Hydel Bullet

A Monthly Publication of the Kerala State Electricity Board Employees Association

Sustainability in the Energy Sector

During the 61 General Body Meeting of our association, the Chairman and Managing Director KSEB Ltd. delivered an emphatic keynote address which focussed on 'Sustainability' in the Energy Sector.He reiterated the need to make our State a sustainable energy model, in which KSEB Ltd. has a definite role to play.The increasing demand over the years can be met only by such a model which focusses on keeping the energy deficit constantly at nil.This requires proper planning, forecast as well as proper implementation mechanism through the middle management. The success of the organization depends upon the efficiency at which the middle management implements the projects and how they manage the lower management, who forms the majority.

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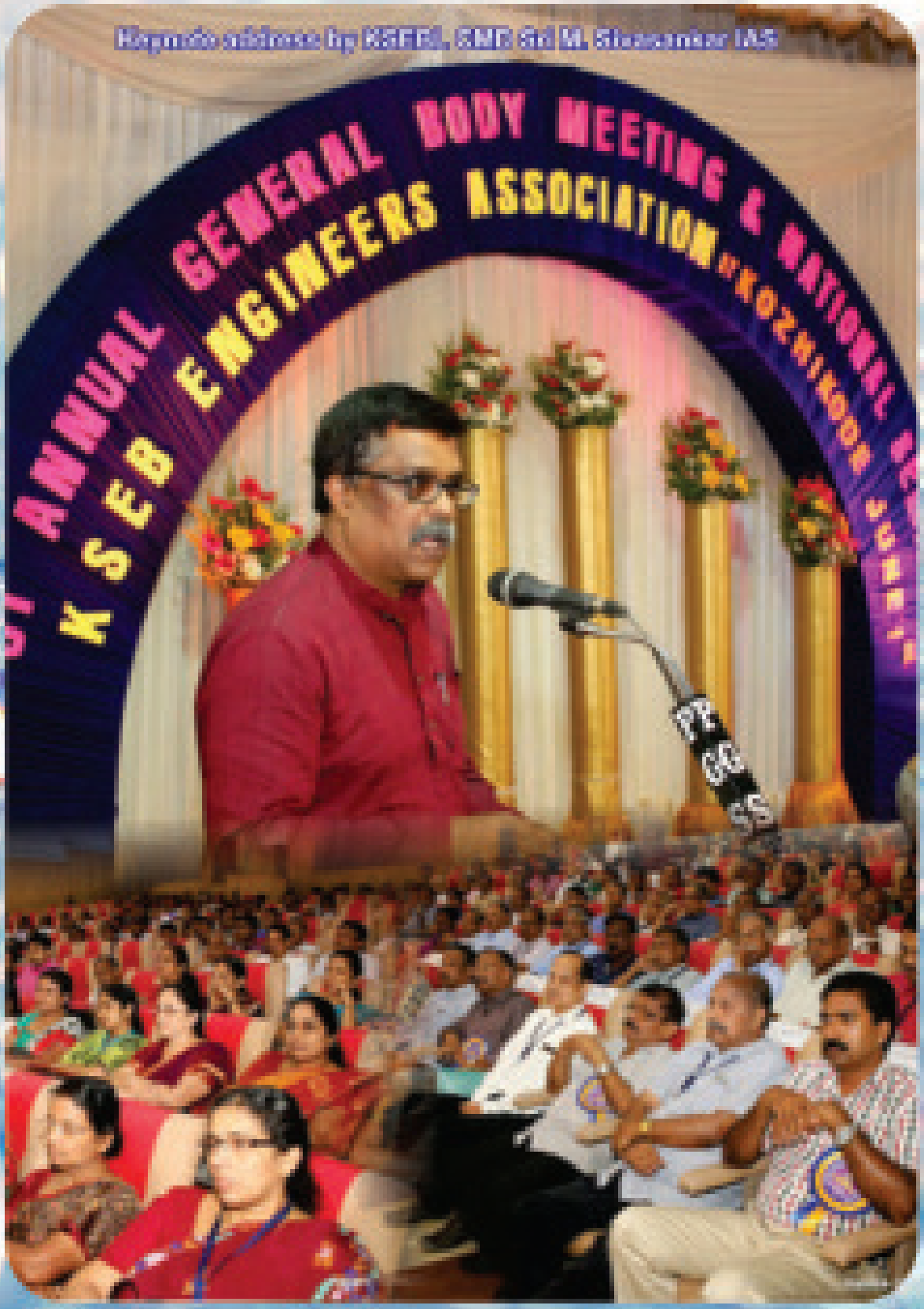
Keynote address by KSEBL, CMD Sri M. Sivasankar IAS
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The word sustainable development has become a dominant terminology, after the publication of the UN appointed Brundtland commission Report " Our Common Future" in 1987 which dealt with the increasing degradation of the environment. The report defines *sustainable development as the development which meets not only the needs of the present generation but also that of the future generation*. Eventhough the commission dealt purely with the environmental concerns, the outcome of the report has created a new paradigm in the context of the impending energy crisis that seems to have engulfed the world all over.

Sustainability in the energy sector means creation of power resources which have a long life as well as those which do not create any negative externalities and also bring in energy efficiency. Environment concerns have become larger due to the unpredictable change in the climate, the source of which has been tracked down to the increased release of greenhouse gases from the fossil based power plants.Kerala has escaped from this conundrum at it has only a meagre generation from the thermal power plants.But the large hydel projects it has, have its own disadvantages like the large submergance of forests due to the presence of dams,changing the nature of the aquatic ecosystem from a flowing water ecosystem to a static eco-system leading to the destruction of its natural biological diversity.We are lucky to have two large hydro projects namely Idukki Hydro Electric Project(IHEP) and the Sabarigiri project due to the foresight of our dedicated engineers, the benefits of which, we are currently enjoying. The future of large scale projects like the Silent Valley,Athirapalli and Pathrakadvu are locked up in environmental disputes.

Now every project is evaluated not only on the basis of the cost effectiveness and returns but also on the social costs involved. Hence construction of large hydel dams which displace millions of people from their traditional habitat, mainly the tribals who depend upon the forest produces , requires lot of clearances from the government agencies.Apart from this, it also destroys many traditional ecosystems which may be endemic to the Western Ghats region.Environmentalists across the world have arrived at a consensus that the Western Ghats being a tropical rainforest region, harbingers several endemic flora and fauna species which are rarely found in other parts of the world. Hence any large construction in forest areas is largely impossible not only in Kerala but anywhere in India.Any project in India on the scale of the Sardar Sarovar project across the river Narmada will remain a dream forever.

Now the slogan is "Think Big, Plan Small,Do it Fast" which translates to the concept that where large projects are not viable, several small projects can make-up for it thereby reducing the environmental impact.Small projects can be simultaneously built up more faster than a single large project.This is the reason why small hydro projects with capacity less than 25 MW are treated as green energy projects in the environmental treaties across the world.

In this context it is pertinent to point out that the recent decision to hand over certain viable small hydro projects to the private sector can endanger our utilites' position wherein the role of the utility changes from that of a generator to that of a purchaser after providing all the necessary facility for power evacuation from such projects. Instead of that Kerala should have encouraged joint development of new private mini &micro hydro projects, if KSEB Ltd. faces any resource crunch.Thus we could harness the maximum hydro potential of our State even in the face of resource crunch..

The Interstate transmission capacity in our State has reached an optimum stage,which is both a boon and bane for us.The boon is that the HT/EHT industries will not have space to bring in power from outside generating stations through open access.The bane is that we ourselves are not able to bring in power from the Central Generating Stations.Thus the allotted quota of 266 MW from the newly commissioned Kudankulam Nuclear Power Plant(1000MW) is being routed through a long route which is increasing the transmission losses and thus is nullifying the advantage.The new PGCIL 400 kV line from Edamon to Kochi is also wrangled in land acquisition hurdles, even though the State Government is willing to give increased compensation to the farmers .We urge the GoK to put the issue in high priority and an amicable solution may be arrived at the earliest hour as possible and remove all the roadblocks.

The stalled projects including the much awaited fuel conversion of BDPP to LNG, Cheemeny, Puthuvypeen etc needs an urgent relook. Eventhough the Board started the planning process for the conversion of the BDPP to LNG, it stays where it is. The LNG terminal has aleady been commissioned and now the petronet is planning to lease out the storage space, since less than 10% of the capacity is utilised. Now it is known that the conversion plan of the NTPC, which was started years back, is nearing completion. Had KSEB gone with the implementation of BDPP conversion as planned, the present energy crisis could have been averted to a large extent.

This shows that the absence of proper long term planning and forecast on our part, and our State is forced to have load shedding during monsoon season. Since the political dispensation at the Centre has changed and is different from that in our State, we cannot expect full support from them in the case of allocation from the unallocated power. Hence the ultimate and the only solution is to develop more internal generation, else 365 days load shedding has to be foreseen.

The power crisis that Kerala is now facing would not have happened if we had a sustainable energy vision about 10 years back. So let us stop unwanted debates and discussions and act smarter to implement sustainability by going in for more power generation projects which are environment friendly and that are sustainable in real sense also.

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NOTA – THE RESPONSE, THE WINNER

Er. N.M. Shamim

Legal, legality or lawfulness are some words used to find in more common talk between us. All such words are used in synonym with each other. People are found more conversant with the legal points and legal opinions than any legal expert. They used to find their own logic, to determine and convince themselves in each public as well as general litigations. They used to judge and express regularly on court judgments of public interested cases. We can find more examples from the recent past. We can't say it's all good for the up keep of the society, because the judiciary is the hope of the common man and sure , the response to the judicial system by anyone should be a matured one. And it may be a trend of the time, even then we cannot adjust ourselves when a celebrity or other public figures make such irregular comments on the judiciary. It is also true that, some issues came up in recent past which questioned the credibility of the high profile court personalities. Even though they are very less in number, its alarming, since judiciary is the last hope and essential pillar of our democratic country.

Then how shall be the response to figure out the common displeasure over the governing style. Here comes the name NOTA – 'None Of The Above' option which was introduced in the last Elections of 2014. Statistics says that this has been utilized by more people than expected and of course outnumbered in more constituencies as the 3rd most successful candidate. If we compare the performance with the new trend like the AAP, the success is high even without AAP like campaign.

Some statistics:

- NOTA garnered a countrywide vote share of 1.1% in 2014 Lok Sabha polls, which is more than the vote share managed by parties like the CPI and Janata Dal (United).
- Over 59.7 lakh voters across all 543 constituencies pressed the last button earmarked for NOTA.
- Puducherry emerged at the top of the table in percentage terms, with 3% of its electorate choosing to reject all the candidates.
- UP polled the highest 5.92 lakh votes in favour of NOTA, this translated into just 0.7% vote share. 19 of UP's 80 seats recorded more than 10,000 NOTA votes.
- Interestingly, Bihar, Tamil Nadu, West Bengal and Gujarat polled sizeable NOTA votes in most of the constituencies. As many as 31 of 39 constituencies in Tamil Nadu, 23 of 26 in Gujarat, 32 of 42 in West Bengal, 16 of 25 in Rajasthan, 19 of 29 in Madhya Pradesh, 12 of 21 in Odisha and 15 of 40 seats in Bihar polled NOTA votes in excess of 10,000.
- In terms of vote share, while Puducherry led with 3% in favour of

17 EMERGING ENERGY TECHNOLOGIES THAT WILL CHANGE THE WORLD

AIPEF

Below are technologies related to energy under three key areas of accelerating change: Storage, Smart grid and Electricity generation. Energy storage involves new, cost-effective ways of storing energy, either in improved batteries, as new fuels or other ways. A smart grid is a set of technologies that pairs information with moving electricity around, enabling more efficient generation and use of energy. Electricity generation is characterized by technologies that generate power from unused sources and that more efficiently produce electric power or fuels from sources in use today.

We have included predictions based on consultation with experts of when each technology will be

- Scientifically viable (the kind of stuff that Google, governments, and universities develop)
- Mainstream (when VCs and startups widely invest in it) and
- Financially viable (when the technology is generally available on Kickstarter).

STORAGE

1. Fuel cells:

Unlike batteries, fuel cells require a constant source of fuel and oxygen to run, but they can produce electricity continually for as long as these inputs are supplied. They inherently displace the need for natural gas turbines, and are ideally used for stationary power generation or large passenger vehicles such as buses (especially at energy-dense future iterations of the technology).

Scientifically viable in 2013; mainstream in 2015; and financially viable in 2016.

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NOTA, Meghalaya ranked next with 2.8%, followed by Chhattisgarh, Gujarat and Dadra & Nagar Haveli with 1.8% vote share. Bihar and Odisha polled 1.6% NOTA votes; followed by Jharkhand, Mizoram and Daman & Diu with 1.5%; Sikkim and Tamil Nadu with1.4%; Madhya Pradesh with 1.3%; and Rajasthan, Kerala, Goa with 1.2%.

- The constituency with the least number of votes in favour of NOTA was Lakshadweep, where only 123 people exercised the option. NOTA did not prove too attractive to voters in Punjab, Haryana and Delhi either.
- Last but not least the 2G scam-tainted candidate , had to taste humiliation not only at the hands of his rival but also had to put up with a spoiler called NOTA.

Let us hope the NOTA will have more role to play and will be considered seriously in coming elections.

" All legitimate consent requires the ability to withhold consent; therefore, the legitimate consent of voters requires they be able to withhold their consent in an election to office."

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2. Lithium-air batteries:

Advances in materials technology is enabling the advance of high energy Li-air batteries which promise an energy density that rivals gasoline, offering a five-fold increase compared to traditional Li-Ion batteries. By using atmospheric oxygen instead of an internal oxidizer, these batteries could dramatically extend electric vehicle range.

Scientifically viable in 2017; mainstream in 2018; and financially viable in 2020.

3. Hydrogen energy storage & transport:

Hypothetical evolution of existing power grids, transporting and storing hydrogen instead of electricity. Could be used in combination with various kinds of energy transformation methods, minimizing loss and maximizing storage capacity.

Scientifically viable in 2019; mainstream in 2021; and financially viable in 2022.

4. Thermal storage:

Often accumulated from active solar collector or from combined heat and power plants, and transferred to insulated repositories for use later in various applications, such as space heating, domestic or process water heating.

Scientifically viable in 2022; mainstream in 2024; and financially viable in 2027.

SMART GRID

5. First-generation smart grid:

Electrical meters that record consumption of electric energy in real time while communicating the information back to the utility for monitoring and billing purposes. Can be used for remote load-balancing such as disabling non-essential devices at peak usage.

Scientifically viable in 2014; mainstream in 2015; and financially viable in 2016.

6. Distributed generation:

Generates electricity from many small energy sources instead of large centralized facilities. Centralized power plants offer economies of scale, but waste power during transmission, and are inefficient in rapidly adapting to grid needs.

Scientifically viable in 2017; mainstream in 2021; and financially viable in 2022.

7. Smart energy network:

Speculative global energy & power infrastructure and set of standards which can be used interchangeably. Could theoretically mimic characteristics of the Internet in channeling heat, energy, natural gas (and conceivably hydrogen) from local and distant sources depending on global demand.

Scientifically viable in 2019; mainstream and financially viable in 2020.

ELECTRICITY GENERATION

8. Tidal turbines:

A form of hydropower that converts tidal energy into electricity. Currently used in small scale, with the potential for great expansion.

Scientifically viable in 2015; mainstream and financially viable in 2017.

9. Micro stirling engines:

Micrometer sized power generators that transform energy into compression and expansion strokes. Could hypothetically be 3D-printed on the fly and cover entire heat-generating surfaces in order to generate power.

Scientifically viable in 2020; mainstream in 2026; and financially viable in 2027.

10. Solar panel positioning robots:

Small-scale robots able to re-position solar panels depending on weather conditions. More efficient than attaching each panel to motorized tracking assemblies.

Scientifically viable in 2014; mainstream in 2016; and financially viable in 2017.

11. Second-generation biofuels:

New biofuel technologies, such as cellulosic ethanol and biodiesel from microalgae, promise to produce conventional fuel-compatible energy at low or zero greenhouse gas emissions.

Scientifically viable in 2016; mainstream in 2017; and financially viable in 2021.

12. Photovoltaic transparent glass:

Glass with integrated solar cells which converts IR and some visible light into electricity. This means that the power for an entire building can be supplemented using the roof and facade areas.

Scientifically viable in 2017; mainstream in 2020; and financially viable in 2021.

13. Third-generation biofuels:

Moving beyond today's organisms, 3rd generation biofuels involve genetic modification of organisms to produce new fuels by unconventional means. Examples include direct production of hydrogen from highly efficient algae, and production of energy-dense furans for automotive use. Scientifically viable in 2022; mainstream in 2024; and financially viable in 2025.

14. Space-based solar power:

Collecting solar power in space, beamed back as microwaves to the surface. A projected benefit of such a system is much higher collection rates than what is possible on earth. In space, transmission of solar energy is unaffected by the filtering effects of atmospheric gasses.

Scientifically viable in 2025; mainstream in 2027; and financially viable in 2028+.

15. Micro-nuclear reactors:

A small, sealed version of a nuclear reactor (approximately a few tens of meters in length) capable of being shipped or flown to a site. Currently able to provide 10 MW of power, plans are for 50 MW capacity in the near future.

Scientifically viable in 2022; mainstream and financially viable in 2023.

16. Inertial confinement fusion (break-even):

An approach to fusion that relies on the inertia of the fuel mass to provide confinement. To achieve conditions under which inertial confinement is sufficient for

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PYTHAGORAS AND KATHYAYANA MAHARSHI

Er. U.S. Ravindran

Pythagoras, the popular Mathematician and Philsopher was born in Greece in BC 529. He later migrated to Italy. He traveled through Mediterranean and visited cultural centres in Egypt. His influence in the public made many followers for him. Even though their group was focused on religion, they learned mathematics and philsophy. They admitted only noble persons into their group. They kept all informations confidential with in them, Ordinary people viewed them with suspicion. The Pythagorean group believed that human soul is eternal and way to avoid a rebirth as other creature inferior to human being is to lead a pure life. Hence strict discipline was observed in Pythagorean group. Self control, purity, moderate life and discipline were their slogan. There were astronomers, mathematicians, biologists, anatomists etc. in their group. They believed that music is closely related to mathematics. When the group's priority turned to occultism, people opposed them and Pythagorianism came to an end.

The important principle of Pythagorianism is that " everything is numbers". As a result numerology was also included as a subject of study along with geometry, music and astronomy in the basic education. They believed notes on any musical instrument is dependant on the proportion of measurements of length of string, length of a column and thickness of metal sheet. Different geometrical patterns for decoration can be made by various proportions of sides of a polygon. All stars in the sky are arranged in a special numerical order. Pythagoras might have generalized his findings and beliefs to reach a conclusion that "everything is numbers". His hypothesis expanded in many directions- as some mystic thoughts as well as realistic scientific thoughts. The first table with opposites were formed with - limits / infinity, odd/ even, single / multiple, left / right, masculine / Feminine, rest / motion, straight / curved, light / darkness, good / evil etc. It was known as Pythagoras table. It is not sure whether

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efficient thermonuclear burn, a capsule (generally a spherical shell) containing thermonuclear fuel is compressed in an implosion process to conditions of high density and temperature.

Scientifically viable in 2013; mainstream and financially viable in 2021.

17. Thorium Reactor:

Thorium can be used as fuel in a nuclear reactor, allowing it to be used to produce nuclear fuel in a breeder reactor. Some benefits are that thorium produces 10 to 10,000 times less long-lived radioactive waste and comes out of the ground as a 100% pure, usable isotope, which does not require enrichment.

Scientifically viable in 2025; mainstream in 2026; and financially viable in 2027.

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Pythagoras or his followers formed this table. Pythagoreans believed that Earth is spherical and a counter earth, earth moon, sun five planets and stars rotate with respect to a central hot point. The counter earth and central hot point is not visible because they are at the rear side of earth where human beings live. These were Pythagoreans hypothesis. Pythagoras believed that the bodily form of soul of all living beings are sacred and precious. Hence he advised to avoid fish and all non vegetarian foods.

In Mathematics

It is not known that how the theorem $c^2 = a^2 + b^2$ (that is square of the measure of diagonal is equal to sum of squares of base and altitude in case of right angled triangle) is named after Pythagoras. This formula was known to Babylonians well before 700 years of Pythagoras. In a proof of Pythagoras formula he has used the rule that total internal angle of a triangle is 2 right angles'' The contribution of euclid for solution of quantitative equation has been developed from pythagoras theories. Euclid has stated that the theories in respect of polygons and regular polygon are also developed from Pythagoras's theories.

Pythagoras triple :

If m is an odd number m, $\frac{m^2 + 1}{2}$ and $\frac{m^2 - 1}{2}$ are called Pythagorian triple and they are the three sides of a right angled triangle.

Theories related to means (arithmetic mean, geometric mean, harmonic mean), identities and irrational numbers are also contribution of Pythagoreans.

Euclid (BC 330 -260)

Euclid was an ancient Greek Mathematician. Very little is known about Euclid. He has summarized almost all contemporary mathematical, developments in his book " Elements''. It remains as an authentic information still, with some changes. He proved many Pythagoras theorems including that $\sqrt{2}$ is irrational . He believed that light travel in straight line and developed geometrical theories.

Archimedes (BC 287 - 212)

Archimedes was a great mathematician, physicist and machine designer. He was born in Syracuse of Greece. He conducted thousands of experiments to reach convincing conclusion to many theories of mathematics and physics. His eureka story is famous. He developed principles of lever. He is the first one to calculate value of π to 2 decimal places and stated that it is between 3 1/7 and 10/17, However theories of Pythagoras helped Archimedes in many experiments and calculations. Calculus students still now study about Archimedes spiral.

Indian mathematicians have made great contribution to mathematics. The concept of zero and its sign (0) originated from India. It is from India that the decinumerical system using digits 1 to 9 and zero was adapted, to western mathematics. The ancient trade between India and Arabian countries and subsequently to Greeks and Europeans made our system popular.

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At the time of Veda, science and spirituality were in perfect sychronism. Physical science and spiriual vision were supplementary to each other and hence scientists need not had to face harassments. Principles of Physical sciences were included in Vedic literature here and there with an intention of avoiding undue importance. Some mathematics thoughts are included in Rigveda and Adharvaveda. But there are more included in sulba soothras. Different geometrical shapes and formulaes have been explained in the details of construction of Yajnja vedis. It is believed all these were written well before BC 800 i e before the birth of Pythagoras. Still we study some theorems in the name of pythagoras.

Bhasaracharya II in the Chapter "Leelavathy'' of the book " Sidhantha Siromani'' has given the following sloka taken from Boudhayana of Kathyayana Maharshi regarding right angled triangle, that square of length of a diagonal is equal to sum of squares of lengths of base and altitude.

* തൽകൃത്യോർയോഗപദം കർണ്ണോ

ദോ കർണ്ണവർഗ്ഗയോ വിവരാൽ

മൂലംകോടി കോടി ശ്രവണ

കൃത്യോരന്തരാൽപദംബാഹു

ഒരു മട്ടത്രികോണത്തിൽ (Rt. angled) Base AB^2 ഭുജം = ബാഹു. Altitude BC = കോടി, Diagonal AC = കർണ്ണം

തൽകൃത്യോയോഗം = അവരുടെ വർഗ്ഗങ്ങളുടെ തുക ($AB^2 + BC^2$)

പദം = വർഗ്ഗമൂലം (Square root)

കർണ്ണം (Diagonal Ac)

തൽകൃത്യോയോഗപദം കർണ്ണം = $\sqrt{(AB^2 + BC^2)} = AC$

ദോ കർണ്ണവർഗ്ഗയോ വിവരാൽമൂലം കോടി

ദോ ഭുജം = ബാഹു Base AB

കർണ്ണം Diagonal വർഗ്ഗം = Square

വിവരാൽമൂലം വ്യത്യാസത്തിന്റെ വർഗ്ഗമൂലം $\sqrt{(AC^2 - AB^2)}$

കോടി = Altitude BC

ദോകർണ്ണോ വർഗ്ഗയോ വിവരാൽമൂലം കോടി

ie $\sqrt{(AC^2 + AB^2)} = BC$

* അർത്ഥം.

അവയുടെ (ഭുജകോടികളുടെ) വർഗ്ഗങ്ങളുടെ തുകയുടെ വർഗ്ഗമൂലം കർണ്ണമാകുന്നു. ഭൂജത്തിന്റെയും കർണ്ണത്തിന്റെയും വർഗ്ഗങ്ങളുടെ അന്തരത്തിന്റെ വർഗമൂലം കോടി ആകുന്നു. കോടിയുടെയും കർണ്ണത്തിന്റെയും വർഗ്ഗങ്ങളുടെ അന്തരത്തിന്റെ വർഗ്ഗമൂലം ബാഹു ആകുന്നു.

This theorem is known as Pythagorus therem. But it is already mentioned in Boudhayana Sulbasoothra before BC 1200. This therom should have known as Boudhayana theorem. Also there are slokas to find out so called Pythagorus tripple numbers. These also should have known as Boudhayana thriams.

We Indians under estimate our Rishis and ancient scholars, neglect our Sanathana Dharmas, great cultures and traditions and go after westeners. This may be because of lack of knowledge of Sanskrit language or our certain complex like to prefer intellectual slavism.

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UMPP- Heralding a New Era

Er. Kunjunni. P.S.

Out of the total electricity generation in India, more than 70% is contributed by the thermal power plants.Thermal power plants uses various fuels like coal,diesel,naptha etc,but coal projects dominates the sector.But over reliance on these sectors results in carbon pollution, thereby increasing the release of the Green House gases(GHG) into the atmosphere which ultimately results in global warming.India has already become a leading emitter of GHG after China.Since India is a signatory to various environmental treaties, the government is bound to introduce new technologies in the thermal generation sector.

Also the generation capacity needs to the doubled every decade so as to meet the demand forecasts. So there is a requirement of large projects to meet the demands of the national grid as well as that of the states.Eventhough government is fully supporting the Renewable Energy(RE) projects, it is not sufficient enough to meet the peak demands of the sector.Hence there is no way, other than the development of the Ultra Mega Power Projects(UMPP), to meet these aims.These are very large projects with a capacity of 4000 MW each and with an estimated cost of Rs 24,000 crores.These projects will be developed by the private developers on a Build,Own and Operate(BOO) basis. The Central Government will be awarding these projects to the private developers after tariff based competitive bidding, ie the project will be awarded to those who quote the lowest tariff for sale of electricity generated.Tariff based competitive bidding is done to promote competition in the power generation sector which is one of the aims of the Electricity Act 2003.

These projects use the super critical technology in the sense that they have a better fuel efficiency(about 42% compared to 30% of the conventional sub-criticial plants) which results in fuel saving(5% reduction) as well as very less pollution(5% reduction in CO2 emissions per MWh), thus improving the carbon profile.It also offers flexibility of plant operations such as shorter start-up times,improved temperature control,better efficiency at low Plant Load Factor(PLF) and high reliability.

Two types of UMPPs are being planned based on the location of power plant and the source fuel.The first type will be located in the coastal areas, where the coal used will be imported from other countries.Hence it will be convenient for the developer to use the imported coal directly from container ships and thus avoid the transportation cost through rails and roads.The second type will be located near the pitheads, i.e places from where coal is extracted from the ground.Thus these projects will be captive power plants used solely for electricity generation.Here also the transporation costs are tentatively nil, thereby reducing the production cost.

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Two stage competitive bidding is used for selecting the developer.The first stage is the Request for Qualification(RfQ) process where bidders meeting sufficient quality criteria are selected and passed on to the second stage.The second stage is the Request for Proposals(RfP) process , where the proposals of the bidders qualified in the first stage are evaluated and the successful bidder is identified on the basis of lowest levellised tariff.

Initially 9 UMPPs were identified,4 at pithead and 5 at coastal areas.4 projects have been already awarded to the successful bidders.

List of awarded projects

Sl No.	Name of UMPP	State	Type	Date of Transfer	Levellised Tariff(Rs.per unit)	Successful Bidder
1	Mundra	Gujarat	Coastal	23.04.2007	2.264	Tata Power Ltd.
2	Sasan	Madhyapradesh	Pithead	07.08.2007	1.196	Reliance Power Ltd.
3	Krishnapatnam	Andhra Pradesh	Coastal	29.01.2008	2.333	Reliance Power Ltd.
4	Tilaiya	Jharkhand	Pithead	7.8.2009	1.77	Reliance Power Ltd.

(Source : Ministry of Power,GoI)

Other UMPPs include pithead projects in the states of Chattisgarh, Odisha,Jharkhand and coastal projects in the states of Andhra Pradesh,Tamil Nadu and Gujarat.So a total of 16 projects are in various stages of planning and execution.

A striking factor here is that the state of Kerala is not seen in the UMPP map, which is unfortunate and a cause for concern.Surely our energy planners have missed the bus and now with the new government at the Centre, it will be difficult to get any UMPP projects for Kerala.Since we had as many 9 districts having coastal areas, it would have been possible to have a costal project where coal could be imported from other countries.Moreover power generation of around 4000 MW could have met our demand for the next 20 years.Now Kerala has to depend on UMPP projects of other states like Tamil Nadu. The Rs 24,200-crore Tamil Nadu UMPP would be located near Cheyyur village in Kancheepuram district. Power from the coastal project would be supplied to seven states including lead procurer Tamil Nadu (1,600 MW), Karnataka (800 MW), Andhra Pradesh (400 MW), Kerala and Uttar Pradesh (300 MW each) and Punjab (200 MW).

Recently, the Central Electricity Regulatory Commission gave permission for the Mundra UMPP(the first UMPP to be commissioned) managed by the Tata Power, to increase the Power Purchase Agreement(PPA)tariff rates by 52 paise to ensure that the project is viable for the commercial developer, under the name of

compensatory tariff.Mundra UMPP is a coastal project, where inexpensive low grade coal is imported from Indonesia and due to the imposition of export tax by the Indonesian government, the cost of imported coal has gone up.Hence the project authorities had approached the CERC for tariff hike, since the company cannot pass on the higher fuel cost to consumers as per the norms on which the project was awarded. Tata Power had to take an impairment charge on its balance sheet last year and ironically, the state-of-the-art power plant, which was commissioned on schedule, converted a profitable venture into a loss-making one.The original contracted tariff was Rs 2.26/- a unit and CERC gave permission to increase it to Rs 2.78/- a unit.This decision has been hailed by both the media and the power sector analysts, as a balanced decision, which benefits both the developer since they can make sufficient profits as well as the consumer who will not be impacted by a tariff hike.

There is a need to improve the contract conditions of the UMPPs as the private producers are purposefully decreasing the PLF and asking for a tariff hike.The recent case of Reliance operated Sasan UMPP is worth mentioning here. During the first two months of the current financial year, the plant load factor was 68.38 % whereas it was just above 58% in the last financial year, eventhough a minimum of 80% PLF is stipulated in the contract conditions.

It is also striking to note that after 2009, when the last UMPP was awarded, no other projects had been planned and awarded. Last year, there was some movement regarding Odisha and Tamil Nadu UMPPs, but has not been awarded yet. This explains the policy paralysis, that had caused the downfall of the UPA-2 government.

There is a long way to go for power generation to meet the demand in our country.since the supply demand gap is hovering around 5%.Time bound Implementation of more UMPPs will definitely help in plugging out this deficit and also in meeting the environmental standards of thermal projects.

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CONGRATULATIONS

Shri Piyush Goyal took over as the Union Minister of State (Independent Charge) of Ministries of Power, Coal and New & Renewable Energy.

കവിത

"നാളേക്കിത്തിരി ഊർജ്ജം"

പുഷ്പാംഗദൻ തച്ചയത്ത്

Er. P. Ramachandran
Kannur Unit

Know no thoughts of "mine" intrude
Know no thoughts of "I" invade
If sentiments -
Mine and me absolved
Where will be my existence ?

No need of Egotism
Merey in mind only need

A courageous mind
For the distressed

Alms to humanity
Divine worship to God
Almighty !

Amaze thy universe !
Solicit thy revelations
Who am I in it ? !

❖

പാഴാക്കരുതേ വൈദ്യുതി സഹജരേ
ജീവിതം ദുസ്സഹമാക്കിടല്ലേ
ആർഭാട ദീപങ്ങളണയ്ക്കാം
വൈദ്യുതി ദുർവിനിയോഗം കുറയ്ക്കാം.

നമ്മുടെ കുരുന്നുകൾ പഠിച്ചു മുന്നേറാൻ
നാളേക്കായ് ഇത്തിരി ചേർത്തുവയ്ക്കാം
ഊർജ്ജ സംരക്ഷണം കടമയായ് മാറ്റാം
പൗരാഭിമാനം സ്വന്തമാക്കാം.

നാടിൻ വികസനം ലക്ഷ്യം നമുക്കിനി
'പ്രചരണം പ്രവൃത്തിയിൽ മാത്ര'മാക്കാം !
വൈകിയിട്ടില്ല നാം ഓർക്കൂ സഹജരേ
പുതിയൊരീ ലക്ഷ്യമായുണർന്നുയരാൻ.

ഊർജസംരക്ഷണം മാനവ രക്ഷക്കായ്
ദേവ സങ്കീർത്തനമായി മാറ്റാൻ
നന്മക്കായ് ഒരുമയായ് കൈകോർക്കാം
നമുക്കീ-
അഭിനവ യുഗലക്ഷ്യം സാദ്ധ്യമാക്കാം !

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ഭരണത്തിലെ രാജധർമ്മം

Er. രാജൻ. വി.

ഏല്ലാ ഭരണരീതിയിലും, രാജഭരണമായാലും ജനാധിപത്യമായാലും, ഏകകക്ഷി ഭരണമായാലും മതാധിഷ്ഠിത ഭരണമായാലും ഏകാധിപത്യമായാലും എല്ലാപേരുടെയും ലക്ഷ്യം രാജ്യസുരക്ഷയും സർവ്വോത്മുഖമായ പുരോഗതിയുമാണ്. ഇതിൽ ആർക്കും തർക്കം ഉണ്ടാകേണ്ട കാര്യവുമില്ല. ഇരുപതാം നൂറ്റാണ്ടിന്റെ രണ്ടാം പാദത്തിൽ ലോകത്താകമാനം ഉണ്ടായ നവോത്ഥാനത്തിന്റെ ഫലമായി രാജ്യങ്ങളിലെ ഭരണ ക്രമത്തിൽ പല മാറ്റങ്ങളും ഉണ്ടായി. അങ്ങനെ നമുക്കും കൊളോണിയലിസത്തിൽ നിന്നും മോചനം ലഭിച്ചു. കൂട്ടത്തിൽ ജനാധിപത്യ ഭരണ ക്രമവും നിലവിൽ വന്നു. വർഷങ്ങളായി രാജഭരണത്തിൻ കീഴിലായിരുന്ന നമുക്ക് ജനാധിപത്യത്തെക്കുറിച്ച് അത്ര വലിയ വിവരമൊന്നും ഇല്ലായിരുന്നു. നേതാക്കന്മാർ പറഞ്ഞു, അന്ന് ജനത്തിന് നേതാക്കളിൽ വിശ്വാസം ഉണ്ടായിരുന്നതുകൊണ്ട് അവർ അതംഗീകരിച്ചു. ഇന്നിപ്പോൾ ഏതാണ്ട് അറുപത് വർഷത്തിന്റെ പരിചയത്തിൽ ജനാധിപത്യ ബോധം ജനങ്ങളിൽ നല്ലരീതിയിൽ സ്ഥാപിക്കപ്പെട്ടിട്ടുണ്ട്. അതാണ് കഴിഞ്ഞ തിരഞ്ഞെടുപ്പ് ഫലം സൂചിപ്പിക്കുന്നതും. പക്ഷെ ഭരണത്തിൽ സർക്കാരുകൾ രാജധർമ്മം പാലിക്കുന്നുണ്ടോയെന്ന കാര്യത്തിൽ സംശയമുണ്ട്. തർക്കമുണ്ട്; വിശേഷിച്ചും മുന്നണി ഭരണം നിലവിൽ വന്നപ്പോൾ രാഷ്ട്രീയ പാർട്ടികൾ പൊതുവെ ജനക്ഷേമത്തെക്കാളും അധികാരത്തിന് മുൻഗണന നൽകുന്നതുകൊണ്ട്, മുന്നണി ഭരണത്തിൽ, രാജധർമ്മത്തിനു നിരക്കാത്ത പലതും നടപ്പിലാക്കാൻ ദേശീയ പാർട്ടികൾ പോലും കൂട്ടുനിൽക്കേണ്ട സാഹചര്യം ഉണ്ടാകുന്നു. പ്രാദേശിക - മത ജാതി പാർട്ടികൾക്ക്, ദേശീയ - അന്തർ ദേശീയ കാഴ്ചപ്പാടുകൾ ഇല്ലാത്തതുകൊണ്ട് ഇതൊരു വിഷയമേയല്ല. കൈയിലുള്ള കുറെ നിക്ഷിപ്ത താൽപ്പര്യക്കാരുടെ വോട്ടുകൾ എങ്ങനെ നിലനിർത്താമെന്നുള്ളതാണ് അവരുടെ വലിയ പ്രശ്നം. ഇക്കാര്യത്തിൽ അവർക്ക് ചില മാദ്ധ്യമങ്ങളുടെ താത്വികമായ പിന്തുണയും ലഭിക്കുന്നുണ്ട്. ഇതിന് പ്രധാന കാരണം ഈ മാദ്ധ്യമങ്ങളിലെ ചില പത്രപ്രവർത്തകരുടെ സൈദ്ധാന്തിക വിശ്വാസങ്ങളാണ്. അങ്ങനെയാണ് രാജ്യത്തിന്റെ വിദേശ നയത്തിൽ പ്രാദേശിക പാർട്ടികളുടെ അഭിപ്രായം കൂടി തേടണമെന്ന തലത്തിൽ വരെ നമുടെ നയതന്ത്രം തരംതാണത്. പ്രതിപക്ഷ പാർട്ടികൾക്ക്, നമ്മുടെ രാഷ്ട്രീയ സംസ്കാരപ്രകാരം, കലക്കവെള്ളത്തിൽ മീൻപിടിക്കാനെ അറിയൂ, അതവർ ഭംഗിയായി ചെയ്യുന്നുമുണ്ട്. ഇവിടെയാകെ നമ്മൾ കുരുതികൊടുക്കുന്നത് രാജധർമ്മത്തെയാണ്.

ഇപ്പോൾ വന്നേക്കുന്ന സന്നദ്ധ സംഘടനകളെക്കുറിച്ച് ഐ ബി റിപ്പോർട്ടും ജനങ്ങൾ ശ്രദ്ധിക്കേണ്ടതാണ്. രാജ്യത്ത് എത്ര ഇങ്ങനത്തെ സംഘടനകൾ ഉണ്ടെന്നും അവർക്ക് എവിടെനിന്നെല്ലാം സാമ്പത്തിക സഹായം കിട്ടുന്നുയെന്നുള്ള കാര്യങ്ങൾ ഒന്നും സർക്കാരിനൊ ബന്ധപ്പെട്ട വകുപ്പുകൾക്കോ അറിയില്ല. സാമ്പത്തിക സഹായത്തിന്റെ തൊണ്ണൂറ് ശതമാനവും വിദേശത്ത് നിന്നാണെന്നുള്ളത് വളരെ വ്യക്തമായ കാര്യം. അതിന്റെ കാര്യങ്ങൾ പോലും ഇപ്പോഴാണ് ഗവൺമെന്റ് അറിയുന്നത്. ഇതുപോലെ തന്നെയാണ് ചില മത സ്ഥാപനങ്ങളുടെ കാര്യവും. ഈ സന്നദ്ധ സംഘടനകൾ പൊതുവെ നമ്മുടെ എല്ലാ വികസന പ്രവർത്തനത്തിനും തുരങ്കം വയ്ക്കും. വൈദ്യുതി നിലയങ്ങൾ, റോഡുകൾ, ഫാക്ടറികൾ, ആണവനിലയങ്ങൾ അങ്ങനെ എന്തായാലും ഒരു പൗരസമിതിയെ ഉണ്ടാക്കി ബഹളം തുടങ്ങും. ഇപ്പോൾ എവിടെയും എടുത്ത് പ്രയോഗിക്കാൻ പറ്റിയ ഒരു ബ്രഹ്മാസ്ത്രം ഇവരുടെ കൈയിലുണ്ട്. പരിസ്ഥിതിയും പ്രകൃതി സംരക്ഷണവും. അതാകുമ്പോൾ പറയുന്നവർക്കും കേൾക്കുന്നവർക്കും വലിയ വിവരമൊന്നും ഇല്ല. അതുകൊണ്ടുതന്നെ എന്തും പറയുകയും ചെയ്യാം പ്രവർത്തിക്കുകയും ചെയ്യാം. കൊക്കകോള സമരം തന്നെ എടുത്ത് നോക്കുക എന്തായാവേശമായിരുന്നു. അവസാനം കമ്പനി പൂട്ടി. ഇനിയെങ്കിലും നമ്മളൊരു ആത്മപരിശോധന ഇക്കാര്യത്തിൽ നടത്തുക. ഇതിന്റെ ഉപഭോഗം ഒരു ബോട്ടിലെങ്കിലും

കുറഞ്ഞോയെന്ന്. അതുപോലെ എക്സ്പ്രസ് ഹൈവേ, ദേശീയ പാതയുടെ വീതി കൂട്ടുന്ന ത്, ആണവ നിലയ നിർമ്മാണം, അങ്ങനെ പലതും. ആണവ നിലയത്തിനടുത്തുള്ള ജന ങ്ങളുടെ ആശങ്കൾ ദൂരീകരിക്കേണ്ടതാണ്. അതുപോലെ അവിടുത്തെ അടിസ്ഥാന സൗക ര്യങ്ങളും വർദ്ധിപ്പിക്കണം. ഇതിനൊക്കെ പുറമേ ന്യായമായ നഷ്ടപരിഹാരവും നൽക ണം. അതല്ലാതെ രാജ്യത്തെ ആണവനിലയം വേണോയെന്ന് തീരുമാനിക്കേണ്ടത് അവരല്ല. കൂടംകുളത്തെ ഈ സമരത്തിന്റെ നേതാവ് കഴിഞ്ഞ തിരഞ്ഞെടുപ്പിൽ മത്സരിച്ചിട്ട് കെട്ടി വച്ചകാശുപോലും കിട്ടിയില്ലെന്നുള്ള കാര്യം എല്ലാപേരും ശ്രദ്ധിക്കണം. ഇതുപോലൊക്കെ തന്നെയാണ് നമ്മുടെ കരിമണൽ ഖനനവും. ആ മണൽ കൊണ്ടുപോയി തമിഴ്നാട് പണം ഉണ്ടാക്കുന്നു. ഇതുപോലെ വൈദ്യുതി ലൈൻ വലിക്കാൻ ചില തത്പര കക്ഷികൾ അനുവ ദിക്കാത്തത് കാരണം വൈദ്യുതിക്ഷാമം വളരെ ഉണ്ടാകുന്നു. മാലിന്യ സംസ്ക്കരണ പ്ലാന്റു കൾ സ്ഥാപിക്കാൻ സമ്മതിക്കാത്തതുകൊണ്ട് നാടുമുഴുവൻ മാലിന്യ കൂമ്പാരമാണ്. ഇതി ന്റെയൊക്കെ പ്രധാന കാരണക്കാർ ശല്യമു ണ്ടാക്കുന്ന സന്നദ്ധ സംഘടനകളെ കാര്യമറി യാതെ പിന്തുണയ്ക്കുന്ന മാദ്ധ്യമങ്ങളും ചില രാഷ്ട്രീയ കക്ഷികളുമാണ്. ഇവർ സംയമനം പാലിച്ചാൽ കൂടംകുളത്തിന്റെ കാര്യത്തിൽ ചെയ്തതുപോലെ ഇവിടെ പദ്ധതികൾ നട പ്പിലാക്കാൻ സാധിക്കും. നമ്മുടെ സന്നദ്ധസംഘടനകളുടെ സാമ്പത്തിക സഹായികൾ അവരുടെ നാട്ടിലെ വ്യവസായ ങ്ങളെ സഹായിക്കാൻ വേണ്ടിയാണ് ഈ കുത ന്ത്രങ്ങളൊക്കെ ചെയ്യുന്നത്. ഇവിടുത്തെ ബുജികൾ വിലകുറഞ്ഞ പ്രസിദ്ധിക്ക് വേണ്ടിയും. നമ്മുടെ യുറേനിയം ഖനനം ചെയ്ത് ഉപയോഗിക്കാൻ അനുവദിക്കില്ല, ഇറ ക്കുമതി ചെയ്യുന്നതിൽ എതിർപ്പൊന്നുമില്ല.

ഇത്തരുണത്തിൽ ചില പ്രധാന വിഷയ ങ്ങളിലുള്ള പാർട്ടികളുടെ സമീപനം എന്താ ണെന്ന് നോക്കണമല്ലോ. ആറന്മുള വിമാന ത്താവളത്തെ പാരിസ്ഥിതിക പ്രശ്നങ്ങളുടെ പേരിൽ എതിർക്കാം, തെറ്റുപറയാൻ സാധി ക്കില്ല. ഈ പാർട്ടികൾ തന്നെ പരിസ്ഥിതി സംരക്ഷിക്കാനുള്ള പശ്ചിമഘട്ട റിപ്പോർട്ടിനെ ശക്തമായി എതിർക്കുന്നതിന്റെ ന്യായമാണ് ജനത്തിന് മനസ്സിലാകാത്തത്. കഴിഞ്ഞ തിര ഞ്ഞെടുപ്പ് പത്തനംതിട്ട മണ്ഡലത്തിൽ ആറ ന്മുള വിമാനത്താവളത്തിന്റെ ഒരു ഹിതപരിശോ ധന കൂടിയായിരുന്നു. ഇപ്പോൾ നാട്ടുകാർക്ക് അത് വേണമെന്നുള്ള കാര്യത്തിൽ ഒരു തർക്ക വുമില്ല. അന്യനാട്ടുകാർക്കാണ് വലിയ എതിർപ്പ്. അതുപോലെ അന്യസംസ്ഥാനത്ത് നിന്നും ഒരു രേഖയും ഇല്ലാതെ ഇവിടത്തെ ഒരു മതത്തിന്റെ പേരിലുള്ള അനാഥാലയങ്ങ ളിലേക്ക് കുട്ടികളെ കൊണ്ടുവരുന്നതും. അങ്ങനെ നിയമപരമല്ലാതെ കുട്ടികളെ കൊണ്ടുവരുന്നതിനാണ് മനുഷ്യ കടത്തെന്നു പറയുന്നത്. അങ്ങനെ പറയരുതെന്നാണ് ഗവൺമെന്റ് തന്നെ പറയുന്നത്. നമ്മുടെ ബഡ്ജറ്റിലെ കാശെടുത്ത് അന്യസംസ്ഥാന കുട്ടികളെ സംരക്ഷിക്കേണ്ട ഒരു കാര്യവുമില്ല, വിശേഷിച്ചും ഈ സൗകര്യങ്ങളൊക്കെ ആ സംസ്ഥാനത്തും ലഭ്യമാകുന്ന സാഹചര്യ ത്തിൽ.

അപ്പോൾ പറഞ്ഞ് വരുന്നത് തിരഞ്ഞെ ടുത്ത സർക്കാരുകൾ രാജധർമ്മം അനുസരിച്ച് ഭരണം നടത്തണമെന്നാണ്. മുന്നണി മര്യാദ യെന്തെന്നൊക്കെ പറഞ്ഞ് ഒഴിഞ്ഞു മാറിയാൽ കഴിഞ്ഞ കേന്ദ്ര ഗവൺമെന്റിനു പറ്റിയ ദുരന്തം ഉണ്ടാകുമെന്ന് ഭരണപക്ഷങ്ങൾ ഓർക്കുന്നത് നല്ലത്. ഒരു ചെറു വിഭാഗത്തിന്റെ ഉമ്മാക്കി കളിയിൽ സർക്കാരുകൾ പേടിക്കരുത്. സ്ത്രീകളെയും, ആദിവാസികളെയും മുൻപിൽ നിർത്തുന്ന ഒരു തന്ത്രമാണ് ഇപ്പോൾ പ്രയോ ഗിക്കുന്നത്, അവരാകുമ്പോൾ തിരിച്ച് ചോദ്യ ങ്ങളൊന്നും ഉണ്ടാകില്ലല്ലോ ? കൂട്ടത്തിൽ ചില ആട്ടിൻതോലിട്ട ഭീകര സംഘടനകളും ഉണ്ടാ കും. ഇതിന്റെ പുറകിൽ പൊതുജനം ഇല്ലാ യെന്നുള്ളത് വളരെ വ്യക്തം. അതുകൊണ്ട് ഉള്ള അധികാരം കൊണ്ട് സർക്കാർ തന്നെ അതിനെ ശക്തമായി നേരിടണം. അത് ചെയ്യാ ത്തതിന്റെ വിശേഷിച്ചും മുന്നണി ഭരണത്തിൽ ദോഷങ്ങളാണ് ഇന്ന് സംസ്ഥാനം അനുഭവി ക്കുന്നതെന്നു ഇനിയെങ്കിലും തിരിച്ചറിയുക. പുതിയ വ്യക്തമായ ഭൂരിപക്ഷമുള്ള കേന്ദ്ര സർക്കാർ ഈ കാര്യങ്ങളിൽ വഴികാട്ടി ആക ണം.

അനുചിത പ്രസ്താവം

ഗുരുജി

ഒരു വ്യക്തിക്ക് തന്റെ ജീവിതത്തിലെ വിവിധ ഘട്ടങ്ങളിൽ നിർണ്ണായകമായ പലതീരുമാനങ്ങളും എടുക്കേണ്ടതായി വരും. ഇത്തരം തീരുമാനങ്ങളെ സ്വാധീനിക്കുന്നത് അറിവ്, വിഷമഘട്ടങ്ങൾ അതിജീവിച്ചുള്ള പരിചയം, അഭിരുചികൾ, മനോഭാവം **(aptitude and attitude)** എന്നിവയാണ്. തീരുമാനം എടുക്കാൻ (ശരിയോ തെറ്റോ) മടിച്ചാൽ മറ്റുള്ളവർ സ്ഥാനം കയ്യടക്കും. ഇതുകൂടാതെ തീരുമാനം എടുക്കുന്ന സാഹചര്യവും വളരെയേറെ തീരുമാനത്തെ സ്വാധീനിക്കും.

വ്യക്തികളിൽ നിന്ന് സമൂഹത്തിലേക്കും അതിൽ നിന്ന് രാജ്യത്തിലേക്കും എത്തുമ്പോഴും അധികാരസ്ഥാനങ്ങളിൽ ഇരിക്കുന്നവരുടെ തീരുമാനങ്ങൾ ഉചിതസമയത്ത് ഉൾക്കാഴ്ചയോടെ അല്ലെങ്കിൽ അതിന്റെ തിക്തഫലങ്ങൾ മറ്റുള്ളവരുടെ സ്വസ്ഥതയേയും ഹനിക്കും.

കെ.എസ്.ഇ. ബോർഡിൽ ഉന്നത സ്ഥാനത്തിരിക്കുന്നവർ അടുത്തിടെ തികച്ചും അനുചിതമായ തീരുമാനമെടുക്കാനുള്ള പ്രസ്താവം മുന്നോട്ടു വച്ചതായി അറിയുന്നു.

എന്താണിത് എന്നല്ലേ? വിതരണ സെക്ഷനുകളുടെ അധികാര പരിധിയിൽ സംഭവിക്കുന്ന വൈദ്യുതാപകടങ്ങളുടെ ഉത്തരവാദിത്തം സബ്ഡിവിഷൻ അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർക്കായിരിക്കും! എന്നു മുതലാണെന്ന് പറഞ്ഞിട്ടില്ല! പോരെ അങ്കം!

ഇതിനു മുന്നോടിയായി അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർമാർക്ക് പുതിയ ഒരു തിലകചാർത്ത് കൂടി നൽകാൻ പോകുന്നു. സെക്ഷനുകൾ പരിപാലിക്കേണ്ടഅധികാര ഭൂപരിധിയും കൺസ്യൂമർ എണ്ണത്തിലും യാതൊരുവിധ സമാനതകളും ഇല്ലാതിരിക്കെ ഒരു സുപ്രഭാതത്തിൽ എല്ലാം മോഡൽ എന്ന് ഉത്തരവിട്ടതുപോലെ യുക്തിരഹിതമാണ് AEE മാർ വൈദ്യുതാപകടങ്ങൾക്ക് ഉത്തരവാദികളായി കരുതപ്പെടും എന്ന പ്രസ്താവവും. ഇത് അനുചിതവും അങ്ങേയറ്റം അപ്രായോഗികവുമായതിനാൽ പിൻവലിക്കേണ്ടതാണ്. എന്തുകൊണ്ടാണെന്നല്ലേ? വിതരണമേഖലയിൽ ആസ്തിവത്ക്കരണ (Capital) അറ്റകുറ്റ(Maintanence) പണികൾ എൽ.റ്റി [230/415volt] യിലും എച്ച്.ടി. [11/22/33 Kilovolt] ലൈനുകളിലുമാണ്. ഇതിനോടനുബന്ധമായി വിതരണ ട്രാൻസ്ഫോർമർ സ്ഥാപിക്കൽ/അറ്റകുറ്റപണികൾ എന്നിവയും ഉള്ളതാണ്. എൽ.റ്റി [230/415volt] ലൈനുകൾ സ്ഥാപിക്കൽ, അറ്റകുറ്റ പണികൾ എന്നിവയ്ക്ക് മേൽനോട്ടം വഹിക്കുന്നത് ഓവർസിയറാണ്. എച്ച്.റ്റി [11/22/33Kilovolt] ലൈനുകൾ പരിപാലിക്കലും സ്ഥാപിക്കലും ജോലികൾക്ക് മേൽനോട്ടം വഹിക്കുന്നത് ഏറിയകൂറും സബ് എഞ്ചിനീയറാണ്. ചിലപ്പോൾ അസിസ്റ്റന്റ് എഞ്ചിനീയറും.

ലൈനുകളുടെ പരിപാലനത്തിലെ പോരായ്മകൾ, പ്രകൃതിക്ഷോഭം, പൊതുജനത്തിന്റെ അജ്ഞത, ലൈനിലെ ജോലികൾക്ക് മേൽനോട്ടം വഹിക്കുന്ന സൂപ്പർവൈസറുടെ അശ്രദ്ധമൂലമുള്ള പാളിച്ചകൾ എന്നിവയാണ് ഏത് അപകടത്തിനും ഹേതുവാകുന്നത്. സുരക്ഷാ പരിപാലനത്തിൽ ശ്രദ്ധിച്ച് ജോലികൾ മുന്നോട്ട് കൊണ്ടുപോകേണ്ട പൂർണ്ണ ഉത്തരവാദിത്വവും പണികൾക്ക് മേൽനോട്ടം വഹിക്കുന്ന തസ്തികയിലുള്ള വ്യക്തിക്കു മാത്രമാണ്. അതിനാൽ ഇതിനിടയിലേക്ക് അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയറെ വലിച്ചിഴക്കേണ്ടതില്ല. ഫീൽഡുമായി ബന്ധപ്പെട്ടും റവന്യൂ സംബന്ധമായും ഭരണപരമായും മറ്റ് അനവധി ചുമതലകൾ നിർവ്വഹിക്കാൻ ഉദ്ദേശിക്കപ്പെട്ടിട്ടുള്ള അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർമാരുടെ തലയ്ക്കു മീതെ ഇത്തരമൊരു വാൾതൂക്കിയിടാൻ ഉദ്ദേശിക്കുന്നത് വലിയ കഷ്ടമാണ്.

ഇനി മോഡൽസെക്ഷനിലേതിനു സമാനമായി കൂട്ടുത്തരവാദിത്വമാണ് ഉദ്ദേശിക്കുന്നതെങ്കിൽ ഓവർസിയർ മുതൽ ചീഫ് എഞ്ചിനീയർ വരെയുള്ള എല്ലാവർക്കും ബാദ്ധ്യത വീതിച്ചു നൽകുന്നതാണ് ഉത്തമം. അല്ലാതെ AEE മാരെ ബലിയാടുകളാക്കുന്നത് പ്രതിഷേധാർഹമാണ്.

❖

മോഡൽ പാഠം

കെ.എസ്.ഇ.ബി.യിൽ മോഡൽ സെക്ഷൻ പരിഷ്ക്കാരം തുടങ്ങിയിട്ട് ഇപ്പോൾ മൂന്ന് വർഷത്തിലേറെയാകുന്നു. പുതിയ പ്രവർത്തന ശൈലി അനുവർത്തിച്ചു തുടങ്ങിയപ്പോൾ മുതൽ പൊതുജനങ്ങൾ, ജീവനക്കാർ മുതലായവരുടെ ഭാഗത്തു നിന്ന് ഉയർന്നിട്ടുള്ള പല ആവലാതികളും പരിഹരിക്കപ്പെടാതെ തുടരുന്നു. എങ്കിലും ഇപ്പോഴത്തെ സംസ്ഥാന ഭരണനേതൃത്വം തങ്ങളുടെ മുൻഗാമികൾ വരുത്തിക്കൂട്ടിയ പരിഷ്ക്കാരത്തെ തള്ളിക്കളയാനോ നല്ല അംശങ്ങൾ മാത്രം നിലനിർത്തി പ്രശ്നങ്ങൾ പരിഹരിക്കാനോ തയ്യാറായിട്ടില്ല.

എന്തൊക്കെയാണ് ഇപ്പോഴും തുടരുന്ന പ്രശ്നങ്ങൾ എന്ന് നോക്കാം. ബ്രേക്ക്ഡൗൺ വിംഗിലേയും മെയിന്റനൻസ് വിംഗിലേയും അംഗങ്ങൾ വിംഗ് തിരിഞ്ഞും സ്വന്തം വിംഗിനകത്ത് തന്നെയും ചെയ്യുന്ന പ്രവർത്തികളെ സംബന്ധിച്ച് അനാരോഗ്യകരമായ സംവാദങ്ങളിൽ ഏർപ്പെടാറുണ്ട്. പ്രവർത്തികളുടെ സ്വഭാവം ബ്രേക്ക്ഡൗൺ ഇനത്തിലാണോ അതോ മെയിന്റനൻസ് ഇനത്തിലാണോ എന്ന തർക്കങ്ങൾ ഓഫീസുകളിലെ അന്തരീക്ഷം പ്രക്ഷുബ്ധമാക്കുന്നു. വിംഗിനകത്തുള്ള അംഗങ്ങളുടെ ജോലിഭാരം അവരുടെ ജോലിയോടുള്ള സമീപനം, ജോലിയിലെ പ്രാവീണ്യം എന്നിവയെ ആശ്രയിച്ചിരിക്കുന്നു. ജോലിഭാരത്തിലെ ഏറ്റക്കുറച്ചിലുകൾ സംബന്ധിച്ച് നിരന്തരം പരാതികൾ കേട്ട് അസിസ്റ്റന്റ് എഞ്ചിനീയർമാർ വശംകെട്ടിരിക്കുന്നു. പൊതുജനത്തിന് കൗതുകവും പുച്ഛവും!

റവന്യൂ വിംഗിൽ ഇത്തരം പൊട്ടിത്തെറികൾ കുറവാണ്. മാത്രമല്ല കമ്പ്യൂട്ടർവൽക്കൃതമായതിനാൽ റവന്യൂ പിരിച്ചെടുക്കൽ കാര്യക്ഷമത വിലയിരുത്താനും തൃപ്തികരമായി നിലനിറുത്താനും അംഗങ്ങൾക്ക് സാധിക്കുന്നു. എന്താണ് ഇവിടുത്തെ സവിശേഷത? സെക്ഷൻ ഓഫീസ് ഭൂപരിധിയെ ഏതാണ്ട് രണ്ട് തുല്യ വിസ്തൃതിയുള്ള പ്രവർത്തന മണ്ഡലമായി കരുതിയാണ് അംഗങ്ങൾ പ്രവർത്തിക്കുന്നത്. ഇതുമൂലം എവിടം മുതൽ എവിടം വരെയുള്ള കാര്യങ്ങൾ ഒരംഗം കൈകാര്യം ചെയ്യണം എന്നതിൽ വ്യക്തതയുണ്ട്. പ്രവർത്തന ഭൂപരിധിയും എന്തൊക്കെ പ്രവർത്തികൾ ഓരോ അംഗവും ചെയ്യണമെന്നതിൽ കൃത്യമായ ധാരണയുണ്ടെങ്കിൽ അവിടെ കലഹം വരില്ല.

ബ്രേക്ക്ഡൗൺ വിംഗിലും മെയിന്റനൻസ് വിംഗിലും ഉത്ഭവിക്കുന്ന ജോലികൾ അഭേദ്യമായി ബന്ധപ്പെട്ടു കിടക്കുന്നു. ഒരു പ്രവർത്തിയുടെ സ്വഭാവം കൃത്യമായി ബ്രേക്ക്ഡൗൺ അല്ലെങ്കിൽ മെയിന്റനൻസ് എന്ന് വേർതിരിച്ച് നിർവചിക്കാനാകില്ല തന്നെ. കാരണം രണ്ട് പ്രവർത്തികളും വൈദ്യുതി തടസ്സം മാറ്റുന്നതിന് വേണ്ടിയാണ്. ഒന്ന് ഹ്രസ്വകാല നടപടിയും മറ്റേത് ദീർഘകാല നടപടിയും എന്ന വ്യത്യാസം മാത്രമേയുള്ളൂ. ഓരോ അംഗത്തിനും പ്രവർത്തന ഭൂപരിധി നിശ്ചയിക്കപ്പെടാത്തതു കാരണം പലയിടത്തും വൈദ്യുതി തടസ്സം തൽക്കാലം മാറ്റുന്നതല്ലാതെ തടസ്സത്തിന്റെ കാരണം മാറ്റപ്പെടുന്നില്ല. ഫലമോ? രോഗം മൂർച്ഛിക്കുമ്പോൾ മരുന്ന് കഴിച്ച് തൽക്കാലം ശാന്തി നേടുന്നതുപോലെയാണത്. രോഗം വീണ്ടും അലട്ടാതിരിക്കാനുള്ള നടപടിയുണ്ടാകുന്നില്ല. ഇനി ഗൗരവമുള്ള സങ്കീർണ്ണമായ അറ്റകുറ്റപ്പണിയോ (മെയിന്റനൻസ്) അല്ലെങ്കിൽ ആസ്തീവൽക്കരണ ജോലിയോ (ക്യാപ്പിറ്റൽ) ഉള്ളത് മിക്കവാറും പെറ്റി കോൺട്രാക്ടർമാരുമാണ് ചെയ്യുന്നത്. എന്താണ് മേൽപ്പറഞ്ഞ പോരായ്മകൾക്കുള്ള പരിഹാരം? റവന്യൂ വിംഗിൽ മാറ്റങ്ങൾ വരുത്താതെ അതേപടി നിലനിർത്തുക.

ശേഷം പേജ് 28

61st Annual General Body Meeting ... Report

The 61st Annual General Body Meeting of KSEB Engineers Association was held on 1st June 2014. About 600 engineers from all over the State attended the meeting which was held at Tagore Centenary Hall, Kozhikode. The AGB was inaugurated by Sri. Aryadan Muhammed, Hon. Minister for Power, Government of Kerala.

In his inaugural speech, the minister stated that all the benefits of the employees will be protected in the new company set up. He emphasised the role of the engineers in disseminating the truth about new power projects and for dispelling the fear in the minds of public which are created by vested interest groups.

In connection with the AGB, a national seminar on "Energy Planning for Sustainable Development of Kerala" was conducted.

Er. K.P.S. Nair Awards for Assistant Engineers who made outstanding contribution in Generation, Transmission and Distribution wings were presented by Sri. M.K. Raghavan, the Hon. Member of Parliament, Kozhikode. Er. Krishna Kumar bagged the special award in Transmission wing, Er. Anil bagged the award in Generation wing, while Er. Vijayakumar V.R. & Er. C.S. Mammen shared the award for Transmission wing. Er. Asharaf T.P. got the best AE award for Distribution.

Concurrent with the National Seminar and Annual General Body Meeting, an exhibition of electrical equipments, products and technology was organised. The main focus of the exhibition was to showcase the latest technological advancements, related products

and technical services in the power sector. The exhibition was inaugurated by Er. Muhammed Ali Rawther, Director (Distribution & Generation-Electrical). The main exhibitors were L&T Meters, Raychem-RPG, JVC Electronics and Exide Batteries. The exhibition provided an opportunity for the KSEB engineers to interact with technical specialists and consultants, electrical equipment manufacturers and engineering project contractors.

Er. V. Ranjit Kumar, General Secretary welcomed the gathering while Er. E. Mohammed Shereef, President of the Association chaired the meeting. Er. T.P. Unnikrishnan, Chairman, Kozhikode Unit delivered the vote of thanks.

61-ാം സംസ്ഥാന സമ്മേളനം

————അവലോകനം————

കെ.എസ്.ഇ.ബി. എഞ്ചിനീയേഴ്സ് അസോസിയേഷന്റെ 61-ാം വാർഷിക സമ്മേളനം കോഴിക്കോട് ടാഗോർ സെന്റിനറി ഹാളിൽ ജൂൺ 1-ാം തീയ്യതി ബഹു. കേരള ഊർജ്ജ വകുപ്പ് മന്ത്രി ശ്രീ. ആര്യാടൻ മുഹമ്മദ് ഉദ്ഘാടനം ചെയ്തു. ഘട്ടം ഘട്ടങ്ങളായി നടപ്പിലാക്കിയ രാജീവ്ഗാന്ധി വൈദ്യുതീകരണ പദ്ധതി ഉൾപ്പെടെയുള്ള വിവിധ പദ്ധതികൾ 2014 സെപ്തംബർ അവസാനത്തോടെ പൂർത്തിയാകുമ്പോൾ കേരളത്തിൽ ആകമാനം സമ്പൂർണ്ണ വൈദ്യൂതീകരണം നടപ്പാകും. എന്നാൽ അപ്രതീക്ഷിതമായി ഉയർന്നുവരുന്ന ഉപയോഗവും വൈദ്യുതി ശൃംഖലാ രംഗത്തും ഉൽപ്പാദനത്തിനും ഉള്ള കുറവുകളും പ്രതിസന്ധി രൂക്ഷമായി തീരും. അതിന് യോജിച്ച വിധത്തിൽ എഞ്ചിനീയർമാർ പ്രവർത്തിക്കണമെന്ന് ആവശ്യപ്പെട്ടു. വൈദ്യുതി ഉത്പാദനം വർദ്ധിപ്പിക്കുവാനും വൈദ്യുതി ഇറക്കുമതി ചെയ്യുന്നതിനുള്ള തടസ്സങ്ങൾ ഒഴിവാക്കുന്നതിനും ശ്രമിക്കണമെന്ന് സമ്മേളനത്തിൽ സംസാരിച്ച് കൊണ്ട് കോഴിക്കോട് എം.പി. ശ്രീ. എം.കെ. രാഘവൻ ആവശ്യപ്പെട്ടു. തദവസരത്തിൽ മികച്ച എഞ്ചിനീയർമാർക്കുള്ള അവാർഡുകൾ അദ്ദേഹം വിതരണം ചെയ്തു.

യോഗത്തിനോടനുബന്ധിച്ച് കേരളത്തിന്റെ സുസ്ഥിരവും ശാശ്വതവുമായ വികസനത്തിനു വേണ്ട വൈദ്യുതി ആസൂത്രണം എന്ന വിഷയത്തെ ആസ്പദമാക്കി സെമിനാർ നടന്നു.

കെ.എസ്.ഇ.ബി ലിമിറ്റഡ് ചെയർമാൻ ശ്രീ.എം. ശിവശങ്കർ IAS മുഖ്യ പ്രഭാഷണം നടത്തി. ഊർജ്ജ നിലയങ്ങളുടെയും വൈദ്യുതി ലൈനുകളുടെയും നിർമ്മാണത്തിന് തടസ്സം നിൽക്കുന്ന പൊതുജനങ്ങളുടെ ആശങ്കകൾ ദൂരീകരിക്കുന്നതിന് എഞ്ചിനീയർമാർ മുന്നിട്ടിറങ്ങി അവരെ ബോധവത്കരിക്കണമെന്ന് അദ്ദേഹം ആവശ്യപ്പെട്ടു.

കേരളത്തിന്റെ ഇന്നത്തെ ഊർജ്ജ പ്രതിസന്ധിയെക്കുറിച്ചുള്ള പ്രബന്ധം കെ.എസ്. ഇ.ബി. ലിമിറ്റഡ് ഉത്പാദന വിതരണ ഡയറക്ടർ ശ്രീ. മുഹമ്മദലി റാവുത്തർ അവതരിപ്പിച്ചു.

കേരളത്തിന്റെ 300ലധികം സ്ഥലങ്ങളിൽ നിന്നും ഏകദേശം 750 മെഗാവാട്ട് വൈദ്യുതി കാറ്റിൽ നിന്ന് ഉത്പാദിപ്പിക്കാനുള്ള സാഹചര്യമുണ്ടെന്ന് ഇന്ത്യാ ഗവൺമെന്റ് സ്ഥാപനമായ ചെന്നൈയിലെ സെന്റർ ഫോർ വിന്റ് എനർജി ടെക്നോളജിയിലെ ശാസ്ത്രജ്ഞനായ ശ്രീ. കെ. ഭൂപതി വ്യക്തമാക്കി.

കോഴിക്കോട് IIM-ലെ ഡീനും, പ്രൊഫസറുമായ ഡോക്ടർ സജി ഗോപിനാഥ് ഹരിതോർജ്ജം (Green Energy) അല്ലാതെ കേരളത്തിൽ മറ്റൊരു പോംവഴിയില്ലെന്ന് പരാമർശിച്ചു.

കെ.എസ്.ഇ.ബി. എഞ്ചിനീയേഴ്സ് അസോസിയേഷൻ പ്രസിഡണ്ട് ശ്രീ. ഇ. മുഹമ്മദ് ഷെരീഫ് അദ്ധ്യക്ഷത വഹിച്ചു. ജന. സെക്രട്ടറി ശ്രീ. വി. രഞ്ജിത്ത് കുമാർ സ്വാഗതവും, കോഴിക്കോട് യൂണിറ്റ് ചെയർമാൻ ശ്രീ. ടി.പി. ഉണ്ണികൃഷ്ണൻ നന്ദിയും പറഞ്ഞു.

തുടർന്ന് നടന്ന അസോസിയേഷൻ വാർഷിക സമ്മേളനത്തിൽ ശ്രീ. പ്രമോദ്കുമാർ പി.വി., ശ്രീ. രാജേഷ് ഡി.എസ്., ശ്രീ. എം. മുരളി, മുൻ റഗുലേറ്ററി കമ്മീഷൻ ചെയർമാൻ ശ്രീ. സി. ബാലകൃഷ്ണൻ തുടങ്ങിയവർ വിവിധ വിഷയങ്ങളെ ആസ്പദമാക്കി നടന്ന ചർച്ചയിൽ പങ്കെടുത്ത് സംസാരിച്ചു.

ഇന്ത്യയിലെ ഒരു പൊതുമേഖലാ സ്ഥാപനത്തിലും കാണാത്ത സീനിയോറിറ്റി മറികടന്നുള്ള പ്രൊമോഷൻ സമ്പ്രദായം നിർത്തലാക്കണമെന്ന എഞ്ചിനിയേഴ്സ് അസോസിയേഷന്റെ നിരന്തരമായ ആവശ്യം പരിഗണിച്ച് കഴിഞ്ഞ 13 വർഷമായി ഒരു പ്രൊമോഷനും ലഭിക്കാതെ അസിസ്റ്റന്റ് എഞ്ചിനീയർമാർക്ക് അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർമാരായി പ്രൊമോഷൻ നടപ്പിലാക്കിയ ഊർജ്ജ വകുപ്പ് മന്ത്രി ശ്രീ. ആര്യാടൻ മുഹമ്മദിനെയും, കെ.എസ്.ഇ.ബി. ലിമിറ്റഡ് ചെയർമാൻ ശ്രീ. എം. ശിവശങ്കർ IAS, ഉദ്പാദന വിതരണ ഡയറക്ടർ ശ്രീ. മുഹമ്മദ് റാവുത്തർ, ചീഫ് എഞ്ചിനീയർ എച്ച്.ആർ. എം. ശ്രീമതി. വത്സലകുമാരി എന്നിവരെയും യോഗം അഭിനന്ദിച്ചു.

അതുപോലെ കെ.എസ്.ഇ.ബിയുടെ സുഗമമായ പ്രവർത്തനത്തിനും ജീവനക്കാരുടെ കാര്യക്ഷമത വർദ്ധിപ്പിക്കുന്നതിനും സീനിയോറിറ്റി മറികടന്നുള്ള പ്രമോഷൻ എല്ലാ വിഭാഗങ്ങളിലും നിർത്തലാക്കണമെന്ന് സമ്മേളനം ആവശ്യപ്പെട്ടു.

കഴിഞ്ഞ 60 വർഷമായി കെ.എസ്.ഇ.ബിയുടെ ഉന്നമനത്തിനും, രാഷ്ട്രീയത്തിന് അതീതമായി എഞ്ചിനീയർമാരുടെ ചിന്തകളും, കഴിവുകളും സമൂഹത്തിന്റെ ഉന്നമനത്തിനായി പ്രവർത്തിക്കുന്ന കെ.എസ്.ഇ.ബി. എഞ്ചിനീയേഴ്സ് അസോസിയേഷനെ ശക്തിപ്പെടുത്തുന്നതിന് എല്ലാ എഞ്ചിനീയർമാരും മുന്നിട്ട് ഇറങ്ങണമെന്ന് സമ്മേളനം ആവശ്യപ്പെട്ടു.

ഈ സമ്മേളനം വൻവിജയമാക്കാൻ പ്രവർത്തിച്ച കോഴിക്കോട്ടെ മുഴുവൻ എഞ്ചിനിയേഴ്സ് അസോസിയേഷൻ മെമ്പർമാരെയും അഭിനന്ദിക്കുന്നതോടൊപ്പം സീനിയർ എഞ്ചിനീയർ ആയ എഞ്ചിനീയർ ശ്രീ. എം.എ. ജോർജ്ജിനെ യോഗം ആദരിച്ചു.

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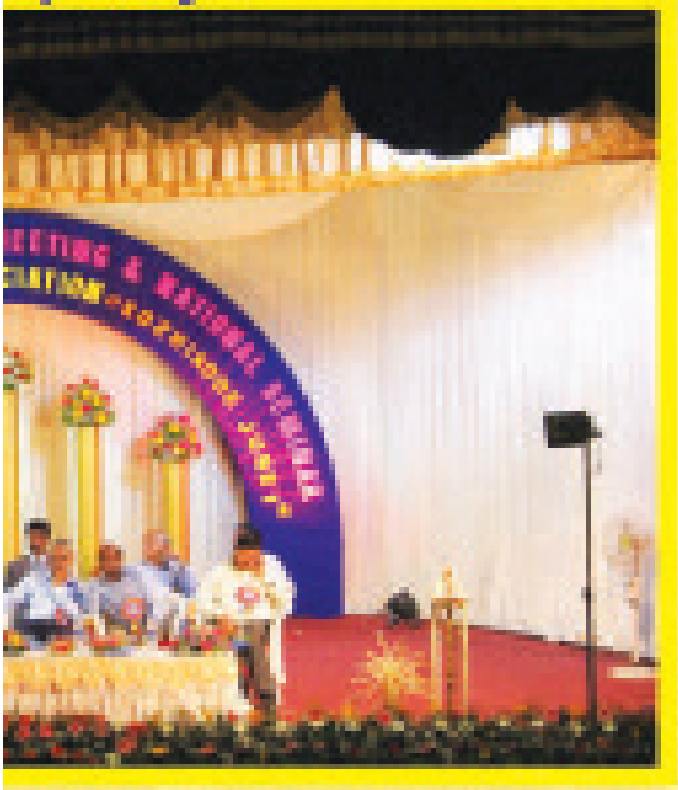
61st Annual General Body Meeting...

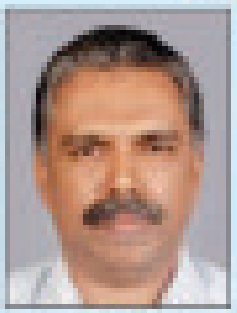
61st Annual General M

ody Meeting...



61st Annual General Body Meeting...

Congratulations to the New Office Bearers
KSEB Engineers Association



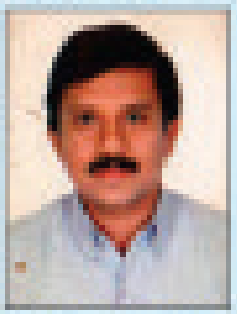
President
Er.E.Mohammed Shereef

General Secretary
Er.V.Ranjit kumar

Vice-President (S)
Er.C.Sureshchand

Vice-President (N)
Er.T.P.Unnikrishnan

Treasurer
Er.K.Mukesh Kumar



Secretary(HQ)
Er.D.S.Rajesh

Secretary(North)
Er.V.Suresh

Secretary (South)
Er. Viji Prabhakaran

Organising Secretary (North)
Er.K.Nagaraj Bhat

Organising Secretary (South)
Er.E.Santhosh

KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Indian Companies Act, 1956)

Registered Office: Vydyuthi Bhavanam, Pattom, Thiruvananthapuram – 695 004.

Abstract

Dearness Allowance/Dearness Relief to Board Employees/Pensioners – Revision with effect from 01-01-2014 – Sanctioned - Orders issued.

CORPORATE OFFICE (PERSONNEL)

B.O.(CMD) No.1722/2014 (PS1/2081/2013) Dated, Thiruvananthapuram, 24-06-2014

Read:- 1. G.O. (P) No.221/2014/Fin. dated, Thiruvananthapuram, 16-06-2014.
2. Order dated 23-06-2014 of the Chairman & Managing Director.

O R D E R

The Government have revised the rates of Dearness Allowance to its Employees and Dearness Relief to the Pensioners with effect from 01-01-2014, vide the Government Order read above. In line with the above, the Kerala State Electricity Board Limited is pleased to adopt the Government Order sanctioning Dearness Allowance to the Employees and Dearness Relief to the Pensioners/Family Pensioners with effect from 01-01-2014 at the enhanced rates as shown below for implementation in Kerala State Electricity Board Limited.

DEARNESS ALLOWANCE TO EMPLOYEES

1. The Government have revised the rate of Dearness Allowance to its employees with a hike of 10% with effect from 01-01-2014.As per clause (1), Article V of the Long Term Settlement, 2011 [B.O. (FB) No. 641/2011 (PSI/6047/2008), dated, Thiruvananthapuram 28.02.2011] and Clause (1) under Article II of the Officers Pay Revision 2011 [B.O. (FM)

No. 2966/2011 (PSI/1757/2009), dated, Thiruvananthapuram 24.12.2011] the rate of Dearness Allowance in Kerala State Electricity Board Limited will be determined by multiplying the factor of 1.1310 with the rate of Dearness Allowance announced by the State Government with effect from 01-01-2010 onwards. The revised rate of Dearness Allowance payable to the employees of the Board with effect from 01-01-2014 will be as follows:-

Date from which payable	Percentage increase of DA per month	Revised DA
01-01-2014	**11.310 %**	**95.563 %**

2. In respect of workmen and officers continuing in the pre-revised scale as per B.O.(FB)No.628/2007(PSI/101/2006) dated 19.03.2007and B.O.(FM)No.2075/2007 (PSI/OPR/2007) dated 12.09.2007 respectively, Dearness Allowance will be sanctioned as given below:-

Date from which payable	Percentage increase of DA per month	Revised DA
01-01-2014	**17 %**	**191 %**

3. The revised rate of Dearness Allowance will be payable to the Part-Time Contingent employees also on the basis of the pay drawn by them.

4. In the case of those who have opted to remain in the pre-revised scale of 1998 Pay Revision
(1993 Pay Scales) even after 01-01-2011, DA will be sanctioned as given below:

Date fromwhich payable	Pay Range	Revised DA
01-01-2014	Basic pay up to '3,500/- pm	767 % of pay
	Basic pay above '3,500/- up to ₹ 6,000/- pm Basic pay above '6,000/-	670 % of Pay subject to minimum of ' 26,845/ 631% of Pay subject to minimum of ' 40,200/-

5. For those who are continuing in the 1998 pay scales even after 01-01-2014, DA will be sanctioned as follows:-

Date of effect	Percentage increase of DA	Revised DA
01-01-2014	**17%**	**250 %**

6. The accounting and drawal of arrears of DA will be regulated as follows:-

a. The DA at the revised rates will be paid in cash with the salary due for the month of ***June 2014*** onwards.

b. The arrear for the period from **01-01-2014 to 31-05-2014** will be drawn and credited to the PF account of the employee along with the salary bill for any of the months from **June 2014 to December 2014.**

c. The permission to draw arrears along with the salary bill is given in relaxation to Rule 176 of Kerala Treasury Code.

d. The procedure as stated in para 6 (a) and (b) will also be applicable to the employees continuing in the pre-revised scale.

e. Where the employee is not eligible to subscribe to any PF Account before 30-06-2014 the drawal of arrears of DA shall be deferred. As and when the PF account is opened, it shall be drawn and deposited in it.

3 f. For claiming the salary for the month of January 2015, a certificate shall be attached to the salary bill to the effect that 'the arrears as per DA revision from 01-01-2014 to 31-05-2014 have been claimed and credited to the PF Account of the employee".

g. The procedure as stated in 6 (f) will also be applicable to the employees continuing in the pre-revised scale of pay.

h. Interest on DA credited to the PF Account of the employee will accrue from the 1st day of the month in which the bills are presented to the appropriate authorities.

i. No withdrawal, other than final withdrawal, shall be made before the date specified below, from the arrears of DA credited to the PF account.

Period of arrears of Dearness Allowance	**Date on which the amount will be permitted to be withdrawn**
01-01-2014 to 31-05-2014	**30-04-2018** or retirement, which ever is earlier

j. The condition mentioned under clause 6 (i) above will be applicable '*Mutatis Mutandis*' to Provident Fund other than General Provident Fund also.

k. The following categories of employees will be paid arrears of DA in cash.

i. Those, in whose cases, it is not obligatory to maintain PFAccount.

ii. Those who have opted not to subscribe to the PF account during the last one year of their service prior to retirement

A. DEARNESS RELIEF TO SERVICE PENSIONERS AND FAMILY PENSIONERS

1. The Dearness Relief to Service Pensioners/Family Pensioners with effect from 01-01-2014
will be revised as follows:-

Date of effect	**Percentage increase of Dearness Relief**	**Revised Dearness Relief**
01-01-2014	**11.310 % of Pension/ Family Pension**	**95.563** % of Pension/ Family Pension

2. In respect of the Pensioners/Family Pensioners whose pension has not undergone revision as per Board Order dated 31-05-2012 and are drawing pension/family pension as per pension revision order dated 11-11-2008, Dearness Relief will be sanctioned as follows:

Date of effect	Percentage increase of Dearness Relief	Revised Dearness Relief
01-01-2014	17 % of Pension/ Family Pension	191 % of pre-revised Pension/ Family Pension

3. In respect of the Pensioners/Family Pensioners whose pension has not undergone revisionas per Board Order dated 11-11-2008 and are drawing pension/family pension as per pension revision order dated 23-02-2001, Dearness Relief will be sanctioned as follows:

Date of effect	Percentage increase of Dearness Relief	Revised Dearness Relief
01-01-2014	17 % of Pension/ Family Pension	250 % of pre-revised Pension/ Family Pension

4. The enhanced rate of Dearness Relief due from **01-01-2014** will be paid along with the pension for **July 2014** and arrears from **January 2014 to June 2014** will be released in ***Four Monthly installments*** commencing from ***August 2014***.

5. Payment of Dearness Relief involving fraction of a Rupee shall be rounded off to the next higher rupee.

By Order of the Chairman & Managing Director
Sd/-
M.SHAHUL HAMEED
SECRETARY (Administration)

20-ാം പേജ് തുടർച്ച

ബ്രേക്ക്ഡൗൺ വിംഗ് മെയിന്റനൻസ് വിംഗ് എന്ന് രണ്ടായി നിലനിർത്തുന്ന സമ്പ്രദായം നമുക്ക് വേണ്ട. ഇ ൗ വിംഗുകൾ റദ്ദാക്കി ഓരോ തസ്തികയിൽപ്പെട്ടവർക്ക് പ്രവർത്തന ഭൂപ രിധി (Functional area of jurisdiction) നിശ്ചയി ക്കുക. നിർദ്ദിഷ്ട ഭൂപരിധിയിൽ വൈദ്യുതി തടസ്സം കൂടാതെ നിലനിറുത്തുവാനുള്ള ഹ്രസ്വകാല-ദീർഘകാല നടപടികളുടെ ഉത്ത രവാദിത്വം ചുമതലപ്പെട്ട ജീവനക്കാരനിൽ നിക്ഷിപ്തമായിരിക്കണം. അതുപോലെ തന്നെ വൈദ്യുതാപകടങ്ങൾ ഉണ്ടാകാതിരിക്കാൻ സുരക്ഷാനടപടികൾ സ്വീകരിക്കേണ്ടചുമത ലയും ഈ ജീവനക്കാരനുതന്നെയായിരിക്ക ണം. (തീർച്ചയായും വോൾട്ടേജിന്റെ തലത്തി നനുസരിച്ച് ഏത് തസ്തികയിലുള്ള ജീവന ക്കാരൻ എന്ന് തീരുമാനിക്കപ്പെടും)

ഇത്തരം മാറ്റങ്ങൾ പ്രവർത്തന ശൈലി യിൽ വരുത്തിയില്ലെങ്കിൽ വൈദ്യുതി ശൃംഖല രോഗഗ്രസ്തമായിത്തീരുകയും തദ്വാരാ വൈദ്യുതി തടസ്സങ്ങളുടെ ദൈർഘ്യവും അപ കടങ്ങളും സമീപഭാവിയിൽ തന്നെ വർദ്ധിക്കാ നുമുള്ള സാദ്ധ്യതയുണ്ട്.

സ്വതന്ത്രൻ

Indian Power Sector Roundup

INDIA TO SET UP TWO RENEWABLE ENERGY FIRMS

Oil, renewable energy ministries working on proposal, which sees them, setting up one JV to oversee large-scale, grid-integrated projects and other for off-grid projects.Plans are underway to form a pair of state-owned joint ventures (JVs) that will oversee the construction of renewable energy projects, contributing to India's energy security and reducing reliance on conventional sources of fuel such as coal.

These new public sector units (PSUs) will, in turn, be JVs between state-owned oil sector firms such as Indian Oil Corp. Ltd (IOC), Bharat Petroleum Corp. Ltd, Hindustan Petroleum Corp. Ltd, Oil and Natural Gas Corp. Ltd (ONGC), Oil India Ltd and Solar Energy Corp. of India and the Indian Renewable Energy Development Agency. While one of the JVs will be led by ONGC, IOC will lead the other.

The initial funding for the new firms will come from the JV partners that will implement the projects. The money they put in such projects will be considered part of their corporate social responsibility (CSR) contributions. Under India's new companies law, corporate entities are supposed to spend a certain percentage of their profit on CSR, essentially charitable activity.A government official confirmed the plan. "The project report for the joint venture companies has been prepared by Engineers India Ltd. Even some projects have been identified for development by the new firms. A background note on the same has been prepared," the official said on condition of anonymity. Spokespersons for IOC and Bharat Petroleum also confirmed the proposal. Queries emailed to the spokespersons for the ministries of petroleum and new and renewable energy, Hindustan Petroleum, ONGC, Oil India, Solar Energy Corp. and India Renewable Energy remained unanswered.

India's National Action Plan on Climate Change recommends that the country generate 10% of its power production from solar, wind, hydropower and other renewable sources by 2015, and 15% by 2020. India has a power generation capacity of 245,394 megawatts (MW), of which only 13%, or 31,692MW, is contributed by renewable sources. "The ministry of new and renewable energy resources has the technical expertise. Also, the oil sector, public sector units have large funds available under their corporate social responsibility programmes. This will be ploughed towards the new firms," said the government official quoted above.

The Bharatiya Janata Party that swept to power in the April-May general election under the leadership of Narendra Modi has stressed the need for reinforcing energy security. The Modi-led government's energy security plans include harnessing

renewable sources such as solar energy, biomass and wind power along with coal, gas, hydropower and nuclear power to bring about an "energy revolution" in the country. India, which is dependent on imports to meet its energy demand, has an energy import bill of around $150 billion. This is expected to reach $300 billion by 2030, requiring a $3.6 trillion payout by 2030. "My government will come out with a comprehensive National Energy Policy and focus on development of energy-related infrastructure, human resource and technology," President Pranab Mukherjee told Parliament on 9 June.

"The aim of the government will be to substantially augment electricity generation capacity through judicious mix of conventional and non-conventional sources." Developing renewable energy will also help reduce dependence on coal, which is in short supply domestically, requiring imports of the mineral to fuel most of India's power plants.India is also exploring options to make it compulsory for conventional power project developers to build renewable capacity at the same location, a move that can provide an impetus to ecofriendly electricity. There is a need to integrate conventional and renewable power generation as India's overdependence on coal needs to be reversed.

(Source: Livemint)

TNEB INTRODUCES SMS ELECTRICITY BILL ALERT

The Tamil Nadu government has introduced the short messaging service (SMS) of the bi-monthly electricity charges soon after the reading is taken. Chief minister J Jayalalithaa inaugurated the service at the secretariat on Thursday.

The SMS will contain the electricity charges as well as the last date of payment of the bill. To make the consumers pay the bill before the last date and prevent snapping of the power connection, the consumer will get an SMS three days before the last date to remind him or her about the impending payment, said a statement. The assessment officer who takes the reading will enter the power consumed details on the database and once it is done the SMS will be sent to the consumer," said a TNEB official. In the case of tenants, even though the power tariff card will be in the name of the owner, the tenant can disclose his or her mobile number while paying the bill over the counter or online. The SMS will be sent only to the tenant, who is the consumer, said the official.

More than 70% of the consumers have disclosed their mobile numbers with the Tangedco but efforts are on to make others also to register their mobile numbers. "Some of them, especially old timers are hesitant to disclose their mobile

numbers. Such people can register online so that the number is not disclosed publicly," said the official.

The chief minister also inaugurated sub-stations of various capacities at various places across the state at a cost of Rs 385.57 crore through video conferencing. These include three 230KV sub-stations at Mylapore, Chennai, Karamadai, Coimbatore and at Virudhunagar. Similarly at 27 places, including Kodambakkam in Chennai, the chief minister inaugurated 27 sub-stations with a capacity of 110KV. In 20 places, sub-stations with a lower capacity of 33KV was also inaugurated in an attempt to provide quality power, said the statement.

(Source: The Hindu)

CIAL TAPS THE MOON FOR POWER

Cochin International Airport Limited (CIAL), which generates 4,400 units of solar power a day, recently pulled off a green energy feat by generating eight units of power from moon light.

It happened on a recent full moon night and showed that moonlight was good enough to generate power given the right conditions, said a CIAL official during a presentation on the airport company's ambitious solar energy and energy conservation programmes.

Though the feat has not been repeated frequently, the moon power act is a big boost to the airport company's efforts to achieve energy neutrality by early 2016.CIAL and the BSNL telephone exchange at Boat Jetty in the city are among the institutions in the district that have invested significantly in energy efficiency and are the winners of the State and National Energy Conservation Award 2013 respectively.

BSNL's electrical chief engineer M. Suddheendran said improvements in the air-conditioning system and lighting at the Boat Jetty exchange were carried out at an expenditure of Rs. 6.25 lakh. The savings from the efforts were Rs. 20 lakh in electricity bills last year, he said. The savings in energy terms were 3.93 lakh units during 2012-13.BSNL had been continuously monitoring its energy use in all its buildings over the last 15 years, said Mr. Sudheendran. BSNL Kerala is among the energy auditors recognised by Kerala Energy Management Centre and has carried out energy auditing in 15 buildings in the State including the High Court of Kerala building in the city.The

energy efficiency measures included power factor improvement, replacing of old air-conditioning units, online power monitoring and elimination of UPS losses.

Meanwhile, CIAL, which has an actual power demand per day of 55,000 units, will rely heavily on LED systems for its future requirements. A total of 224 LED fittings will be deployed for lighting the road linking the airport to NH 47. LEDs have also been deployed in the terminals and administrative offices.

Energy use stands at 3.61 units per passenger at the airport, which saw 4.9 million passengers during 2012-13.

(Source: The Hindu)

KNPP REACHED FULL CAPACITY GENERATION OF 1,000MW

The Unit 1 of the Kudankulam nuclear power plant (KNPP) has reached full capacity generation of 1,000MW on Saturday. The Russian-designed Voda Voda Energo Reactor (VVER) achieved the final milestone nearly eight months after power generated at the plant was connected to the grid. This is the first nuclear power plant in the country to touch 1,000MW of power generation.

"

(Source: Times of India)

TRANSMISSION LOSS ADDS TO POWER WOES

The Power Grid Corporation of India's 400-kV transmission line between Kochi and Edamon, connecting Tirunelveli, to draw power from the Kudankulam nuclear power plant, is yet to be completed. Though power generation from the nuclear plant has already commenced, Kerala is constrained to draw its share through a circuitous route now, resulting in transmission losses.\

Talks held at the ministerial level to sort out the issue of acquiring right of way through private landholdings in districts such as Pathanamthitta and Kottayam have only been partially successful, according to sources.Benny Behanan, MLA, who was involved in the talks convened by the Chief Minister in the past, said the issue was expected to be resolved soon. A senior Kerala State Electricity Board official told *The Hindu* that Kerala was receiving power from the nuclear plant through an alternative

route, Tirunelveli- Udumalpet- Areekode- Madakkathara. It stretches about 250 km more in length in comparison to the Tirunelveli- Edamon- Kochi- Madakkathara route.

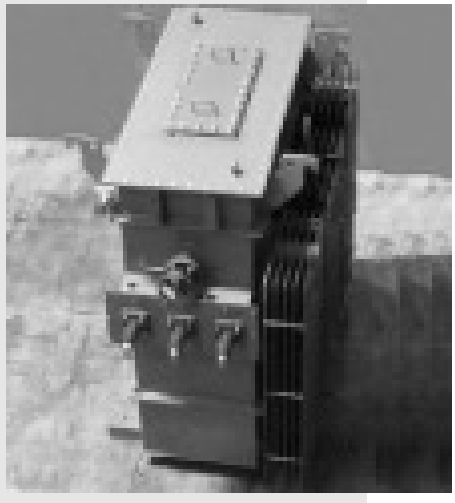
The corporation has a 400-kV transmission station at Areekode, Kozhikode, on the Mysore-Areekode line. A 400-kV substation existing at Pallippuram, Thiruvananthapuram, will enable the State to have a 400-kV power highway once the Edamon-Kochi line gets completed.The power highway will connect the State to the national grid, facilitating power transmission from various locations in the grid to satisfy Kerala's needs appropriately.

The drawing of power from the Kudankulam nuclear power station was planned a decade ago. A route survey was conducted and the KSEB had proposed to have right of way along its 220-kV lines. The present crisis emerged after landowners joined together and protested against the new line and sought more compensation. The landowners suggested a route through Kuttanad, which was not acceptable to the authorities. *(Source: The Hindu)*

TATA POWER COMMISSIONS INDIA'S FIRST NATURAL ESTER FILLED DISTRIBUTION TRANSFORMER IN MUMBAI

Tata Power today announced the introduction of Natural Ester filled distribution transformers across the Mumbai distribution area. The objective of introducing these green and fire safe installations is to ensure safe and sustainable distribution of electricity.

Natural Esters fluids have a high fire point (350 degree Celsius) and eliminate any risk of pool fires in the electrical installation as they are self-extinguishing. In comparison to the conventional mineral oil filled distribution transformers, this fluid provides improved fire safety for the densely populated areas within Tata Power's service area. The fluid, made from a carbon neutral renewable resource, is biodegradable, non-toxic and non-hazardous in soil and water.



Speaking on this initiative, Mr. Ashok Sethi, Executive Director, Tata Power stated, "Tata Power is committed towards ensuring Safety and Sustainability of its stakeholders. Safety is a core value at Tata Power and is an integral part of our values system, whereas the technological innovations undertaken in our business highlights our commitment. Tata Power will continue to uphold its commitment and implement further technological innovations for the benefit of Mumbai city and its consumers."

Tata Power has been able to develop this first Green and Fire Safe Installation of its kind with the active participation from various OEMs like ABB, Schneider,

Raychem RPG and Cargill. Further, Tata Power would henceforth deploy all its Package Substations with Natural Ester Filled Transformers. Tata Power is in advanced stage of finalizing the design of 33 /11 kV, 20 MVA Power transformers filled with Natural Esters.

SUCCESSIVE TARIFF HIKE SIGNALS THE END OF CROSS SUBSIDY SURCHARGE IN POWER SECTOR

The political consent to increase power tariff for the third consecutive year has come as a surprise to the state electricity board. It also signals the end of an era of cross subsidy in power sector in the state. Since it was not sure about obtaining clearance from the government for another tariff increase, KSEB was making moves to place the demand for power tariff surcharge before the state electricity regulatory commission.

The fuel surcharge due to the board on account of the additional expenditure it incurred for purchase of thermal power to meet the power demands in 2013-14 comes to around Rs 2,500 crore. Though the board is supposed to file surcharge petition every financial quarter, the same has not been done for the past one year.

According to sources, power minister Aryadan Mohammed agreed with the KSEB's demand for a power tariff hike just couple of days before the board filed the tariff petition on May 14. The board had earlier sought more time from the regulator for filing of the Aggregate Revenue Requirement and Expected Revenue from Charges (ARR &ERC) charges for 2014-15 and filed the same only after general elections.

"If the amendments proposed in the electricity Act get the clearance of Parliament, KSEB would land in a tight spot. If proposal for giving permission to private agencies to function as distribution licensees gets the Parliament stamp and the congestion in the power corridor goes off, private players will certainly start poaching the commercial and HT/EHT consumers of the board. Hence, the earlier practice of taxing the creamy consumers more keeping the power tariff for domestic consumers would no longer become possible in the long run," a top official in the board said. It was this realization that forced the government to approve the hike.

(Source: TOI)

SLOW DEVELOPMENT OF CSP INDUSTRY IN INDIA CAUSED BY POLICY APPROACH

Four years after the National Solar Mission was announced, only one tenth of the intended Concentrated Solar Power (CSP) capacity has been connected to the grid successfully, with more expected to go online later this year.

The government, together with the Asian Development Bank (ADB), are changing tactic to attract the international players back and boost the development of the CSP industry in India.

In 2010, the Ministry of New and Renewable Energy (MNRE) announced Phase I of the National Solar Mission (NSM). Although the plan has proven to be very effective in creating a strong national solar photovoltaics (PV) industry, it has failed to do so with Concentrated Solar Power (CSP).

Abengoa Solar, the leading CSP developer internationally with almost 2GW implemented in all of the solar markets worldwide, including Spain, South Africa, the UAE, Mexico and many more, bid unsuccessfully in Phase I of the NSM.

Like most other international developers, this was as a result of the competitive reverse bidding mechanism that was implemented. They currently have only a 3MW pilot project at the Indian Institute of Technology, which has been in operation since 2011.

However, the policy shift set by the Solar Energy Corporation India (SECI) may attract Abengoa back to developing projects in India. In a recent interview with CSP Today, Shiv Shukla, President of Abengoa Solar India, outlined Abengoa´s experience with Phase I and their recommendations to avoid pitfalls in the next CSP bidding process.

One of the important requirements, according to Shukla, is experience. 'For a successful selection of solar developers, the bidding document must include strong technical pre-qualification requirements for bidders, including experience in building, owning and operating CSP plants'. Shukla goes on to say that 'inexperienced developers may put forward unrealistic offers which they cannot carry out later on, leading to a non-fulfillment of targets'.

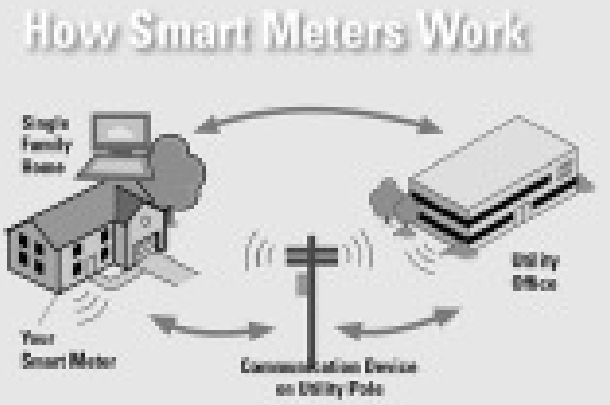
The recent announcement of two 50MW pilot projects to bridge the gap between Phase I and Phase II of the NSM is what is attracting the international community back to India. Shukla hopes that the government 'will include strong pre-qualification criterion backed with strong technical requirement and performance guarantees' for these projects. This is because 'a more hands-on and guided approach from the government is necessary to move the industry forward in the desired direction'.

CG TO SUPPLY 750,000 ZIV SMART METERS TO GNF

Avantha Group Company CG's Automation Business Unit has been awarded a significant contract for supply of 750,000 smart meters from the Spanish utility Gas Natural Fenosa (GNF) and will be one of its main smart meter suppliers for the next two years. ZIV single phase smart meters will cover a large part of the demand for domestic meters from GNF. CG Automation will also be supplying nearly 20,000 three-

phase meters and is now participating in a significant tender for DCUs (Data Concentrator Units). ZIV's 4CTT model is nowadays the reference DCU in the market after becoming the first model certified by the PRIME alliance last year and having proven a robust performance onsite.

CG, after acquiring ZIV, is the key provider of smart meters and an important player in the global smart grid market where it offers ZIV meters, data concentrator units (DCU) and distribution automation solutions (DAS). After significant wins in Latin America and Europe CG is strongly pursuing a growth in the market by positioning ZIV´s smart grid solutions in several pilots worldwide. ZIV smart grid solutions have already gone beyond AMI. CG has broadened the coverage of its smart grid portfolio with an ambitious catalogue of Distribution Automation Solutions that range from LV supervision to MV automation, including Overhead MV Line Automation, Compact Secondary Substations and Micro-grid Management.



New distribution automation solutions, combined with the variety of communication technologies available nowadays will help grid operators to improve their operational processes, while suppliers, energy service companies and customers will also benefit from the availability of data and the possibility to manage aggregated load profiles.

Speaking about this contract GNF's representatives have commented that "ZIV meters have proven to be robust and competitive over the past years. ZIV has played a key role in the development of smart metering technology. Such knowledge together with a clear customer service and satisfaction policy has helped GNF to meet its objectives in the past. We trust ZIV will continue to support us during the ambitious deployment we will be pursuing in the coming years."

Speaking about this win, Avantha Group Company CG's CEO and Managing Director, Laurent Demortier said: "As a global AMI provider, this win is very significant; we sincerely thank GNF. We are proud to be the main PRIME meter provider. In the coming years, legislative and regulatory incentives will be the key to promote Smart Grid Investments. CG will benefit from the smart grid market driving forces and foresees a very promising growing opportunity for the Automation BU."

POWER MINISTER TO FOCUS ON TRANSMISSION & DISTRIBUTION

Vowing to end the misery in the electricity sector, new Power Minister Piyush Goyal has set transmission and distribution as his focus areas and is working to bring states on board for reforms.As much as 30 per cent of the power generated in India is lost during transmission and distribution. In some areas, power does not reach users — even when it is available — due to the lack of transmission capacity, most recently demonstrated when a storm snapped lines and caused long outages in the national capital.

Sources in power ministry said BJP-ruled Rajasthan and Andhra Pradesh have agreed to work with the Centre to reform the transmission and distribution sector. Goyal is likely to visit these states soon to ascertain their demands in the power sector and how the central government can provide the requisite assistance. The minister views transmission and distribution of electricity to the end consumer as the major challenges, rather than generation of power.

The installed capacity of power stations in the country was 2,48,509.63 MW at the end of May, according to data on the Central Electricity Authority website. Rajasthan had 14,945.68 MW and Andhra Pradesh 17,731.07 MW."Now, the country has enough generation capacity. What is needed is operationally efficient and financially healthy transmission and distribution utilities. Government is absolutely right in focusing on T&D segment," said Debasish Mishra, Senior Director at Deloitte India.

The liberalisation of the power sector in 1991 by the then government did not take off due to the lacklustre performance of state electricity boards in the distribution and transmission segment, Mishra added.Goyal visited Gujarat earlier this month to understand the state's success story. He met the state's Energy Minister Saurabh Patel and studied the Jyotigram Yojana, which aims at providing 24×7 electricity to all villages of Gujarat.

(Source: PTI)

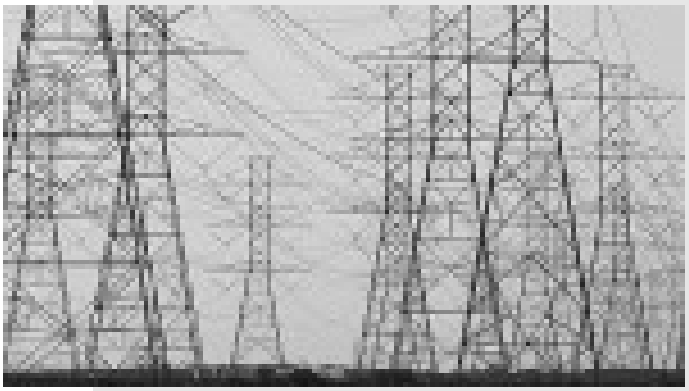
CENTRE MUST ENFORCE POWER GRID DISCIPLINE; DO AERIAL PATROLLING OF TRANSMISSION NETWORK: ASSOCHAM

In the face of sweltering heat in most parts of the country pushing demand for electricity, the Central authorities should announce in no uncertain terms that maintaining a grid discipline will remain sacrosanct and it will not hesitate to penalise

the states over-drawing power from the transmission lines and putting the entire distribution system to a peril, as happened in 2012, ASSOCHAM cautioned.

Aerial patrolling of the grid both at the national and state levels along with better emergency restoration systems should become priorities, it said.

In its assessment of the transmission scenario, an ASSOCHAM paper listed over-drawal of power by one state or the other and the inability of the regional and state level distribution networks to cope up with the emergency situations like thunder storms and other natural eventualities as the biggest risks which can snap the power lines for long hours and even days. The economic activity can come to a sudden halt.



Chamber Secretary General Mr D S Rawat said the local transmission network companies not only in Delhi but also in other states should install high-technology systems such as aerial patrolling of the high voltage lines and transmission, better emergency restoration systems, preventive maintenance and online equipment monitoring. "Besides, the life cycle of the towers and transmission equipment should be strictly monitored and replacements should be done without any compromises".According to the ASSOCHAM paper, the over-drawal of power by some states had led to a complete collapse of the Northern Grid plunging more than half the country into blackout and it took days to restore the system in 2012."A country aiming to grow by a double digit and wanting to become global manufacturing hub cannot afford to compromise on continuous and quality supply of power," the paper said.

While adequate capital investment has been made at the national level through the Power Grid Corporation of India, the state level networks need to catch up. To its credit, the Power Grid Corporation had met its capital investment target of Rs 55,000 crore during the 11th Plan and executed projects worth Rs 42,700 crore in the first two years of the 12th Plan. The bluechip PSU has a capex plan of Rs one lakh crore during the 12th Plan.

(Source: ASSOCHAM)

SSNNL RECEIVES PERMISSION TO RAISE SARDAR SAROVAR DAM'S HEIGHT

The Narmada Control Authority has approved plans to raise the dam wall of India's 1,450-MW Sardar Sarovar hydropower project from 400 feet to about 455 feet.NCA said the height increase will further the project's ability to meet the irrigation demands of India's arid Gujarat state.The project cost an estimated US$7.7 billion when it was completed in 2007 following a construction process that lasted nearly two decades.

Sardar Sarovar is the centerpiece of the multi-billion-dollar Narmada Valley development project that taps the Narmada, India's fifth-largest river, through a series of dams, reservoirs, and canals. Sardar Sarovar has a main powerhouse with six 200-MW reversible Francis units. Another powerhouse, with five 50-MW Kaplan turbines, is supplied with water from the giant canal system.

At the time of its completion, authorities said the dam would connect an 86,000-kilometer network of canals, help irrigate 1.8 million hectares of farmland, and provide drinking water to 20 million people in Gujarat and neighboring states of Rajasthan, Madhya Pradesh and Maharashtra. The dam also will help control floods, while its two power plants generate peaking power.

(Source : PTI)

FINANCE BIGGEST CHALLENGE FOR INDIAN CLEAN ENERGY PROJECTS

The biggest challenge facing Indian clean-energy projects is the high cost of finance, according to a wind-farm developer founded by General Electric Co.'s (GE) former regional chief.Tax-free bonds, credit enhancements and partial loan guarantees are among the options that India's new government needs to consider to deliver on targets to double renewable capacity to 55 gigawatts by 2017, said Tejpreet Chopra, chief executive officer of Bharat Light and Power Pvt. Ltd.

Borrowing costs of about 13% "make any infrastructure project difficult", said Chopra, who left his role at GE in 2010 to start the developer based in Gurgaon. "We need to be a little more creative to attract the capital we need."Prime Minister Narendra Modi, who swept to power on 16 May, has pledged a clean-energy revolution to end blackouts. An obstacle to that is the highest interest rates among Asia's biggest economies, which have prompted India's worst lending slowdown since 2009.

Bharat Light, which is backed by Draper Fisher Jurvetson, will need to raise about $800 million to fund plans to quadruple its capacity to about 800MW over the next

few years, said Chopra. "The good thing is sentiment is getting much, much better", with the new government.Funding renewable projects with government-backed green bonds could lower the cost of clean power by as much as 25%, according to an April report by the Indian School of Business (ISB) and San Francisco-based Climate Policy Initiative, which calculated that high interest rates add as much as 32% to the cost of clean power in the nation.

Developers such as Bharat Light and Morgan Stanley-backed Continuum Wind Energy Pte. are maximizing the amount of power generated by wind farms by doing away with a system under which turbine makers built and operated projects for investors.Chopra estimates about 15 of India's 21 gigawatts of wind capacity was built for investors buying projects to claim accelerated- depreciation benefits. "Generally, most of the plants built to claim tax benefits are running sub-optimally," Chopra said. "You can improve the efficiencies a fair bit."

Bharat Light bought one of India's largest wind farms from indebted property developer DLF Ltd last year. It has been able to reduce turbine downtime by as much as 9% thanks to a system set up with International Business Machines Corp. that collects machine data to predict failures.The system is also allowing Bharat Light to forecast power generation, he said. The Central Electricity Regulatory Commission last year ordered wind farms to start predicting their day-ahead output within a 30% band and plans to fine those who can't comply.Developers including Tata Power Co. Ltd and Goldman Sachs Group Inc.'s ReNew Wind Power Pvt. Ltd have protested, saying that's impossible and that fines would wipe out profits in an industry that has drawn about $10 billion of investment 2011.

(Source: Livemint)

OF RS 40K-CRORE NATIONAL CLEAN ENERGY FUND, ONLY RS 1.6 CRORE SPENT ON PROJECTS IN LAST 3 YEARS

The government has collected Rs 40,000 crore as cess on coal through the National Clean Energy Fund, but even as intended beneficiaries continue to wait for disbursement, it has allocated just over 1 per cent of this amount to the ministry of new and renewable energy (MNRE), the nodal department for developing clean energy in the country.

Worse, of the Rs 500 crore of the NCEF amount disbursed to it, the ministry has spent just Rs 1.6 crore on clean energy projects over the past three years. Replying to an application filed by ET under the Right to Information Act, the ministry further

disclosed that it had spent just Rs 57 lakh since 2011 on grid-connected projects that are supposed to be priority for the government's clean energy initiatives.The NCEF was set up in 2010-11 for promoting clean energy in the country. The lack of inter-ministerial coordination and delay in allocation have resulted in stalling of projects worth Rs 10,000 crore for want of allocation of funds from the NCEF, the ministry officials said.

The government had decided to levy a cess of Rs 50 per tonne on both domestically produced and imported coal to build up the NCEF, and fund research and innovative projects in clean energy technology. The finance ministry accumulates this fund and it is disbursed in consultation with the Planning Commission.The MNRE has been complaining to the central government that the amount allocated under the NCEF is not being disbursed regularly. "Our annual allocation should be Rs 3,500 crore, but we have never received it. Last year, Rs 1,500 crore was disbursed from the NCEF for ministry's budget. This clogs the projects selected to be funded through the NCEF," said a senior MNRE official.

Funding of the ambitious 'Green Corridors' project, alternative transmission infrastructure for renewable power, subsidy amount to off-grid renewable solution providers and viability funding to the solar power project developers under the National Solar Mission are all dependent on the NCEF, government officials said.The recently-announced Wind Energy Mission has also pinned its hopes on the NCEF for potential funding. The unpaid amount to the off-grid solar solution providers has grown to Rs 1,100 crore.

(Source: Economic Times)

CHANGING ATTITUDE OF CONSUMER TOWARDS RENEWABLE ENERGY

The consumers' attitude towards renewable energy sources is changing for the better, as nearly half of residential as well as commercial customers believe it is very important for India to develop and generate more solar power, says a survey.Solar energy has emerged as the most recognised source of renewable energy, as nearly 58 per cent of both groups strongly favour solar energy as a future source of energy generation for India, the survey by global communications and consulting firm Mercom Capital Group said.

"Generally we found a lot of opportunities for the renewable energy industry to invest in educating and informing consumers and differentiating renewables from fossil fuels in a country that is hungry for power of any kind," Mercom Capital Group CEO and Co-founder Raj Prabhu said.The environment was underscored as the most important benefit of solar energy by 71 per cent of commercial and 65 per cent of residential respondents, that covered 1,700 residential and commercial customers.

Interestingly, the survey said only six in 10 (59 per cent) commercial respondents were aware of the government- backed subsidy programs for renewable energy, said the survey that covered 1,700 residential and commercial customers.Moreover, only 30 per cent of commercial respondents and 21 per cent of residential respondents were familiar with the Bureau of Energy Efficiency (BEE label) products and their benefits.The 'India Consumer Perceptions on Renewable Energy Survey' conducted by Mercom Communications India, found that power cuts have a moderate to major effect on more than 93 per cent of businesses polled.

(Source: Economic Times)

INDIA TO EXPAND NATIONAL SOLAR MISSION.

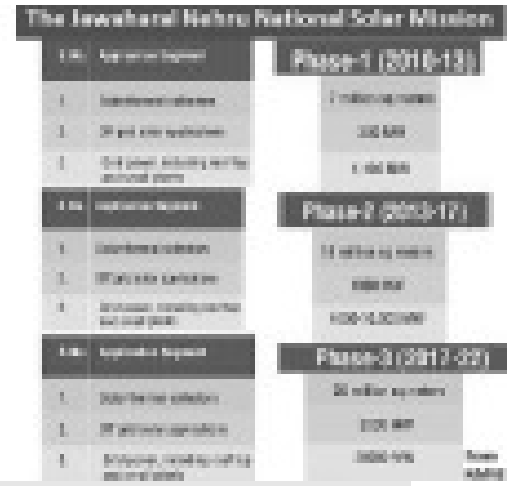
India's president Pranab Mukherjee has revealed the country's flagship national solar programme is to be expanded.Addressing a parliamentary sitting, Mukherjee said focus on energy development would be a priority and that a National Energy Policy would be revealed soon.Mukherjee said the National Energy Policy is to detail developments on energy infrastructure and expanding energy access, with a mix of new and renewable sources and fossil fuels.

As part of this he said the Jawaharlal Nehru National Solar Mission (JNNSM) would be expanded.Also new nuclear power is to be developed and there are to be coal sector reforms to increase private sector investment.As part of his election campaign, Modi advocated solar power to empower people and mitigate corruption, while warning of the economic dangers of relying on imported coal.In its 'vision document' the BJP plans to eradicate shortages of electricity, by giving every home at least one light bulb's worth of electrification, by harnessing solar power. Also in the BJP's 2013 manifesto, continuous power, solar-powered agriculture pumps and street lighting are all specifically mentioned.

The JNNSM is currently in its second stage and aims for 20GW of solar to be installed by 2022. India currently has 2.5GW of installed capacity, according to consultant, Bridge to India.

However, just before Modi's election win, anti-dumping measures were put in place on solar products imported into India.One of India's largest solar project developers, Welspun, said the anti-dumping measures go against the newly elected prime minister's manifesto, while Bridge to India warned the measures would set India's solar market back by two years.

(source: PTI)



INDIA TO IMPLEMENT CODE FOR ENERGY SAVING, GREEN BUILDINGS CONSTRUCTION BY 2017

It will be mandatory for all state governments to implement by 2017 the minimum requirements for energy efficient design and construction set by the central government to meet the challenges of depleting resources, increased urbanisation and rapid construction, according to a top official.

Shifting its focus to building energy-saving structures, the Bureau of Energy Efficiency (BEE) of the power ministry has made mandatory the Energy Conservation Building Code (ECBC) which acts like a "cross-check for building designs and specifications" to reduce the energy consumption through design and choice of material and equipment.

Under its ambit are components like building envelopes (wall, roofs, windows), lighting, heat ventilation and air conditioning and electrical systems.

Introduced in 2007, on a voluntary basis, the code sets the minimum energy standards for new commercial buildings with a connected load of 100 KW. Besides new buildings, it also covers old buildings which are getting renovated and/or extended.

"While the ECBC has been developed by BEE, its enforcement lies with the state governments and urban local bodies through notification within their states as per their regional requirements. Seven states have notified the code, while 15 are on the way to doing so," Sanjay Seth, senior energy economist at BEE, told IANS on the sidelines of the "Urbanscapes: How Sustainable Are Our Buildings" workshop organised here by the Centre For Science and Environment (CSE).

"The target is that the code will be implemented and become mandatory for all states by the end of the 12th Five Year Plan (2012-17).States like Rajasthan, Odisha, Uttarakhand and Andhra Pradesh have already notified the code.

"Among the states we have been struggling with is West Bengal for a long time. Since there is a huge boom in new commercial buildings there is no reason why it should not implement the code," he said.

He added that adoption of the code can reduce energy demand by at least 25 percent in new buildings compared to recent buildings. An ECBC-compliant building will get three stars on BEE's building rating scale.

According to Anumita Roychowdhury, CSE's executive director for research and advocacy, it is an important policy instrument that is expected to set the sustainability terms for energy savings in new constructions in India. By 2020, almost 500 million people in the country will be living in cities, triggering a huge infrastructure boom.

(Source: Economic Times)

INSTALLED CAPACITY OF RENEWABLE ENERGY TOUCHED 12.95%

The installed capacity of renewable energy has touched 32,269.6 Mw or 12.95% of the total potential available in the country, as on March 31, 2014. With this, the renewable energy, including large hydro electricity, constitutes 28.8% of the overall installed capacity in India. According to the India Renewable Energy Status Report 2014 released at the Green Summit 2014 in Bangalore, the total renewable energy potential from various sources in India is 2,49,188 MW. The untapped market potential for overall renewable energy in India is 2,16,918.39 MW that shows huge growth potential for renewable energy in India.

The Ministry of New & Renewable Energy (MNRE), Government of India has set a target of achieving overall renewable energy installed capacity of 41,400 MW by 2017. This creates an opportunity worth $10.51 billion for the renewable market in India till 2017.

India has the world's fifth-largest electricity generation capacity, which currently stands at 243 GW. The power sector in India is highly diverse with varied commercial sources for power generation like coal, natural gas, hydro, oil and nuclear as well as unconventional sources of energy like solar, wind, bio-gas and agriculture. The demand for power has been growing at a rapid rate and overtaken the supply, leading to power shortages in spite of manifold growth in power generation over the years, the Report said.

Focused efforts are going to bridge this demand-supply gap by way of policy reforms, participation from private sector and development of the Ultra Mega Power Projects (UMPP).

"The power sector offers tremendous opportunities for investing companies due to the huge size of the market, growth potential and returns available on capital. Industrialisation, urbanisation, population growth, economic growth, improvement in per capita consumption of electricity, depletion of coal reserve, increasing import of coal, crude oil and other energy sources and the rising concern over climate change have put India in a critical position," the Report said.

(Source- Business standard)

COAL INDIA TO DIVERSIFY

Coal India Ltd. (CIL) has decided to alter its memorandum of association to get into the business of producing fertilizers and chemicals using coal gas.The amendment will allow CIL to produce, store, distribute, sell, import and export gas and other by-products from coal-gasification, and use them to produce ammonium nitrate and fertilizers. The amendment also allows it to install and operate such plant here and abroad. The CIL board recently approved the proposal. CIL has decided to seek shareholders' nod on this issue through a postal ballot.

The company said that Rashtriya Chemicals & Fertilisers had signed a memorandum of understanding with GAIL (India) for jointly exploring the potential use of gas produced from the surface coal gas project in the fertilizer industry. GAIL had approached CIL for co-operating in the studies required and the project development for surface coal-gasification in coal-bearing States in India, including the area in and around Talcher in Odisha.This development is linked to the move to revive the Talcher unit of the Fertiliser Corporation of India, which has been awarded to a consortium of GAIL, RCF and CIL. It is envisaged that a new urea-ammonium nitrate project would be set up at the site of the defunct fertilizer plant of FCI at Talcher.There would be two joint ventures — one for coal gasification and gas purification with GAIL and the other for setting up a downstream fertilizer-cum-ammonium nitrate unit.

(Source: The Hindu)

Adieu to **Er. GAYATHRI NAIR R**,
Chief Engineer (Transmission-System Operation),
Retired from the KSE Board Ltd on 31.05.2014, having served the KSEBoard for the past 28 years.

After Graduating in Electrical Engineering from M.A. College of Engineering, Kothamangalam, she started her career as Lecturer in NSS College of Engineering Palakkad in the year 1981 and continued till she joined the KSEBoard as Assistant Engineer in 1986.

Her career profile in KSEBoard covers all the three sectors of the Power Sector.

Her Contributions during her period of service in KSEBoard :

- Commissioning of the 2nd bank transformers at 400kV Substation Madakkathara.
- Renovation of Unit #2 as Project Manager in KDPP.
- While working as Deputy Chief Engineer, Transmission Circle, Palakkad , the Transmission Circle was crowned as the best in the KSEBoard.

She is the fellow of Institution of Engineers, Certified Energy manager/ Energy Auditor under the MoP and a very good orator and presented various papers in National Seminars and journals.

She is a loyal member of the Engineers Association, and her contribution is commendable. She served the association in various capacities like the chairperson of the Benevolent Fund for two terms and was the chairperson of the Trichur, Palakkad and Kozhikode units. During the hardship times of our association, she solidly stood behind the association and her motivation guided us in achieving our goals. Her enthusiasm in bringing in new members to the association will always be cherished by the association.

KSEB Engineer's Association wishes her, a prosperous and happy retirement life.

Letter to the Editor

This is in reference to the Editorial "Supply Code 2014-Real Beneficiary?" published on Hydel bulletin last month.It was aptly titled and timely published by the Editor.KSERC in the name of promoting efficiency in the power sector, is cutting the wings of the existing state utility one by one.The situation is such that KSEB will have zero non-tariff income in the future , which is about 400 crores currently.The Electricity Supply Code 2014 is intended to help some pressure groups in the power sector and not to help the utility in ensuring its commitment.It is really astonishing to note that the most of the staff members of KSERC is occupied by ex-KSEB-ians and after reaching there, they turn their tables and start working against parent organisation, forgeting the fact that it is the same organisation from which they receive their monthly pension.The employees are made to stand like a buffoon and watch the proceedings.Do utilities have any forums to present our grievances?

Er. Saju.D
Idukki Unit

Farewell of Er. Gayathri Nair R,CE, System Operation Circle, conducted by KSEBEA Ernakulam Unit

KSEB ENGINEERS' ASSOCIATION

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Inauguration of Renovated AC Plant of IHEP by
Er.M.Muhammed Ali Raether,Director Distribution and Generation – Electrical

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