

Energy Access and Gender roles (Part-1)

Energy being the primary requirement for development, has a major role to play in a developing country, like India. Given the constantly growing energy needs, a central aspect to ponder upon is the accessibility of energy and the equitability around its usage. As of 2020, nearly 98% of the population in India is said to have gained access to energy. It must be observed that even with such high levels of penetration, cultural norms continue to dictate who will play a key role in energy use, especially from a gender perspective.

Energy & Gender - The Policy Angle

Gender is often an invisible facet in energy politics and policy. In the <u>Global South</u>, national energy policies are often gender blind and as a result, fail to acknowledge gender <u>inequalities</u> altogether. Though efforts have been made to put gender on the energy agenda, an evolving body of <u>research</u> shows that in practice, energy is a highly gendered phenomenon.

UN's Sustainable Development Goals (SDG) highlight the need to improve energy access and ensure gender equality:

The United Nations (UN), highlights the need to ensure gender equality and provide access to clean and affordable energy among important goals for sustainable development:

- SDG 5: Achieve gender equality and empower all women and girls
- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all

Drawing from the SDGs, India has outlined targeted policy measures to meet the goals of energy access, such as ensuring <u>universal access</u> to affordable energy and a substantial increase in the share of <u>renewable energy in the global energy mix</u>. In terms of gender equality, India has outlined policies to end all forms of <u>discrimination</u> against all women and girls and enhance the use of enabling technology, in particular information and <u>communications technology</u>, to promote the empowerment of women, etc. Yet, the <u>interconnection</u> between the two is seldom pursued. It must be observed that how energy access and gender equality manifests within a household has not been adequately explored. Thus, there is a strong need to measure the impact of energy access on women, especially in communities with deep-rooted gender roles.

Energy Access and Domestic Productivity

From a typical societal standpoint, women are largely perceived as <u>caretakers</u> who are responsible for household activities such as cooking for the family, whereas men are expected to play the role of breadwinners. This holds true especially in rural parts of India where women spend their productive hours collecting fuel and water, even today. A study in <u>Assam</u> showed that extended hours of electricity supply in the evening allowed women to delay selective work which helped them to enrol for an economically beneficial job. Access to reliable electrification has been proven to increase domestic productivity.

(To be continued)

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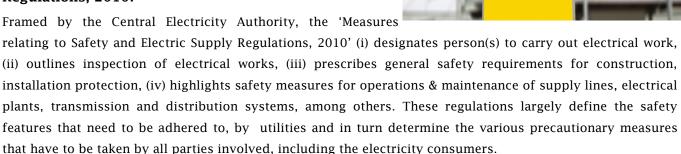
All you need to know about electricity safety regulations (Part-1)

A small amount of electricity (0.007A for three seconds) could kill a person. According to 2020 National Crime Records Bureau (NCRB) data, electrocution cost the lives of 13,433 people in India in 2020, which is an increase from 13,378 in the year 2019. In 2020, an additional 1,943 deaths and injuries were recorded as

a result of electrical fires and short circuits. Given the increasing frequency of electrical accidents, it is important that we secure electrical safety in our homes and communities.

The first step towards ensuring electrical safety is learning about electricity regulations and safety measures. To promote awareness of such safety measures, this issue will present a brief on a central regulation that plays a significant role in the precautionary measures to be followed by the utility and consumers - 'Measures relating to Safety and Electric Supply Regulations'.

Measures relating to Safety and Electric Supply Regulations, 2010:



For example, Clause 18, Chapter III of the said regulations, describes the various rules that every owner should follow while fixing 'Danger Notices' for every installation of voltage exceeding 250 V. Complying with the stipulated rules will largely minimise risks against electrical accidents and ensure basic electrical safety.

Central Electricity Authority (CEA):

Originally the Central Electricity Authority (CEA) was constituted under Section 3(1) of the Electricity (Supply) Act, 1948 which was substituted by Part IX, Section 70 of the Indian Electricity Act, 2003. The CEA advises the government on policy matters and formulates plans for the development of electricity systems. The CEA framed the relevant regulation focused on electrical safety and precautionary measures.

CEA - Role & Functions:

As per **Section 73**, **Electricity Act**, **2003** the key functions of CEA include (i) advising the central government on matters relating to national electricity planning and policy, (ii) prescribing the technical standards for construction of electrical plants, (iii) outlining the safety requirements for construction, operation and maintenance of electrical plants, and (iv) specifying the installation of meters for transmission and supply of electricity.

In summary, CEA outlines regulations for the general safety of electricity consumers and utility employees providing electricity services. The main objective of these regulations is to implement the standard operating procedures and safety rules for the employees working in the electricity supply, such that the risk of electrical accidents is minimised. Upcoming issues will outline key aspects of the regulations and present a compilation of relevant case studies from Tamil Nadu around electrical safety for residential consumers in the state. (To be Continued)



Tamil Nadu News

No more extension charges for new Tangedco meters

Apartment owners and industrialists across Tamil Nadu can heave a sigh of relief as Tangedco has barred all field officers from collecting extension costs. Every time a consumer applies for a new electricity connection, Tangedco collects a certain amount for extension of electric lines and installation of new infrastructure.

For instance, an apartment in Chennai, which is located a hundred metres away from an existing power line, paid .90,000 as extension cost for a new three-phase connection. Collection of extension charges is against the Tamil Nadu Electricity Distribution Code. In 2009, the Tamil Nadu Electricity Regulatory Commission (TNERC) directed Tangedco to not only stop this violation but also refund the money collected from consumers.

Despite repeated directions from the commission, Tangedco continued to collect extension charges. Some of the aggrieved consumers approached TNERC seeking assistance. On such occasions, the commission penalised Tangedco up to a maximum of 1 lakh. K Kathirmathiyon, a consumer rights' activist, had petitioned TNERC stating that Tangedco did not mind paying hefty fine and then collected crores every year under this head. "It seems to be their strategy," he said.

Kathirmathiyon said that only to meet such increased expenses, Tangedco started collecting development charges from all the consumers (invariable of whether extension works are done or not) and more recently in 2019 it increased these charges by 400%. Therefore, there is no need to collect extension charges illegally, he said. The Commission, which took suo motu cognizance of his petition, seconded his claims and on Tuesday (December 28) ordered Tangedco to take corrective action to avoid consumers knocking on their doors for relief. Based on this, Tangedco has now sent a circular to all district- level authorities to stop collection of extension charges.

Source: TOI, December 30, 2021

India News

India meets non-fossil fuel target much ahead of 2030 deadline

Over 40% of India's installed electricity capacity now comes from non-fossil fuels. In a significant development, the Ministry of New and Renewable Energy (MNRE) said the country has achieved its Nationally Determined Contributions (NDCs) target with total non-fossil based installed energy capacity of 157.32 gigawatts (GW), which is 40.1 per cent of the total installed electricity capacity of 392.01 GW. "At COP-21, as part of its NDCs, India had committed to achieving 40 per cent of its installed electricity capacity from non-fossil energy sources by 2030. The country has achieved this target in November 2021 itself," MNRE said in a statement.

India's installed Renewable Energy (RE) capacity stands at 150.54 GW, which includes solar at 48.55 GW, wind (40.03 GW), small hydro power (4.83 GW), bio-power (10.62 GW) and large hydro power (46.51 GW) as of November 2021. The nuclear energy based installed electricity capacity stands at 6.78 GW. "In line with the Prime Minister's announcement at the recently concluded CoP26, the Government is committed to achieving 500 GW of installed electricity capacity from non-fossil fuel sources by the year 2030," the ministry added. During the last 7.5 years, India has witnessed the fastest rate of growth in renewable energy capacity addition among all large economies, with renewable energy capacity (including large hydro) growing 1.97 times and solar energy expanding over 18 times.

MNRE has also issued clarifications that RE generating stations have been granted 'Must-Run' status and this status remained unchanged during the period of lockdown, and further directed Discoms that since RE generating stations comprise only a minor portion of the total electricity generation in the country, the payments to RE generators be done on a regular basis, done prior to lockdown as per established procedure.

Source: BusinessLine, December 28, 2021



Consumer Focus

The petitioner was using a service connection under the LT III- B category. On 12.10.2020, the petitioner received a notice from the section office stating that he needed to pay other miscellaneous charges for his usage in 2014 which had exceeded the sanctioned load. However, the notice did not inform him of the due date for payment. Following this, the petitioner wrote a letter on 17.10.2020 to Superintending Engineer (SE), Executive Engineer (EE) and Assistant Engineer (AE), seeking information around the payment deadline and further requesting approval to pay the same in installments. The SE informed the petitioner that his letter had been duly forwarded to the concerned section office. However, the petitioner did not receive any response from either the EE or the AE. On 19.11.2020 the petitioner's service was disconnected. Amidst an ongoing pandemic, on 30.11.2020, the petitioner requested a reconnection and sought permission to pay the other miscellaneous charges in six installments. Based on the request, the connection was restored on 01.12.2020. His request to pay the amount in six installments was also accepted. The petitioner approached the Consumer Grievance Redressal Forum (CGRF) to take necessary action against the EE and AE since they had failed to respond to his letter dated 17.10.2020 and further caused the disconnection on 19.11.2020. Owing to the immense distress thus caused, the petitioner demanded maximum compensation. The petitioner argued that demanding the other miscellaneous charges after six years was not acceptable, especially given the circumstances of an ongoing pandemic. On hearing the arguments from both the parties, CGRF dismissed the case stating that the reconnection and request for payment in installments had been approved as per the petitioner's request. Aggrieved by the order, the petitioner appealed to the Electricity Ombudsman.

During the Ombudsman hearing, the same set of arguments were put forth by the petitioner. The TANGEDCO officials referred to their internal memo dated 19.10.2017 and 04.09.2020 from their Electricity Distribution Circle (EDC) and clause 5(2) of Tamil Nadu Supply code Regulation 5(2) - Excess demand charge which stated that other miscellaneous charges should be collected for excess demand usage. The officials stated that the petitioner was charged an amount of INR 14,607 on 06.10.2020 based on the clauses referenced. This was informed to the petitioner through a notice on 12.10.2020. Although this amount was added to the 09/2020 billing cycle, based on the petitioner's request, the 09/2020 billing amount alone was processed. The official also added that the AE raised a request to the SE as per the petitioner's written inquiry dated 17.10.2020. In response to this, the SE had granted permission to collect the payment in two installments and the same was informed to the petitioner over a telephonic conversation. However, the petitioner disagreed and denied payment for the 11/2020 bi-monthly cycle. Considering the ongoing pandemic, the due date of payment was extended by 45 days. Yet, the petitioner had not made the due payment. Therefore, his service was disconnected on 19.11.2020. Subsequently, based on the SE's approval, his connection was restored and he was informed that he could make his payments in six installments by 22.02.2021.

On hearing the arguments from both the parties, the Electricity Ombudsman referred to the Regulations for Consumer Grievance Redressal Forum and Electricity Ombudsman, 2004 and informed that the CGRF and Electricity Ombudsman cannot take legal action against the officials as this is not within the jurisdiction. On observing the notice issued by the TANGEDCO officials, it was found that the officials did not mention the (i) other miscellaneous charges to be paid, and (ii) 30 days from receiving the notice as the due date for payment. Instead, it was informed that the amount will be added to the next billing cycle as per the Supply code, Regulation 5(2)(ii). Further, it was highlighted that the officials disconnected the power supply 3 days before the due date for the 11/2020 billing cycle. Considering this, the Ombudsman referred to Clause 12 of Distribution Standards of Performance Regulations - Interruptions and Restoration of Supply and cited that the officials should not have disconnected the supply. Therefore the petitioner should be compensated based on Clause 21 of the Distribution Standards of Performance Regulations - Compensation. The Electricity Ombudsman observed that, even though the petitioner was eligible to receive a compensation of INR 50 for every 6 hours during the disconnection period of 12 days, only a maximum amount of INR 2000 can be compensated as per regulations. Hence, the Ombudsman ordered that the petitioner should be compensated with INR 2000 and dismissed the case. Source - Ombudsman case, TNERC

ECC VOICE

திருவள்ளூர் மாவட்டம், தேர்வாய் கண்டிகை கிராமத்தை சேர்ந்த திருமதி. குளோரி என்பவர் தனது வீட்டின் மின் இணைப்பு கம்பி பழுதடைந்து இருப்பதால், அவற்றை சரி செய்ய உதவுமாறு திருவள்ளூர் மின் நுகர்வோர் மையத்தின் நிகழ்ச்சி ஒருங்கிணைப்பாளரில் ஒருவரான திருமதி. சித்ரா அவர்களிடம் 24.12.2021 தொலைபேசி மூலம் கேட்டுக்கொண்டுள்ளார். திருவள்ளூர் மின் நுகர்வோர் மையத்தின் முதுநிலை ஆலோசகர் திரு. செல்வராஜ் மற்றும் மின் ஆலோசகர் திரு. அசோகன் அவர்களுடன் ஆலோசித்து திருமதி. குளோரி அவர்களின் புகார் மனுவை பூவலம்பேடு மின்வாரிய உதவி பொறியாளரிடம் சமர்ப்பித்தார். மின் ஆலோசகர் திரு. அசோகன் அவர்களும் மின்வாரிய உதவி பொறியாளரை தொலைபேசி மூலம் தொடர்பு கொண்டு, இப்புகாரினை எடுத்துக் கூறி விரைவில் சரி செய்து கொடுக்குமாறு வேண்டியுள்ளார். அதன் பிறகு சம்பந்தப்பட்ட லயன் மேன் திருமதி. குளோரி அவர்களின் வீட்டை பார்வையிட்டு, புதிய கம்பிகள் வாங்கி வருமாறு கூறியுள்ளார். அதன்படி 30.12.2021 அன்று பழுதுகளை நீக்கி புதிய மின் இணைப்பு கம்பிகள் மாற்றப்பட்டன. குறுகிய காலத்தில் தக்க நடவடிக்கை எடுத்து உதவிய திருவள்ளூர் மின் நுகர்வோர் மையத்திற்கும், ஒருங்கிணைப்பாளர் திருமதி. சித்ரா, முதுநிலை ஆலோசகர் திரு. செல்வராஜ் மற்றும் மின் ஆலோசகர் திரு.அசோகன் அவர்களுக்கும் திருமதி. குளோரி தனது நன்றியினை தெரிவித்தார்.

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Citizen consumer and civic Action Group (CAG) is a non-profit, non-political and professional organization that works towards protecting citizen's rights in consumer and environmental issues and promoting good governance processes including transparency, accountability and participatory decision making.

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World News



China Becomes Third Country To Develop Floating Nuclear Reactor

China is the third country to build and adopt a floating reactor, after the US and Russia. According to marine engineers, China's first floating nuclear power station may be able to endure a once-in-10,000-years weather catastrophe, reported South China Morning Post.

However, experts added the mooring crane on the ship-like facility would need to be strengthened to prevent the entire plant from breaking loose if it tried to ride out the storm at a port.

The 60-megawatt reactor is being developed off China's East Coast to power oil rigs and islands in the Bohai Waterway, an inner sea with generally calm waters.

This floating reactor is the result of a Chinese plan drawn in 2016 which aims at commercializing a new generation of small and portable nuclear reactors. It is believed to be an idea that primarily strived to power the oil rigs and islands in its lesser developed eastern coast of the country.

Furthermore, a floating nuclear reactor would necessitate a large staff and security forces that can guard against mishaps and hostile actors. This will lead to an enhanced presence of the Chinese military, causing further disgruntlement among the neighbors.

There is a strong possibility of a backlash against the Chinese move for the simple reason that despite China's land reclamation operations, the great land scarcity of the Chinese-controlled islands makes civilian settlement development extremely implausible, rendering this ambitious concept of up to 20 floating NPPs unjustified if only for civic amenities.

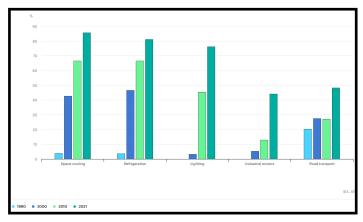
However, the current floating reactor that has undergone testing is believed to bring prosperity to the eastern region of the Chinese mainland. With minor fixes that have already been underlined, the reactor could change the face of the region with clean fuel and enhanced productivity.

Source: The Eurasian Times, December, 15, 2021

Publications / Regulations

- Renewables 2021- Analysis and forecast to 2026, IEA, 2021
- Perform, Achieve and Trade (PAT) Scheme of Thermal Power Plants A Critical Analysis, <u>CSE</u>, 2021
- All India Electricity Statistics, General Review 2021, CEA

Global energy use covered by mandatory standards or comparative labels for key end uses, 1990-2021



Source: **IEA**