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Current News
மின் செய்திகள்

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# Energy Conservation Building Code for Residential Buildings (Part 1)

The Paris agreement on climate change in the year 2015 or also commonly referred to as COP21 (Conference of Parties) held in Paris adopted that all developed and developing countries should come up with NDC's (Nationally Determined Contributions) to reduce its carbon footprint. NDC's are voluntary national targets to be declared or set forth by signatory countries to COP21 to reduce their energy intensity and carbon footprint. India being a signatory to COP21 has NDC's to achieve which are to reduce the **emissions intensity** of its gross domestic product (GDP) by 33 to 35 percent by 2030 from 2005 levels. Any talk about reducing the emission intensity of a country like India is irrelevant without taking into account the energy consumption of its cities. Indian cities are now hubs of economic activity with building constructions, industries, vehicular movement, individual households, and settings, all contributing to its emission intensity. India now has over 53 cities with more than a million residents, and a further 8000 urban agglomerations, defined as areas with over 5000 residents with a majority share of non-agricultural employment. The presence of multi-dwelling and multi-storey apartment buildings has steadily increased with over a half of all households in India's eight largest cities (each with a population of over 5 million) located in buildings of this kind in 2018. This was up a third compared to numbers in 2002. There are 13 megacities in India and their power consumption is expected to rise 7% annually, according to the 2013 18th Electric Power Survey by CEA (Central Electricity Authority).

**Emission intensity** is defined as the total amount of greenhouse gas emitted for every unit of GDP (Gross Domestic Product).

**Building Sector and Energy consumption in India:** Energy is consumed at both the construction phase and the operational phases of buildings. The building sector in India consumes over 30% of the total electricity consumed in the country annually and is second only to the industrial sector as the largest emitter of greenhouse gases (GHGs). Out of the total electricity consumed by this sector, about 75% is consumed by the building and operation of residential buildings alone. The gross electricity consumption in residential buildings has been rising sharply over the years. For instance, the consumption figure rose to about 260 TWh in 2016-17 from about 55 TWh in 1996-97. That is an increase of more than four times in 20 years. India's projected energy demand for buildings by 2047 is shown here. The main factor that leads to this trend is the increased use of decentralized air-conditioning units in homes for thermal comfort. The demand for air conditioning will only continue to grow according to a World Bank report on investment opportunities in the cooling sector which says that by 2037 the demand for cooling equipment in India is likely to be eight times higher than current levels. There will be demand for a new air-conditioner every 15 seconds, leading to a 435 per cent rise in annual greenhouse gas emissions over the next two decades. In the next edition, the article series will discuss energy efficiency and buildings, its importance and how it can help reduce our power consumption.

*(To be continued)*

INSIDE THIS ISSUE:



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# Understanding the different charges borne by an electricity consumer (Part 6)

The previous issue explained service related charges borne by consumers for an electricity service connection. This edition will explain shifting charges with respect to their electricity service connection.

**Cost Estimate:**

The cost estimate for shifting will differ from person to person based on the nature of the work, and is arrived at considering the following:

1. Registration cum processing charges for the application (refer Miscellaneous Charges Tariff Order M.P no. 36 of 2022 dt. 09.09.2022)
2. Cost of new materials, if required for the work.
3. Charges for dismantling at the old site.
4. Charges for erection - 10% of the material value will be collected for the pole erection activity
5. Charges for transport from the old site to the new site, if any:
6. 5 % of the cost of **new materials**
7. 10% of the present value of the **reusable materials**
8. 5% of the present value of **retrievable scrap materials**.

Work begins on payment of the estimate. If the materials dismantled in the old site (such as wires, panel boards, switchboards, earthing devices and earth leakage protective devices, poles) are in a "reusable" condition, these will be re-used at the new site. There is no cost for the consumer, except the transport cost mentioned above.

After completion of work, the final cost is given to the consumer. The consumer has to pay only if the estimated cost is less than the final cost. If the estimated cost is more than the final cost, the balance amount will be returned to the consumer by TANGEDCO within three months from the date of completion.

For example:

**Scenario - 1**

1. Estimated cost (based on the inspection) - Rs.20,000
2. Final cost (after the completion) - Rs.18,000
3. Balance - Rs. 2000 will be returned to the consumer

**Scenario - 2**

1. Estimated cost (based on the inspection) - Rs.20,000
2. Final cost (after completion) - Rs. 28,000
3. Balance - Rs. 8000 to be paid to TANGEDCO

The objective of the five-part series on "Understanding the different charges borne by an electricity consumer" was to break down the miscellaneous charges borne by a consumer, in a consumer-friendly way. When next charged for an electricity service, we hope that you will know what you are paying for.

***(Concluded)***

# Tamil Nadu News

## Power connection to be given to select buildings without completion certificate

The Tamil Nadu Generation and Distribution Corporation (TANGEDCO) will provide electricity connections without completion certificate to buildings that are in the exempted list of Tamil Nadu Combined Development Building Rules, 2019, as directed a couple of years ago, according to a communication from the Commissioner of Municipal Administration (CMA) to Managing Director of TANGEDCO last month. The CMA said in the communication that buildings that were upto 12 metres high with three dwelling units or houses upto 8,070 sq.ft built up area, and all industrial buildings were in the exempted list. Yet, there were several complaints that there were delays in getting electricity connection after completing construction of buildings. Hence, electricity connections could be given to buildings in the exempted list without completion certificate, he said.

However, there were reports that electricity connection would be given without building completion certificate to all buildings. An official of the TANGEDCO here clarified to The Hindu that electricity connection would be given without the completion certificate to only the exempted buildings and not to all buildings. K. Kathirmathiyon, secretary of Coimbatore Consumer Cause, said the clarification issued by the CMA was misunderstood by many as applicable to all buildings. The government had only quoted again a circular issued in 2020. Residential buildings should meet all three criteria to get electricity supply without completion certificate. Unless the government or the court issued fresh rules or directions, these could not be modified. Till then, the local bodies and TANGEDCO would have to abide by the existing rules, he said.

**Source:** The Hindu, February 17 2023

# India News

## Budget 2023 | Major thrust planned for green energy

Underlining a commitment to accelerate the Indian economy's transition to one powered by green energy, Union Finance Minister Nirmala Sitharaman in her Budget speech on Wednesday mentioned a slew of schemes aimed at promoting clean energy and sustainable living. Green energy was among the 'Saptarishi' or seven guiding lights Ms. Sitharaman mentioned in her address that would steer India through 'Amrit Kaal' (next 25 years). She said the Ministry of Petroleum and Natural Gas had earmarked ₹35,000 crore for "priority capital investment", though neither her speech nor the Budget documents provided more clarity on it.Following up on the government's recent announcement of giving a push to 'green hydrogen' and promoting renewable energy projects, the Minister said battery energy storage systems with a capacity of 4,000 megawatt hours will be "supported" with viability gap funding to encourage investment. The Budget also waived customs duty on capital goods and machinery for lithium-ion battery manufacturing. The move is expected to make electric vehicles and storage systems cheaper.

Boost for solar projects:

The Ministry of New and Renewable Energy has received a budgetary allocation of ₹10,222 crore, a 45% hike from the ₹7,033 crore it expects to spend in the current financial year. The most significant hikes in the Ministry's programmes are for 'off-grid' solar projects, on which the government is expected to spend ₹61 crore in the current fiscal but has budgeted ₹360 crore for the coming financial year. India had a target of installing 100 gigawatt (GW) of solar power projects by 2022 but has only installed 63 GW. Off-grid solar projects constitute less than 5% of the target. The allocation for solar power expected to be supplied to the grid has been raised to ₹4,970 crore, up from the ₹3,469 crore expected to be spent by March 2023. The National Green Hydrogen Mission – a ₹19,000-crore programme to produce, use and supply hydrogen from renewable energy sources – has been allotted ₹297 crore.

**Source**: The Hindu, February 01 2023

# Consumer Focus

The appellant (consumer) applied for an additional meter for their tenant, occupying a separate portion of the house on 28.11.2021. The application was made online for a one phase connection. There was a demand to pay Rs.5168/- which included costs towards registration, security deposit, etc. which was paid on 29.11.2021. An inspection was done by the Assistant Engineer (AE) on 15.12.2021. The AE stated that the existing connection was three-phase, but the application submitted was for a single phase. The AE advised that in order to get a three phase connection, the application had to be amended to 4 kW instead of 1kW. The appellant amended the application and a new connection was given on 21.12.2021. There was an additional demand of Rs. 10,800/- raised on 16.12.2021 relating to security deposit and development charges, to be paid within 15 days. The appellant paid Rs.10999/- with surcharge (of Rs. 199) on 15.03.2022 to avoid further increase of surcharge for delay.

The appellant sent an email to the concerned AE, Chief Engineer and other functionaries asking them for clarification on the reason behind charging development charges towards her application for a new meter. The appellant was merely sent a letter (dated 14.06.2022 by the AE) with some reproduced regulations, without directly addressing her query. The appellant felt that the development charges were too high and unreasonable and wanted a refund of these charges.

The appellant filed a complaint seeking a refund again on 21.06.2022, at the Consumer Grievance Redressal Forum (CGRF). The CGRF observed that the charges claimed from the appellant were in accordance with the Tamil Nadu Electricity Distribution Code (TNEDC) explaining that the charges specified by the Commission in miscellaneous charges (Order in Miscellaneous Petition No.7 of 2018) had only been collected. Thus, it passed an order dismissing the petition on 26.08.2022. Aggrieved by this order, the appellant subsequently approached the Ombudsman with the same request on 17.10.2022. The appellant argued that installation of the additional meter was done on the already existing board and that the respondent did not implement any development work, like laying of new cable. The appellant further argued that the consumption has continued to be the same and it is only going to be measured by two meters.

The respondent argued that according to Chapter 7 of TNEDC development charges were payable for new service connections as well as request for additional load in the existing service connection. In addition to this, the respondent argued that despite having the same door number this is an application for a new meter. This meter has been requested for a separate living portion, which is physically and electrically different from the existing connection. The respondent further submitted that all the applications for getting additional meter were treated as new service connections. This was as per the norms of TNERC and there were no provisions in the TNEDC for providing an additional meter alone. The Ombudsman observed that appellant's request for a new meter does come under the category of obtaining a new service connection. The Ombudsman also noted that while submitting the application, the appellant had agreed to pay all charges for new service connections as per existing Clause 44 to 49 of TNEDC. Considering the facts of the case, arguments put forth and the statutes relied upon, the Ombudsman passed the following order:

- The development charges and other charges collected are as per TNEDC
- The petition is dismissed with no costs.

Source: **Ombudsman Case**, TNERC

Note: For more details on these charges please refer to Clause 44 to 49 of Tamil Nadu Electricity Distribution Code and CAG's article on 'Understanding the different charges when obtaining a new electricity connection'.

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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.*



# World News



## Renewables supplied 88% of Portugal's electricity consumption in January

Renewable utilities supplied 88% of Portugal's electricity consumption in January, as heavy rains coupled with good wind and solar conditions allowed to sharply reduce the use of gas-fired power plants, grid operator REN said on Wednesday (1st February,2023).

The country aims to generate 80% of its annual electricity usage from renewable sources by 2026, up from around 60% in 2022, which was already one of the highest ratios in Europe.

European nations are increasingly betting on renewable energies, especially after gas prices hit record highs in 2022 after the invasion of Ukraine by Russia, which was Europe's top gas supplier.

In a statement, REN said that in January of this year "weather conditions were favorable for renewables, which had high levels of productivity".

Heavy rains boosted hydro production, which supplied 51% of total consumption in January, while wind made up 28% and solar 4%.

As a result, the production of electricity through gas power plants fell 64% in the same month.

Portugal has 8.8 GW of hydroelectric capacity, 13.3 GW of onshore wind and 3.1 GW of solar, which together represent 87% of its total installed capacity.

REN said total electricity consumption rose 4.1% in January, compared to the same month last year, to 4,833 Gigawatt hours (GWh), 88% of which was supplied by renewables.

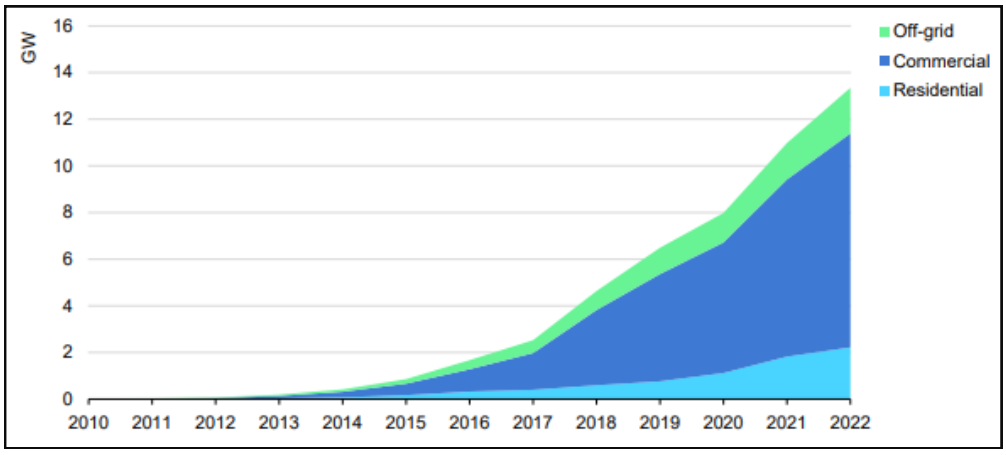
In January 2022, renewables supplied only 52% of total electricity consumption.

**Source**: Reuters, February 02 2023.

# Publications / Regulations

- LiFE lessons from India, February 2023, IEA
- Global landscape of renewable energy finance 2023, February 2023, IRENA
- Electricity Market Report 2023, February 2023, IEA

## Increase in distributed solar PV capacity in India, 2010-2022




Source: IEA