

Ceiling fans: Selection Criteria and Energy Efficiencies (Part 2)

Ceiling fan is by default the most used appliance in households. Consumers, in general, are not aware of how much power a ceiling fan consumes and also additional expense they were paying for energy inefficient ceiling fans. In the [previous issue](#), size of the ceiling fan and down-rod length were discussed .

3.Air delivery: Air delivery is one of the important factor to consider while buying a ceiling fan. It is the amount of air which is moved by a

fan in a minute or the ability of a fan to convert the electrical energy into moving air. It is measured in terms of cubic meter per minute (Cu m/min). If air delivery is higher, then, the amount of air swept out by the ceiling fan will also be higher, which makes us feel more comfortable.

4.Star rating: [Bureau of Energy Efficiency](#) (BEE), an agency under the Ministry of Power, has introduced [Star rating](#) system for 1200 mm fans (Table 1). On comparison, a normal ceiling fan would consume 75 - 80 watts, while a BEE 5 star rated fan would consume only 50 - 55 watts. One point to be noted is that due to technological improvements, star rating system also changes every year—a five star rated fan of 2011 may not be as efficient as a five star rated fan of 2018. Consumers

generally believe that BEE 5 star rated fans deliver less air and may not give similar comforts as a regular fan. But studies from [Bijli Bachao](#) have shown that there was no

difference in comfort between normal fan and BEE 5 star rated fan.

Energy efficient innovative fans: There are [fans](#) that deliver better air with less power input. It uses [Brushless DC motor](#) that consumes 28 Watts of power on its full speed. On comparison with normal fans and BEE 5 star rated fans, these brushless fans are more efficient and will consume 135 units per annum, while normal fans and BEE 5 star rated fans consume 384 units and 255 units per annum. [Table 2](#) compares various fan technologies. (Concluded)

Star rating	Service value for ceiling fans
1 Star	≥ 3.2 to < 3.4
2 Star	≥ 3.4 to < 3.6
3 Star	≥ 3.6 to < 3.8
4 Star	≥ 3.8 to < 4.0
5 Star	≥ 4.0

Table 1

Technical Details	Gorilla fans	5 Star rated fans	Normal fans
Power consumption (W)	28	53	80
Air delivery (Cu m/min)	230	210	230
Service value	8.2	4.0	2.9
Total Bill (Rs.6/ unit)	806.4	1526.4	2304
Price INR (Approx.)	3000	1500	975

Table 2

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Please send your feedback to ecc@cag.org.in

Electricity Consumer Cells (ECCs)

Madras Metropolitan Consumer Rights Protection Centre (MMCRPC)
No. 118, Fourth Street, Kamaraj Nagar, Avadi,
Tiruvallur District.
Chennai - 600 071,
Phone: 9382828286
Email: ecctiruvallur@gmail.com

Tirunelveli District Consumer Rights Protection Sangam
No. 9, Kulapirai Street,
Tirunelveli Town,
Tirunelveli - 627 006
Phone: 0462-2338544
Email: ecctirunelveli@gmail.com

Federation of Consumer Organizations of Tamil Nadu and Pondicherry - (FEDCOT)
5, Anthoniyarkoil Street,
Cuddalore - 607 001
Phone: 9994019119
Email: ecccuddalore@gmail.com

Sadayanodai Ilaigarnar Narpani Mandram - (SINAM)
Avalurpet Road,
Tiruvannamalai - 606 604
Phone: 04175 - 298033
Email: ecctiruvannamalai@gmail.com

Salem Consumer Voice
31/20, Sree Rangan Street,
Gugai, Salem - 636 006
Phone: 9994941050
Email: eccsalem1@gmail.com

Tamil Nadu News

New solar policy in the works in Tamil Nadu

Tamil Nadu will soon have a new solar policy with the Tamil Nadu Energy Development Agency (TEDA), the state nodal agency for renewable energy, putting out the draft of the Tamilnadu Solar Energy Policy, 2018 for comments from various stakeholders. It envisages various incentives for energy generation and aims to promote manufacture of solar energy components, including solar cells, inverters, mounting structures and batteries in the State. According to the draft policy, solar energy will be a major contributor to a sustainable energy future in Tamil Nadu and will be the mainstream energy source in the State by 2022.

Green jobs

The development of the sector will provide green jobs to a significant number of people and Tamil Nadu will be an international climate leader for emerging economies by 2022, it added. Tamil Nadu would have an installed generation capacity of 8,884 MW by 2022. Of this target, 40% will be met by consumer scale solar energy generators, the policy said. The policy will be applicable to projects, programmes and installations relating to both solar photovoltaic energy (solar PV) and solar thermal energy. Once finalised, the policy shall remain valid for the next five years, unless superseded or modified by another policy. The draft policy also mandates some definite goals like all public buildings will be mandated to meet 30% of their energy requirements from solar energy by 2022. Street lights and water supply are mandated to meet 30% of their energy requirements from solar energy by 2022, it added.

Any building type that requires to be in Energy Conservation Building Code compliance will follow ECBC compliance guidelines for the installation of solar photovoltaic and solar thermal energy systems, it said. The Directorate of Town and Country Planning in collaboration with local bodies shall amend their building by-laws to mandate ECBC, the policy said. In terms of incentive, the draft policy said solar energy will be exempted from electricity tax, grid connectivity, open access, wheeling, and banking and cross-subsidy charges.

The draft policy also said that the Tamil Nadu government will promote the manufacture of solar energy components. Lands will be identified for the development of manufacturing. A single window process for all departmental approvals, including a set time limit for each approval, will be designed, it added.

Sources : [The Hindu](#), 22 September, 2018

India News

Maharashtra ready to unveil energy calculator

After much delay, Maharashtra's new energy calculator designed to enable better management of the State's power requirements will be ready by end of this month. The MHSEC-2050, an exclusively web-enabled tool, is based on the central government's IESS-2047, a brainchild of the NITI Aayog in collaboration with the Commonwealth Office of the U.K. government.

The draft model of the calculator is complete and will be presented to the State government by consultants M/s ICF Consulting on September 25, senior officials said. Andhra Pradesh is the first State to make such a calculator operational.

The MHSEC-2050 will be an open source tool and enable energy sector planning for stakeholders, including the government, energy companies and even individual users. The tool will cover most areas which impact energy demand and supply in the State. A team of officials from the ICF, NITI Aayog, completed the final round of meetings on March 1, collecting data from the government for the calculator. "The draft of the MHSEC-2050 is ready. This will be presented to us along with different approaches to the State's energy scenario. This will be followed by a 'call for evidence' period for inviting suggestions from the public," a senior government official said.

Key benefits

The MHSEC will allow policy makers to visualize choices in energy trade-offs, throw them open to the public, help align public opinion with State policy, and assist in long-term planning, officials said. "It will help us develop scenarios based on the State's economic situation, structural changes, and technological interventions," said an official.

The calculator will be accessible not only to the government, but also universities, institutes, consultants and civil societies. The tool will provide user-friendly graphic models, easily available data to construct demand and supply scenarios. The Andhra Pradesh calculator even allows users to study energy impact in terms of key macro parameters such as "impact on emissions, cost and the land requirement" for the chosen policy.

Sources : [The Hindu](#), 22 September ,2018.

Consumer Focus

FACTS

The appellant is a resident of Padi, Chennai. A transformer was installed inside the compound of a residential area of a closed community. The transformer supplies electricity for residential purposes as well as commercial purposes within the area. The appellant on behalf of the closed community requested relocation of the transformer.

CONTESTATIONS

Appellant: The transformer should be relocated as it may cause harm to the residents in the locality

Respondent: TANGEDCO, in its submission, had stated that the transformer can be relocated. However, the cost related to relocation, including arranging for the new location should be arranged by the residents of the closed community -appellants.

JUDGEMENT

The CGRF looked into the request of the appellant regarding relocation of transformer. It held that the transformer was established based on valid rules and regulation, hence relocation is not possible. However, since the appellant was insistent the forum asked them to pay for the relocation of the transformer and other related expenses. Further, it ordered TANGEDCO to maintain the transformer regularly so as to avoid any accidents and fatalities.

ECC Voice

மழைநேரத்தின்போது விபத்துகளைத் தடுப்பதற்கான முன்னெச்சரிக்கை நடவடிக்கைகள்

- மின்சாரத்தால் அதிகமாக பாதிப்புக்குள்ளான நபராக இருந்தால் அவரை உடனடியாக மருத்துவமனைக்குக் கூட்டிச் சென்றுவிடுவது நல்லது. 108 ஆம்புலன்ஸ் வரச்சொல்லி, அதில் கூட்டிச் செல்லலாம்.

ஷாக் அடித்த உடனே நாம் செய்யக் கூடாதவை:

- மின்சாரத்தால் பாதிக்கப்பட்டவர்கள் மயக்கநிலையில் இருந்தால் அவர்களுக்கு வாய்வழியே எந்த ஆகாரமும் கொடுக்கக் கூடாது . அப்படி கொடுத்தால் அது நேரடியாக நுரையீரலுக்குச் சென்றுவிடும். சாதாரணமாக இருக்கும்போது , நுரையீரலுக்குத் தண்ணீர் சென்றால் புரையேறி இருமல் , தும்மல் மூலமாக நீர் வெளியேறிவிடும். ஆனால் மயக்கநிலையில் இருப்பவர்களுக்குப் புரைகேறாது. அதனால் தண்ணீர் வெளியேறாமல் நுரையீரலுக்குச் சென்றுவிட்டும்.
- தண்ணீர் அதிகமாக சென்றால் நிமோனியா ஏற்படுவதற்குக்கூட வாய்ப்புள்ளது. அதனால் அரை மயக்கமாக (Semi Conscious) உமிழ்நீரை உள்ளிரக்கக்கூடிய நிலையில் இருந்தால் , அவர்களுக்கு மோரில் உப்புப் போட்டுக் குடிக்கக் கொடுக்கலாம். பின்னர் மருத்துவரிடம் சிகிச்சை எடுத்துச் செல்லலாம். சிலருக்கு பாதிப்பு வெளியில் தெரியாது . அதனால் அலட்சியமாக இருந்துவிடக் கூடாது. உள்ளுக்குள் பாதிப்பு இருக்கும். எனவே, மருத்துவரை அணுகி சிகிச்சை எடுத்துக் கொள்வது மிகவும் நல்லது.
- நமக்கு அருகில் யாரையாவது மின்சாரம் தாக்கிக் கொண்டிருந்தால் அவர்களை நாம் கைகளால் தொடக் கூடாது . முதலில் மெயின் “ஆப்” செய்துவிட வேண்டும். பின்னர் , ஷூ, செருப்பு அணிந்து மரத்தால் ஆன கட்டையால் அவர்களின் கையைத் தட்டிவிடலாம் .
- வீட்டில் என்றால் மெயின் ஸ்விட்ச் எங்கே இருக்கிறது என்று தெரியும் . சாலைகளில் எங்கே இருக்கிறது என்பது தெரிய வாய்ப்பில்லை. எனவே , எதாவது மரத்தால் ஆன பொருள்களை கொண்டு மீட்கலாம். ஆனால், தூரத்தில் இருந்தபடிதான் அவரைக் காப்பாற்ற முயற்சி செய்ய வேண்டும்.

–ECC திருவண்ணாமலை

Citizen consumer and civic Action Group (CAG)

New #246 (Old #277B),
TTK Road (J.J. Road),
Alwarpet, Chennai 600 018
INDIA

Phone: 91-44-24660387
Telefax: 044-24994458
Email: ecc@cag.org.in

www.cag.org.in

Initiative of



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.

Supported by



Editorial Team

K. Vishnu Mohan Rao

Balaji M K.

G.N. Bharath Ram

World News

By 2023 LED Lighting Market is Expected to Reach \$70 Billion

According to a report published by P&S Market Research, the global LED lighting market size is projected to cross \$70.2 billion by 2023, growing at a CAGR of 12.6% between 2017 and 2023. The major reasons behind this growth are low declining manufacturing cost of LEDs, launch of new LED products and most importantly demand for energy efficient and sustainable lighting.

The other factors driving the rise in the LED market are such as investment in infrastructure enhancement along with continuous price reduction of LED lighting solutions. Furthermore, a rise in demand for LED for various applications of general lighting has also been advantageous for the market in the recent years.

The installation of LEDs is consistently increasing in the residential, commercial and industrial lighting applications. According to recent reports, the commercial solar market has grown 22% year over year.

The Latin American expected to witness the fastest growth between 2017 and 2023 market. The LED lighting market in Latin America is going to grow at a CAGR of 14.5% during the forecast period.

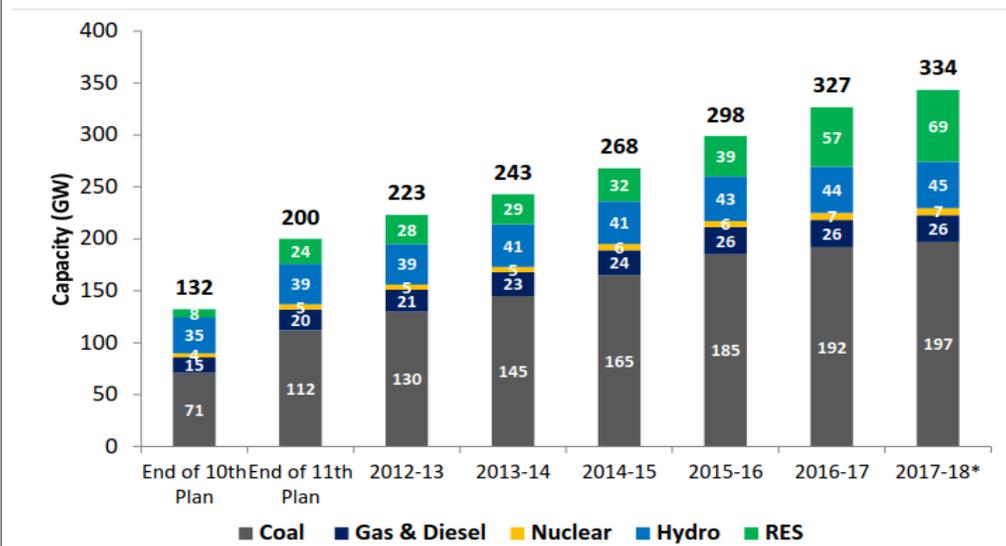
Another instrumental driving factor is the big companies in the LED lighting market. They are launching new products to improve their position in the market. For instance, in March 2018, Samsung Electronics Co. Ltd. announced the launch of H inFlux, a linear module that uses the company's LED chip package LM301B. H inFlux is specially designed for lighting applications in factories, warehouses, and covered parking lots. The product comes with different luminous flux levels, offering a variety of footprints and colour temperatures (such as 3000K, 3500K, 4000K and 5000K).

Sources : [LED World](#) , 2 September , 2018

Publications/Regulations

- H. P. Stumpf, B. Hu, Off-shore Energy Access 2018, ECN. Click [here](#)
- Scott A. and Pickard S., Energy safety nets: A literature review, CAFOD & ODI, September 2018. Click [here](#)

Installed Generation Capacity of India —[IEX - June 2018](#)



Source: www.cea.nic.in

*As on 30th JUNE 2018