

A Note on Standby power (Part 2)

This was discussed in the July 2018 issue of Current News. The present issue will discuss how standby mode power impacts consumption and electricity bills. Standby power is the electrical power used by the appliances and equipment's when they are "switched off" and are not performing their primary action. For example, the power consumed by a television set after it is switched off using a remote control will continue to draw power either through the sensors or when device is still plugged on to the socket. The same applies to other appliance such as laptops, set top boxes etc. It is estimated that an average household has up to 12 appliances running on standby power at any given point of time, leading to Please send your feedback to greater consumption and higher electricity bills. Standby mode power can account for about 7-10% of the electricity bill. The standby power for few appliances and also the impact of standby power are mentioned below

Appliances	Standby power (in Watts)	Hours / day	Consumed Units/ month	Rs / month (6 Rs / unit)*
Television	7	8	1.68	10.08
DVD Player	7.54	8	1.81	10.86
Set-top Boxes	17.8	8	4.27	25.63
Video games	23.34	4	2.80	16.80
Desktop	21.13	4	2.54	15.21
Laptop	15.77	8	3.78	22.71
Mobile Charger	2.24	8	0.54	3.23
Total			17.42	104.52

*Price per unit of electricity in India is sumed to be Rs. 6 for residential users - Bijli Bachao

The above table

assumes the above appliances in an average household with an assumption of them working for approximately 4 to 8 hours in a day. Assuming a rate of Rs. 6 per unit, the impact of standby mode power and its effect on the electricity bill is quite obvious. On an average, the appliances consume between 0.53 to 4.27 units per day with a total consumption of 17 units of power per month. This adds to Rs.105 extra to our monthly electricity bill. Details on standby power consumption for more appliances can be found on this link.

Surge Protectors: In addition to the power saving practices mentioned in Feb 2018 issue, consumers may consider using surge protectors. In simple terms, surge protectors are extension boxes used for connecting electrical appliances in one socket. For more explanation, please refer to CAG's article on surge protectors to know how it can help in saving power (link). (Continued on Page 2)

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Smart or Energy saving power strips:

A technological innovation in surge protector are the smart or energy saving power strips that help in cutting down standby mode further. These power strips not only cut down the voltage fluctuations but also cut off the power supply when the amount of electricity drawn by the appliances go down by a certain limit. These strips depend on the wattage. Therefore, consumers have to ensure that the standby power of the connected appliances is equal to or less than the wattage specified in the smart strips. Otherwise, the smart strip will not be in a position to control the standby power. In addition, some strips have dual control mechanism ie., few of the sockets in the strip will switch off automatically while others will not. For example, if you are connecting a TV and CCTV Digital Video



<u>Recorder</u> (or DVR for short) to the same strip, which was recording some programs, then, the smart strip will switch off the TV automatically and leave the DVR in standby mode. In India, smart strips are <u>expensive</u>.

India News

India targets 100 GW installed capacity of solar energy by 2022

India has a target of 100 gigawatt (GW) installed capacity of solar energy by 2022, of which 40 GW is projected to come from rooftop solar systems, an energy expert said on Thursday. Former Senior Scientific Advisor in the Ministry of New and Renewable Energy Dr Bivek Bandyopadhyay said the World Bank and Global Environment Fund (GEF) had launched a large financing program in 2016 to support clean energy.

"Rooftop Solar photovoltaic technology is rapidly emerging as a solution for de-centralized renewable energy generation globally due to the plummeting cost of the technology," he said while addressing a seminar. He said the rooftop generates electricity from solar power beyond the limit of land availability, enabling higher penetration of renewable energy in the power system, leading to more reduction in Green House Gas (GHG) emissions and climatic change mitigation. He further said that along with hydroelectric projects in the state, the Rooftop Solar PV will enable to create 'Green Nagaland'.

While introducing Sustainable Partnership for Rooftop Solar Acceleration in Bharat (SUPRABHA), the team leader, Yuvaraj Dinesh Babu Nithyanandam said to help each state, the northeastern region has been given to the World Bank to look after the capacity building. He said that the target given to Nagaland is about 50MW for RTS. SUPRABHA's proposed engagements with Nagaland are development of an exclusive solar rooftop policy, capacity building, training of utility engineers, entrepreneurs, bankers, unified web portal for online subsidy and interconnection modules.

Advisor to Nagaland Chief Minister Neiphiu Rio, Mmhonlumo Kikon voiced confidence that the engineers of the state will find the best solution in implementing the solar rooftop plan'. Kikon said the Nagaland government has proposed smaller size solar parks with a capacity 23 MW but faces funding problems in infrastructure development. "Northeastern region requires a different approach. So, the funding pattern needs to be looked at seriously by an independent body," he said.

Source: Business Standard, 11 October, 2018



Consumer Focus

Facts

The petitioner is a domestic consumer having 3 phase service connection. He installed solar panels in his house for the purpose of self-consumption and for exporting power to TANGEDCO. For this purpose, the consumer submitted an application to TANGEDCO for net meter provision for exporting his power. If the net meter is not in place, then power exported will increase his EB Bill. The application was registered on 23rd September 2016. However, even after 3 months, i.e. 31st December 2016, net meter was not provided to him. On enquiry, he was informed that due to non-availability of Solar Bi-directional meters, the solar net metering facility was not provided to the consumer. The petitioner approached the forum with a prayer to provide net meter facility so as to export power to TANGEDCO.

Contentions

Petitioner: The petitioner stated that he installed the Solar PV panels and paid all the charges requested by TANGEDCO for effecting LT connectivity and Net metering to his service but even after 3 months he could not use the solar power after having invested his money.

Respondent: The respondent stated that there is a delay only because of the non – availability of 3 phase solar bi-directional matter. Once the meters are received and allotted by the head office, it will be provided to the petitioner.

Observation and Judgement : CGRF directed TANGEDCO to affect the Solar net metering service within 15 days from the date of order. Splitting the timeline, in the event of non - allotment of net meters, within a week TANGEDCO has to make arrangements to get approval from the headquarters for providing the solar net metering facility to the petitioner. In another week, TANGEDCO was also directed to effect the service for net meter for the consumer.

ECC Voice

விவசாய மின் இணைப்பை பெறுவதற்கான நடைமுறைகள்:

- ஒவ்வொரு வருடமும் தமிழ்நாடு அரசு வழங்கிடும் குறியீட்டிற்கேற்ப விவசாய மின் இணைப்புகள் பதிவு மூப்பு
 (Seniority) அடிப்படையில் தமிழ்நாடு மின்பகிர்மான கழகத்தால் வழங்கப்படுகிறது.
- விவசாய மின் இணைப்பு பெற்றிட உரிய படிவத்தில் தகவல்களை பூர்த்தி செய்து சம்மந்தப்பட்ட பகுதியின் VAO விடம் Ownership Certificate, Field Measurement Block (FMB),சிட்டா, பட்டா,விற்பனை பத்திரம், விண்ணப்பம் கிணறு போர்வெல்,கால்வாய்கள் ஆகியவைகளுக்கு குறிப்பிட்ட தூரத்தில் அமைந்திருப்பின், சம்மந்தப்பட்ட துறையினரது தடையில்லாத சான்று(NOC)பெற்று விண்ணப்பிக்கவும.
- முழுவதும் பூர்த்தி செய்யப்பட்ட விண்ணப்பத்தை உரிய சான்றுடன் அப்பகுதியின் செயற்பொறியாளர்/
 பகிர்மானத்தினரை அணுகி சமர்ப்பிக்க வேண்டும்.
- தங்களது விண்ணப்பம் சரியாக பூர்த்தி செய்யப்பட்டிருப்பின் தங்கள் பகுதி உதவி செயற்பொறியாளருக்கு கள ஆய்விற்கு அனுப்பப்படும். கள ஆய்விற்கு பின்னர் குறிப்புகளுடன் செயற்பொறியாளருக்கு, உதவிப்பொறியாளரால் திரும்ப சமர்ப்பிக்கப்படும்.
- விண்ணப்பம் உதவிப்பொறியாளரால் சரிபார்க்கப்பட்டு, விண்ணப்ப பதிவுக்கட்டணம் ரூ.50 செலுத்த தங்களுக்கு
 அறிவிப்பு வழங்கப்படும். கட்டணம் செலுத்தப்பட்டவுடன், தங்களது "விவசாய விண்ணப்பம்" சாதாரண
 வரிசையில் செயற்பொறியாளர் அலுவலகத்தில் பதிவு செய்யப்பட்டு தங்களுக்கு பதிவு அட்டை வழங்கப்படும்.
 விவசாய மின் இணைப்பை பெறுவதற்கு ஏதேனும் தகவல் தேவைப்பட்டால், சம்பந்தப்பட்ட
 செயற்பொறியாளரை அணுகவும். அவரே இதற்கான கண்காணிப்பு அதிகாரி ஆவார். ECC Salem

World News



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Citizen consumer and civic Action Group (CAG) is a non-profit, non-political and professional organization that towards protecting workscitizen's rights in consumer and environmental issues and promoting good governance processesincluding transparency, accountabilityand participatory decisionmaking.

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Solar, a key option in the Saudi renewable energy strategy

The third day of the Future Investment Initiative (FII) conference on Thursday provided an excellent opportunity to listen to Nadhmi Al-Nasr, the new CEO of Neom. It is planned that this giga city, unveiled by Crown Prince Mohammed bin Salman at the FII conference last year, will run entirely on renewable energy — making it the largest city in the world to do so — to reduce its dependency on crude oil. Though Iceland and Norway claim to be close to achieving entirely renewable electrical grids in some of their cities, they do not compare in scale to Neom.

Saudi Arabia, the world's largest oil producer, is looking to generate more energy from renewable sources partly to reduce its greenhouse gas emissions as part of the Paris Accord on climate change, but also to allow it to sell oil abroad at full price rather than use it domestically where it is heavily subsidized. Developing a renewable energy industry is also part of its Vision 2030 efforts to diversify its economy away from dependence on oil and gas.

A key component of Vision 2030 is the National Renewable Energy Program, a long-term, multifaceted strategy designed to balance the domestic power mix to deliver long-term economic stability to the country. This program aims to substantially increase the share of renewable energy in the total energy mix, targeting the generation of 3.45 gigawatts (GW) of renewable energy by 2020, equivalent to 4 percent of the Kingdom's total energy production and 9.5GW by 2023, equivalent to 10 percent of the Kingdom's total energy production. I believe the potential of Saudi renewable energy projects in general, and the solar ones in particular, are undebatable. Furthermore, Neom's unique geographical location provides one of the highest levels of horizontal solar radiation, a key technical indicator for solar energy viability.

Source: Arab News, October 27, 2018

Publications/Regulations

- Renewables 2018 Global Status Report, October 2018
- Central Electrical Authority Annual Report, October 2018

TARIFF APPRISAL STUDY ,(Released in the month of October 2018)

