896;
- Assistant Superintending Engineer, Poona, 1897–99; visited China and Japan, 1898;
- Executive Engineer for Irrigation, Poona, 1899;
- Sanitary Engineer, Bombay, and Member, Sanitary Board, 1901; gave evidence before the Indian Irrigation Commission, 1901;
- designed and constructed Automatic Gates patented by him at Lake Fife Storage Reservoir; introduced a new system of irrigation known as the "Block System", 1903; represented the Bombay Government at the Simla Irrigation Commission, 1904; on special duty, 1905;
- Superintending Engineer, 1907; visited Egypt, Canada. United States of America and Russia, 1908;

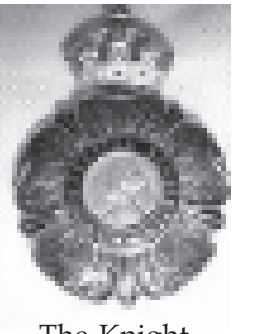
- services lent as Special Consulting Engineer, Hyderabad, to supervise and carry out Engineering works in connection with the Musi floods, 1909;
- retired from British service, 1909;
- Chief Engineer and Secretary to the Government of Mysore, 1909;
- Dewan of Mysore, P. W. and Railway Department, 1913.

Diwan of Mysore

After opting for voluntary retirement in 1908, he took a foreign tour to study industrialised nations and after, for a short period he worked for the Nizam of Hyderabad, India. He suggested flood relief measures for Hyderabad town, which was under constant threat of floods by Musi river. Later, during November 1909, Visvesvaraya was appointed as Chief Engineer of Mysore State. Further, during the year, 1912, he was appointed as Diwan (First Minister) of the princely state of Mysore. He was Diwan for 7 years. With the support of Krishnaraja Wodeyar IV, Maharaja of Mysore, Visvesvaraya made good contribution as Diwan to the all-round development of Mysore state. Not only the achievements listed above, but many other industries and public works owe their inception or active nurturing to him. He was instrumental in the founding of the Government Engineering College at Bangalore in 1917, one of the first engineering institutes in India. This institution was later named the University Visvesvaraya College of Engineering after its founder. He also commissioned several new railway lines in Mysore state.

Awards and honours

The Bharat Ratna



The Knight Commander of The Indian Empire

Visvesvaraya was appointed a Companion of the Order of the Indian Empire (CIE) in 1911. In 1915, while he was the Diwan of Mysore, Visvesvaraya was knighted as a Knight Commander of the Order of the Indian Empire (KCIE) by the British for his myriad contributions to the public good. After India attained independence, he was awarded with the nation's highest honour, the Bharat Ratna, in 1955. He was feted with honorary membership of the international Institution of Civil Engineers (based in London) and a fellowship of the Indian Institute of Science (based in Bangalore). He was awarded several honorary doctoral degrees like D.Sc., LL.D., D.Litt. from eight universities in India. He was president of the 1923 Session of the Indian Science Congress. Sir M.V. was awarded honorary Membership of London Institution of Civil Engineers for an

unbroken 50 years. He was the most popular person from Karnataka, in a newspaper survey conducted by Prajavani.

Recognition

Visvesvaraya has received recognition in various fields, most notably the education sector and the engineering sector. Visvesvaraya Technological University which is based in Belgaum, the University to which most engineering colleges in Karnataka are affiliated to, has been named in his honour, as well as prominent colleges like University Visvesvaraya College of Engineering, Bangalore, Sir M. Visvesvaraya Institute of Technology, Bangalore and Visvesvaraya National Institute of Technology, Nagpur. College of Engineering, Pune, his alma mater, has erected a statue in his honor. The Visvesvaraya Industrial and Technological Museum, a museum in Bangalore is named in his honor.

Memorial at Muddenahalli

The Samadhi of Sir M.V. at Muddenahalli

The Visvesvaraya National Memorial Trust manages a memorial of Visvesvaraya at his birthplace Muddenahalli. The memorial exhibits his awards, titles and personal belongings, including his living room, spectacles, cups, his copy of the Webster's dictionary, and a block with which his visiting cards were printed. Models of the Krishna Raja Sagar dam, which Visvesvaraya designed and supervised the construction of, are also exhibited. The memorial is located adjacent to his house, which was refurbished and regarded as a temple by the locals.

Works

- Visvesvaraya, M (1920), *Reconstructing India*, P. S. King & son, ltd.
- Visvesvaraya, M (1936), *Planned economy for India*, Bangalore: Bangalore Press.
- Visvesvaraya, M (1951), *Memories of my working life*, Bangalore.
- Visvesvaraya, M (1932), *Unemployment in India; its causes and cure*, Bangalore: The Bangalore Press.
- Visvesvaraya, M (1917), *Speeches*, Bangalore: Govt. Press.
- A Brief Memoir of my complete working life, Government Press, Bangalore, 1959

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TARIFF DETERMINATION AND ORGANISATIONAL EFFECTIVENESS: NEED FOR TOTAL APPROACH

Er. C.P. George

Regulatory Commissions are quasi judicial bodies and are mandated to function within the statutory frame works and guidelines specified there under. In order to have a regulation that helps for the evolution of a dynamic power sector in the state, the regulation need to be evolved within the frame work specified for the regulation and according to the guidelines relevant to the regulation. Accordingly, we have EA 2003, National Electricity Policy 2005, National Electricity Plan & Tariff Policy 2006 which provides the frame work and guidelines for tariff determination. A careful study of various provisions in these documents will provide us with appropriate frame to evaluate functional effectiveness of various organizations in the power sector in a national frame work.

With generation being de-licensed and open access become a statutory right; every generating station is empowered to function as an independent entity open to the competition from any other generator in the national frame work. Hence evaluating the performance of a generator with state level parameter is not logical.

Similarly due to the stringent gird security requirement with compliance of IEGC, CEA grid standards and Grid connectivity standards etc in a national frame work, the evaluation of the state transmission sector also need to be done based on the normative requirement as arrived by CERC.

Thus it is important that the determination of Generation and Transmission tariff must be done under national parameters as arrived by the CERC norms and distribution tariff based on normative parameters arrived in the state through relevant work studies. Same approach is mandated through Para 2.3 of Tariff policy 2006; which says Regulatory Commissions shall be guided by the principles and methodologies specified by the Central Commission for determination of tariff applicable to generating companies and transmission licensees.

According to Para 5.0 of Tariff policy 2006; the general approach to transmission tariff should be based on a) Return on Investment, b) Equity Norms, c) Depreciation, d) Cost of Debt, e) Cost of Management of Foreign Exchange Risk, f) Operating Norms, g) Renovation and Modernization & (h) Multi Year Tariff

According to Para 6.1 of Tariff policy 2006; power procurement for future requirements should be through a transparent competitive bidding mechanism using the guidelines issued by the

Central Government vide gazette notification dated 19th January, 2005. These guidelines provide for procurement of electricity separately for base load requirements and for peak load requirements. This would facilitate setting up of generation capacities specifically for meeting peak

According to Para 6.2.1 of Tariff policy 2006; A two-part tariff structure should be adopted for all long term contracts to facilitate Merit Order dispatch. According to National Electricity Policy, the Availability Based Tariff (ABT) is to be introduced at State level by April 2006. This framework would be extended to generating stations (including grid connected captive plants of capacities as determined by the SERC). The Appropriate Commission may also introduce differential rates of fixed charges for peak and off peak hours for better management of load.

Similarly distinct approach is mandated for Captive Plants and Renewable Energy Sources to encourage its injection in to the grid and ensure its financial viability.

According to Para 8.2 of the tariff policy; cost of supply is ensured in determining the distribution tariff. Complete metering up to appropriate level in the distribution network to ensure segregation of technical losses is a prerequisite for normative approach in tariff determination. Accordingly technical loss reduction under MYT framework should then be treated as distinct from commercial loss reduction which require a different approach

As such the general approach to the tariff is based on the following distinct functions in the organization

1. The Asset Formation, Type of Asset & Life of Asset
2. The maintenance of the Asset and Normative cost for maintaining the Asset
3. Service to the Customer , level of service required and its cost effectiveness

The tariff determination or evaluation of organizational effectiveness is meaningful only if the above activities in the organization are captured correctly and accounted accordingly. In almost all power sector organizations in India, these functions are captured and accounted correctly with appropriate organizational setup. KSEBL, still shy of making any distinct functional (Capital, O&M & Service) demarcation, do not have any system to capture the actual quantum and cost of these functions correctly. As such comparison of KSEBL organizational effectiveness with other organization or even with the bench mark arrived from these asset focused and service focused normative data is not meaningful unless we do our homework to capture these data correctly and effectively. Tariff determination should be based on actual filed data captured and integrated without human intervention and we need to have an organizational setup that makes it possible without any hook or crook. This calls for

ഫലിതം

മരണം

Er. ഇ.എം. നസീർ

വളരെക്കാലത്തിനുശേഷം തമ്മിൽക്കണ്ട രണ്ടുപേർ തമ്മിലുള്ള സംഭാഷണം.

"അമ്മാവൻ എന്നെ ഇങ്ങനെ തുറിച്ചുനോക്കുന്നതെന്തിനാ?ഇതിനുമുമ്പ് കണ്ടില്ലാത്തപോലെ"

"നീ തെക്കേടെത്തെ ശങ്കരന്റെ മോനല്ലേ?"

"അതേ അമ്മാവാ"

"നിന്നെപ്പോലെ മറ്റൊരുത്തൻ കൂടി അവിടെ ഉണ്ടായിരുന്നല്ലോ. അതിൽ ആരാ മരിച്ചത് ?താനോ മറ്റവനോ ?

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തിരുവനന്തപുരം ശൈലിയിലുള്ള ഒരു സംഭാഷണം.

"ഗോപീ, നിന്നെക്കുറിച്ച് ഞാൻ കേട്ടത് ശരിയല്ലേ ?"

"അണ്ണൻ എന്തെരാണ് കേട്ടത് ?"

" നീ മിനിയയാണ് മരിച്ചെന്ന്"

"അയ്യോ ഞാൻ മരിച്ചിട്ടൊന്നുമില്ലണ്ണാ, ദേ ആ പോകുന്ന ലങ്ങേരില്ലെ, അങ്ങേരും അങ്ങേരുടെ അടുത്തുകൂടി മറ്റേ അങ്ങേരും അണ്ണന്റെകൂടെയുള്ള ദേ ഇങ്ങേരും കൂടി എന്നെക്കുറിച്ച് അപവാദങ്ങൾ പറയുന്നതാണണ്ണാ മിനിയാന്ന് ഞാൻ മരിച്ചെന്നോ..... നല്ല കാര്യം ..... എന്നെ ഇന്നലെയും കൂടി കണ്ടവരുണ്ട്.... ഞാൻ വേണമെങ്കിൽ ആളെ പറഞ്ഞു തരാം. അണ്ണൻ പോയെന്നു ചോദിച്ചുനോക്ക് .... അപ്പോൾ അണ്ണനു മനസ്സിലാകുമല്ലോ ഞാൻ മരിച്ചില്ലെന്ന്"

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arrival of normative data such as Annual Maintenance Cost for lines, plants etc in tune with the field execution functions and appropriate software implementation with relevant automation at various levels.

Another important aspect is the implementation of mandatory metering infrastructure up to appropriate level with appropriate technology to ensure segregation of technical losses. The level of investment requirement in transmission and distribution sector at various voltage levels is mainly determined by the actual loss captured through the metering infrastructure. Determination of transmission and distribution loss by any other mechanism is a farce and manipulative. Hence determination of technical losses in transmission and distribution at various voltage levels without human intervention is the basic prerequisite for determination of tariff and evaluation of organizational effectiveness.

Now the focus is on whether the KSEBL tariff need to be determined based on the data with substantiating field backup, which cannot be ignored by the regulatory bodies and the organizational effectiveness easily comparable with any other organization in the Sector?

If so, we should do our home work, face the realities without fear and march forward confidently……..

Because we need to know that our strength is our employees and we know our weakness. ……..?!!

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ഇസ്രയേൽ ഹമാസ് സംഘർഷം

Er. വി. രാജൻ

കഴിഞ്ഞ കുറച്ച് ദിവസങ്ങളായി ഇസ്രയേലും ഹമാസും തമ്മിൽ രൂക്ഷമായ ഏറ്റുമുട്ടലുകൾ നടക്കുന്നുണ്ട്. ഇതിപ്പോൾ കൂടക്കൂടെ നടക്കാറുണ്ട്. ഈ സംഘർഷത്തെ ഇസ്രേയൽ പലസ്തീൻ പ്രശ്നമായിട്ടാണ് ഇവിടെ പലരും ചിത്രീകരിക്കുന്നത്. അങ്ങനെയാണെങ്കിൽ പാലസ്തീന്റെ വിമോചനത്തിനായി ശ്രമിക്കുന്ന ഏറ്റവും വലിയ വിഭാഗമായ ഫതാഹും രംഗത്ത് വരേണ്ടതാണ്. ഒരു ചെറു പ്രദേശമായ ഗാസയിൽ മാത്രം സ്വാധീനമുള്ള ഹമാസ് മാത്രമാണ് ഒരു വശത്തുള്ളത്.രണ്ട് വർഷം മുൻപേ അവരുടെ കൂടെ ലെബനനിലെ ഭീകര സംഘടനയായ ഹിസ്ബുള്ളയും ഉണ്ടായിരുന്നു. നമ്മുടെ രാഷ്ട്രീയ പാർട്ടികളുടെ ചില വോട്ട് താൽപര്യങ്ങൾ സംരക്ഷിക്കാനാണ് ഈ സംഘർഷങ്ങളെ ഇസ്രയേൽ-പാലസ്തീൻ പ്രശ്നമായി മാറ്റുന്നത്.

ക്രിസ്തുവിന് ക്രൂശിക്കുന്നതിനു കാരണക്കാരായിയെന്നതുകൊണ്ട് ജൂത സമൂഹം പല ക്രൂരതകൾക്കും പിന്നീട് പാത്രമാകുകയുണ്ടായി. അതിന് മുമ്പുതന്നെ റോമചക്രവർത്തിമാരുടെ ആക്രമണങ്ങൾ കാരണം അവർക്ക് ഇസ്രേയേൽ എന്ന സ്വന്തം നാട് ഉപേക്ഷിക്കേണ്ടിവന്നു. അങ്ങനെ ജൂതർ ഏതാണ്ട് ലോകം മുഴുവൻ ചിതറി ജീവിക്കാൻ തുടങ്ങി. അതിനിടയ്ക്ക് ഫ്രാൻസിൽ ഒരു ജൂതനായ പട്ടാള ക്യാപ്റ്റനെ ദേഹോപദ്രവം ചുമത്തി ക്രൂരമായി ശിക്ഷിച്ചു കുറച്ചുനാൾ കഴിഞ്ഞപ്പോഴാണ് അദ്ദേഹമല്ല ഒരു സ്വദേശി ഉദ്യോഗസ്ഥനാണ് അതു ചെയ്തതെന്നു തെളിഞ്ഞത്. ഇതിന്റെയൊക്കെ ഫലമായി ഇരുപതാം നൂറ്റാണ്ടിന്റെ ആരംഭത്തിൽ ഇവർക്ക് ഒരു സ്വതന്ത്ര രാജ്യമെന്ന ചിന്ത ലോകരാഷ്ട്രങ്ങൾക്കിടയിൽ ഉണ്ടായത്. അങ്ങനെ ലോക ജൂത കൗൺസിലിൽ ബ്രിട്ടൺ ആഫ്രിക്കയിലെ ഉഗാണ്ട ഉൾപ്പെടുന്ന പ്രദേശം ഈ ആവശ്യത്തിനായി നിർദ്ദേശിച്ചു. അതിനു പക്ഷെ, അംഗീകാരം കിട്ടിയില്ല. അപ്പോഴും ജൂതരുടെ ലക്ഷ്യം അവരുടെ വാക്ദത്ത ഭൂമിയായ ഇസ്രയേൽ ആയിരുന്നു. അങ്ങനെ അവസാനം പാലസ്തീന്റെ ഒരു ഭാഗം (ഏതാണ്ട് നമ്മുടെ പഴയ തിരുവിതാംകൂറിന്റെ വിസ്തീർണ്ണം)യു. എൻ. അംഗീകാരത്തോടെ അഞ്ചു ലക്ഷം ജൂതർക്കായി 1948-ൽ നൽകി, ഇന്നിപ്പോൾ ജനസംഖ്യ ഏതാണ്ട് ഒരു കോടി ആയിട്ടുണ്ട്. നമ്മുടെ കൊച്ചി-കൊടുങ്ങല്ലൂർ പ്രദേശത്തുനിന്നാകെ അവർ തിരിച്ച് പോകുകയും ചെയ്തു. ആദ്യകാലങ്ങളിൽ അവിടെ എല്ലാ വിഭാഗം ജനങ്ങളും (മുസ്ലീം, ക്രിസ്തീയർ, യഹൂദർ മുതലായ) വളരെ സൗഹൃദപരമായിട്ടാണ് ജീവിച്ചിരുന്നത്. പക്ഷെ വളരെ പെട്ടെന്ന് മുസ്ലീം-ജൂത സ്പർധ ഉടലെടുക്കുകയും അത് യുദ്ധങ്ങളിൽ (1948, 1956, 1967, 1983) കലാശിക്കുകയും ചെയ്തു. അങ്ങനെ പാലസ്തീന്റെ ഭൂരിഭാഗം പ്രദേശങ്ങളും ഇസ്രേയലിന്റെ കൈവശമാകുകയും ചെയ്തു.

അങ്ങനെയാണ്, ഇതിനിടയ്ക്ക് P.L.O. യാസർ അരാഫത്തിന്റെ നേതൃത്വത്തിൽ ഉദയം കൊള്ളുന്നത്. അതിന്റെ ലക്ഷ്യം നേടാൻ എന്ത് ഭീകരപ്രവർത്തനവും നടത്താമെന്നുള്ള തത്വശാസ്ത്രമാണ്, ഇന്ന് ലോകം അനുഭവിക്കുന്ന ഭീകരവാദത്തിന്റെ തുടക്കം. ഈ പി.എൽ.ഒ.ക്ക്

തന്റെ വീര്യം പോരായെന്നു പറഞ്ഞാണ് ഹമാസെന്ന സംഘടന കൂടുതൽ വീര്യത്തോടെ രംഗപ്രവേശം നടത്തിയത്. അവരുടെ ഏക ആവശ്യം പാലസ്തീൻ മുസ്ലീങ്ങൾക്ക് മാത്രമുള്ളതെന്നാണ്, അതേ സമയം ഫതാഹ് പറയുന്നത് അത് അവിടെ പാരമ്പര്യമായി ജീവിക്കുന്ന എല്ലാപേർക്കും അവകാശപ്പെട്ടതാണെന്ന്. ഇപ്പോൾ പാലസ്തീന്റെ വെസ്റ്റ് ബാങ്ക് എന്ന വലിയ പ്രദേശം ഫതാഹിന്റെ (പി.എൽ.ഒ.യുടെ) നിയന്ത്രണത്തിലും ചെറുപ്രദേശമായ ഗാസ ഹമാസിന്റെ നിയന്ത്രണത്തിലുമാണ്. ഇപ്പോൾ നമ്മൾ അറിയുന്ന സംഘർഷം ഇസ്രയേലും ഹമാസും തമ്മിലാണ്. ഫതാഹ് ഇതിലൊരു കക്ഷിയല്ല. അതുകൊണ്ടുതന്നെ ഈ ഏറ്റുമുട്ടലുകളെ ഇസ്രയേൽ പാലസ്തീൻ പ്രശ്നമായി ചിത്രീകരിക്കുന്നത് മുഴുവനായി ശരിയല്ല. ഹമാസിന് ഇസ്രയേലിന്റെ ഉപരോധം ഉള്ളതുകൊണ്ട് പല അത്യാവശ്യ സാധനങ്ങളും വിശേഷിച്ചും ആയുധങ്ങൾ കൊണ്ടുവരാൻ പ്രയാസമാണ്. ഇതിനെ തരണം ചെയ്യാനായി തുരംങ്കങ്ങൾ നിർമ്മിച്ചിട്ടുണ്ട്. അങ്ങനെ കൊണ്ടുവരുന്ന ആയുധങ്ങൾ വിദ്യാലയങ്ങളിലും ആരാധനാലയങ്ങളിലുമാണ് സൂക്ഷിക്കുന്നത്. ഇത് രണ്ടും തകർക്കുകയെന്നതാണ് ഇപ്പോൾ ഇസ്രയേലിന്റെ ലക്ഷ്യം. ഹമാസ് അതിനെ മനുഷ്യ കവചങ്ങൾ കൊണ്ട് നേരിടുന്നു. അതുകൊണ്ടാണ് അവരുടെ ഭാഗത്ത് മരണവും മറ്റ് യാതനകളും കൂടുതൽ. ഇസ്രയേലിന്റെ ബൗദ്ധിക-ആയുധ ശേഷിയെ വെല്ലാൻ ഹമാസിന് (അറബ് ലോകത്തിനു പോലും) സാധിക്കില്ല. അപ്പോൾ സ്വന്തം ജനത്തിന്റെ സുരക്ഷയ്ക്കുള്ള പ്രായോഗിക സമീപനം വിവേകപൂർവ്വം നേതാക്കൾ എടുക്കുകയെന്നുള്ളതാണ് കരണീയമായിട്ടുള്ളത്, വിശേഷിച്ചും യു.എൻ. പോലും ഇടപെടാതെ മടിച്ചു നിൽക്കുന്ന സാഹചര്യത്തിൽ അതിന്റെ സങ്കീർണമാണ് ഈ വിഷയം. അതുകൊണ്ടാണ് വൻശക്തികൾ പോലും ഇടപെടാതെ മടികാണിക്കുന്നത്.

ഇന്ത്യക്കും രണ്ട് കൂട്ടരുമായി നല്ല ബന്ധമാണുള്ളത്. അതിനാൽ ഒരു വശത്തെ മാത്രം പിന്തുണയ്ക്കുന്ന ഒരു സമീപനം എടുക്കാൻ നമുക്ക് സാധിക്കില്ല. നമ്മുടെ സുരക്ഷയും നമുക്ക് പ്രധാനമാണല്ലോ. കഴിഞ്ഞ മുന്നണി ഗവൺമെന്റുകളെ അപേക്ഷിച്ച് ഒറ്റ കക്ഷിക്ക് മുൻതൂക്കം ഉള്ളതുകൊണ്ട് വിദേശനയം എന്തെന്നറിയാത്ത മത - ജാതി- പ്രാദേശിക പാർട്ടികളുടെ താളത്തിനൊത്ത് തുള്ളേണ്ട ഗതികേടില്ല. അതുകൊണ്ട് ഇന്ത്യ വളരെ ആലോചിച്ചു മാത്രമേ ഈ വിഷയത്തിൽ അഭിപ്രായം പറയാവൂ. എന്റെ അഭിപ്രായത്തിൽ മുസ്ലീം രാജ്യസമൂഹം ഒ ഐ സി വേണം ഈ പ്രശ്നത്തിന് എത്രയും പെട്ടെന്ന് ഒരു പരിഹാരം കാണേണ്ടത്. ഭീകരവാദമൊന്നും കൊണ്ട് ഇനിയുള്ള കാലം ആർക്കും ഒന്നും നേടാൻ സാധിക്കില്ല. പക്ഷെ എല്ലാം നശിപ്പിക്കാൻ സാധിക്കുമെന്നു പ്രത്യേകം ഓർക്കുക. നമ്മൾ ചർച്ച ചെയ്യുന്ന പ്രശ്നവും വെസ്റ്റ് ഏഷ്യ സംഘർഷവുമാണിപ്പോൾ ലോക സമാധാനത്തിന് ഭീഷണിയായി നിലനിൽക്കുന്നതെന്ന് ഒ ഐ സി മനസ്സിലാക്കണം. അപ്പോഴേ അറബ് ലോകത്തെ ആഭ്യന്തര പ്രശ്നങ്ങൾക്ക് പരിഹാരമുണ്ടാകൂ.

❖

'വ' മാഹാത്മ്യം

Er. സുരേഷ് എച്ച്.

വനം **വെ**ള്ളം ! ഈ വാക്കുകളിൽ രണ്ടിലു മുള്ള ഒരക്ഷരം 'വ' ആണ്. എന്നാൽ ഈ ഒരു സമാനതയേക്കാൾ വനവും വെള്ളവും അഭേദ്യ മായി ബന്ധപ്പെട്ടു കിടക്കുന്നു എന്ന് നമുക്കറിയാം. ഭൂമിയിൽ വെള്ളമുണ്ടെങ്കിലാണ് വനം നില നിൽക്കുക. അതേപോലെ വനം അല്ലെങ്കിൽ കാട് (ഒന്നുകൂടി വ്യക്തമായിപ്പറഞ്ഞാൽ മഴക്കാടുകൾ) ആണ് മഴ പെയ്യുന്നതിനും അതിൽ നിന്നുള്ള വെള്ളത്തെ ജീവജാലങ്ങൾക്കായി മണ്ണിൽ പിടിച്ചു നിർത്തുന്നതിന് ആവശ്യമുള്ളത്.

കെ.എസ്.ഇ.ബി. യുടെ സബ്ബ് സ്റ്റേഷനു കളിലെ പരിപാലനത്തിൽ ഒരു പ്രധാനപ്പെട്ട ജോലി (നിശ്ചിത അളവുകളുള്ള മെറ്റൽ വിരിച്ചിട്ടും) യാർഡിൽ വളരുന്ന പുല്ല്, മറ്റു ചെടികൾ എന്നിവ വെട്ടിത്തെളിക്കുന്നതാണ്. എന്തുകൊണ്ടാണ് മെറ്റൽ വിരിച്ചിട്ടും യാർഡിൽ സസ്യലതാദികൾ വളരുന്നത് എന്ന് നാം ചിന്തിക്കണം. യാർഡിൽ അങ്ങോളമിങ്ങോളം നാം എർത്ത് പിറ്റുകളിൽ ഈർപ്പം നിലനിർത്തുവാൻ പൈപ്പ്ലൈൻ സ്ഥാപി ച്ചിട്ടുണ്ട്. കടുത്ത വേനൽക്കാലത്ത് ലീക്കേജ് കറന്റ് എന്തെങ്കിലും രൂപപ്പെട്ടാൽ ഭൂമിയിലേക്കൊ ഴുകി പോകാനും അതുവഴി ജീവജാലങ്ങൾക്കും ഹാനിയുണ്ടാകാതിരിക്കാനാണ് ഈർപ്പം നില നിർത്തുന്നത്. ഇത്തരത്തിൽ ഈർപ്പം ഉള്ളതാണ് സബ്സ്റ്റേഷൻ യാർഡുകളിൽ പുല്ലും മറ്റു സസ്യ ലതാദികളും വളരുന്നത്.

നനവ് അല്ലെങ്കിൽ ഈർപ്പം ഉള്ളത് തന്നെ സസ്യങ്ങൾ തഴച്ച് വളരാൻ കാരണമാകുമെങ്കിൽ അണക്കെട്ടു പണിത് ജലം സംഭരിക്കുമ്പോൾ എന്തു സംഭവിക്കും എന്ന് ഊഹിക്കാവുന്നതല്ലേ യുള്ളു. അണക്കെട്ടിന്റെ നിർമ്മാണത്തോടുബ ന്ധിച്ച് കുറച്ചു വനവിസ്തൃതി കുറയുമെങ്കിലും ജലം തുടർച്ചയായി സംഭരിച്ചു നിറുത്തുന്നത് കൊണ്ട് ചുറ്റുപാടുമുള്ള വനം സമൃദ്ധമായി വള രുന്നതായാണ് കണ്ടു വരുന്നത്. ഇങ്ങനെ കുറവ് നികത്തപ്പെടുന്നു. അണക്കെട്ടിൽ സംഭരിച്ചു നിറു ത്തുന്ന വെള്ളം കൃഷിക്കും ജലസേചനത്തിലും ഉപയോഗിക്കുന്നതൊടൊപ്പം വൈദ്യുതി ഉൽപ്പാദി പ്പിക്കാൻ കൂടി ഉപയോഗിക്കാൻ സാധിച്ചാലോ ? ഫലത്തിൽ വന വിസ്തൃതി കുറയുന്നില്ല, കൃഷിക്കും ജലസേചനത്തിനും വേനൽക്കാലത്തും വെള്ളം ലഭിക്കുന്നു, കേരളത്തിന്റെ ഭൂപ്രകൃതിക്ക നുസൃതമായി വൈദ്യുതിയും ലഭിക്കുന്നു.

നിലവിൽ അണക്കെട്ടുകൾ കുറുകെ നിർമ്മിക്കപ്പെട്ടിട്ടുള്ള നദികളുടെ കാര്യം പരിശോ ധിക്കാം. പെരിയാർ, പമ്പ തുടങ്ങിയ നദികളുടെ കുറുകെ വലിയ അണക്കെട്ടുകളുണ്ട്. ഇവിടെയൊ ന്നും വന വിസ്തൃതി വല്ലാതെ കുറഞ്ഞതായോ വേനൽക്കാലത്ത് നദി നീർച്ചാലായതായോ നാം കേട്ടിട്ടില്ല. എന്നാൽ വലിയ അണക്കെട്ടുകൾ പോകട്ടെ, തടയണകൾ പോലും നിർമ്മിക്കാൻ ഗവൺമെന്റ് ഇച്ഛാശക്തി കാണിച്ചിട്ടില്ലാത്ത ഭാരതപ്പുഴ പോലെയുള്ള നദികൾ വേനൽക്കാ ലത്ത് നീർച്ചാൽ രൂപത്തിലാണുള്ളത് എന്ന് നമു ക്കറിയാം.

അണക്കെട്ടുകൾ നിർമ്മിക്കുന്നതിന് മുമ്പു ള്ള വനവിസ്തൃതി, ജലലഭ്യത, അണക്കെട്ടു നിർമ്മിച്ചതിന് ശേഷമുള്ള സ്ഥിതി ഗതികൾ എന്നി വയുടെ കൃത്യമായ കണക്കുകൾ ശേഖരിച്ച ശേഷം തടസ്സപ്പെട്ടിട്ടുള്ള ജലവൈദ്യുത പദ്ധതിക ളുടെ നിർമ്മാണം തുടങ്ങാനും പുതിയ പദ്ധതികൾ സമർപ്പിക്കാനും കെ.എസ്.ഇ. ബോർഡ് യുദ്ധ കാലാടിസ്ഥാനത്തിൽ ശ്രമിക്കണം. പരിസ്ഥിതി സ്നേഹമെന്ന വ്യാജേന ജലവൈദ്യുത പദ്ധതി കൾക്ക് തുരങ്കം വയ്ക്കുന്നവർ പരിസ്ഥിതിക്ക് കോട്ടം വരാത്ത ജീവിത സാഹചര്യങ്ങളിൽ ഒതുങ്ങി കഴിയുന്നവരാണോ എന്നും വിലയിരു ത്തേതുണ്ട്.

കെ.എസ്.ഇ.ബി. ഇപ്പോഴുള്ള അണക്കെ ട്ടുകൾ കൃത്യമായ അളവ് മഴ ലഭിച്ചു നിറഞ്ഞാലും നമുക്ക് 7000 മില്യൻ യൂണിറ്റ് വൈദ്യുതി മാത്ര മാണ് ഒരു വർഷം നൽകാൻ സാധിക്കുക. അതാ യത് ഒരു ദിവസത്തെ ശരാശരി ഉപഭോഗം 50 മില്യൻ യൂണിറ്റായി സങ്കൽപ്പിച്ചാൽ തന്നെ 140 ദിവസത്തേക്ക് മാത്രം. ബാക്കിയുള്ള ഉപയോഗ ത്തിന് പുറത്ത് നിന്ന് വൈദ്യുതി വാങ്ങിയാണ് കെ. എസ്.ഇ.ബി. വിതരണം ചെയ്യുന്നത്. അതും കൂടിയ വിലയ്ക്ക് വാങ്ങി കുറഞ്ഞ വിലയ്ക്ക് വിൽക്കുന്നു. പുതിയ അണക്കെട്ടുകൾ നിർമ്മിച്ച് വൈദ്യുതി നിലയങ്ങൾ വന്നില്ലെങ്കിൽ വൈദ്യുതി ക്ഷാമം മാത്രമല്ല കുടിവെള്ളക്ഷാമം കൂടി ഭാവി യിൽ നേരിടേണ്ടിവരുമെന്ന് ഓർക്കുന്നത് നന്ന്. ജല വൈദ്യുത പദ്ധതികളിലൂടെ വൈദ്യുതിക്ക് പുറമേ ജലലഭ്യതയും വനത്തിന്റെ നിലനിൽ പ്പുകൂടി പരോക്ഷമായിട്ടെങ്കിലും കെ.എസ്.ഇ.ബി. ഉറപ്പാക്കേണ്ടതുണ്ട്.

Indian Power Sector Roundup

CET, KSEB for Joint Research Project

"The College of Engineering Thiruvananthapuram (CET), which entered its platinum jubilee year last week, is joining hands with the Kerala State Electricity Board (KSEB) to study ways and means to harness solar power better. The research project for which the two institutions have come together will focus on generating electricity from solar power and distributing it in an efficient manner. The major component of the project is a 430 kW grid-connected solar power plant that will be established at CET.

Electricity Minister Aryadan Mohammed handed over a cheque for Rs 1 crore to CET principal Dr S Sheela to meet the cost of phase I which involves the establishment of a 134.5 kW plant. "It is hoped that the CET-led research will supply solutions to the deficiencies that exist in the generation and distribution of solar power at present. Additionally, the Rs 4.48-crore project also aims at designing solar power projects that are suited to the fluctuating climatic conditions of Kerala," a KSEB spokesperson said.

Power from the plant will be transferred to the grid during holidays and minimum load periods. A major aim of the project is to slash CET's power bill, which comes to around Rs 10 lakh a month at present. This target is expected to be achieved once the solar power project becomes full-fledged. KSEB has plans to implement similar projects in other parts of the state also.

KSEB Chairman and Managing Director M Sivasankar, Directors S Venugopal, M Mohammed Ali Rawther and Chief Engineer (Corporate Planning) Valsakumari were also present.

(Source: The New Indian Express)

World Bank report lauds KSEB performance

Despite political reasons that delayed its corporatizing as mandated by the Electricity Act of 2003, the Kerala State Electricity Board (KSEB) is one of the best performing power utilities in the country, according to a World Bank study, which

reviewed the performance of the Indian power sector during the period 2003 to 2011.

The report, titled 'More Power to India', authored by Sheoli Pargal and Sudeshna Ghosh Banerjee, senior economists with the World Bank, published this June, said the KSEB had the highest accumulated profits in 2011 among the power utilities directly serving the consumers in the country. "But since 2011, the KSEB's finances have been constrained due to the State's declining hydro generation, forcing the utility to purchase power from external sources and draw down surpluses earned in earlier years. Inadequate planning for power procurement to address demand growth has exacerbated the change in fortunes of the utility, which remains well managed but is now suffering in the face of external shocks," it said.

In 2011, Delhi, Kerala and West Bengal were the only States where the revenue from sale of power covered the cost of supply without infusion of subsidies.

Kerala had invested substantially on strengthening its power transmission and distribution system during the period to bring down its distribution loss to around 12 per cent in 2011, the lowest in the country and close to international best practice. Other key factors that had helped the KSEB achieve good performance include the role of an 'effective State regulator,' who had "diligently issued tariff orders" to ensure cost recovery, and the total, tamper-proof, metering of the power connections.

"KSEB is modernising its systems…These efforts have improved service quality, billing efficiency, transparency and financial savings. The KSEB's collection efficiency of 97 per cent in 2010-11 attests to the initiatives' payoff," it said. Benchmarking the power utilities in the country on a set of financial and operational indicators, the report placed Tata Power in Delhi at the top, followed by the KSEB in Kerala and the power department in Goa.

(Source : The Hindu)

Nuclear power plant near Chennai all set for milestone event

भाविनि
BHAVINI

Far removed from any protest-din, a nuclear power plant 40 km south of Chennai, is all set to achieving a milestone - loading of liquid sodium. The operators of the nuclear power station, which is half the size of the first unit of the Kudankulam nuclear power plant, are awaiting the green signal from the Atomic Energy Regulatory Board, the country's nuclear power regulator. For the 500 MW 'prototype fast breeding reactor', loading of 1,750 tonnes of the coolant liquid sodium is practically the last big event before the unit starts generating electricity.

This is an important milestone because nuclear establishments in all countries are watching India's PFBR, the first plutonium-based fast breeder reactor anywhere in the world. The Rs 5,677-crore techno-economic demonstration plant that a government of India-owned company is putting up is of crucial importance to the country's nuclear plans. Its success would set the ball rolling for a clutch of 'fast breeder reactors'-at least six of them have been planned. Two of the six would come right next door to the PFBR.

Fast breeder reactors are a big deal for Uranium-scarce India because they produce more nuclear fuel than they eat up. You blanket the 'core', where the fuel is simmering, with natural Uranium, the neutrons flying out of the core convert the Uranium into Plutonium - a valuable fuel. You blanket it with

Thorium, you end up with Uranium - 233, a variety of Uranium that has splitable atoms. (Heat is produced when the atoms' nuclei are split by a runaway neutron, and the heat is converted into electricity.)

The PFBR will have a blanket of a mixture of natural Uranium and Thorium, so apart from electricity, you also get nuclear fuels. India has a fourth of all the Thorium discovered on this planet, so it is wise to use it gainfully. Problem is, Thorium is useless as a fuel, until it is converted into Uranium-233, for which you need fast breeder reactors.

Then why didn't India start building fast breeders right from the beginning?. Because it is not possible.The fast breeders need a lot of Uranium, or Plutonium. Uranium, India does not have much of, and no other country would give us after 1974, when Pokhran-I happened. Plutonium does not occur in nature, it has to be produced in a nuclear reactor. So, the country had to wait for four decades to have sufficient stock of Plutonium to fire up the fast breeders. And now, it is happening.

Asked when would the PFBR start producing electricity, a senior official of Bharatiya Nabhikiya Vidyut Nigam Ltd, which is putting up the plant, said that it would be technically possible to do that in 4-5 months after the liquid sodium loading happens. But then, the schedule would entirely depend upon the regulator, AERB. And the Board could hardly be expected to rush through matters-it would want every step checked out multiple times to satisfy itself over safety. But a little delay would not matter here-after all, it is still a prototype, and in any case it is already well over the planned six years since the construction began in 2004.

(Source: Business Line)

KSEB staff productivity among lowest in country

The productivity of KSEB employees is one of the poorest in the country with only the employees of power utilities in north-eastern states and Jammu and Kashmir faring worse. The

irony is that among public utilities, it is the KSEB that spends the most on employee perks. In short, the KSEB spends more on its employees and gets considerably less in return. These were revealed in the Planning Commission's annual report on 'The working of state power utilities and electricity departments.'

At the national level, the number of employees in power utilities had declined by 32 percent from 9.77 lakh in 1998-99 to 6.6 lakh in 2011-12. At the same time, the number of employees in KSEB Ltd shot up by 30 percent from 24,541 in 2002-03 to 31,793 in 2012-13.

More alarming, however, is the consequent fall in the productivity of the employees. At the national level, because of a reduction in employee strength, the number of employees per million units of electricity sold also declined. "The average employees per million units of electricity sold declined from 3.25 in 1998-99 to 1.12 in 2011-12 and the same is projected to come down to 0.91 in 2013-14," the report observes. This means that a lesser number of employees is required to generate a specific quantum of energy.

But the KSEB required more number of employees to perform the same function. The number of KSEB employees per million units of electricity sold is 1.92, more than the national average of 1.12. Only electricity workers in north-eastern states and Jammu and Kashmir have lesser productivity. The number has been increasing over the years, pointing to the annual decline in employer productivity.

Not surprisingly, the KSEB has the highest 'Establishment and Administration' (E&A) charges, mainly consisting of wages and salaries of staff. While the share of E&A charges in the total cost of supply nationally has come down to 9.7 percent in 2011-12 from 14.6 in 1998-99, the E&A share of KSEB in the total cost is a whopping 27.2 percent. Only Arunachal Pradesh with 30.9 percent is poorer.

(Source : Deccan Chronicle)

CERC directed Power Grid to probe last month's disturbances

Electricity regulator CERC has directed Power Grid to probe incidences of collapse of transmission towers in the Northern region in May 2014,that happened in the wake of inclement weather.While asking transmission major Power Grid to submit the report on "load crash" in two weeks time, CERC said collapse of transmission towers and lines tripping of such a large magnitude is alarming and needs to be investigated in detail.

On May 30, the Northern Region grid had experienced sharp drop in demand due to rain, dust storm/ thunder storm, mainly in Uttar Pradesh, Haryana,

Uttarakhand and Delhi. The region's electricity demand started declining at a rate of about "200 MW/min and reached to 32,780 MW at 1715 hrs, around 8,000 MW less than demand at corresponding time of preceding day, and the power resulted in high frequency and high voltage in the system," CERC said.

Power Grid has been asked to look into the wind speed which caused damage to towers and wind level for which the towers have been designed, year of commissioning of towers and updation on the maintenance activity, among others."It has been noticed that during this period (May 30), 68 AC transmission lines along with one HVDC Bi-pole line tripped which led to load crash of about 8,000 MW in Northern Region including 3,500 MW in Delhi."As per weather forecast of Indian Meteorological Department and NOWCAST, all constituents of NR (Northern Region) were alerted about the likelihood of the storm," the order said. Citing the load crash report, CERC said the storm caused damage to many towers including two towers of 765 kV and one of 400 kV lines and 10 towers on various 220 kV transmission lines in Delhi.

Besides Power Grid, Power System Operation Corporation Ltd (NLDC) is also a respondent in the petition. The watchdog has also asked POSOCO (NLDC) to file an affidavit, by month end, impact of collapse of transmission towers and lines tripping on the system operation and grid security, among others. National Load Despatch Centre (NLDC) has the mandate to ensure optimum scheduling and despatch of electricity among the Regional Load Despatch Centres.

(Source: Economic Times)

Restoration of accelerated depreciation set to create more wind capacity.

According to reports, it is champagne time for the wind industry and thanks to the Finance Minister. The restoration of the long-awaited 'accelerated depreciation' is just a formality away. The government will move an amendment to the Finance Bill to bring back the tax-saving benefit and the measure will come into force as soon as the Bill is passed by the Parliament.Profit-making companies will now have an option of putting up wind power turbines and write-down 80 per cent of the cost of the machines - about Rs. 6.5 crore a MW - as depreciation for the purpose of calculating taxable profits.

Wind industry experts say this move will have an impact of creating 1,000 MW of wind power capacity in a year; in the current financial year (2014-15), about half of it could be expected to come. 1,000 MW of capacity would mean investments of about Rs. 7,000 crore. "We expect direct employment of 20,000 and indirect employment of 10,000 people during the manufacturing and project execution phase and 2,000 people on long term basis for operations and maintenance for 1,000 MW," says Madhusudhan Khemka, Chairman of the Indian Wind Turbine Manufacturers' Association. The 'accelerated depreciation', introduced in the early 1990s, was what gave a leg-up to the industry in its infancy. (The wind energy companies (independent power producers), who got into the business for producing and selling electricity came in only in the recent years.)

Many medium and large enterprises in the windiest state of the country, Tamil Nadu, took to putting up windmills to save on taxes. The accelerated depreciation was therefore chiefly responsible for the bulk of the 22,000-odd MW of wind capacity the country has today. Earlier, those who did not avail themselves of accelerated depreciation could use another incentive that gave 50 paise for every unit of electricity generated, subject to a cap. Both this 'generation based incentive' and accelerated depreciation were withdrawn on March 31, 2012.

Wind installations fell to 1,700 MW in 2012-13 from 3,168 MW in 2011-12, thanks to the killing of the incentives. In the following year, the generation based incentive was brought back, and this helped fresh installations to climb to 2,160 MW in 2013-14. The industry continued to lobby for restoration of the accelerated depreciation, an effort that is now coming to fruition.

(Source:PTI)

Budget 2014 -brings 500 crore for solar power projects.

Finance Minister Arun Jaitley has allocated Rs 500 crore in Budget 2014 to push ultra-modern solar power projects in Rajasthan, Tamil Nadu and Ladakh. The funds may be routed through Solar Energy Corporation of India as seed capital. Solar power panels will become cheaper as solar power gear makers will have to pay lower tax. This will give a boost to not only solar power project developers but also the government's programme to set up one lakh solar pow-

ered irrigation pumps. Similarly, the minister has reduced customs duty on forged steel bearings for wind power turbines by 5 per cent. The move to lighten the tax burden comes at a time when the domestic solar panel makers have been pushing for imposition of anti-dumping duty on imported equipment. Solar power equipment makers will have to pay lower excise duty on solar cells, modules and batteries, among other products.

The government wants to reduce the power utilities' subsidy burden on electricity distribution to farm sector, which consumes 23 per cent of power consumption in India but accounts for only 7 per cent of the revenues. Among others, the Centre wants to replicate the solar power project commissioned on Narmada canal in Gujarat. Jaitley has allocated Rs 100 crore for this in his maiden budget. India has set a target of commissioning 20,000 MW of solar power projects by 2022. The newly-formed Narendra Modi-led NDA government wants to expand this target. However, this will require enhancement of domestic capacities to manufacture solar panels that are proving a roadblock for the government's solar mission.

(Source: ET)

Budget 2014: Clean energy cess hiked to Rs100 per tonne of coal

State-owned Coal India may have to shell out up to Rs 5,200 crore on account of clean energy cess in this fiscal, as the government today proposed to double the cess to Rs 100 per tonne. The cess is presently levied on coal, peat and lignite to finance and promote clean energy initiatives and fund research in the area of clean energy. "Coal India's offtake target for the current fiscal in 520 million tonnes (MT). If the company achieves the target, the company will have to shell out around Rs 5,200 crore on account of clean energy cess," a Coal India official said. While presenting the Budget for 2014-15, Finance Minister Arun Jaitley said: "I propose to expand the scope of purposes of levying the said cess to include financing and promoting clean environment initiatives and funding research in the area of clean environment initiatives and funding research in the area of clean environment. To finance these additional initiatives, I propose to increase the Clean Energy Cess from Rs 50 per tonne to Rs 100 per tonne."

When asked whether coal consumers like power, steel and cement would pass on the rise to their end-users, the Coal official said, "It is for them to take a call."The official further said that the company gave around Rs 2,500 crore to government as clean coal cess in the last fiscal.

The country began imposing clean-energy cess on raw coal and lignite in 2010.Coal India accounts for over 80 per cent of the domestic coal production.

(Source: Economic Times)

World Bank moots prepaid metering for power

If prepaid Sim cards can work out superbly well in India's telecom sector, then why not introduce prepaid metering in power distribution? Customers, even those at the lower end of the spectrum, may not have a problem paying as long as power supply is better and assured.

An innovative prepaid metering scheme could provide clues to tide over power sector losses mounting to a whopping Rs 1,40,000 crore.World Bank country director Onno Ruhl on Tuesday told media that as a model to stem losses in the power sector, it has worked. At the launch of the bank report entitled "More power in India: The challenge of distribution", he said that introduction of prepaid metering in Nigeria has proved to be successful in reducing losses despite being priced higher as consumers are willing to pay more for better and assured power supply.

The Rs 1,40,000 crore accumulated losses calculated till 2011, works out to be $25 billion. They are overwhelmingly concentrated among distribution companies (discoms), bundled utilities, state electricity boards and state power departments. Citing the example of telecom sector where 90 per cent of mobile phones use prepaid Sim cards, Ruhl suggested the model could be worth trying out in India's power distribution sector. Noting that the financial health of the sector is "fragile" in India limiting its ability to invest in delivering better services, the report said huge losses in the power sector had led to heavy borrowing as a result of which power sector debt had reached Rs 3.5 lakh crore ($77 billion), which was as much as 5 per cent of India's GDP surging towards $2 trillion. Suggesting sweeping reforms in power distribution, the bank report said this was necessary to bring back the country on a high growth path and meet the goal of access to electricity to all by 2019. India's 800 kWH annual per capita consumption is among the lowest in the world.The report is a review of the Indian power sector across key areas of access, utility performance, and financial sustainability. It has identified electricity distribution to the end consumer as the

weak link in the sector.The report suggests freeing utilities and regulators from external interference, increasing accountability and enhancing competition in the sector to move it to a higher level of service delivery."Revitalising the power sector by improving the performance of distribution utilities and ensuring that players in the sector are subjected to financial discipline, is the need of the hour," Ruhl said.By tackling the losses through a focused approach, it should be possible to make a marked difference in sector performance, the report said.The report said the problem is concentrated in a handful of states. Over 60 per cent of the sector's accumulated losses in 2011 came from Uttar Pradesh, Madhya Pradesh, Tamil Nadu and Jharkhand. UP alone accounted for 40 per cent of this accumulated losses.

Over the last two decades, the sector has needed periodic rescues from the central government - a bailout of Rs 35,000 crore in 2001 and a restructuring package of Rs 1.9 lakh crore ($19 billion) announced in 2012.

"Two decades after the initiation of reforms, an inefficient, loss-making distribution segment and inadequate and unreliable power supply are major constraints to India's aspirations for growth," Ruhl said.

Several factors have contributed to these losses. The cost to discoms of purchasing power has risen faster than revenues, primarily due to fuel shortages and the need to import expensive fuel.Rising interest expenses have contributed to rising costs, the report said, adding tariffs have not kept pace with costs over the years. Under collection of bills and delayed collection of payments, coupled with the fact that more than one-fifth of electricity is lost by utilities, does not lead to generation of revenues.The report also recommended that state governments should pay subsidies transparently, fully and on time when they mandate free power supply. The must also improve the targeting of subsidies so resources are not wasted and actually reach the poor.

(Source : The Business Line)

PTC India plans to venture into power generation .

India's largest electricity trader PTC India plans to own and operate power generation assets through its subsidiary PTC Energy that may commission greenfield projects or acquire operational plants. The state-run company intends to increase share of long-term supplies while it also wants to bid for more long-term contracts with distribution utilities to increase its volumes. "PTC Energy can commission solar and wind projects on its own or form joint ventures to set up thermal power plants.

PTC Energy, formed two years ago with the mandate to own and operate generation assets, has paid up capital of Rs 50 crore and the board of PTC India has approved capital of Rs 200 crore.In 2013-14, PTC India accounted for almost 40% of electricity trade in India. Its volumes increased 23% to 35,130 million units compared with the previous fiscal. The company's standalone revenue stood at Rs 11,510.71 crore and net profit at Rs 251.23 crore during the fiscal.

At present, over half of PTC India's business comes from shortterm trade and electricity ex- changes while the balance is through its long-term agreements with distribution utilities. The company wants to reverse this ratio in the next two to three years to ensure a more stable business model. Of the 11,000 mw of generation capacity PTC India tied up with private developers, close to 4,000 MW is commissioned and the rest is under construction at different stages. Now, the company is aiming to start generation on its own. PTC India has one listed subsidiary PTC India Financial Services, which has financed Rs 5,000 crore to the developers of power projects, transmission lines, and railways lines to evacuate coal and mines. PTC India also holds close to 5% stake in Indian Electricity Exchange, which has set up a committee to explore avenues to offer exit route to private equity investors in next couple of years.

(Source : The Business Line)

25 Thermal power plants not adhering to ash pond effluent limit

Around 25 thermal power plants have been found to be not complying with ash pond effluent limit, government told the Lok Sabha. Enviornment Minister Prakash Javadekar also said in a written reply in the House that there was no proposal to revise or amend existing norms for thermal power plants for air and water pollution.

He also said that there were four power plants against which complaints were received regarding water pollution during 2012-14. According to details furnished in the Lok Sabha, big thermal power plants like Korba, NTPC Chhattissgarh, Kolaghat Thermal Power Station, West Bengal, Tenughat Thermal Power station in Jharkhand, Talcher of NTPC in Odisha amongst others were found to be non-compliant with ash pond effluent limit. Coal-based thermal power plants may pollute nearby water bodies like rivers and reservoirs if adequate settling is not provided for treatment of effluent

from ash ponds, the Lok Sabha was told. Javadekar said that directions under section 5 of Environment Protection Act 1986 has been issued to most of these thermal power plants. Similarly, complaints were received of Paricha thermal power plant Jhansi, Rihand Thermal Power plant NTPC, Wardha Thermal Power company in Chandrapur and Busawal thermal power plant in Jaigaon regarding water pollution during 2012-14.

Elaborating on steps taken to control pollution from thermal power plants, Javadekar said that stricter emission limit has been prescribed for new power plants to be located in critically polluted, urban and ecologically sensitive areas. Other measures include imposing installation of flue gas desulphurisation system for control of SO2 emission, mandatory use of fly ash so as to achieve 100 per cent flash utilisation within 5 years, mandatory use of beneficiated coal in plants located beyond 1000 kms from pit head amongst others.

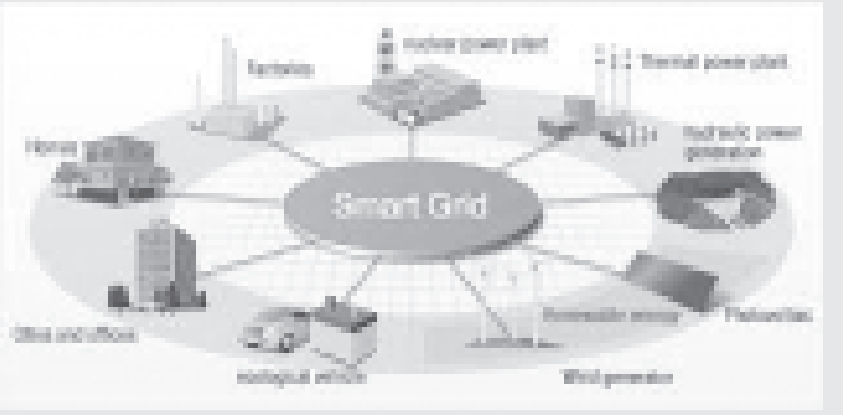
(Source: Economic Times)

378 projects waiting for green nod of ministry

As many as 378 projects are pending before Environment and Forest Ministry for grant of clearances, government informed the Lok Sabha. Environment and Forests Minister Prakash Javadekar said 298 projects were pending for environment clearance and 80 for forest clearances and his ministry was working to expedite the process of granting approvals. Among the proposals pending for environment clearance, a maximum of 55 were from Prime Minister Narendra Modi's home state Gujarat followed by 35 from Andhra Pradesh and 24 each from Karnataka and Madhya Pradesh. The measures taken by his ministry to speed up environment clearance included regular and longer duration meetings of expert appraisal committees for consideration of projects in different sectors and regular monitoring of status of pending projects among other things, he said.

(Source: Economic Times)

Ahmedabad to have smart grid by October



Come October and Ahmedabad will have probably India's first smart grid system in place where consumers will be able to pick a suitable plan for electricity consumption like they do for cellphones. Uttar Gujarat Vij Company Pvt Ltd (UGVCL) is set to roll out a modernized electric grid or the smart grid system in Naroda by October this year. Installation of new electric meters embedded with SIM cards has begun in Naroda by five companies including Reliance, Wipro, Crompton, L&T and Tapesh Energy. As many as 1,500 meters will be installed by July 15. Following the installation, a data communication network will be set up to monitor consumer behaviour. The pilot project will study consumer behaviour of electricity usage and propose a tariff structure based on usage and load on the power utility. Eventually, it will be rolled out across the state to disincentivize power consumption during peak hours.

The smart grid will work on the 'time of day' concept, based on which tariffs will be set. For example, if the demand is at peak during 7pm to 11pm, the tariffs will be higher for that period."These five companies had shown interest in the tender floated by UGVCL. These companies will first install the new meters and then by setting up their servers will develop the data network. The companies will be required to submit consistency report based on the consumer behaviour," said Nityanand Srivastava, managing director, UGVCL. In the last stage, based on the financial bids, one of the companies will be selected which will roll out the smart grid. UGVCL will have access to the data of the company

and hence will use it to fix the tariffs based on time. "The project was to roll out in April but got delayed due to elections and we expect to start it by October," said Srivastava.In a 50-50 partnership, UGVCL, along with the Central government, will invest Rs 48 crore in the project to set up infrastructure, meters, servers and analytic systems for smart grid. The smart grid project is being implemented in 14 cities in 14 states. The project will integrate all the electricity generated through various sources, including solar and wind, into one server system.Like the internet, the smart grid consists of controls, computers, automation, and new technologies and equipment working in unison. These technologies work with the grid to respond digitally to the consumer's dynamic electricity demand.Monitor and control your consumption: With the rolling out of smart grid, consumers and industries will have control on the consumption of power. It will also help in reducing power thefts as well as in energy conservation.

Like in case of mobiles, the consumers can manage their power usage in form of pre-paid and postpaid connections. Similarly, industries will be able to keep a tab on their electricity consumption and based on that adjust their machinery usage."Though consumers are excited but are also a bit apprehensive with the installation of new meters. They need not be afraid of higher energy bills because for the first time bill will be under their control," said Srivastava.He further added that in case of industries, they will get hour-based data of consumption on which they can reduce or stimulate their requirements of power. "This will also help the industries improve their performance and participate in demand side management along with the power companies," added Srivastava.

Experts believe that tariff system out of smart grid project will sensitize people about energy conservation and also help them regularize power consumption.UGVCL plans to install new meters with SIM cards in 20,000 residential and industrial units in Naroda which will analyze the consumer behaviour. The data will be collected every 15 or 30 minutes to study the consumption pattern. Similarly to study the pattern in rural areas, 18,000 points located at transformers in Deesa will be added to smart grid for the pilot project.

(Source- Times of India)

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Board Orders

KERALA STATE ELECTRICITY BOARD LIMITED

General Transfer - 2014

The following transfers and postings of Assistant Executive Engineers (Electrical) are order

Sl. No	Emp. Code	Name	Present Office	Office to which posted	Remarks
1	1049216	Abdul Azees A	Relay Sub Division, Edarikode	O/o. the Deputy Chief Engineer, Transmission Circle, Malappuram	
2	1048772	Abdul Gafoor C	PET Sub Division, Kozhikode	O/o. the Chief Engineer (Trans. North), Kozhikode	
3	1034984	Abdul Kalam A	Electrical Sub Division Kundara	Electrical Sub Division Nadapuram	
4	1045618	Abdul Shukkur K	220 KV Sub Station Sub Division Kaniyampetta	APTS Regional Unit Kalpetta	
5	1040043	Ajayakumar.B S	O/o. Chief Engineer (IT), VB, Tvpm.	IT Computerisation Unit, Thiruvananthapuram	
6	1036412	Ajayakumar.S	Electrical Section Peroorkada	Electrical Division, Nedumangad	
7	1048647	Aji Joseph	Turbine Maintenance Sub Division, Moolamattom	Communication Sub Division, Moolamattom	
8	1054197	Ajilal A	110KV Sub station, Parippally	O/o. the Deputy Chief Engineer, Electrical Circle, Thiruvananthapuram (Urban)	
9	1050244	Ajitha Kumari S H	Electrical Division, Kazhakkuttom	O/o. the Deputy Chief Engineer, Electrical Circle, Thiruvananthapuram (Rural)	
10	1049048	Alkaf S	Electrical Section Valancherry	Electrical Sub Division, Varkala	
11	1045766	Ambika Kumari P	Electrical Sub Division Pathanapuram	O/o. the Deputy Chief Engineer, Electrical Circle, Kottayam	
12	1045933	Ambili S Poonkavanam	TRAC,Vydyuthi Bhavanam, Tvpm	O/o. the Deputy Chief Engineer, Transmission Circle, Kottarakkara	
13	1037589	Ambili. A.P	Chief Engineer (Transmission - North) Kozhikode	O/o. the Chief Engineer (Trans. North), Kozhikode	
14	1044302	Ammini K K	Electrical Division Changanacherry	O/o. the Deputy Chief Engineer, Electrical Circle, Thodupuzha	
15	1048829	Anandan P B	PET Sub Division, Kalamassery	O/o. the Deputy Chief Engineer, Electrical Circle, Kalpetta	
16	1048792	Angy Alex	Communication Section, Kalamassery (SO Circle)	Electrical Sub Division Areacode	
17	1044795	Anil Kumar G	PET Sub Division Kalamassery	O/o. the Deputy Chief Engineer, Transmission Circle, Kannur	
18	1048704	Anil Kumar P R	PET Sub Division, Edappon	Electrical Sub Division, Kanjirappally	
19	1046747	Anilkumar R	MIS Regional Office Kozhikode	O/o. the Chief Engineer (Dist. South), Power House, Tvpm.	
20	1048770	Anish K	Electrical Section, Kadakkal	O/o. the Deputy Chief Engineer, Electrical Circle, Kottayam	
21	1045702	Anitha Balakrishnan	Electrical Sub Division Kanjirappally	TC Sub Division, Pala	

22	1045912	Anitha G Nair	Sub Regional Store Alappuzha	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm.	
23	1044669	Anitha K	Sub Regional Store Pallom	Electrical Division Adoor	
24	1045001	Anitha K	O/o the CE (Distribution North) Kozhikode	O/o. the Chief Engineer (Commercial & Tariff), Vydyuthi Bhavanam, Tvpm.	
25	1048303	Ansalam J	Civil Maintenance Section I Thiruvananthapuram	Electrical Sub Division, Vellayambalam	
26	1047220	Anto C L	220KV Sub Station, Kanhirode	Sub Regional Store Irinjalakuda	
27	1048765	Anto Puthokaran	Electrical Section, Vettom	Electrical Sub Division Alathiyoor	
28	1047518	Antony Roy T T	Electrical Sub Division Cherplassery	Transmission Division, Madakkathara	
29	1044427	Arunan I T	Electrical Sub Division Viyyur	O/o. the Deputy Chief Engineer, Electrical Circle, Kasargod	
30	1046357	Asa P A	Electrical Division, Kattakkada	O/o. the Deputy Chief Engineer, Electrical Circle, Thiruvananthapuram (Urban)	
31	1045538	Asha P A	Sub Regional Store Shornur	Electrical Sub Division, Thoppumpady	
32	1044154	Ashrafudeen J	110 KV Sub Station, Edayar	O/o. the Chief Engineer (Dist. Central), Ernakulam	
33	1049842	Askar Ali	Electrical Section, Ezhuvathiruthy	Electrical Division, Tirur	
34	1050671	Baby John	O/o the Director (T&SO), Vydyuthi Bhavanam, Tvpm	O/o the Director (T&SO), Vydyuthi Bhavanam, Tvpm	
35	1045717	Baiju Thomas	220 KV Sub Station Sub Division,Malaparamba	O/o. the Chief Engineer (Commercial & Tariff), Vydyuthi Bhavanam, Tvpm.	
36	1047681	Basanth Kumar B R	Electrical Section Anchal (West)	Electrical Sub Division Wandoor	
37	1045533	Beena Kumary K S	Electrical Division Mavelikkara	O/o. the Deputy Chief Engineer, Transmission Circle, Poovanthuruthu	
38	1045915	Beju V	O/o. the Deputy Chief Engineer, Electrical Circle, Kalpetta	Regional IT Unit, Kochi	
39	1045624	Benet I	APDRP, Thiruvananthapuram	Transmission Sub Division, Kundara	
40	1048728	Bhagialekshmi M C	Transmission Division, Thrissur	Sub Regional Store, Shornur	
41	1048933	Biji M	220 KV Sub Station, Mylatty	O/o. the Deputy Chief Engineer, Electrical Circle, Kasargod	
42	1038197	Biju Jose	Electrical Section Manjeri (South)	O/o. the Deputy Chief Engineer, Electrical Circle, Manjeri	
43	1049491	Biju Kumar K D	Relay Sub Division Kalamassery	O/o. the Deputy Chief Engineer, Electrical Circle, Vatakara	
44	1032134	Biju Prince Abraham	Electrical Sub Division Kurvilangad	O/o. the Chief Engineer (Trans. North), Kozhikode	
45	1048714	Bindu B Thayyil	66KV Sub station, Kottayam	O/o. the Deputy Chief Engineer, Transmission Circle, Thodupuzha	

46	1043552	Binu N	Electrical Division Thiruvalla	O/o. the Chief Engineer (Commercial & Tariff), Vydyuthi Bhavanam, Tvpm.	
47	1049056	Biya A V	Electrical Section Sulthanpet	Electrical Sub Division, Chittur	
48	1046127	Byju K K	Electrical Sub Division Koorkenchery	Electrical Sub Division, Shornur	
49	1044066	Chandran M	Electrical Division Mannarkkad	Electrical Sub Division, Kilimanoor	
50	1035763	Chandrasenan M V	Transmission Sub Division, Kaniyampetta	Relay Sub Division, Edapon	
51	1049455	Chandrika C	O/o CE (Commercial and Tariff)	TRAC,Vydyuthi Bhavanam, Tvpm	
52	1048930	Cini John	O/o the Director (T&SO), Vydyuthi Bhavanam, Tvpm	O/o. the Chief Engineer (Corporate Planning), Vydyuthi Bhavanam, Tvpm.	
53	1047750	Daisy Jose	Electrical Sub Division Gandhinagar	Electrical Sub Division Kundara	
54	1046765	Damin John	Generation Sub Division Vellathooval	Generation Circle, Kothamangalam	
55	1049643	Devasena K	RPTI, Trissur	Electrical Division, Mananthavady	
56	1048747	Dinesan V K	L P Erection Division Karimanal	L P Erection Division Karimanal	
57	1049057	Divya Prabha M V	Electrical Division Chittur	O/o. the Deputy Chief Engineer, Transmission Circle, Palakkad	
58	1047658	Easa Sait M	Tranamission Sub Division Changanacherry	O/o. the Deputy Chief Engineer, Electrical Circle, Kollam	
59	1046911	Edward P Boniface	Electrical Section, Oyur	O/o. the Deputy Chief Engineer, Electrical Circle,, Kalpetta	
60	1048457	Emerson P A	220 KV Sub Station, Kalamassery	Electrical Sub Division, Pilicode	
61	1048730	Geetha C	Transmission Circle, Thrissur	O/o. the Deputy Chief Engineer, Transmission Circle, Malappuram	
62	1047751	Geetha L	Communication Section Moolamattom	O/o. the Deputy Chief Engineer, Transmission Circle, Alappuzha	
63	1048358	Geetha N Nair	Electrical Division Nilambur	Sub Regional Store, Pallom	
64	1046132	Geetha R	O/o.the Chief Engineer, Generation Circle Thrissur	O/o. the Chief Engineer (Dist. Central), Ernakulam	
65	1036167	George V V	Electrical Sub Division Chalakudy	BDPP, Brahmapuram	
66	1048682	Girija R	Electrical Division Thiruvananthapuram	O/o. the Chief Engineer (Dist. South), Power House, Tvpm.	
67	1045062	Girija T C	Sub Regional Store Thrissur	O/o. the Deputy Chief Engineer, Electrical Circle, Perumbavoor	
68	1048835	Gopakumaran Achary B	Electrical Section Moodadi	Electrical Sub Division, Kottiyam	
69	1041662	Gopalakrishnan C S	Electrical Sub Division, Viyyur	Sub Regional Store, Thrissur	
70	1047809	Gopi N K	Electrical Sub Division Kalikavu	Electrical Sub Division, Ollur	

71	1038165	Hari Kumar. G	220 KV Sub Station New Pallom	Generation Sub Division, Vellathooval	
72	1048739	Hari Prasad M	APTS Regional Unit, Kozhikode	Transmission Division, Vatakara	
73	1046737	Husna Mumtaz K A	Trans Circle Store Viyyur	S/s. Sub Division Kaloor	
74	1046076	Indira K	TC Store Kalamassery	O/o. Chief Engineer (Trans. SO), Kalamassery	
75	1045527	Indira K	Communication Sub Division Edapon	O/o. the Deputy Chief Engineer, Electrical Circle, Kottarakkara	
76	1048757	Indu V G	66 KV Sub Station, Neyyattinkara	O/o. the Deputy Chief Engineer, Electrical Circle, Thiruvananthapuram (Rural)	
77	1035597	Ismael P A	Sub Regional Store Irinjalakuda	Electrical Sub Division Chalakudy	
78	1046015	Jaya Kumar M P	Relay Sub Division Edappon	Electrical Sub Division, Kanjikode	
79	1047081	Jaya N P	Electrical Division Tirur	O/o. the Deputy Chief Engineer, Electrical Circle, Irinjalakuda	
80	1048183	Jayachandran K M	66 KV Sub station, Pathanapuram	O/o. the Deputy Chief Engineer, Transmission Circle, Kottarakkara	
81	1037648	Jayachandran P	Electrical Section, Kattoor	O/o. the Deputy Chief Engineer, Electrical Circle,, Kalpetta	
82	1048974	Jayadevan Nair V	Relay Sub Division, Kasaragode	Transmission Sub Division, Kasargod	
83	1044298	Jayan K	Generation Sub Division Moolamattom	Electrical Sub Division Vaikom	
84	1045551	Jayasankar K R	L P Erection Division Karimanal	O/o. the Deputy Chief Engineer, Electrical Circle, Perumbavoor	
85	1047074	Jayasmitha S B	Electrical Division Vatakara	O/o. the Chief Engineer (Corporate Planning), Vydyuthi Bhavanam, Tvpm.	
86	1046148	Jayasree M	Electrical Division, Chalakudy	Electrical Division, Nilambu r	
87	1046696	Jayasree P	O/o the Director (T&SO), Vydyuthi Bhavanam, Tvpm	O/o. the Chief Engineer (Corporate Planning), Vydyuthi Bhavanam, Tvpm.	
88	1045603	Jayasree T A	Electrical Division Thodupuzha	TC Sub Division, Poovanthuruthu	
89	1048989	Jayesh Lal S R	Generation Sub Division, Moolamattom	O/o. the Chief Engineer (Generation), Moolamattom	
90	1039143	Jaysankar. V.S	220KV Sub station,Kanjikode	O/o. the Deputy Chief Engineer, Electrical Circle, Palakkad	
91	1048657	Jeshy Itty C	Generation Circle Store, Moolamattom	O/o. the Chief Engineer (Generation), Moolamattom	
92	1043723	Jessy Rose Chacko	Electrical Sub Division Chengamanad	O/o. the Deputy Chief Engineer, Electrical Circle, Shornur	
93	1046567	Jessymol P C	Electrical Sub Division Vaikom	Electrical Division Thodupu zha	
94	1050309	Jeyashree C	O/o the CE (Transmission - South), Thiruvananthapuram	O/o. the Chief Engineer (Dist. South), Power House, Tvpm.	

95	1046154	Jolly Rose P M	220 KV Sub Station Sub Division Poovanthuruthu	O/o. the Deputy Chief Engineer, Electrical Circle, Kollam	
96	1043988	Joseph Shaji A M	S/s. Sub Division, Kavanad	O/o. the Deputy Chief Engineer, Electrical Circle, Kollam	
97	1044318	Joshy N V	Electrical Sub Division Nileshwar	Electrical Sub Division Kurvilangad	
98	1047649	Joy T	Electrical Section, Pandalam	Generation Circle, Moozhiyar	
99	1044625	Jumaila Beevi K M	TC Store Thodupuzha	Electrical Sub Division, Vandiperiyar	
100	1041520	Karunakaran.A M	110 KV Line Construction Section Vatakara	Electrical Division, Vatakara	
101	1048707	Krishna Kumar S	Colony Maintenance Section, Kalamassery	O/o. Chief Engineer (Trans. SO), Kalamassery	
102	1044278	Krishnakumar K S	Electrical Sub Division Ayyanthole	O/o. the Deputy Chief Engineer, Electrical Circle, Kasargod	
103	1042924	Kuttappankani.S	Electrical Section Vellanadu	O/o. the Chief Engineer (Trans. South), Vydyuthi Bhavanam, Tvpm.	
104	1048825	Laiju M S	O/o the CE (Corporate Planning)	O/o. the Chief Engineer (Corporate Planning), Vydyuthi Bhavanam, Tvpm.	
105	1043824	Laila N G	Electrical Division Chengannoor	O/o. the Deputy Chief Engineer, Transmission Circle, Thodupuzha	
106	1048965	Lakshmi K	O/o. the Chief Engineer (Dist. Central), Ernakulam	O/o. the Deputy Chief Engineer, Electrical Circle, Shornur	
107	1044126	Lalitha K C	Sub Regional Store Tirur	O/o. the Deputy Chief Engineer, Electrical Circle, Thrissur	
108	1036223	Lalson K O	Control Room Kozhikode	Electrical Sub Division, Pathanapuram	
109	1048912	Latha S	110 KV Sub Station, Kadavanthara	O/o. the Deputy Chief Engineer, Electrical Circle, Manjeri	
110	1046638	Latha T K	Electrical Sub Division Thalassery	Relay Sub Div., Madakkathara	
111	1043868	Leelammai A	O/o. the Director (D&GE), Vydyuthi Bhavanam, Tvpm.	O/o. the Chief Engineer (Trans. South), Vydyuthi Bhavanam, Tvpm.	
112	1048831	Lekha L R	Electrical Circle TVPM (Rural), Kattakada	O/o. the Chief Engineer (PED), Vydyuthi Bhavanam, tvpm.	
113	1047901	Leoni Arthur	Electrical Division Adoor	O/o. the Deputy Chief Engineer, Electrical Circle, Kottarakkara	
114	1045625	Letha M K	Transmission Circle Poovanthuruthu	Electrical Division Changanacherry	
115	1048384	Letha S	Electrical Section, Arookutty	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm	
116	1049606	Lizy E	110 kV Sub Station, Mavelikkara	O/o. the Chief Engineer (Dist. South), Power House, Tvpm.	

117	1047907	Lolamma Luke	Sub Station Sub Division,Vatakara	O/o. the Deputy Chief Engineer, Transmission Circle, Poovanthuruthu	
118	1046507	Madhulal J	Electrical Sub Division Pilicode	220 KV Line Construction Sub Division, Punnapra	
119	1036218	Maitheen Kunju M	TC Store Alappuzha	O/o. the Deputy Chief Engineer, Electrical Circle, Alappuzha	
120	1049074	Mani K S	Electrical Section, Vattiyoorkavu	O/o. the Chief Engineer (Trans. South), Vydyuthi Bhavanam, Tvpm.	
121	1048833	Manju Susan Cherian	66kV GIS Section, Power House	O/o. the Chief Engineer (Corporate Planning), Vydyuthi Bhavanam, Tvpm.	
122	1045006	Manjula P V	Electrical Sub Division Pallom	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm	
123	1048837	Manoj B	110 KV Sub station Section, Chevayur	O/o. the Director (D&GE), Vydyuthi Bhavanam, Tvpm.	
124	1048019	Manoj E	Electrical Section, Kovoor	Control Room, Kozhikode	
125	1048408	Manoj Kumar P V	APTS Unit, Kannur	O/o. the Chief Engineer (Trans. North), Kozhikode	
126	1046550	Manoj S	LMSD Mylatty	O/o. the Deputy Chief Engineer, Electrical Circle, Sreekantapuram	
127	1049313	Manoj T	PET Sub Division, Madakkathara	S/s. Sub Division, Mattannur	
128	1044971	Manoj V A	Transmission Division, Madakkathara	Electrical Sub Division, Viyyur	
129	1038677	Manojmathew Kuriakose	IT Computerisation Unit, Thiruvananthapuram	IT Computerisation Unit, Thiruvananthapuram	
130	1046634	Mansurali Khan A	220 KV Sub Station Sub Division Areacode	Electrical Division, Mavelikkara	
131	1048880	Martin P A	110 kV Sub Station, Edappally	System Operation Circle Kannur	
132	1048768	Mary Paul C	Electrical Division, North Parur	Electrical Sub Division, Pulamanthole	
133	1049213	Mathew Jacob M	220 KV Sub Station, Poovanthuruthu	Electrical Sub Division, Panamaram	
134	1045516	Meera S	Generation Circle Kothamangalam	220 KV S/s. Sub Division, Poovanthuruthu	
135	1044747	Mini K V	Electrical Sub Division Triprayar	Electrical Sub Division, Ettumanoor	
136	1048970	Minimol S	66kV Sub station,Thodupuzha	O/o. the Chief Engineer (Generation), Moolamattom	
137	1035872	Mohamed Kunju T A	HT Meter Testing unit, Ernakulam	O/o. the Deputy Chief Engineer, Electrical Circle, Ernakulam	
138	1048867	Mohammad Sadiq M	110 KV Sub Station Section, Malappuram	Sub Regional Store, Tirur	
139	1036228	Mohammed Abdul Salam P	Electrical Sub Division Alathiyoor	Relay Sub Division, Edarikode	
140	1046442	Mohan George	KGDivision Kakkayam	Electrical Sub Division, Gandhinagar	
141	1047880	Mohanan E C	110 KV Sub Station, Malayattoor	TMR Division, Angamaly	

142	1048885	Mollyja Lucy Xavier	Transmission Division, Ernakulam	O/o. the Deputy Chief Engineer, Electrical Circle, Ernakulam	
143	1045051	Moorthy S	Transmission Sub Division Mannarkkad	Electrical Division, Mannarkad	
144	1044794	Muhammed Sayeed M M	Transmission Division, Vatakara	Sub Regional Store, Alappuzha	
145	1047334	Muhammedali E	Electrical Sub Division Areacode	APDRP Construction Division, Kozhikode	
146	1034684	Muraleedharan Pillai K	110 KV Sub station, Sasthamkotta	O/o. the Deputy Chief Engineer, Electrical Circle, Tirur	
147	1045968	Nahas Mohammed Shamim T M	O/o. the Standing Counsel, Ernakulam	LD Station, Kalamassery	
148	1045741	Narayanan C S	TC Store Malappuram	O/o. the Deputy Chief Engineer, Electrical Circle, Manjeri	
149	1050016	Naseem Seena N	RPTI, Thiruvananthapuram	O/o. the Chief Engineer (Trans. South), Vydyuthi Bhavanam, Tvpm.	
150	1043229	Nassar K I	Meter Testing Sub Division, Kalamassery	O/o. the Deputy Chief Engineer, Transmission Circle, Kalamassery	
151	1049054	Nazeer E	110 KV Sub Station, Nedumangadu	Transmission Sub Division, Nedumangad	
152	1048971	Nazeera Anvar	TMR Division Thirumala, TVPM (Rural)	O/o. the Deputy Chief Engineer, Transmission Circle, Thiruvananthapuram	
153	1044257	Neelakantan S	S/s. Sub Division Kaloor	Electrical Division, N Parur	
154	1044259	Ninan C Mathews	TC Sub Division, Kozhenchery	Generation Circle, Moolamattom	
155	1044801	Nirmala Kurian	TC Store Palakkad	O/o. the Deputy Chief Engineer, Electrical Circle, Palakkad	
156	1048719	Nisha A	Transmission Division Madakkathara	O/o. the Deputy Chief Engineer, Electrical Circle, Tirur	
157	1041014	Nissa P V	Communication Sub Division Moolamattom	O/o. the Deputy Chief Engineer, Electrical Circle, Perumbavoor	
158	1045833	Nizar A M	Electrical Sub Division Muttungal	O/o. the Deputy Chief Engineer, Electrical Circle, Kottarakkara	
159	1044353	Padmakumar C	Electrical Sub Division Varapuzha	220 KV S/s. Sub Division, Shornur	
160	1049030	Paul J Puthur	Electrical Section, Chittari	Generation Sub Division, Poringalkuthu	
161	1045496	Potty K G	Electrical Sub Division Kechery	Electrical Sub Division, Mala	
162	1048659	Pradeep A V	Communication Sub Division, Edapon	O/o. the Deputy Chief Engineer, Electrical Circle, Pathanamthitta	
163	1047738	Pradeep Kumar G	66 KV Sub Station, Perumanoor	APTS Unit, Kannur	

164	1048345	Pradeep P S	110 KV Sub Station, Kavanadu	O/o. the Deputy Chief Engineer, Electrical Circle, Kozhikode	
165	1048967	Prasad K	Electrical Section, Kothakkurussi	Electrical Sub Division, Cherplassery	
166	1045311	Prasannakumari J	220 KV Line Construction Sub Division, Punnapra	O/o. the Deputy Chief Engineer, Electrical Circle, Alappuzha	
167	1041813	Prasanth Kumar V	110 KV Sub station Section, Kunnamangalam	O/o. the Deputy Chief Engineer, Electrical Circle, Kozhikode	
168	1046631	Preetha A	Electrical Sub Division Wandoor	O/o. the Chief Engineer (Dist. Central), Ernakulam	
169	1049720	Preethikesan K P	TC Sub Division, Meppayur	O/o. the Deputy Chief Engineer, Electrical Circle, Vatakara	
170	1049041	Preethy Gopinath S	Transmission Division, Kazhakkuttom	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm	
171	1047900	Priya S	Electrical Circle, Ernakulam	O/o. the Deputy Chief Engineer, Transmission Circle, Thrissur	
172	1049184	Radhakrishnan B	Generation Circle Moozhiyar	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm	
173	1048646	Radhakrishnan G R	IT Computerisation Unit, Thiruvananthapuram	IT Computerisation Unit, Thiruvananthapuram	
174	1045822	Rafi S M	Electrical Sub Division Kilimanoor	Transmission Sub Division, Attingal	
175	1043806	Raghunath K	66 KV Sub Station, Kodungallur	O/o the CE (Distribution North) Kozhikode	
176	1049051	Raimol Pavithran	O/o. the Chief Engineer (Dist. Central), Ernakulam	O/o. the Deputy Chief Engineer, Electrical Circle, Tirur	
177	1048709	Rajan K R	110 kV Sub Station, Ayarkunnam	O/o. the Chief Engineer (Generation), Moolamattom	
178	1043981	Rajan P K	Electrical Division Kannur	BDPP, Brahmapuram	
179	1048849	Rajashree Sridharan	Electrical Division, Mavelikkara	O/o. the Chief Engineer (Commercial & Tariff), Vydyuthi Bhavanam, Tvpm.	
180	1036090	Rajendren.N	Electrical Sub Division Ettumanoor	Electrical Sub Division, Ezhamkulam	
181	1042083	Rajesh R	220 KV S/s. Sub Division, Shornur	APDRP, Thiruvananthapuram	
182	1048799	Rajeswari N S	O/o the CE (Transmission - North), Kozhikode	O/o. the Deputy Chief Engineer, Electrical Circle, Kozhikode	
183	1045569	Rajmohan P	Electrical Section Sakthikulangara	TC Sub Division, Kozhenchery	
184	1049078	Raju Kumar G	Generation Division Moozhiyar	O/o. the Chief Engineer (Trans. South), Vydyuthi Bhavanam, Tvpm.	
185	1045236	Ramesh A	Relay Sub Division Madakkathara	Electrical Division, Kannur	

186	1035716	Ramesh Babu	Electrical Sub Division, College, Ernakulam	Electrical Sub Division, Chengamanadu	
187	1039626	Ramesh.M K	T.C Section,Annamanada	Electrical Division Kalpetta	
188	1039437	Ravi.A C	KG Division, Kakkayam	O/o the CE (Distribution North) Kozhikode	
189	1037722	Reghunadh P V	APTS Regional Unit, Kozhikode	Line Maintenance Sub Division Nallalam	
190	1048390	Reguvaran K T	Generation Sub Division, Panniyar	O/o. the Chief Engineer (Generation), Moolamattom	
191	1048771	Renuka V V	Electrical Circle, Kannur	Electrical Sub Division, Iritty	
192	1045539	Rethidevi C L	TC Sub Division Poovanthuruthu	O/o. the Chief Engineer (PED), Vydyuthi Bhavanam, tvpm.	
193	1035590	Revi M M	Control Room, Ernakulam	O/o. Chief Engineer (Trans. SO), Kalamassery	
194	1047403	Riju V	Generation Division Moozhiyar	O/o. the Deputy Chief Engineer, Electrical Circle, Thiruvananthapuram (Urban)	
195	1048710	Ritesh P R	BDPP, Brahmapuram	O/o. Chief Engineer (Trans. SO), Kalamassery	
196	1048882	Riyas E A	220 kV Sub Station, Kalamassery	220 KV S/s. Sub Division, Areacode	
197	1047944	Roja P C	Electrical Division Kalpetta	Electrical Sub Division, Pazhayangadi	
198	1045959	Ruksana A A	Electrical Section, Vypeen	PET Sub Division, Kalamassery	
199	1047720	Sabeena A	O/o. the Director (Trans. & SO), Vydyuthi Bhavanam, Tvpm	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm	
200	1046151	Sabitha John	Electrical Division Punalur	O/o. the Deputy Chief Engineer, Electrical Circle, Pathanamthitta	
201	1047367	Sabu P K	APTS, Ernakulam	Electrical Sub Division, College, Ernakulam	
202	1048787	Sabu T Joseph	Relay Sub Division Kozhikode	O/o. the Chief Engineer (Trans. North), Kozhikode	
203	1045636	Saija P V	TMR Division, Pallom	O/o. the Deputy Chief Engineer, Electrical Circle, Thodupuzha	
204	1047450	Sajeed P M	Transmission Sub Division,Edappon	Communication Sub Division, Edappon	
205	1048884	Sajeev K	Generator Maintenance Sub Division, Moolamattom	Generation Circle, Moolamattom	
206	1047368	Sajeevan Kundan	66 KV Sub station, Mankavu	O/o. the Chief Engineer (Trans. North), Kozhikode	
207	1041025	Sajeeve M T	Chief Engineer (Transmission - North) Kozhikode	Electrical Sub Division, Muttungal	
208	1048244	Saji Alex	66 KV Sub Station, Thriveni	Electrical Sub Division Kalikavu	
209	1042082	Saji C A	Electrical Sub Division Thoppumpady	Electrical Sub Division, Kuruppumpady	
210	1044642	Saji M J	APDRP Division, Ernakulam	Electrical Sub Division, Varappuzha	

211	1045162	Sajina T	Transmission Circle Kottarakkara	O/o. the Deputy Chief Engineer, Electrical Circle, Pala	
212	1045580	Saju John	Governor System Maintenance Sub Division Moolamattom	O/o. the Chief Engineer (Generation), Moolamattom	
213	1046568	Saju P V	Generation Division Moozhiyar	Transmission Division, Pathanamthitta	
214	1037547	Salil P C	110 KV Sub Station, Ollur	O/o the CE (Distribution North) Kozhikode	
215	1043274	Sanal Kumar T B	Transmission Sub Division, Neyyattinkara	Line Construction Sub Division, Balaramapuram	
216	1044247	Sandhya Divakar	Relay Sub Division, Edarikode	PET Sub Division, Madakkathara	
217	1047231	Santhosh E	SCADA Sub Division, VB Thiruvananthapuram	O/o. the Chief Engineer (Trans. South), Vydyuthi Bhavanam, Tvpm.	
218	1045598	Santhosh K	Generation Division Moozhiyar	O/o. the Deputy Chief Engineer, Electrical Circle, Pathanamthitta	
219	1045482	Santhosh P Abraham	L P Erection Division Karimanal	Electrical Sub Division Velloorkunnam	
220	1041706	Santhy K	Sub Regional Store, Vatakara	D C Store Kozhikode	
221	1035964	Saradadevi.C	Electrical Sub Division Pulamanthole	O/o. the Deputy Chief Engineer, Electrical Circle, Irinjalakuda	
222	1049543	Saritha M D	Electrical Section Shoranur	O/o.the Chief Engineer, Generation Circle Thrissur	
223	1040076	Saseendran N	Electrical Section, Taliparamba	O/o. the Deputy Chief Engineer, Electrical Circle, Sreekantapuram	
224	1051265	Sathyakumar E Patlath	PET Sub Division, Kozhikode	S/s. Sub Division, Vatakara	
225	1036114	Sathyan K	Electrical Sub Division Mankombu	O/o. the Deputy Chief Engineer, Electrical Circle, Kalpetta	
226	1045750	Savitha K S	Transmission Division, Pathanamthitta	O/o. Chief Engineer (Trans. SO), Kalamassery	
227	1047810	Sebastian P A	Electrical Section, Koovapady	O/o. the Deputy Chief Engineer, Transmission Circle, Kalamassery	
228	1047530	Seby Thomas C	110 kV Sub Station, Wadakkancherry	Electrical Sub Division Thalassery	
229	1048868	Seema K P	O/o the CE (Distribution North) Kozhikode	Electrical Sub Division, Vatakara South	
230	1034480	Seena P S	APDRP, Thiruvananthapuram	O/o. the Chief Engineer (Corporate Planning), Vydyuthi Bhavanam, Tvpm.	
231	1048898	Shaj Kumar S	110 KV Sub Station, Kazhakkuttom	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm	
232	1044049	Shaji Sudhakaran	D C Store Kozhikode	Sub Regional Store, Vatakara	
233	1049079	Shaji Thomas	TC Section Kadapra	Generation Circle, Moozhiyar	

234	1043971	Shaju M A	Electrical Sub Division Mala	Electrical Sub Division, Kechery	
235	1048755	Shebna M S	APDRP Division, Ernakulam	O/o. the Deputy Chief Engineer, Electrical Circle, Thodupuzha	
236	1046706	Sheeba I	TMR Division Angamaly	O/o. the Deputy Chief Engineer, Electrical Circle, Shornur	
237	1044481	Sheejabeegom K B	Regional Store Kundara	Transmission Sub Division, Changanassery	
238	1045529	Shibu K K	Sub Station Sub Division Vaikom	Generation Circle, Moolamattom	
239	1048836	Shibu R	110kV Sub Station, Ayathil	S/s. Sub Division, Kavanad	
240	1044467	Shibu Sebastian	Switch Yard Sub Division Moolamattom	APTS Regional unit, Vazhathope	
241	1046156	Shirley D	O/o. the Chief Engineer (Corporate Planning), Vydyuthi Bhavanam, Tvpm.	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm	
242	1048779	Shirley Thomas S	66 kV Sub Station, Karunagappally	Electrical Sub Division, Pallom	
243	1046269	Shyni K Abraham	Meter Testing Sub Division Kalamassery	O/o. the Deputy Chief Engineer, Electrical Circle, Thrissur	
244	1048070	Shyni K V	Electrical Circle Sreekantapuram	Electrical Sub Division, Valapattanam	
245	1046681	Siby Jacob	Meter Testing Sub Division 110 KV Sub Station complex Kundara	Electrical Sub Division, Uduma	
246	1049586	Sindhu P R	110 KV Sub Station, Edappally	Electrical Division, Pattambi	
247	1045119	Sindhu R	Electrical Circle Perumbavoor	Electrical Division Tirurangadi	
248	1042016	Sivadas S	Line Maintenance Sub Division Nallalam	O/o. the Deputy Chief Engineer, Electrical Circle, Vatakara	
249	1045778	Sivakumar S	Electrical Sub Division Venjarammoodu	Electrical Sub Division, Parassala	
250	1047210	Sivaprasad R	Electrical Sub Division Vellayambalam	O/o. the Deputy Chief Engineer, Transmission Circle, Thiruvananthapuram	
251	1046511	Smitha V	Electrical Sub Division Shornur	Electrical Sub Division, Triprayar	
252	1046842	Sojan P A	Transmission Sub Division, Kundara	O/o. the Chief Engineer (HRM), Vydyuthi Bhavanam, Tvpm.	
253	1049065	Soman K	T C Section, Pathirippala	O/o. the Deputy Chief Engineer, Transmission Circle, Palakkad	
254	47264	Sonia Jacob	Regional IT Unit, Kochi	O/o. Chief Engineer (Trans. SO), Kalamassery	
255	1048676	Sophy George	O/o the CE (Supply Chain Management)	O/o. the Chief Engineer (Corporate Planning), Vydyuthi Bhavanam, Tvpm.	
256	1050120	Sreeja S	66KV Sub Station, Parippally	Electrical Sub Division, Ranni	
257	1045620	Sreeram P V	Electrical Sub Division Kanjikode	Transmission Sub Division, Mannarkad	

258	1048026	Subhaja K M	Electrical Sub Division Valapattanam	O/o. the Deputy Chief Engineer, Electrical Circle, Thrissur	
259	1048724	Subramony H N	O/o. Chief Engineer (Trans. SO), Kalamassery	O/o. the Deputy Chief Engineer, Electrical Circle, Sreekantapuram	
260	1044825	Sudevkumar M K	BDPP, Brahmapuram	O/o. the Deputy Chief Engineer, Transmission Circle, Kozhikode	
261	1048723	Sudha Kumari R	ESCOT, Thiruvananthapuram	ESCOT, Thiruvananthapuram	
262	1049058	Sudha N	Electrical Circle, Thrissur	O/o. the Deputy Chief Engineer, Transmission Circle, Thrissur	
263	1046964	Sudha S	Electrical Division,Pattambi	O/o. the Deputy Chief Engineer, Electrical Circle, Ernakulam	
264	1045145	Sudharman P K	Generation Sub Division Poringalkuthu	Electrical Sub Division Koorkenchery	
265	1046002	Sudhir S	Electrical Division Tirurangadi	L P Erection Division Karimanal	
266	1049422	Sujatha P T	Kozhikode Diesel Power Project	O/o. the Deputy Chief Engineer, Transmission Circle, Kozhikode	
267	1045896	Sunil C S	APTS Regional Unit Kalpetta	Control Room, Ernakulam	
268	1046527	Sunil Joseph	Electrical Sub Division Iritty	O/o. Chief Engineer (Trans. SO), Kalamassery	
269	1043828	Sunil Kumar V V	Electrical Sub Division Nadapuram	O/o. the Chief Engineer (SCM), Vydyuthi Bhavanam, Tvpm	
270	1047891	Sunil N S	66 KV Sub Station, Kochupampa	Generation Circle, Moozhiyar	
271	1044355	Sunil.N.X.	Sub station Sub Division Mattannur	HT Meter Testing unit, Ernakulam	
272	1047138	Sunitha George	LD Station Kalamassery	O/o. Chief Engineer (Trans. SO), Kalamassery	
273	1044303	Sunitha Jose	BDPP, Brahmapuram	Electrical Sub Division, Ayyanthole	
274	1048217	Sunitha S	Electrical Sub Division Kottiyam	O/o. the Deputy Chief Engineer, Electrical Circle, Kottayam	
275	1044195	Suraja R K	Transmission Sub Division Nedumangadu	O/o. the Chief Engineer (Trans. South), Vydyuthi Bhavanam, Tvpm.	
276	1041177	Surendran C G	Electrical Section Thiruvalla	Electrical Division, Thiruvalla	
277	1043719	Suresh A	Kozhikode Diesel Power Project	O/o. the Director (D&GE), Vydyuthi Bhavanam, Tvpm.	
278	1044499	Suresh Babu N	Electrical Sub Division Velloorkunnam	TNMS Sub Division, Kalamassery	
279	1048341	Suresh K S	Electrical Section, Puthenchira	220 KV Sub Station Sub Division Kaniyampetta	
280	1045752	Suresh Kumar D	Transmission Sub Division, Attingal	Electrical Sub Division, Venjaramoodu	
281	1048808	Suresh Kumar P G	Generation Division, Kakkad, Seethathode	Electrical Division, Pathanamthitta	

282	1048809	Suresh Kumar P V	110 KV Sub Station, Taliparamba	O/o. the Deputy Chief Engineer, Transmission Circle, Kannur	
283	1045831	Suresh Kumar S	Line Construction Sub Division, Balaramapuram	Transmission Sub Division, Neyyattinkara	
284	1044556	Suresh Kumar S B	Electrical Sub Division, Uduma	Electrical Sub Division Mankombu	
285	1043720	Suresh Kumar S V	IT Computerisation Unit, Thiruvananthapuram	Kozhikode Diesel Power Project	
286	1048883	Suresh R	220 KV Line Construction Sub Division, Punnapra	O/o. the Deputy Chief Engineer, Electrical Circle, Alappuzha	
287	1045548	Suresh S	Exciter & Controls Sub Division Moolamattom	Electrical Division Chengannoor	
288	1036528	Suresh. S	66 KV Sub Station Kizhakkambalam	Meter Testing Sub Division Kalamassery	
289	1050002	Susan George	Transmission Division, Pathanamthitta	Sub Station Sub Division Vaikom	
290	1040585	Syamkumar A	Electrical Section, Olai	Electrical Division, Punalur	
291	1045647	Tessy Varkey	Electrical Division N Parur	O/o. the Chief Engineer (Dist. Central), Ernakulam	
292	1036430	Thankachan P S	Electrical Sub Division, Ezhamkulam	Transmission Division Pathanamthitta	
293	1044748	Thobias C C	APTS Regional Unit, Kozhikode	O/o. the Standing Counsel, Ernakulam	
294	1045054	Thomas Kuruvila	Electrical Section, Kolencherry	O/o. the Deputy Chief Engineer, Electrical Circle, Kalpetta	
295	1044713	Thulasidharan Pillai M K	110 KV Sub Station, Pathanamthitta	Transmission Division, Pathanamthitta	
296	1046530	Titus A P	TNMS Sub Division, Kalamassery	O/o the CE (Distribution North) Kozhikode	
297	1049071	Tomy Joy M	110 KV Sub Station, Kaloor	APDRP Construction Division, Kozhikode	
298	1046114	Tony M Keeranchira	Electrical Sub Division Vandiperiyar	Generation Circle, Moolamattom	
299	1043908	Tresa Ruby Pereira	Electrical Division Nedumangad	O/o. the Chief Engineer (Commercial & Tariff), Vydyuthi Bhavanam, Tvpm.	
300	1049757	Umeshan V V	110 KV Sub Station, Kanhangad	Electrical Sub Division, Nileswar	
301	1048966	Usha T A	T C Section, Anjukunnu	Transmission Sub Division, Kaniyampetta	
302	1049360	Uthrasenan P V	Electrical Section, Vatakara South	KG Division, Kakkayam	
303	1049306	Valsa Kumar M S	220KV Sub station, Kanjikode	O/o. the Deputy Chief Engineer, Electrical Circle, Palakkad	
304	1048793	Vijai Kumari N D	Transmission Circle, Thrissur	220 KV Sub Station Sub Division,Malaparamba	
305	1037043	Vijaya Kumar C	ESCOT, Thiruvananthapuram	Electrical Division, Kattakkada	

306	1048957	Vijaya Kumar C R	Electrical Section, Neyyattinkara	Electrical Division, Nedumangad	
307	1043937	Vijayakumar A	System Operation Circle Kannur	APTS Regional Unit, Kozhikode	
308	1035450	Vijayan B	Electrical Sub Division Panamaram	Transmission Sub Division, Edapon	
309	1039713	Vijayan.P.A	Sub station Section Nallalam	O/o. the Chief Engineer (Trans. North), Kozhikode	
310	1049294	Viji Prabhakaran	RPTI, Kottayam	Electrical Sub Division Kottayam	
311	1046875	Xavier D	Generation Circle, Moozhiyar	O/o. the Director (D&GE), Vydyuthi Bhavanam, Tvpm.	
312	1046867	Zacharias P C	APTS Regional Unit Vazhathoppe	O/o. the Deputy Chief Engineer, Electrical Circle, Pala	

Note:

1. The above transfers and postings are ordered in the exigency of service and in public interest.
2. The transferees may be relieved forthwith.
3. HRIS package may be updated before issuing L.P.C.

Sd/-
CHIEF ENGINEER (HRM)

Letter to the Editor

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Chief Editor

Hydel Bullet

KSEB Engineers' Association

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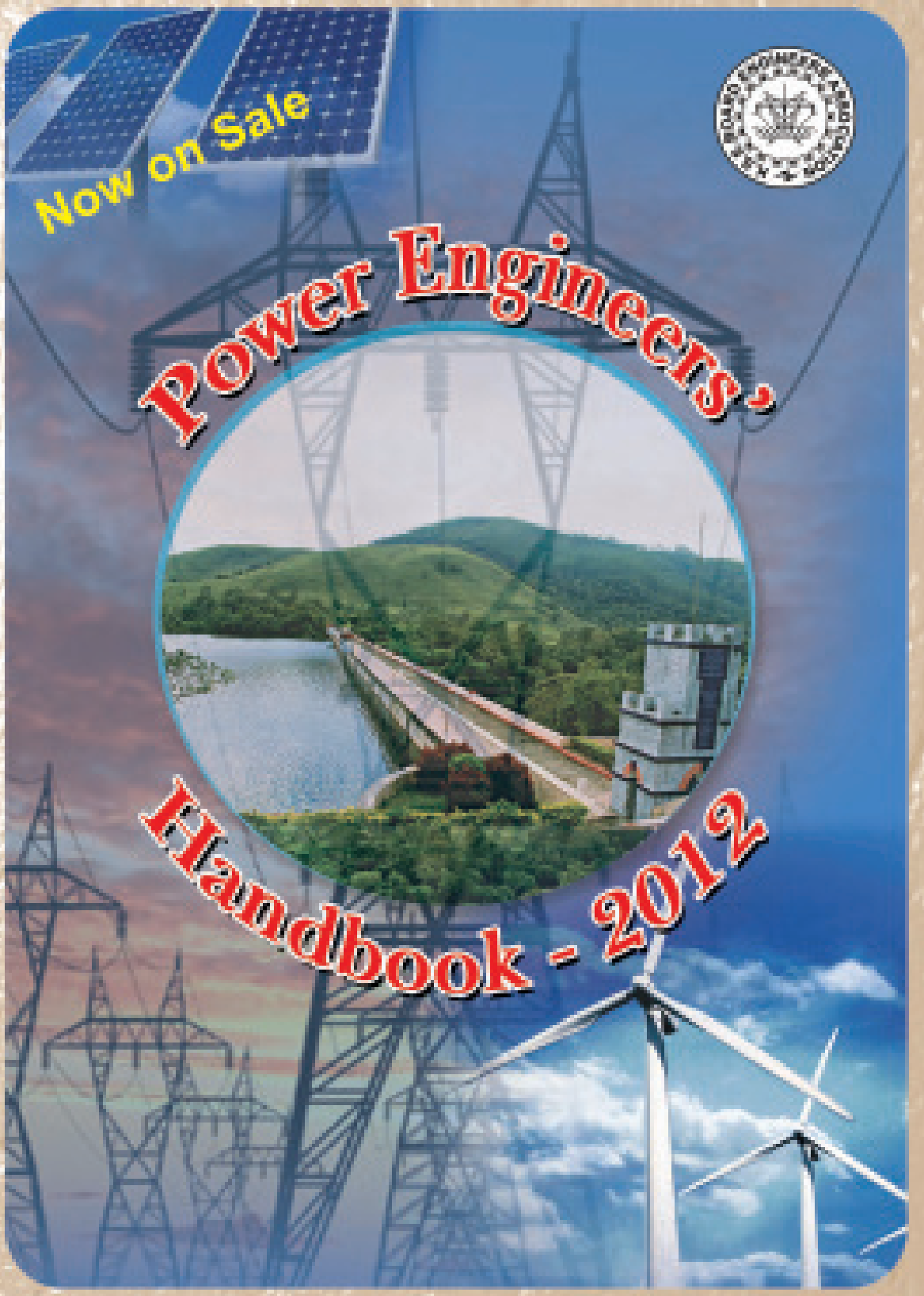
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Date of Publication 25-08-2014

General Secretary and President of KSEBEA signing the Tripartite Agreement between Government of Kerala,KSEB Ltd. and Unions on 01 August 2014

Edited, Printed & Published by P. Manoj, Chief Editor, Hydel Bullet for and on behalf of KSEB Engineers' Association, Paravila, Trivandrum -01, Ph : 2338996, email:hydelbulletin@gmail.com,web : ksebea.in
at Bhagath Printers, Pattom,Trivandrum - 4 , Ph : 4017097, bhagathpattom@yahoo.com