



Hydel Bullet

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Impact of Power Sector Reforms

Electricity is one of the key inputs for the overall economic growth and social development of a country. Without adequate electricity, the basic human needs like food, health, education etc. cannot be fulfilled. Different reform models for power sector have been adopted across the developing world to address the challenges in this sector. After decade long reforms in this sector in many developing countries, it is quite appropriate to review the extent to which these reforms have benefited the poor in particular, its impact on access, quality and reliability of electricity available to the poor.

It is observed that the focus of Indian reform legislation has been more on improving financial viability of the ailing power sector rather than improving access to electricity. The legislation does not explicitly mention the provisions for the extension of electricity services to the poor and the need and mechanism for subsidizing marginalized consumers. The Act stipulates that cross-subsidy shall be eliminated gradually. A proactive legislation is required to address issues linked to access to reliable and affordable sources of electricity. To effectively address the electricity needs of the poor, legislative and policy support for mechanisms like the provision of lifeline rates and more special electrification schemes need to be put in place.

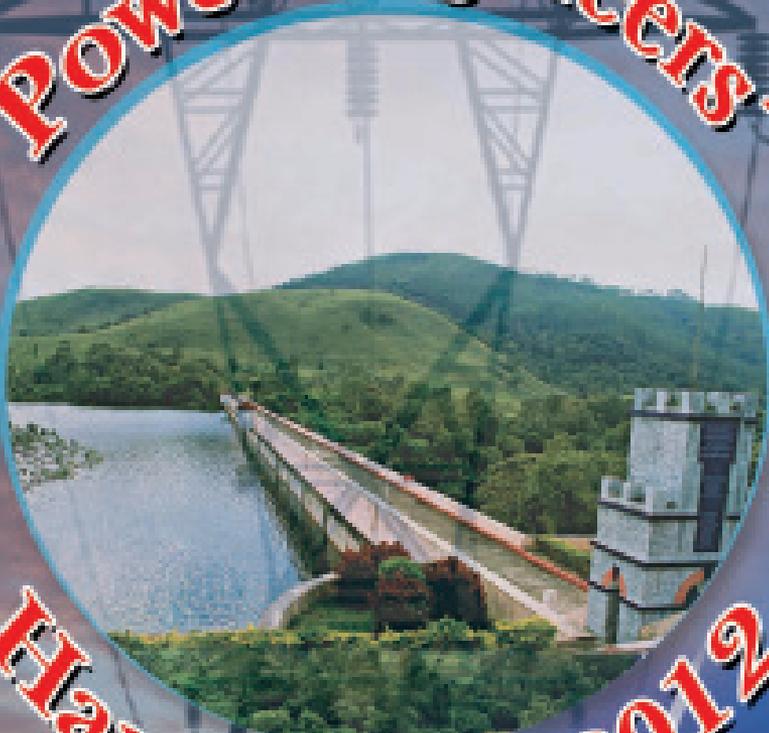
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**Merry Christmas
&
Happy New Year**

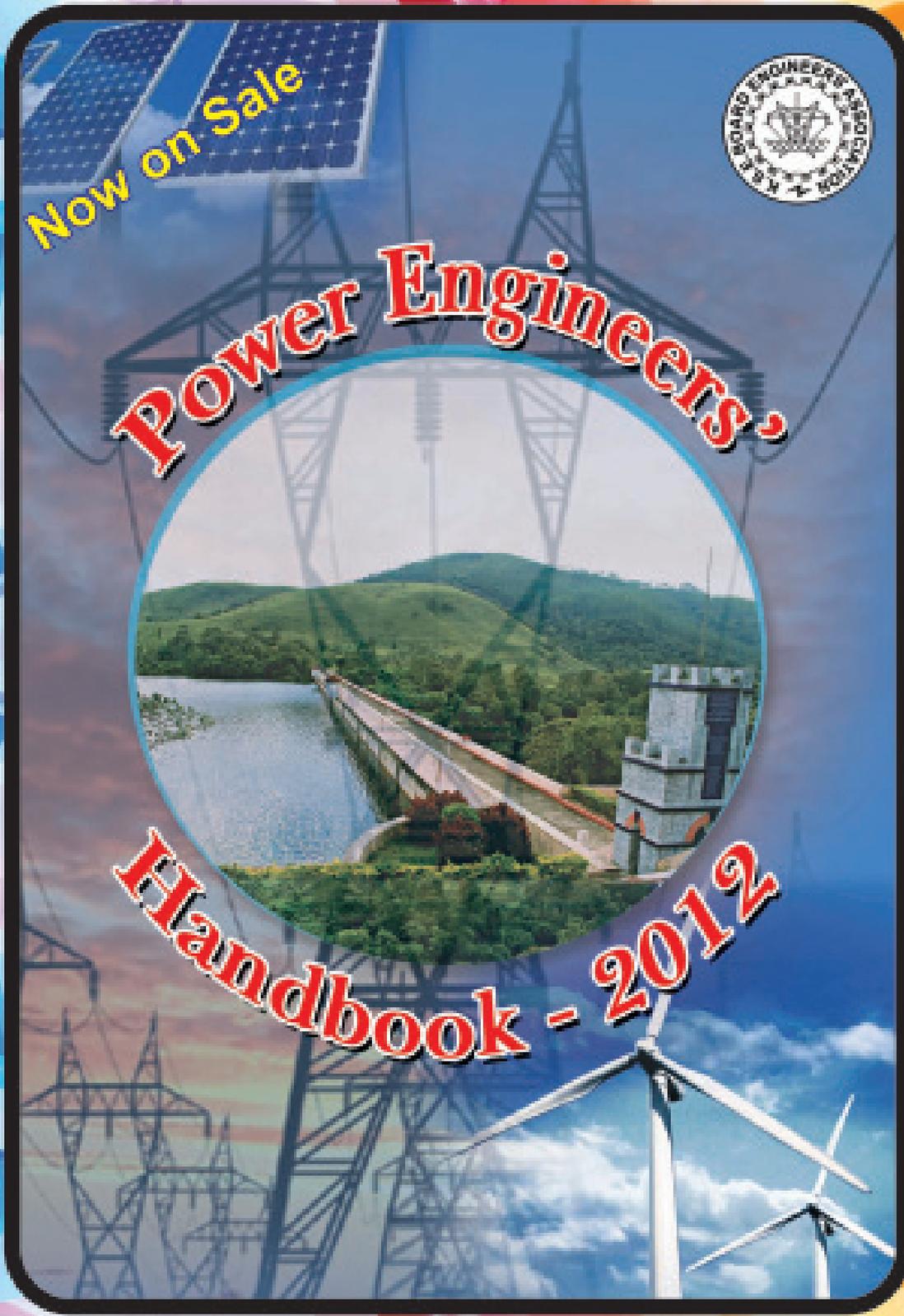
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To assess the impact of power reforms on the poor, it is essential to have separate indicators for poor and non-poor groups in society. International comparisons of poverty data entail both conceptual and practical problems. As different countries have different definitions of poverty, consistent comparison between countries is difficult. Local poverty lines tend to have higher purchasing power in rich countries, where more generous standards are used than in poor countries. The conventional definition of poverty equates it with income or expenditure levels that enable an individual to satisfy a certain minimum consumption level. The population unable to attain the specified level of expenditure is grouped as poor. The Planning Commission, Government of India has been estimating the Head Count Ratio of the poor at State level, separately for rural and urban areas for over the decades for National programmes for rural electrification, and promoting renewable energy technologies like biogas, improved cooking stoves and solar cookers. However, in spite of the existence of these programmes for a long time, coverage of modern energy services in rural areas remains a challenge. These policies lead to problems and bred inefficiency in the sector. As the industrial and commercial consumer categories subsidized the agriculture and domestic consumer categories, the resultant high tariffs for industrial consumers lead to shifting or closure of industries in many cases. The power sector continued to suffer from considerable defaults on payment of dues from various entities. Poor fiscal health and lack of capability



to invest in the sector were the main reasons that compelled the government to look for private sector participation. Reforms were initiated by the Central Government in 1991, when it introduced the policy to liberalize the sector and promote private investments. Private participation policy initially focused the generation sector with an objective to add generation capacity in a short timeframe. Later, it was perceived that the private power policy for generation projects would not succeed if there were no extensive reforms in the distribution sector. Unless the industry provided a strong base of commercial working at the point of interface with consumers, it would not be able to attract the requisite capital investments in generation, transmission, and distribution projects. It was recognized that fundamental organizational changes would have to be effected to restore financial viability of the sector. Private investment was not forthcoming in undertaking generation as the utilities were not in a position to pay for the power purchases. The goal of restructuring was to increase transparency, accountability, and viability of the industry, facilitate private sector participation, and promote a competitive market. The responsibility for ensuring efficient operations of the industry would gradually shift to an independent regulator, and the government would continue to be responsible for long-term planning, legislation, and evaluation of sector performance.

The reform process will not bring any desired results unless improving electricity access to all is taken as its main

objective and the regulatory framework is restructured accordingly. Many States also restructured and unbundled the sector through appropriate legislation. Until recently, the Indian reform legislation did not even contemplate rural electrification. As per 2011 Census about 44.7 % rural households in the country are still remaining as non electrified. Focus has to be given to evolve appropriate policies and legislative changes to meet the electricity needs of the large population of poor in the country. Electricity being a concurrent subject in India, both the Centre and the States can formulate policy. Nevertheless, there are valuable lessons to be learnt from other parts of the world where reform legislation in terms of addressing electricity needs of the poor were implemented. Indian policy-makers can draw useful lessons from the experience to enhance electricity access in the country. There is need to have a legislative commitment to address the issues of access to reliable and affordable sources of electricity. Innovative mechanisms like the provision of lifeline rates and more special rural electrification schemes to meet the electricity needs of the poor need to be developed. The proposed draft amendment for Electricity Act 2003 needs to be revisited with this in mind. The Aam Aadmi experience in the National Capital is an Eye opener in this direction where the price of power played a major part in sweeping out a popular Government from power.



President highlights the role of science & technology in achieving energy efficiency & self-sufficiency

Press Information Bureau News

Date : 16-Dec-2013

Hon. President Shri Pranab Mukherjee has said that the key to energy efficiency and energy self-sufficiency lies in innovation and developing the appropriate technologies. Giving the example of the US, the President said that the US has turned itself from being a huge net energy importer to being self-sufficient through the discovery of shale gas, which has been possible because of a crucial technological breakthrough in efficient recovery of shale gas. Sh Pranab Mukherjee was speaking at the National Energy Conservation Awards function in New Delhi today. Highlighting the role of scientists and technologists, the President said that they have to engage themselves in the cause of making our country self-sufficient in energy. Policy making also has to be proactive to identify problems, highlight trends, develop scenarios, and recommend policy options, so as to avert any crisis, he added. The President said that the demand for energy is increasing rapidly while its supply is limited. Therefore, the difficulty of the growth in energy demand vis-a-vis the growth of GDP has to be contained through improved energy efficiency. Energy conservation also implies the substitution of costly imported energy by cheap energy. This will help in reducing our foreign exchange outgo. Conservation of energy is a critical development imperative that has multiple positive spinoffs. Mr Pranab Mukherjee disclosed that the Twelfth Five Year Plan recognizes the importance of evolving a low carbon strategy for inclusive and sustainable growth. A national target to increase energy use efficiency has been set. It will bring a twenty to twenty five percent reduction in the energy intensity of our GDP by 2020. The President recognized the various innovative initiatives of Ministry of Power like Perform Achieve and Trade [PAT], Super Energy Efficient Program [SEEP] under National Mission on Enhanced Energy Efficiency. The President gave away the awards to several industrial units and other establishments for their innovative efforts in enhancing their Energy Performance. The awardees represented - Industries, Thermal Power Stations, Office Buildings, BPO Buildings, Hotels, Hospitals, Shopping Malls, Zonal Railways, Railway Workshops, Municipalities, State Designated Agencies and manufacturers of BEE Star Labelled appliances/equipment. The President also presented the prizes to the winners of the 1st, 2nd and 3rd prizes for the National Energy Conservation Painting

Competition of the Ministry of Power and Bureau of Energy Efficiency [BEE]. The competition is held every year at the School, State and National Levels. This year, the competition witnessed a record participation of 45 lakh students from 98,000 schools across the country. Speaking on the occasion, Sh Jyotiraditya Scindia, MOS [Independent Charge] of Power, said that the Perform, Achieve and Trade [PAT] scheme under the National Mission for Enhanced Energy Efficiency [NMEEE] has already helped to save 6.5 million tons of oil equivalent within a span of just a year. The scheme was launched in July last year. The scheme provides the option to trade any additional certified energy savings with other designated consumers to comply with the Specific Energy Consumption reduction targets. The Energy Savings Certificates [ESCerts] so issued are tradable on the two power exchanges. The Minister added that there is now a global discourse to treat energy efficiency as a resource since it gives the same outcomes at a lower cost. Mr Scindia added the Bureau of Energy Efficiency of the Union Ministry of Power is to take up as a project the whole cycle of technological development and research in the field of energy efficiency to its large scale deployment to achieve substantial energy savings. He said, the Indian industry has a great role to play in energy conservation because it accounts for 40% of commercial energy use. All industries should analyse their energy consumption patterns and make efforts to reduce the energy use. Energy efficiency and energy conservation are the way to save fuel, foreign exchange and scarce resources along with its many environmental benefits, he added. The Power Minister hoped that the school children will be torch bearers of the energy efficiency campaign of the future. Union Power Secretary, Shri P.K. Sinha, in his welcome address congratulated the Award Winners for their innovative steps to conserve energy. He said that the industrial units and other establishments which participated have been collectively able to save about 711 MW of equivalent avoided capacity. In his vote of thanks address, Dr. Ajay Mathur, Director General, Bureau of Energy Efficiency, appealed to all energy users of the country to conserve energy in all spheres of life. The direct contribution of policies to reduce energy use during the five years of the Eleventh Five Year Plan period has yielded more than 10,000 MW of avoided generation capacity. NB



STRENGTHENING THE REGULATORY NETWORK

Suresh Prabhu

In the early to late-1990s, the Indian power sector was in a state of despair. It was also during this period that India started out on the path of liberalising the economy with the goal to achieving a growth rate above the historic three per cent. To fuel economic growth, India needed another important ingredient – electricity.

In the backdrop of the Enron fiasco, there was no new investment in this sector. The State electricity boards were facing a cash crunch. It was during 1997-98 that the country was poised to introduce reforms in the power sector and began its journey with the enactment of the Electricity Regulatory Commissions Act. The primary objectives of the power sector reforms and the Electricity Regulatory Commissions Act were to make the electricity sector free from governmental control by giving the regulators autonomy in deciding tariffs and undertaking activities to reduce transmission and commercial losses. This has widely come to be known as the second phase of reforms.

The reforms were in line with the Orissa reforms. The basic idea was to unbundle electricity function of generation, transmission and distribution under State electricity boards into separate entities with the aim of identifying problems in the distribution

sector and bringing investments into the generation sector. This unbundling was to be supported by bringing the entire electricity business under an independent agency with little or no controls of governments, and close to complete autonomy. The independent agency was given vast powers like determining the electricity tariff. Electricity generation and supply to consumers were to take place in a transparent manner under public scrutiny. To ensure that the stated goals of reforms were achieved, it was necessary to unburden the financially starved distributors. So, the government of India introduced incentivised schemes of composited loans/grants for accelerated power developments.

Today, we are in the 15th year since the enactment of the Regulatory Commissions Act. Now we have 27 regulators at State and Central levels overseeing the electricity business in their respective jurisdictions. The electricity business has grown from a mere 0.78 lakh MW to more than 2.50 lakh MW. The per capita consumption of electricity has grown from 400 kWh to nearly 1,000 kWh. The sector saw 40,000 MW capacity added in captive power. The regulators now have 92 per cent geographical reach of the country and about 20 crore consumers in all categories – from public works to agriculture, to domestic to industries.

The question to ask now is: have we been successful in our mission to serve consumers in ensuring reliable supply of electricity at an affordable price and at the same time attract desired investments by setting up regulators and granting autonomy?

Examining losses

Though there are many positives to take away from the reforms, one of the major goals – affordable electricity price to the consumers – does not seem anywhere near realisation. Analysis shows that one of the major impediments to not being able to reduce the cost to the consumers is technical losses in the system. These losses, which were about 22 per cent in 1995, have now gone up to 27 per cent. Some States are even reporting losses as high as 65 per cent with most States reporting losses in the range of 40 per cent. The losses in a few States in southern India however are in the range of 15 per cent. To understand the issue of technical losses from the supply side means that around 25 per cent of the energy produced is not being utilised by consumers in most parts of the country. The global standard for these losses is at most 10 per cent. These losses indirectly show up in a consumer's bills as an additional tariff burden. Hence, increased costs.

Regulators and objectives

The very objective of setting up a regulatory framework was for someone to keep tabs on all the activities related to electricity business including efficiency. But looking at the state of matters it

appears that the regulators are approving the tariff hike proposals without reviewing the previous year's increase. The irony is that out of 85 distribution companies, very few are reporting profits despite a hefty hike in tariff, which in some cases has been as high as 40 per cent in some States. The regulators' silence on this issue is astonishing.

The other objective of the regulators was to promote a power market. However, despite having two exchanges to take care of surplus power during real time and close to 50 traders, the power market has been confined to selling it to distribution utilities and in return collecting trading margins. In a properly functioning market, there is liquidity and volatility. The price varies with demand. In order that there is a market that functions properly, the consumer should be made to buy from the market and the regulator should do away with fixing tariffs annually. It doesn't just end here.

Cross-subsidy

The cross-subsidy is an issue in every business and market. The cross-subsidy does not allow price discovery. Price discovery is very much a necessity for a well-functioning market. When the reforms were initiated, the goal was to phase out all activities that lead to cross-subsidy. But the opposite appears to be happening. What is being done in every State is only increasing cross-subsidy, which is stalling open access market.

The burgeoning losses of distribution of electricity is worse than what it was prior to the enactment of the regulatory regime. During my tenure, one of my priorities was to reduce these losses. To

achieve this, I had embarked on technology improvement as a high priority activity with increased impetus on information technology.

I had specifically asked for expert advice to the government sector so that the electricity sector and consumers could reap the benefits of reforms. I am of the opinion that for distribution sector to become technically and commercially

unhealthy for the sector as his decision directly impacts the consumer.

It is my observation that under the current regulatory framework, most decisions are altered or amended by the Appellate Tribunal for Electricity. Thus, the regulatory forums have become a bevy of legal courses. This does not serve the purpose of reforms. The regulators appointed should be unbiased, with



viable, we need to work towards making every distribution network, at least in urban and non-rural areas, a profitmaking centre.

Now, there are some changes on the cards to the Electricity Act 2003. What is needed today is a strengthening of the regulatory system. The first step is the appointment of regulators. A regulator should be a person with proven capability and experience. Any omissions and commissions in his appointment is

experience in the sector. They should be imparted proper training. It should be laid out very clearly that regulation is not a post-retirement activity. Reforms must run in a businesslike manner, with the completion of their social objectives. Rate-payers are entitled to this.

(Suresh Prabhu was formerly Union Minister for Power.)

(Courtesy " THE HINDU
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AIPEF MEMORANDUM TO SHREE ARVIND KEJARIWAL

Top power union leader backs Kejriwal's move

HT Correspondent

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NEW DELHI: All India Power Engineers' Federation (AIPEF) secretary general and state's senior power employees' leader Shalendra Dubey on Saturday called on Aam Aadmi Party (AAP) leader Arvind Kejriwal in Delhi and assured him of all the help in reducing power tariff as promised by his party if he formed the government in Delhi.

He also submitted a memorandum to him demanding modification of distribution losses of private Delhi discoms.

He was accompanied by the federation's president Mahesh Chandel, general secretary Satya Pal and RVS Boudh. The memorandum highlighted the gross irregularities of private discoms in many aspects, mainly on account of very high cost of power purchase (about Rs.5/ per unit). The delegation assured Kejriwal of support in improving



Shalendra Dubey and others with Kejriwal in New Delhi.

THE DELEGATION ASSURED ARVIND KEJRIWAL OF SUPPORT IN IMPROVING DELHI'S POWER SITUATION

the power situation of Delhi and in reducing high tariff imposed on common Delhi consumers.

Dubey said the engineers' body in UP was opposed to the privatisation of the power distribution system because any such move would lead to exploitation of consumers, like in Delhi.

1. Power Purchase Cost:

Average power purchase cost shown in the ARR is inflated. It is Rs. 4.99 per unit in Delhi (TPDDL) while the same is Rs. 3.99 per unit in Uttar Pradesh. Excess amount claimed in the ARR therefore is app. Rs.2500 Crores in the current year. However the actual average power purchase cost for Delhi DISCOMS should be much lower than U.P. even, due to highest center pool allocation.

Accordingly excess amount so claimed and accepted by DERC in the last 10 years may come out to the tune of more than 20000 Crores, sufficient to supply electricity free for one year in total Delhi and for three years to domestic consumers, this however can only be verified after going through the respective PPA's. This excess amount allowed by the DERC and amortized in the past tariffs fraudulently is always recoverable and can be passed on to consumers in future tariffs.

2. Fixed Charges:

Fixed Charges levied should be removed be replaced with Minimum Guarantee Charges as were during DVB. The fixed charges are levied in remote areas where it

is not possible to recover the huge cost of developed infrastructure by profit from sale of energy within a reasonable period due to low and limited consumption, so that at least some proportionate cost is recovered.

However in Delhi cost, due to high density population, is very low but the consumption is very high. So the cost is recovered within a short period by profit from sale of energy.

The levy of fixed charges claimed by DISCOMS and approved by DERC was justified with the pleas that since the companies had incurred huge expenditure on infrastructure and have to maintain it; therefore they are entitled to recover some portion of their expenditure in the form of Fixed Charges.

Fixed charges cannot be levied in Delhi because:

- Companies are getting 16% guaranteed return and on their expenditure.
 - Companies are claiming 100% interest on loans borrowed from financial institutions for raising new infrastructure in the ARR.
 - Simultaneously companies claiming 100% maintenance cost and depreciation of assets.
3. Consumption of domestic consumers is app. 30% of total consumption of Delhi. Therefore 50% reduction in domestic tariff is feasible.
 4. Companies are selling excess/surplus power at very high rates, though purchased at very low rates from center pool (Due to support of Govt.) to other states but profit is not passed on to the consumers as per ARR submitted by companies. For actual consumption these are claiming only high rates of purchase. Companies are claiming power purchase cost in the ARR for the total consumption, purchased at higher rates but are selling surplus cheaper power at high rates.

5. Companies developed exponentially high infrastructure under capital expenditure, disproportionate to requirement. Say for a peak demand of 1500 MW company developed system to cater the load of 4500MW instead of required 2500 MW. For such excess infrastructure consumers are paying depreciation, interest of loans and guaranteed return being claimed in the ARR, without utilization of these excess assets. By the time the few last MW's could be utilized, these would stand as retired and will have to be replaced with new ones.
6. It is further matter of audit that the companies are claiming return on equity at depreciated cost of assets in successive years or on initial value of assets. Also it is to be verified whether companies claimed any depreciation and return on assets retired due to unwarranted replacements under CAPEX.
7. Installation of correct meters will reduce the bills of some consumer by 10 to 30% since meters have some deliberate technical defect.
8. Power purchase cost from Rithala plant as shown in the ARR for 2012-13 was 181 Crores and that for 2013-14 was 176 Crores, while it was not generating power since installation in 2009.
9. DERC has recommended CAG audit of DISCOMS on account of many irregularities and frauds in data submitted by them. CAG audit will prove that excess expenditure has been shown which has burdened on common Delhi consumer tariff hike every year.

10. In May-2010, the then DERC Chairman recommended overall tariff reduction by 23%. It is also not worthy that instead of accepting the recommendation of DERC to reduce tariff by 23%, tariff has been increased by 33%, 28% in 2010 and 5% subsequently. This itself speaks that there are sufficient grounds for reducing domestic tariff by 50%.

1. Physical Audit/verification: Assets & accounts.

- Whether scheme executed or not.
- Whether the scheme was required and approval of CEA.
- Whether procedures of competitive biddings adopted for procurement of materials and execution. How the rates were justified?
- Repeated replacement of equipment's and capitalization.
- Capitalization of equipment's without charging/utilization.
- Schemes without need.
- Out sourced man power.
- Cost of replacement of meters and service lines in many cases recovered from consumers but booked under CAPEX. In many cases of new connections where one or more connection already existed, cost of service line charged from consumer but physically not provided.
- Whether companies continued claim of depreciation and return on assets retired due to replacement immediately after taking over. (Though this was not required as the entire existing panel boards/cables were not faulty /sick but

were replaced. It is further to verify that the return was claimed only on depreciated cost of assets in successive years).

2. To bring companies under the ambit of RTI like MTNL and Himachal State Electricity Board Limited.
3. Reprogramming of meters at company's cost. Electronic meters consist of both phase and neutral CT as remedial measure from reversal of wires from source. These are programmed so that consumed energy is registered by measurement of current flowing through phase or the neutral whichever is higher. However the consumers in societies or having multi connection installed at common points supplied through common service line are at disadvantage if neutral of one or more meters after developing fault, is connected with the neutral of some other (s) connection or some load of one connection is put across the neutral of other connection, then excess or whole current of one connection flows through the neutral of other connection. This excess current of other connection is measured for recording energy which neither has been used nor supplied by the utility. Therefore:
 - Only phase current be considered for registering the energy.
 - In three phase/CT meters, current of neutral CT be ignored for energy registration.
 - Or to cope up with the neutral problem separate service line be provided to each consumer.

4. Removal/Deletion of fixed Charges:

The concept of minimum guarantee charges was replaced with **FIXED CHARGES**. These charges are to be paid by each consumer irrespective of his consumption. In a city like Delhi these fixed charges are not justified.

The concept of fixed charges may be justified for remote areas where utilities has to incur heavy expenditures for developing infrastructure, say to install a 66 or 33 KV grid sub-station for improvement at a distance of 50 KM from existing sub-station with constant existing consumption, but the cost is not recoverable due to low consumption. However in Delhi due to high population density, cost/expenditure comparatively is very low and is fully recoverable within a short period through profit margin due to high consumption.

The plea taken by the companies in agreement with DERC clarification was that since the companies has incurred huge expenditure in taking over the existing infrastructure from DVB or in augmentation thereof and also companies has to pay for maintenance of their infrastructure, some cost is to be recovered through Fixed Charges. However the actual position is as under:

- In terms of policy directions, Companies are claiming 16% guaranteed return on their expenditure incurred towards taking over the existing infrastructure from DVB and also depreciation. (To be checked whether return is claimed on initial value of assets or on depreciated cost in successive years).
 - Augmentation/ improvements schemes are executed under capital expenditure. Companies claim all expenditure in the ARR i.e. RoCE, depreciation, interest on loans.
 - In addition companies are claiming maintenance cost also in the ARR for maintaining their infrastructure.
5. Developed disproportionate infrastructure.
- Say for a peak demand of 1500 MW, the infrastructure of more than 4000MW has been raised or reflected. This is 1500MW over and above the requirement, with implication of nearly 3000 Crores. All amounts have been claimed/are being claimed in the ARR in the form of RoCE, interest on loans and depreciation. This implies that for the cost of not-required infrastructure of 1500 MW, consumers are paying without its utilization. By the time these excess assets will become entitled to be utilized in gradual manner by increased demand, some of these will be declared as retired before any utilization. In this manner consumers continuously will pay depreciation and return on these excess assets without any use.
6. Verification of salaries and bonus disbursed to new employees. In many cases it will be more than 10 million per annum package. Incentives/ bonus in no case should be chargeable in the ARR.
7. Expenditures incurred on foreign visits. Reasons for visits to be verified and be not charged in the ARR.
8. DERC had not issued performance standard regulations after 2007.

സ്വവർഗ്ഗ പ്രേമവും വ്യക്തിസ്വാതന്ത്ര്യവും

രാജൻ വി.
ഡെ.സി.ഇ.(റിട്ട.)

അടുത്ത ദിവസങ്ങളായി വളരെയധികം ചർച്ച ചെയ്യുന്ന ഒരു വിഷയമാണല്ലോ സ്വവർഗ്ഗരതിയും അതിന്റെ നിയമസാധുതയും. ക്രിമിനൽ നിയമ സംഹിതയുടെ 377-ാം വകുപ്പുപ്രകാരമുള്ള എതിർപ്പ് ഡൽഹി ഹൈക്കോടതി മാറ്റിയിരുന്നത് സുപ്രീംകോടതി പുനഃസ്ഥാപിച്ചു. അങ്ങനെയാണല്ലോ ഈ ചർച്ച തുടങ്ങിയതു തന്നെ. നേരത്തെ ഈ പംക്തിയിൽ പല പ്രാവശ്യം പറഞ്ഞതുപോലെ ഓരോ രാജ്യത്തിനും അതിന്റേതായ ഒരു സംസ്കാരമുണ്ടാകും, ഉണ്ടാകണം. അപ്പോഴേ സാംസ്കാരികമായ ചർച്ചകളും ഒത്തുചേരലുകളും സങ്കലനങ്ങളുമൊക്കെ നടക്കൂ. അതല്ലാതെ ചില സംസ്കാരങ്ങൾ വളരെ ഉദാത്തമായതും മറ്റു ചിലതൊക്കെ വളരെ മോശപ്പെട്ടതുമെന്ന ഒരു ധാരണ ശരിയല്ല. അതെന്തുകൊണ്ടെന്നാൽ ഓരോ സംസ്കാരവും ഉണ്ടാകുന്നത് അവിടത്തെ സാമൂഹിക - സാമ്പത്തിക- പാരിസ്ഥിതിക - കാലാവസ്ഥ പ്രത്യേകതകൾക്ക് അനുസരിച്ചാണല്ലോ. അതുകൊണ്ടുതന്നെ മറ്റൊരു സംസ്കാരത്തെ അതേപടി അംഗീകരിക്കുന്നതിൽ ഒരർത്ഥവുമില്ല. ഏച്ചുകെട്ടിയാൽ മുഴച്ചിരിക്കും. അതുകൊണ്ടുതന്നെ വ്യത്തികേടുമായിരിക്കും. നമ്മുടെ ആധ്യാത്മിക പ്രധാനമായ സംസ്കാരത്തിൽ ഭൗതിക പ്രധാനമായ സംസ്കാരത്തിലെ നിഷ്ഠകളും ചിട്ടകളും സ്വീകരിക്കുന്നത് വളരെ ശ്രദ്ധിച്ചുവേണം. പക്ഷെ അടുത്ത കാല

ത്തായി റ്റി.വി., ഇന്റർനെറ്റിന്റെ അതിപ്രചാരണം കൊണ്ടും ചില നൂതന സാങ്കേതിക വിദ്യകൾ സ്വായത്തമായിട്ടുള്ള രാജ്യങ്ങളുടെ നിക്ഷിപ്ത താൽപ്പര്യങ്ങൾ കൊണ്ടും ലോകത്തെ അവരുടെ സംസ്കാരത്തിന്റെ അടിമകളാക്കാൻ ശ്രമങ്ങൾ നടക്കുന്നുണ്ട്. മറ്റ് രാജ്യങ്ങളിലെ യുവതലമുറ കുറെ യൊക്കെ ആ കെണിയിൽ വീഴുന്നുമുണ്ട്. ചില മുസ്ലിം രാജ്യങ്ങൾ ഒഴിച്ച് മറ്റ് സ്ഥലങ്ങളിലൊക്കെ ഇതിന്റെ സ്വാധീനം കാണാം.

വ്യക്തി-പൗര സ്വാതന്ത്ര്യത്തിന്റെയും മനുഷ്യാവകാശത്തിന്റെയും പേരിലാണ് പുതിയ കാഴ്ചപ്പാടുകൾ ഇങ്ങോട്ടുകയറ്റുമതി നടത്തുന്നത്. അതിനിവിടെ രാഷ്ട്രീയഭേദമന്യേ അംഗീകാരവും കിട്ടുന്നുണ്ട്. വിശേഷിച്ചും സാമൂഹിക വിരുദ്ധ തീവ്രവാദികൾക്കിടയിൽ അവരുടെ ഹീന പ്രവർത്തികൾ നിർബാധം തുടരാൻ ഈ നിയമങ്ങൾ വലിയ സഹായകമാണ്. പ്രധാനമായും പോലീസിനെ പേടിപ്പിക്കാനാണ് അവർ ഇതു പ്രയോജനപ്പെടുത്തുന്നത്. പല കൊലപാതകങ്ങളിലും ക്രൂരമായ പീഡന കേസുകളിലും പ്രതികളെ പോലീസുകാർ എത്ര ശ്രദ്ധയോടെയാണ് പരിപാലിക്കുന്നതെന്നു നമ്മൾ ചാനലുകൾ കാണുന്നില്ലേ. എന്തെങ്കിലും ക്രമക്കേടുണ്ടായാൽ മാധ്യമങ്ങളും പൗരസമൂഹവും കൂടി പോലീസിനു നേരെ തിരിയുന്നതും നമ്മൾ കാണുന്നുണ്ടല്ലോ. അതുകൊണ്ട് പോലീസിനിപ്പോൾ പലകാര്യത്തിലും അവരുടെ

നിലനിൽപ്പാണ് പ്രധാനം. ഈ കാര്യങ്ങൾ കൈക്കൊണ്ട അംഗീകാരം കിട്ടിക്കഴിഞ്ഞപ്പോൾ നമുക്ക് കിട്ടിയ സൗകര്യമാണ് വിവാഹ ജീവിതത്തിനും കുടുംബത്തിനും പകരമായി ഒരുമിച്ചുള്ള ജീവിതം. ജനം പൊതുവെ സുഖലോലുപരും മടിയന്മാരുമായതുകൊണ്ട് ഈ നിലപാടിന് മോശമല്ലാത്ത സ്വീകരണം കിട്ടുന്നുണ്ട്. കൂടാതെ ഇപ്പോൾ കോടതിയുടെ അനുമതിയുമുണ്ട്. ഈ ബന്ധത്തിൽ ഉണ്ടാകുന്ന കുട്ടികളുടെ കദന കഥകൾ എന്നും മാധ്യമങ്ങളിൽ കാണുന്നു മുണ്ട്. കോടതി ഇപ്പോൾ പറയുന്നത് ഇങ്ങനെയുള്ള കുട്ടികളെ സംരക്ഷിക്കാൻ വേറെ നിയമം ഉണ്ടാക്കണമെന്നാണ്. സമൂഹത്തെ നേരത്തെ തന്നെ ഷൺഡീകരിച്ചിരുന്നതുകൊണ്ട് അവിടെ നിന്നും പ്രത്യേകിച്ചൊരു ഇടപെടലും ഇക്കാര്യങ്ങളിൽ ഉണ്ടാകില്ല; അതിന്റെ ഫലമാണ് സ്ത്രീകളും കുട്ടികളും ഇന്നനുഭവിക്കുന്ന അരക്ഷിതാവസ്ഥ. ഷൊർണൂർ ട്രെയിൻ പീഡന കേസിലെ മരണ ശിക്ഷക്കെതിരെയുള്ള അപ്പീൽ തള്ളിക്കൊണ്ടുള്ള വിധിയിൽ കോടതിയും ഇപ്പോൾ കുറ്റം പറയുന്നത് സമൂഹത്തെയാണ്. സമൂഹം ഉത്തരവാദിത്വം കാണിച്ചിരുന്നെങ്കിൽ ആ ഹീനമായ കൊലപാതകം ഒഴിവാക്കാമായിരുന്നുവെന്നാണ്. ഈ കാര്യങ്ങളൊക്കെ കാര്യബോധമുള്ളവർ നേരത്തെ പറഞ്ഞിരുന്നതാണ്. അന്നാരും ശ്രദ്ധിച്ചില്ല. പടിഞ്ഞാറൻ കാഴ്ചപ്പാടുകൾ അതേപോലെ, ഗൗരവമായ ഒരു വിശകലനവും നടത്താതെ, അംഗീകരിക്കുന്നതിലായിരുന്നു എല്ലാ പേർക്കും താൽപ്പര്യം. അതിന്റെ ഫലമാണ് ഇപ്പോൾ നമ്മൾ അനുഭവിക്കുന്നത്.

ഹൈക്കോടതിയെടുത്ത തീരുമാനമായിരുന്നു സ്വവർഗ്ഗ പ്രേമികൾക്കനുകൂലമായ ഇപ്പോഴത്തെ തീരുമാനവും. നമ്മുടെ നാട്ടിൽ ഒരു ശതമാനം ആളുകൾ പോലും ഈ സ്വഭാവക്കാരില്ല, കുറെ ഹിജടകളുണ്ടുവെന്നുള്ളത് സത്യം. അവർക്കിപ്പോൾ തന്നെ അവരുടേതായ കോളനികളും ജീവിതരീതിയും ആചാരാനുഷ്ഠാനങ്ങളുമുണ്ട്. മറ്റുള്ള സ്വവർഗ്ഗ പ്രേമമെന്നു പറയുന്നതു ഒരു ഭ്രമമോ, വ്യവസ്ഥിതിയോടുള്ള എതിർപ്പോ, മറ്റുള്ളവരുടെ പ്രേരണകൊണ്ടോ ആണ് ഉണ്ടാകുന്നത്, അതൊരു ശാശ്വതമായ പ്രതിഭാസമല്ല. അതുകൊണ്ടു തന്നെ അതിനെ ഒരു വലിയ വ്യക്തിസ്വാതന്ത്ര്യ ഭരണഘടനാ വിഷയമൊന്നുമാക്കേണ്ട ഒരു കാര്യവുമില്ല. മറ്റ് രാജ്യങ്ങളിൽ (സംസ്കാരത്തിൽ) ഉരുത്തിരിഞ്ഞ് വരുന്ന നൈമിഷിക പ്രതിഭാസങ്ങളെ അതേപടി സ്വീകരിക്കുന്നതല്ല പുരോഗമനം. നമുക്കു നമ്മുടേതായ, കാലത്തെ അതിജീവിച്ച ഒരു സംസ്കാരമുണ്ട്. അതിൽ മാറ്റങ്ങൾ വരുത്തുന്നത് വളരെയധികം ചിന്തിച്ചു വേണം. അല്ലെങ്കിൽ അത് സമൂഹത്തിൽ പല പ്രശ്നങ്ങളും ഉണ്ടാക്കും. മനുഷ്യകുലത്തിന്റെ അടിസ്ഥാന ചോദനയായ കുടുംബത്തെ തകർത്തതിന്റെ ദോഷഫലങ്ങളാണിന്നു യൂറോപ്പ് അനുഭവിക്കുന്നത്. ഒരാവേശത്തിന്റെയും ഭ്രമത്തിന്റെയും പേരിലല്ല ഇങ്ങനെയുള്ള ദുരവ്യാപകമായ ഫലങ്ങളുളവാക്കുന്ന സാമൂഹിക മാറ്റങ്ങൾ സ്വീകരിക്കേണ്ടത്. വെറുതെ വ്യക്തി - പൗര സ്വാതന്ത്ര്യങ്ങളെ പെരുപ്പിച്ചു കാണിച്ച് പ്രകൃതി വിരുദ്ധതയെ അംഗീകരിച്ച് സമൂഹത്തെയും രാജ്യത്തെയും നശിപ്പിക്കരുത്.

ഇതുപോലെ ഒരാവേശത്തിൽ ഗൗരവമായ ചിന്തയൊന്നും നടത്താതെ,



ആ-ശങ്കകൾ ഇനിയും ബാക്കിയാണ്

എൻ.ടി. ജോബ്
കോഴിക്കോട്

ലൊട്ടുലൊടുക്കു വിദ്യകൊണ്ട് ആവാഹി ചെടുത്ത് കൂടത്തിലാക്കി സർക്കാരിന്റെ തലയിൽ കമഴ്ത്തിവെച്ചിരുന്ന വൈദ്യുതി ബോർഡിന്റെ ആസ്തികൾ സർക്കാരിപ്പോൾ എങ്ങിനെയോ തലയൂരി കമ്പനിയുടെ തലയിലാക്കി കഴിഞ്ഞപ്പോൾ ജീവനക്കാരെല്ലാം ആശ്വാസത്തിലാണ്. കാര്യം മറ്റൊന്നുമല്ല ഇനിയും കമ്പനിവൽക്കരണം എന്നുപറഞ്ഞ് തലപുകയാൻ സമയമില്ല. എന്തും ഏതും വിവാദമാകുന്ന കേരളത്തിൽ യാതൊരു ബഹളങ്ങളുമില്ലാതെ കമ്പനിവൽക്കരണം നടത്തിയിരിക്കുന്നു. പലരും ദേഹത്തുതൊട്ടുനോക്കി സത്യമാണോയെന്നറിയാൻ. സത്യമാണെന്നറിഞ്ഞപ്പോൾ ആരും ഞെട്ടിയില്ല. സാധാരണ കമ്പനിവൽക്കരണത്തിന്റെ ന്യായങ്ങൾ നിരത്തി സാധൂകരിക്കാൻ യോഗങ്ങൾ സർക്കാർ വിളിച്ചു കൂട്ടേണ്ട തിന്നു പകരം മറ്റു ചിലരാണ് യോഗങ്ങൾ വിളിച്ചു കൂട്ടിയത്. കമ്പനിവൽക്കരണത്തിന്റെ നന്മകൾ വിവരിക്കുവാൻ കാലം മാറി കഥയും മാറിയെന്ന് മനസിലാക്കാം.

സർക്കാരിന്റെ തന്ത്രപരമായ നീക്കങ്ങൾ വിജയിച്ചതിന് അഭിനന്ദിച്ചെ മതിയാകൂ. കമ്പനിവൽക്കരണം എന്നകാര്യത്തെ മൊത്തം ഒറ്റവിഷയത്തിലേക്കു ഒതുക്കിക്കൊണ്ടുവരാൻ കഴിഞ്ഞപ്പോൾ തന്നെ സർക്കാർ പകുതി വിജയിച്ചിരുന്നു. അതായിരുന്നു പെൻഷൻ ഫണ്ട്. പെൻഷൻഫണ്ടിനെ ഒരു വഴിയാക്കിയപ്പോൾ എല്ലാവരും ഹാപ്പി. ഇതിൽ കൂടുതൽ എന്തു വേണം.

പെൻഷൻ ഫണ്ടിന് ഫേസ് ബുക്കിലുള്ള തമാശ “പെൻഷൻ പണ്ട് ” അതങ്ങിനെ യാവാതിരുന്നാൽ നമ്മുടെ ഭാഗ്യം.

കമ്പനിവൽക്കരണം കൊണ്ട് നമ്മൾ നേരിടേണ്ടിവരുന്ന യഥാർത്ഥപ്രശ്നം പെൻഷനൊന്നുമല്ല എന്ന് ഒരുവിധം എല്ലാവർക്കു മറിയാം പക്ഷെ എല്ലാവരും അതോർക്കാതിരിക്കുവാൻ ശ്രമിക്കുകയാണ്.

ദൂരദർശൻ, ടെലികോം മേഖലകൾ സ്വകാര്യസംരംഭകർക്കു തുറന്നുകൊടുത്തിന്റെ ഉദാഹരണങ്ങൾ നമ്മുടെ മുന്നിലുണ്ട്. സർക്കാർ വിലാസം കമ്പനികളെല്ലാം തന്നെ നിലനിൽപ്പിനായി ബുദ്ധിമുട്ടുകയാണ്. ഈ അവസ്ഥകളാണ് നമ്മുടെ മുന്നിലുള്ളത്. വൈദ്യുതി മേഖലയിലേക്കു കടന്നുവരുന്ന സ്വകാര്യ സംരംഭകരുമായി മത്സരിക്കുവാൻ നമുക്കു കെല്പുണ്ടോയെന്നതാണ് യഥാർത്ഥ ചോദ്യം. വൈദ്യുതി ഉൽപാദനത്തിനായി കേരളത്തിൽപ്പോലും ലൈസൻസുകൾ നേരത്തെ നൽകിയിരുന്നു. അതുപോലെ അടുത്തഘട്ടമായി വിതരണ മേഖലയിലും ലൈസൻസുകൾ നൽകുമെന്നതിൽ തർക്കമില്ല.

ഈ മേഖലയിലേക്കു കടന്നു വരുന്ന സംരംഭകരൊന്നും തന്നെ വൈദ്യുത ബോർഡിന്റെ വിതരണ മേഖലയിലെ ആസ്തികൾ ഏറ്റെടുക്കുവാൻ പോകുന്നില്ല. അവരെല്ലാം പുതിയ ശൃംഖലകൾ സ്ഥാപിച്ച് വൈദ്യുതി വിതരണത്തിന് ശ്രമിക്കുകയാണ് ചെയ്യുകയെന്നതാണ് നമ്മൾ നേരിടാൻ പോകുന്ന

പ്രതിസന്ധി. വിതരണത്തിനായി അവർ കേബിളു കളുപയോഗിച്ച് ശൃംഖലകൾ കെട്ടിപ്പടുക്കു മ്പോൾ നമുക്കു അവരോട് മത്സരിക്കുവാൻ സാധിക്കുമോ എന്നതാണ് ചോദ്യം. സാങ്കേതി കമായിപ്പോലും ഒപ്പത്തിനൊപ്പമുണ്ടായിരുന്ന ബി.എസ്.എൻ. എൽ.പോലും മറ്റുള്ളവരോട് മത്സരിക്കാനാവാതെ താഴോട്ടുപോയികൊണ്ടിരിക്കുകയാണ്.

അത്തരംസാഹചര്യങ്ങൾ നേരിടാൻ വേണ്ടതായ തന്റേടമാണ് നമുക്കുവേണ്ടത്. എന്നാൽ അതിന്റെനേരെ വിപരീത ദിശയിലാണ് കാര്യങ്ങളുടെ പോക്ക്.

എത്തിനുപറയുന്നു നമ്മുടെ കമ്പ്യൂട്ടറൈസേഷനെക്കുറിച്ച് ഒന്നാലോചിച്ചാൽ മാത്രം മതി. വർഷങ്ങൾക്കുമുമ്പ് നമ്മൾ കമ്പ്യൂട്ടറൈസേഷൻ നടത്തിയെങ്കിലും കുറച്ചു കാലത്തിനുശേഷം അതിനെ തകിടം മറിച്ച് പുതിയ സംവിധാനം കൊണ്ടുവന്നു. എന്നാൽ അതിന്റെ ദോഷം കൊണ്ട് ഇന്ന് കമ്പ്യൂട്ടറൈസേഷൻ ചെങ്കുത്താനും കടലിനുമിടയിൽ എത്തി നില്ക്കുകയാണ്. ലോകം മുഴുവൻ ഓൺലൈൻ പേയ്മെന്റിലേക്ക് പോകുമ്പോൾ നമ്മുടെ സോഫ്റ്റ് വെയർ പ്ലാറ്റ്ഫോം ഉപയോഗിച്ച് അതിനു സാധിക്കാതെ മറ്റുള്ളവരെ ആശ്രയിക്കേണ്ട ഗതികേടിലെത്തിയിരിക്കുകയാണ്. ഓൺലൈനെന്ന് പറഞ്ഞാലും അടച്ചയാളുടെ വിവരമറിയാൻ രണ്ടുദിവസമെടുക്കുന്ന കാഴ്ചയാണ് നമ്മുടെ മുന്നിലുള്ളത്.

കമ്പ്യൂട്ടറൈസേഷൻ നടപ്പിലാക്കിയപ്പോൾ ആളുകളുടെ എണ്ണത്തിൽ കുറവുവരാത്ത ഏകസ്ഥാപനമാണ് നമ്മുടേതെന്ന് നമുക്ക് അഭിമാനിക്കാം. അതിനുംവേണം ഒരു കഴിവ്. ഇപ്പോൾ കമ്പനിവൽക്കരണം

നടത്തിയതിനു കാരണം കേന്ദ്രസർക്കാരിന്റെ വിവിധ സ്കീമുകൾ വഴിയുള്ള ധനസഹായം ലഭിക്കുവാൻ വേണ്ടിയാണെന്നാണ്. എന്നാൽ എ.പി.ഡി.ആർ.പി.യും, ആർ.ജി.ജി.പി.വെയും ലഭ്യമായ ധനസഹായങ്ങൾ ലഭിക്കുവാൻ സമയബന്ധിതമായി തീർക്കുവാനാവാത്തതു കൊണ്ട് ഈ ധനസഹായങ്ങളെല്ലാം ഗ്രാന്റുകൾക്കുപകരം ലോണുകളായി സാമ്പത്തിക ബാധ്യതകളായി മാറുന്ന കാഴ്ചയാണ് കാണുന്നത്. കാര്യങ്ങൾ സമയബന്ധിതമായി തീർക്കുവാൻ ഇനിയും നമ്മൾ പഠിക്കേണ്ടിയിരിക്കുന്നു.

റിലയൻസും,എയർടെല്ലും റോഡിനിരുവശത്തുകൂടെ ഭൂമിക്കടിയിലൂടെ കേബിളുകൾ സുഖമായി യാതൊരു തടസവുമില്ലാതെ വലിച്ചുപോയപ്പോൾ, നമുക്ക് കേബിളുകൾ എവിടെയും വലിക്കാനാവാതെ ഭൂമിക്കടിയിൽ കുഴിച്ചിട്ട് ചാർജ് ചെയ്യാനാവാതെ മുളക്കു നന്തും കാത്തുനില്ക്കുകയാണ്.

റിലയൻസും എയർടെല്ലും പോലുള്ള വർ കേബിളുകൾ വലിച്ചപ്പോൾ തടസം നിൽക്കാതിരുന്ന ബി.എസ്.എൻ. എൽ. ടീമുകൾ എന്തുകൊണ്ടാണ് നമുക്കു തടസം നിൽക്കുന്നതെന്ന് ഗവേഷണം നടത്തേണ്ട വിഷയമാണ്.

പവർ ഗ്രിഡിന്റെ കീഴിലുള്ള നൂറ്റിതൊണ്ണൂറ്റി രണ്ടു സബ്സ്റ്റേഷനുകൾ അടുത്ത വർഷം മാർച്ചോടുകൂടി ആളില്ലാ സബ്സ്റ്റേഷനുകളായി മാറുകയാണ്.

ആളില്ലാ സബ്സ്റ്റേഷനുകളായി നമ്മൾ തുടങ്ങിയ 33 കെ.വി. സബ്സ്റ്റേഷനുകളിന് ആൾകൂട്ടങ്ങളായി മാറിയ ചരിത്രമാണ് നമുക്കുള്ളത്. അപ്പോഴാണ് പവർ

ഗ്രിഡ് 400 കെ.വി. സബ്സ്റ്റേഷനുകൾ ആളില്ലാ സബ്സ്റ്റേഷനു കളാക്കി മാറ്റിയത്. നമ്മുടെ പാലക്കാട്ട് അവർ തുടങ്ങിയിരിക്കുന്ന 400 കെ.വി. സബ്സ്റ്റേഷൻ പോലും ആളില്ലാ സബ്സ്റ്റേഷനാണ്.

സാങ്കേതികമായി പഠനങ്ങളെല്ലാം പൂർത്തിയാക്കി വൈദ്യുതിബോർഡിലെത്തുന്ന എല്ലാവർക്കും ആഫീസുകളിലിരുന്ന് ജോലി ചെയ്യാനും സബ്സ്റ്റേഷനുകളിൽ ഓപ്പറേറ്റർമാരായി ജോലി ചെയ്യാനും താല്പര്യമുള്ളപ്പോൾ ആളില്ലാ സബ്സ്റ്റേഷനുകൾ നമുക്കു സ്വപ്നം കാണാമെന്നു മാത്രം.

അനുമതി ലഭിക്കാത്ത പദ്ധതികൾക്കുവേണ്ടി മുറവിളികൂട്ടുമ്പോൾ അനുമതികളെല്ലാം ലഭ്യമായ പദ്ധതികൾ പൂർത്തിയാവാത്തതെന്തുകൊണ്ടെന്ന് ആരും ചോദിക്കുന്നില്ലെന്നതാണ് നമ്മുടെ യോഗം.

സാങ്കേതികമായി വികസിക്കേണ്ട നമ്മുടെ സ്ഥാപനം അതിനു തയ്യാറാവത്തതുകൊണ്ട് കമ്പനിവൽക്കരണം കൊണ്ടുണ്ടാകുന്ന യഥാർത്ഥ ഭീഷണി നേരിടുവാൻ സാധിക്കില്ലെന്നതാണ് പച്ച പരമാർത്ഥം.

വൈദ്യുതി നിയമം 2003 ലെ 108 വകുപ്പുപ്രകാരം സംസ്ഥാന സർക്കാർ റെഗുലേറ്ററി കമ്മീഷൻ നൽകിയിരിക്കുന്ന ഒരു നിർദ്ദേശം കേരളത്തിൽ സ്വകാര്യ സംരംഭകർക്ക് വിതരണ ലൈസൻസ് നൽകരുതെന്നാണ്. കമ്പനിവൽക്കരണം നടന്നു കഴിഞ്ഞതു കൊണ്ട് ഈ നിർദ്ദേശത്തിന് എത്രത്തോളം പ്രാബല്യമുണ്ടാകുമെന്ന് കണ്ടറിയണം.

വർഷത്തിൽ ആറായിരം കോടി വരുമാനമുള്ള സ്ഥാപനത്തിൽ നിന്നും

ആയിരത്തിയഞ്ഞൂറോളം കോടി രൂപ ശമ്പളത്തിനും പെൻഷനും ചെലവാക്കുമ്പോൾ ആകെ വരുമാനത്തിനേക്കാൾ കൂടുതൽ വൈദ്യുതി വാങ്ങുവാൻ ചെലവാക്കുകയും ചെയ്യുമ്പോൾ സാമ്പത്തികമായി ഭദ്രതയെങ്ങിനെയാണുണ്ടാവുക.

വൈദ്യുതി ബോർഡിൽ താരിഫ് സമയാസമയങ്ങളിൽ കൂട്ടാത്തതാണ് ഈ അവസ്ഥയ്ക്കു കാരണമെന്ന് എല്ലാവർക്കുമറിയാം. എന്നാലും വൈദ്യുതി ബോർഡിന്റെ ചെലവു കുറയ്ക്കണമെന്നാണ് പബ്ലിക് നോട്ടീസ് കണ്ടുപിടിത്തം.

വൈദ്യുതി ബോർഡ് രൂപീകരിച്ചതിനു ശേഷമുള്ള സംസ്ഥാന ബജറ്റുകളെല്ലാം പരിശോധിച്ചാൽ അതായിരം കോടി രൂപയാവും ബജറ്റിൽ നിന്നും വൈദ്യുതി ബോർഡിനുവേണ്ടി വകയിരുത്തിയിട്ടുണ്ടാവുക. എന്നാൽ ഈ കമ്പനിവൽക്കരണ വേളയിൽ അമ്പതിനായിരം കോടി രൂപയുടെ ആസ്തിയെങ്കിലും ബാക്കിവെച്ചിട്ടുണ്ടെന്നുള്ളത് വൈദ്യുതി ബോർഡ് വെള്ളാനയല്ല ക്യാട്ടാനയാണെന്ന് ബോധ്യപ്പെടുത്തുന്നു. മെരുങ്ങാൻ കുറച്ചു ബുദ്ധിമുട്ടുണ്ടെങ്കിലും വൈദ്യുതി ബോർഡ് നന്മയുള്ളതാണ്. ഒരു കോടി വൈദ്യുതി കണക്ഷൻ നൽകുവാൻ ബോർഡിനു കഴിഞ്ഞിരിക്കുന്നു. എല്ലാ വില്ലേജുകളും വൈദ്യുതീകരിക്കുവാൻ കഴിഞ്ഞിരിക്കുന്നു. നേട്ടങ്ങളേറെയുള്ളതു കൊണ്ടാണ് കാലിടറാതെ നിൽക്കാനാവുന്നത്.

കമ്പനിവൽക്കരണത്തെ നമുക്കു തന്റേടത്തോടെ നേരിടാം. വിജയം സ്വന്തമാക്കാം.



ഭാഷാന്തരം

ഇ.എം. നസീർ
ചിറയിൻകീഴ്

സ്വർണ്ണപ്പണിക്കാരനായ ഒരു തമിഴ്നാട് സ്വദേശി കുടുംബസമേതം കേരളത്തിലെത്തി സ്ഥിരതാമസമാരംഭിച്ചു.

ഒരു ദിവസം ഇദ്ദേഹം താമസിച്ചിരുന്ന ഗ്രാമത്തിലെ ക്ഷേത്രത്തിൽ ഉത്സവം നടക്കുന്നു. ആനയെ എഴുന്നള്ളിച്ചുകൊണ്ടുള്ള ഘോഷയാത്ര തന്റെ വീടിനുമുന്നിലൂടെ കടന്നുപോകുന്നത് അയാൾ കൗതകത്തോടെ കണ്ടുനിന്നു. ആനപ്പുറത്തിരിക്കുകയായിരുന്ന പാപ്പാൻ ഇയാളുടെ പരിചയക്കാരനായിരുന്നു. ആന അടുത്തെത്തിയപ്പോൾ സുഹൃത്തിനെ കണ്ട പാപ്പാൻ ഒരു ഹ്രസ്വ കുശലാമ്പേഷണത്തിന്റെ ഭാഗമായി സ്വർണ്ണത്തൊഴിലാളിയെ നർത്തം വരുന്ന 'തട്ടാനേ' എന്നു സംബോധന ചെയ്ത് സംസാരിക്കാനാരംഭിച്ചതും, തനിക്കുള്ള നിർദ്ദേശമാണെന്നു തെറ്റിദ്ധരിച്ച് ആന ഇയാളെ തട്ടിയിട്ടതും ഒരുമിച്ചായിരുന്നു. തട്ടാൻ മറിഞ്ഞു വീഴുന്നതു കണ്ടു പരിഭ്രാന്തനായ പാപ്പാൻ "അയ്യോ തട്ടാനേ" എന്നു നിലവിളിച്ചു. ചാടിയെഴുന്നേൽക്കുകയായിരുന്ന തട്ടാനെ ആന വീണ്ടും തട്ടിയിട്ടു പരിക്കേൽപ്പിച്ചു.

ഒരു വിവാഹവേദി ചടങ്ങിൽ പങ്കെടുത്ത ശേഷം ഈ അയൽ നാട്ടുകാരൻ ഹാളിൽ നിന്നു പുറത്തേക്കു വരുന്നു. വൈകിയതു മൂലം ഓടിക്കിതച്ചെത്തിയ ഒരു അതിഥിയോട് ഇയാൾ മൊഴിഞ്ഞു", കല്യാണം മുടിഞ്ചു പോച്ച് (വിവാഹം കഴിഞ്ഞു.)" അതിഥി തെറ്റിദ്ധരിച്ചു. വിവാഹം അലങ്കോലമായെന്നോ ! ധൃതിയിൽ ഹാളിനകത്തു കയറിയ അയാൾ കണ്ടത് മംഗളമായി നടന്ന വിവാഹത്തിനുശേഷം ഫോട്ടോയെടുപ്പ് പൊടിപൊടിക്കുന്നതാണ്. അടക്കാനാവാത്ത ദേഷ്യത്തോടെ അയാൾ റോഡിലിറങ്ങി

ബസ്സുകാത്തുനിന്ന തട്ടാനോട് തട്ടിക്കയറി. വിവാഹം അലങ്കോലമായെന്നു വ്യാജ പ്രചരണം നടത്തിയെന്നാരോപിച്ച് രണ്ടെണ്ണം പൊട്ടിച്ചശേഷം സ്ഥലംവിട്ടു. എന്തു പറ്റിയെന്നറിയാതെ അണ്ണാച്ചി കണ്ണുമിഴിച്ചു.

അടുത്തത് അണ്ണാച്ചിയുടെ മകളുടെ വിവാഹമേള. മുഹൂർത്തം അടുക്കാനായിട്ടും ഏർപ്പാടാക്കിയിരുന്ന നാദസ്വര വിദ്വാനെ കാണുന്നില്ല. നാദസ്വര വിദ്വാന്റെ വീട്ടിൽ പാഞ്ഞെത്തി ഉടനെ പുറപ്പെടണമെന്നാവശ്യപ്പെട്ടു. തനിക്ക് ശരീരമാസകലം നീരുവന്നതിന്റെ വേദനയിലാണെന്നും മറ്റാരെയെങ്കിലും ഏർപ്പാടാക്കണമെന്നും നാദസ്വര വിദ്വാൻ അറിയിച്ചു. അണ്ണാച്ചിമൊഴിഞ്ഞു, "നീർ ഒന്നുമേ ശൊല്ലുവേണ്ട, നീരുവന്നാൽ മട്ടും പോരാ നീരുവന്ന് ഈതത്താൻ വേണം (അങ്ങ് ഒന്നും പറയണ്ട, അങ്ങുവന്നാലും പോരാ, നാദസ്വരം വായിക്കയും വേണം)". നാദസ്വര വിദ്വാൻ കലികയറി. രോഗിയായ തനിക്ക് നീരു വന്നാൽ മാത്രം പോരാ, നീരുവന്നു ഈതണമെന്നോ ! കോപത്തോടെ വിദ്വാൻ അലറി. " തന്റെ സംസാരം ശരിയല്ല (സംസാരം എന്നത് തമിഴിൽ ഭാര്യ)". നാദസ്വരം വായിക്കാമെന്നേ റ്റിട്ട് കാലു മാറിയതു കൂടാതെ തന്റെ ഭാര്യയെ പറ്റി അധികേഷപിച്ചു സംസാരിക്കുവെന്നാരോപിച്ച് അണ്ണാച്ചിയും അലറി. ഒടുവിൽ അടിപിടിയിൽ കാര്യങ്ങളെത്തി. പരിക്കുകളോടെ ആശുപത്രിയിലെത്തിയ അണ്ണാച്ചി ശരീരമാസകലം ബാന്റേജും പ്ലാസ്റ്ററുമൊക്കെയിട്ടു, ബഹിരാകാശ യാത്രികന്റെ രൂപത്തിലെത്തി മകളുടെ വിവാഹകർമ്മത്തിൽ പങ്കുകൊണ്ടു. അണ്ണാച്ചി വൈകാതെ തന്നെ തമിഴ്നാട്ടിലേക്ക് വണ്ടി കയറി.

Technical standards for connectivity to the Grid Regulations

[भाग III-खण्ड 4]

शुद्ध वा वाक्य - अधिसूचना

7

MINISTRY OF POWER
(Central Electricity Authority)
NOTIFICATION

New Delhi, the 15th October, 2013

No.12/STDI(CONN)/GM/CEA.—Whereas the draft of the Central Electricity Authority (Technical Standard for Connectivity to the Grid) (Amendment) Regulations, 2012 were published, under sub-section (3) of section 177 of the Electricity Act, 2003 (36 of 2003) and rule 3 of the Electricity (Procedure for previous Publication) Rules, 2005 on 16th March, 2012;

Now, therefore, in exercise of powers conferred by section 7 and clause (b) of section 73 read with sub-section (2) of section 177 of the Electricity Act, 2003, the Central Electricity Authority hereby makes the following regulations to amend the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, namely:—

1. **Short title and commencement.** - (1) These regulations may be called the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Amendment Regulations, 2013.

(2) These Regulations shall come into force on the date of their publication in the Official Gazette.

2. In the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 (hereinafter referred to as the said regulations), in regulation 2, -

(a) for clause (14) the following clause shall be substituted, namely -

“Earthing” means electrical connection between non-energized conducting parts and the general mass of earth by an earthing device”;

(b) in clause (14) the following paragraph shall be added at the end, namely:-

“In case of Solar Photo voltaic generating station, each inverter along with associated modules will be reckoned as a separate generating unit”;

(c) for clause (17) the following clause shall be substituted, namely:-

“Interconnection point” means a point on the grid, including a sub-station or a switchyard, where the interconnection is established between the facility of the requester and the grid and where electricity injected into or drawn from the grid can be measured unambiguously for the requester”;

(d) after clause (17), the following clause shall be inserted, namely:-

“(17A) “Inverter” means a device that changes direct current power into alternating current power”;

(e) for clause (19) the following clause shall be substituted, namely:-

“Maximum Continuous Rating” (MCR) will carry same meaning as defined in the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010”;

(f) clause 20 shall be omitted;

(g) after clause (23) the following clause shall be inserted, namely:-

“(23A) “Standard Protection” means electrical protection functions specified in Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010”.

3. In the said regulations, for the words “Central Electricity Authority (Grid Standards for Operation and Maintenance of Transmission Lines) as and when they come into force” the words “Central Electricity Authority (Grid Standards) Regulations, 2010”, shall be substituted.

4. In regulation 6 of the said regulations, -

(a) in clause (6) the following proviso shall be inserted at the end, namely:-

“Provided that in order to carry out the said study, the requester shall present the mathematical model of the equipment in accordance with the requirements as stipulated by the Appropriate Transmission Utility or distribution licensee, as the case may be.”

(b) after clause (7) following clause shall be inserted, namely:-

“(8) The State Transmission Utility shall inform the Central Transmission Utility and the Authority, within thirty days of acceptance of application for connectivity of a generating station to electricity system operating at 110 kV and above.”

5. In regulation 7 of the said regulations, in clause (1) for the words “owner of the sub-station where” the words “generating company or licensee operating the electricity system to which” shall be substituted.

6. In the Schedule of the said regulations, -

(a) for Part II the following shall be substituted, namely:-

4/11/13-3

"Part II

Connectivity Standard applicable to the generating stations

A. Connectivity Standards applicable to the Generating Stations other than wind and generating stations using inverters

These generating stations shall comply with the following requirements besides the general connectivity conditions given in the said regulations and Part I of the schedule:-

A1. For Generating stations which are connected on or after the date on which Central Electricity Authority (Technical Standards for Connectivity of the Grid) Regulation, 2007 became effective

(1) The excitation system for every generating unit:-

(a) Shall have state of the art excitation system;

(b) Shall have Automatic Voltage Regulator (AVR). Generators of 100 MW rating and above shall have Automatic Voltage Regulator with digital control and two separate channels having independent inputs and automatic changeover; and

(c) The Automatic Voltage Regulator of generator of 100 MW and above shall include Power System Stabilizer (PSS).

(2) The Short-Circuit Ratio (SCR) for generators shall be as per IEC-34.

(3) The generator transformer windings shall have delta connection on low voltage side and star connection on high voltage side. Star point of high voltage side shall be effectively (solidly) earthed so as to achieve the Earth Fault Factor of 1.4 or less.

(4) All generating machines irrespective of capacity shall have electronically controlled governing system with appropriate speed/load characteristics to regulate frequency. The governors of thermal generating units shall have a droop of 3 to 6% and those of hydro generating units 8 to 10%.

(5) Generating Units located near load centre, shall be capable of operating at rated output for power factor varying between 0.85 lagging (over-excited) to 0.95 leading (under-excited) and Generating Units located far from load centres shall be capable of operating at rated output for power factor varying between 0.9 lagging (over-excited) to 0.95 leading (under-excited).

Provided that all generating units commissioned on or after 01.01.2014, shall be capable of operating at rated output for power factor varying between 0.85 lagging (over-excited) to 0.95 leading (under-excited).

Provided further that the above performance shall also be achieved with voltage variation of $\pm 5\%$ of nominal, frequency variation of $\pm 3\%$ and $\pm 5\%$ and combined voltage and frequency variation of $\pm 3\%$. However, for gas turbines, the above performance shall be achieved for voltage variation of $\pm 5\%$.

(6) The coal and lignite based thermal generating units shall be capable of generating up to 105% of Maximum Continuous Rating (subject to maximum load capability under Valve Wide Open Condition) for short duration to provide the frequency response.

(7) The hydro generating units shall be capable of generating up to 110% of rated capacity (subject to rated head being available) on continuous basis.

(8) Every generating unit shall have standard protections to protect the units not only from faults within the units and within the station but also from faults in transmission lines. For generating units having rated capacity greater than 100 MW, two independent sets of protections acting on two independent sets of trip coils fed from independent Direct Current (DC) supplies shall be provided. The protections shall include but not be limited to the Local Breaker Back-up (LBB) protection.

(9) Hydro generating units having rated capacity of 50 MW and above shall be capable of operation in synchronous condenser mode, wherever feasible.

Provided that hydro generating units commissioned on or after 01.01.2014 and having rated capacity of 50 MW and above shall be equipped with facility to operate in synchronous condenser mode, if necessary for the same is established by the interconnection studies.

(10) Bus bar protection shall be provided at the switchyard of all generating station.

(11) Automatic synchronisation facilities shall be provided in the requester's Project.

(12) The station auxiliary power requirements, including voltage and reactive requirements, shall not impose operating restrictions on the grid beyond those specified in the Grid Code or state Grid Code as the case may be.

(13) In case of hydro generating units, self-starting facility may be provided. The hydro generating station may also have a small diesel generator for meeting the station auxiliary requirements for black start.

Provided that hydro generating units shall have black start facilities in accordance with provisions of Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010 from the date of publication of these Regulations.

(14) The standards in respect of the switchyard associated with the generating stations shall be in accordance with the provisions specified in respect of 'Sub-stations' under Part III of these Standards.

A2. Generating stations which were already connected to the grid on the date on which Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 became effective:

For thermal generating units having rated capacity of 200 MW and above and hydro units having rated capacity of 100 MW and above, the following facilities would be provided at the time of renovation and modernization:

(1) Every generating unit shall have Automatic Voltage Regulator. Generators having rated capacity of 100 MW and above shall have Automatic Voltage Regulator with two separate channels having independent inputs and automatic changeover.

(2) Every generating unit of capacity having rated capacity higher than 100MW shall have Power System Stabilizer.

(3) All generating units shall have standard protections to protect the units not only from faults within the units and within the station but also from faults in transmission lines. The protections shall include but not limited to the Local Breaker Back-up (LBB) protection.

B. Connectivity Standards applicable to the Wind generating stations and generating stations using inverters:

These generating stations shall comply with the following requirements besides the general connectivity conditions given in the said regulations and Part I of the Schedule:

B1. Requirements with respect to Harmonics, Direct Current (DC) Injection and Flicker

(1) Harmonic current injections from a generating station shall not exceed the limits specified in Institute of Electrical and Electronics Engineers (IEEE) Standard 519.

(2) The Generating station shall not inject DC current greater than 0.5 % of the full rated output at the interconnection point.

(3) The generating station shall not introduce flicker beyond the limits specified in IEC 61008.

Provided that the standards for flicker will come into effect from 1st April 2014.

(4) Measurement of harmonic content, DC injection and flicker shall be done at least once in a year in presence of the parties concerned and the indicative date for the same shall be mentioned in the connection agreement.

Provided that in addition to annual measurement, if distribution licensee or transmission licensee or the generating company, as the case may be, desires to measure harmonic content or DC injection or flicker, it shall inform the other party in writing and the measurement shall be carried out within 5 working days.

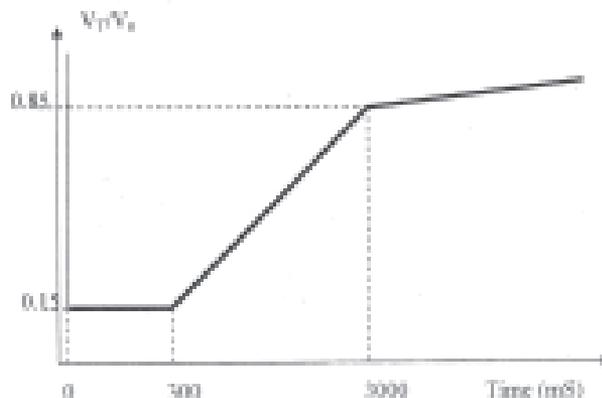
B2. For generating stations getting connected on or after completion of 6 months from date of publication of these Regulations in the Official Gazette,

(1) The generating station shall be capable of supplying dynamically varying reactive power support so as to maintain power factor within the limits of 0.95 lagging to 0.95 leading.

(2) The generating units shall be capable of operating in the frequency range of 47.5 Hz to 51 Hz and shall be able to deliver rated output in the frequency range of 49.5 Hz to 50.5 Hz.

Provided that above performance shall be achieved with voltage variation of up to ± 3% subject to availability of commensurate wind speed in case of wind generating stations and solar insolation in case of solar generating stations.

(3) Wind generating stations connected at voltage level of 66 kV and above shall remain connected to the grid when voltage at the interconnection point on any or all phases dips up to the levels depicted by the thick lines in the following curve:



Where

V_1/V_n is the ratio of the actual voltage to the nominal system voltage at the interconnection point

Provided that during the voltage dip, the individual wind generating units in the generating station shall generate active power in proportion to the retained voltage;

Provided further that during the voltage dip, the generating station shall maximise supply of reactive current till the time voltage starts recovering or for 300 ms, whichever time is lower.

(4) Wind generating station connected at voltage level of 66 kV and above shall have facility to control active power injection in accordance with a set point, which shall be capable of being revised based on the directions of the appropriate Load Dispatch Centre.

Provided that as far as possible, reduction in active power shall be done without shutting down an operational generating unit and with reduction being shared by all the operational generating units pro-rata to their capacity.

(5) The standards in respect of the switchyard associated with the generating stations shall be in accordance with the provisions specified in respect of 'Sub-stations' under Part III of these Standards.

B3. For generating units which are connected before and upto 6 months after the date of publication of these Regulations in the Official Gazette

The generating company and the licensee of the electricity system to which the generating station is connected shall mutually discuss and agree on the measures which can be taken to meet the standards specified in (B1) and (B2) subject to technical feasibility².

(b) in Part IV for clause 6, the following clause shall be substituted, namely:-

"6. Back-energization

The bulk consumer shall not energize transmission or distribution system by injecting supply from his generators or any other source either by automatic controls or manually unless specifically provided for in the connection agreement with the Transmission or Distribution Licensee".

M. S. PURI, Secy.

[ADVT. III4/529/13013]

Foot note : The principal regulations were published in the Gazette of India vide number 12(X/STD/CONN)/GM/CEA dated the 21st February 2007.

KERALA STATE ELECTRICITY BOARD

Abstract

Establishment-Transfers and postings Assistant Executive Engineers(Ele) to the cadre of ExecutiveEngineers (Ele.) and transfers and postings of Executive Engineers (Ele.)-Sanctioned- Orders issued.

ESTABLISHMENT SECTION

B.O(FM) No.2593/2013(Estt.III/900/2012) Dated Thiruvananthapuram, 03.12.2013

Read : B.O.(FM) No. 1666/2013 (Estt.III/CR- Rules) 2006 dated 31.07.2013

ORDER

The following Assistant Executive Engineers (Ele) are promoted and posted to the cadre of Executive Engineer (Ele.)

Sl.No.	Name	Present Office	Promoted and posted as
1	Rajeev.K.K.	Asst. Executive Engineer, Electrical Sub Division, Parali	Executive Engineer, Electrical Circle, Kannur in the place Sri.A.K.Sukumaran kept under suspension
2	Radhakrishnan Nair.G	Asst. Executive Engineer,220KV Substation Sub Division, Brahmapuram	Executive Engineer, Transmission Circle, Kozhikode against Sri.Job.N.T. transferred
3	Jaisy.E.N.	Asst. Executive Engineer, Generation Sub Division, Neriamangalam	Executive Engineer, Electrical Division, Kattappana against Sri.Tohny Varghese transferred
4	Sugathan.C.G.	Asst. Executive Engineer, Electrical Sub Division, Mavungal	Executive Engineer, Electrical Division, Kanhangad against Sri.C.Vinod Kumar transferred
5	Naushad.K.A.	Executive Engineer, Generation Sub Divison, Thenmala	Executive Engineer, Electrical Circle, Kozhikode against the retirement vacancy
6	Bijoy.N.L.	Asst. Executive Engineer, Substation Sub Division, Vadakara	Executive Engineer,Electrical Division,Kalpetta against Sri.Prasad Mathew transferred

Sl.No.	Name	Present Office	Promoted and posted as
7	Mohammed.E	Asst. Executive Engineer, Generation Circle, Moozhiyar	Executive Engineer, RMU Division, Moozhiyar against the existing vacancy

2. The promotions ordered above is purely provisional as per relevant rules adopted by the Board and without prejudice to the claim of seniors, if any. If the officer promoted does not join duty within 15 days from the date of order, it shall be presumed that he/she has not accepted the promotion and the promotion order with respect to him/her will stand cancelled and the financial benefits, if any, availed by him/her on account of grade promotion the grade of Executive Engineer shall be recovered in lump, as per rules.

3. The following transfers and postings of Executive Engineers (Ele.) are also ordered

Sl.No.	Name	Present Office	Promoted and posted as
1	Syamkumar G	Executive Engineer, Generation Division, Poringalkuthu	Executive Engineer, O/o CE(SCM), Thiruvananthapuram against the retirement vacancy
2	Job N.T.	Executive Engineer, Transmission Circle,Kozhikode	Executive Engineer, Generation Division, Poringalkuthu against Sri.Syamkumar.G. transferred
3	Prasad Mathew	Executive Engineer, Electrical Division,Kalpetta	Executive Engineer, Electrical Division,Chittur against the retirement vacancy
4	C.Vinod Kumar	Executive Engineer, Electrical Division,Kanhagad	Executive Engineer,Electrical Division,Balusserly against Sri.UnnikrishnanT.P. transferred
5	Unnikrishnan.T.P.	Executive Engineer, Electrical Division,Balusserly	Executive Engineer Electrical Division,Kozhikode against the existing vacancy
6	Soudamini B	Executive Engineer,O/o CE(TN), Kozhikode	Executive Engineer, LD Station Kalamassery against the existing vacancy
7	Tony Varghese	Executive Engineer, Electrical Division,Kattappana	Executive Engineer,O/o CE (TN), Kozhikode against Smt.Soudamini.B transferred

5.The transfers and postings ordered above are in the exigencies of service and in public interest.

By Order of the Board,

Sd/-

N. MADHUSOODANANASARI
SECRETARY

KERALA STATE ELECTRICITY BOARD LTD.

Abstract

Constitution of Co-ordination Committee as per Regulation 54 of KSERC (Connectivity and Intra-State Open Access) Regulations, 2013 - orders issued.

Corporate Office (Tariff and Regulatory Affairs Cell)

B.O (CM) No. **2726/2013** (KSEB/TRAC/OpenAccess/R2/2013)
Thiruvananthapuram dated **20-12-2013**

- Read : (1) Letter No. 1824/CT/2012/KSERC/1027 dated 13-09-2013 from Secretary, KSERC
(2) Letter No. KSEB/TRAC/R2/OpenAccess/2013/948 dated 11-12-2013 to all Distribution Licensees
(3) Note No. KSEB/TRAC/ R2/OpenAccess/2013 dated 18-12-2013 of the Chief Engineer (Commercial & Tariff) submitted to Full Time Directors

O R D E R

Hon'ble Commission has brought out KSERC (Connectivity & Intra-State Open Access) Regulations, 2013. Subsequently, the Hon'ble Commission has directed KSEB Ltd. vide letter cited (1) above, to constitute a Co-ordination Committee within one month from the date of notification of the Regulations as per Regulation 54. The Regulation was published in Kerala Gazette on 20th of November 2013.

According to Regulation 54, the Co-ordination Committee shall have a nominee each of the distribution licensees, transmission licensees and the SLDC. The nominee of STU shall be the Chairperson of the Co-ordination Committee.

The various functions of the Co-ordination Committee shall be :

- (1) The co-ordination committee shall frame rules for the conduct of its business and also the detailed procedure for grant of connectivity and open access.
- (2) The rules for conduct of its business and the detailed procedure, consistent with provisions of these regulations and the provisions of State Grid Code, shall be submitted by the co-ordination committee within sixty days from the date of its constitution to the Commission for approval.
- (3) Till such time the rules for the conduct of business of co-ordination committee and detailed procedure for grant of connectivity and intra-state open access is approved by the Commission, connectivity and intra-state open access shall continue to be granted as per the existing procedure, which shall, however, not be inconsistent with the provisions of these regulations.

- (4) The co-ordination committee shall facilitate timely approval of connectivity and open access application and exchange of information when network of more than one licensee is involved in the open access transactions.
- (5) The co-ordination committee while preparing detailed procedure and various formats for application, approval, agreement etc., may adopt the formats provided along with the model terms and conditions of intra-state open access regulations approved by the Forum of Regulators with suitable amendments so as to make all the formats consistent with the provisions of the Act and these regulations.

Accordingly, nominations were called by KSEB Ltd. from other distribution licensees to depute their representatives before 16th December, 2013, vide letter cited (2) above.

Vide note cited (3) above, Chief Engineer (Commercial & Tariff) placed a panel of members for the constitution of the Co-ordination Committee.

Having considered the recommendations of the Chief Engineer (Commercial & Tariff) read (3) above, Board hereby approves the constitution of the Co-ordination Committee with the following members :

1. Director -(Trans. & System Operation), KSEB Ltd. : **Chairperson**
2. Chief Engineer (Commercial & Tariff), KSEB Ltd. - **Convener**
3. Chief Engineer (Transmission-South), KSEB Ltd.
4. Chief Engineer (Transmission - North), KSEB Ltd.
5. Chief Engineer (System Operation), KSEB Ltd.
6. Chief Engineer, Distribution, Regional Units, KSEB Ltd. (on rotation)
7. Sri. P.C. Rajan Babu, Electrical Consultant, Infopark
8. Sri.M.M. Abdul Rahim, Executive Engineer (Ele), Cochin Port Trust
9. Sri.Navin Korath, Manager- Engineering, Kannan Devan Hills Plantations Company (P) Ltd
10. Sri.K.V. Rajendran, General Manager -Technical, Technopark
11. Sri.Stanly Joseph, Assistant Engineer, Thrissur Corporation
12. Sri.Ajayakumar.K.N, Asst. Development Commissioner & Secretary-in-charge, Cochin Special Economic Zone Authority (CSEZA)
13. Sri.Joseph Kurian, Chief Executive Officer, KINESCO
14. Sri.Biju Poulouse - Manager, Rubber Park India (P) Ltd

Orders are issued accordingly.

By order of the Board

Sd/-

M. Shahul Hameed
Secretary

National Energy Conservation Day



Energy Conservation Day Programmee
conducted by Kasaragod Unit

National energy conservation day 2013 was celebrated on Saturday, at 14th of December.

National Energy Conservation Day in India

National energy conservation day is celebrated every year by the people all over the India on 14th of December. The

Energy Conservation Act in India was executed by the Bureau of Energy Efficiency (BEE) in the year 2001. The Bureau of Energy Efficiency is a constitutional body which comes under Government of India and helps in the development of policies and strategies in order to reduce the energy use. The

Energy Conservation Act in India act aims to employ the professional, qualified and energetic managers as well as auditors who are with expertise in managing the energy, projects, policy analysis, finance or implementing the energy efficiency projects.

Objectives of National Energy Conservation Day

National energy conservation day is celebrated every year using particular theme of the year by keeping in mind some goals and objectives to make it more effective all over the country among people. Some of the important goals are:

Promoting the way of process of energy conservation by organizing a lot of events such as discussions, conferences, debates, workshops, competitions and etc all through the country.

Promote people for less energy usage by neglecting the excessive and wasteful uses.

Encourage people for efficient energy use in order to decrease the energy consumption and prevent the energy loss.

Brightening Kerala - Energy Conservation Class at St. Thomas School, Punalur by Kollam Unit on 5-12-2013.



SEMINAR SERIES-5

KSEB Engineers Association, **IEEE** and **Power & Energy Society Kerala Chapter** is organizing a paper presentation contest for Engineering College students on **ROLE OF PHASOR MEASUREMENT UNIT (PMU) IN POWER SYSTEM** during Jan 2014. We are planning to conduct the contest in three stages. First stage - College level during Jan 1st week jointly by IEEE, PES Kerala Chapter & IEEE S B / Dept of EEE of the College. Second stage- District level contest during 2nd & 3rd week of January jointly by PES Kerala Chapter & KSEB Engrs Assn. Final stage-State level contest during 4th week of January jointly by PES kerala Chapter & KSEB Engineers Assn. All IEEE student members are requested to give wide publicity for this contest among their friends and participate in the contest at College level.

District Level Presentation

How to Apply:

Applications from the 3rd and final year students from Colleges of each District are to be given to the district unit. Applications can be sent by a single applicant or a team comprising of one primary applicant and a co-applicant, where both shall be students of the same college. There will be no application fee for the competition. The selected candidates will be intimated by letter/ e-mail.

The last date for receipt of applications is 10th January 2014

Presentation

Each of the selected applicant /team of applicants shall present a paper in the subject topic, and each presentation shall be limited to a duration of 15 minutes. The presentation may be accompanied by a digital slide show if the applicant prefers. One Laptop computer, LCD projector and Screen for projection will be arranged by KSEBEA at the seminar hall for this purpose. The applicants may use their own laptop computers for the presentation. Copies of the seminar documents & presentations in digital form (down loadable through CD/ USB drive) shall be handed over to the officials before the commencement of the programme.

Intimation of Results

The result of the district level presentations shall be announced after the evaluation of all the presentations by the jury and will be intimated later on to the winners by letter/ e-mail. The winners will be eligible for participating the state level seminar on the same topic

Venue date

The venue and date of presentation will be intimated later

Contact details

For further details and clarifications, the applicants may contact:

1. **Er. T.R.Bhuvanendra Prasad:** Chairman, KSEBEA, Thiruvananthapuram Unit.
Phone: +91 9446008020
2. **Er.Muhammed Rafi:** Unit Secretary KSEBEA, Thiruvananthapuram Unit
Phone: +91 9447292694
3. **Er.Viji Prabhakaran:** Organising Secretary(S) Phone: +91 9446007899
4. **Er.B Sreekumar:** Vice President (S) Phone: +91 9496763489
5. **Er.K Santhosh:** Organising Secretary(N) Phone: +91 9656421182
6. **Er. P Jayakrishnan:** Vice President (N) Phone: +91 9495801189
7. **Er. A.C Abdul Nazar:** Unit Secretary (Kannur) Phone: +91 9446844597

PMU TECHNOLOGY

A phasor is a complex number that represents both the magnitude and phase angle of the sine waves found in AC system.

Phasor measurements that occur at the same time are called “synchrophasors” and can be measured precisely by the Phasor measurement units (PMUs). PMU measurements are taken at high speed typically 25 or 50 samples per second –compared to one every 4 to 10 seconds using conventional technology. Each measurement is time-stamped according to a common time reference. Time stamping allows phasors at different locations to be time-aligned (or synchronized)thus providing a comprehensive view of the entire grid at central location.A typical PMU installation as a part of wide area monitoring system (WAMS) network consists of phasor measurement units (PMUs) dispersedly placed throughout the electricity grid at strategic locations in order to cover the diverse footprint of the grid.A Phasor Data Concentrator (PDC) at central location collects the information from PMUs and provides alert and alarm for emergency situations as well as facilitates development of different types of analytics for smooth operation of grid on real time basis. The PMU data is also transmit to Supervisory Control and Data Acquisition(SCADA) system after time aligning the same. The WAMS technology requires high bandwidth communication network for rapid data transfer matching the frequency of sampling of the PMU data.

Phasor Measurement In India - Phasor Measurement Practice in India

National and Regional Load Despatch Centres in India are being operated by Power Systems Operation Corporation (POSOCO), a wholly owned subsidiary of POWERGRID, whereas State Load Despatch Centres are operated by respective State utilities. They are equipped with State-of-the-Art SCADA/EMS system. Telemetry from different sub-stations and power plants are being received at each SLDC/RLDC and subsequently to NLDC which are being utilized in day to day operations of the regional grid.

Synchronous Interconnection of regional grids forming large interconnected system (for example formation of NEW grid) and various changes undergoing in the Indian power industry requires better situational awareness of the grid event and visualization at the control center for real time system operation. Knowledge about the angular separation between different nodes of a power system has always been of great interest for power system operators. Phase angle measurement is commonly used in auto synchronization of generating stations and check synchronization relays used at substations for closing of lines as well as during three-phase auto-reclosing. All these applications are at the local level.

Prior to the introduction of Phasor Measurement Units (PMUs) at control centre level this analogue value is normally not considered as measurable in SCADA system and hence does not form a part of the SCADA measurement. However SCADA technology does provide an estimate of the relative phase angle difference (with respect to a reference bus) through the State Estimator. The State estimator uses the SCADA inputs (analogue and digital measurands) to estimate the system state viz. node voltage and angle. Information about phase angle difference between two different nodes in a power system has also been calculated based on the real time power flow between the nodes, bus voltages and network reactance using standard equation $\alpha = \sin^{-1}(P \cdot X / V_1 \cdot V_2)$. Angular information at control centre is also obtained by placing phase angle transducer at strategic locations and interfacing it in existing SCADA system. However all the above methods of calculation of phase angle difference have limitations due to resolution, data latency, update time and data skewedness. Update time in the SCADA system is considerably large (up to 10-15 seconds) for visualizing and controlling the dynamics of power system. The real time angular measurement in the power system avoids above uncertainties and can be relied upon to assess the transmission capability in real time which is very crucial in efficiently operating the present electricity market mechanism.

PMUs are able to measure what was once immeasurable: phase difference at different substations.



KSEB Engineer's Association
Application for the Seminar Series - V - 2014

A Principal Applicant

- 1 Name of Principal Applicant :
- 2 Sex :
- 3 Date of Birth :
- 4 Address for Communication (with PIN) :
- 5 Phone Number (Landline) :
- 6 Phone Number (Mobile) :
- 7 E-mail Id :
- 8 College in which the applicant is studying :
- 9 College Address (with PIN) :
- 10 Branch/Discipline :
- 11 Semester :

B Co-Applicant (if any)

- 1 Name of Principal Applicant :
- 2 Sex :
- 3 Date of Birth :
- 4 Address for Communication (with PIN) :
- 5 Phone Number (Landline) :
- 6 Phone Number (Mobile) :
- 7 E-mail Id :
- 8 College in which the applicant is studying :
- 9 College Address (with PIN) :
- 10 Branch/Discipline :
- 11 Semester :

Declaration

I/We declare that the information furnished above is true and correct to the best of my knowledge & belief. I/We accept the terms and conditions detailed in the notification, and understand that KSEBEA reserves the right to accept/reject my/our application without assigning any reason thereof.

Principal Applicant
Place: Thiruvananthapuram
Date:

Co-Applicant

FAREWELL



Retirement Sentoff of Er. S. Rajendran, Chief Engineer (Transmission South) and former Unit Chairman, Kollam at Engineers House, Kollam on 4-12-2013.

Er. S. Rajendran Chief Engineer (Transmission South) retired from KSE Board service on November 30, 2013. Er. S. Rajendran was an ardent member of the KSEB Engineers' Association and served as governing body member, unit Chairman Kollam unit for several years. He was also one of the auditor for auditing the accounts of the association for several years. Er. S. Rajendran was a true Engineer with utmost dedication to his duty. He cared for his fellow Engineers and stood by the organization he represented be it the Board or the Engineers' Association.

KSEB Engineers' Association wishes him an active, prosperous and peaceful retired life.



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COMBINED CYCLE DEMONSTRATION PLANT



Technical tour Ernakulam Unit



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