

1. What is a Smart Meter? Is it different from the current meters?

- A smart meter is similar to the currently installed conventional meters. Both meters operate on the same principle and record electricity consumption in the same way. Technically, there is no difference between the existing conventional meters and smart meters.
- In a conventional meter, the electricity consumption is displayed on the meter screen, and the calculation of the usage has to be done manually. However, a smart meter is equipped with a communication device, which allows the recorded electricity consumption to be viewed not only on the meter screen but also on a mobile app or computer. This remote accessibility is what makes it a 'smart meter'.

2. If a Smart Meter is similar to a conventional meter, why is it needed?

- In a conventional meter, the recorded electricity consumption is only known when a meter reader manually checks the units every two months for billing purposes. However, a smart meter records electricity consumption and transmits the data every day or every half-hour using a communication device.
- This real-time electricity consumption data is highly important because it helps in predicting potential electricity usage in a given area. Additionally, based on the electricity consumption patterns of a particular area, improvements can be planned in the power distribution infrastructure. It will also help in monitoring the real-time status of power supply in different regions.
- With the increasing adoption of solar energy, the real-time data provided by smart meters will enable better analysis and management of power distribution systems. This data helps in segregating information related to electricity distribution and ensures efficient power management.
- As electricity demand continues to rise, the use of modern technologies like AI and ML can strengthen the power distribution network and help provide high-quality, 24/7 uninterrupted electricity to consumers. Real-time electricity data is crucial for achieving this goal, making smart meters an essential component of the modern power grid.

3. What are the benefits of a Smart Meter for consumers?

- Consumers with a smart meter can use the smart meter app to monitor their daily or half-hourly electricity consumption directly on their mobile phone. This helps them control excessive electricity usage effectively.
- Additionally, by analysing daily or monthly consumption patterns, consumers can estimate their electricity bill in advance.
- Since automatic meter reading is enabled through smart meters, electricity usage is recorded with higher accuracy, leading to more precise billing.
- Consumers will also receive alerts on their mobile phones regarding earth leakage, power outages, and other important notifications. The earth leakage alert will help identify potential internal wiring faults, allowing consumers to take safety measures. Thus, smart meters not only provide better control over electricity usage but also enhance safety.

4. How much will consumers be charged for a Smart Meter?

- Smart meters are completely free. When replacing the existing meter with a smart meter, consumers do not have to pay any charges.

5. What will be the electricity rates for Smart Meter consumers?

- The electricity rates for smart meter consumers will remain the same as the current electricity rates. The tariff determined by the regulatory commission for different categories of consumers will apply same to smart meter consumers.
- This means that in terms of billing, fixed charges, fuel charges, energy charges, electricity duty, and other charges will be the same for both conventional meters and smart meters.
- Additionally, in the future, if electricity rates are reduced during specific time periods of the day, only smart meter consumers will be able to benefit from these lower rates. This is because smart meters can accurately record electricity consumption during specific time slots without any manual effort. And in near future, consumer opting for prepaid tariff can also take benefit of 2% rebate on the energy charges as per prevailing regulatory norms.

6. How will billing be done for Smart Meters? Is prepaid recharge mandatory?

- Smart meter consumers will receive their electricity bills in the same manner as per the existing billing system. They will also be given the same time period to pay their bills from the bill issuance date, as per the current regulations.
- Prepaid recharge is not mandatory for smart meter consumers.
- Consumers with smart meters can pay their bills both online and offline, just like conventional meter consumers.

7. Can electricity be disconnected at any time with a Smart Meter?

- No, this is just a rumor. Smart meter consumers are given the same bill payment period as per the existing system. If the bill is not paid within the specified time frame, then disconnection proceedings are carried out.
- Since smart meters have remote disconnection/reconnection technology, in cases of remote disconnection, the process is carried out only after the bill payment deadline and notice period are over, and only during office hours.
- Moreover, in case of remote disconnection, smart meter consumers do not have to pay any reconnection charges after bill payment. However, consumers with conventional meters must visit the subdivision office and pay a reconnection fee to restore their electricity supply.

8. Which Company's Smart Meters are used?

- A smart meter is simply an upgraded version of the existing meters, integrated with modern technology.

- The same companies that manufacture conventional meters also produce smart meters.
- To verify this information, the MGVCL (Madhya Gujarat Vij Company Limited) website provides details about the manufacturers and specifications of the smart meters installed within its service area. This information is publicly available for anyone to check.

9. How is the quality of Smart Meters ensured?

- Just like conventional meters, the technical specifications of smart meters are defined by a regulatory authority.
- Every meter undergoes factory-level testing, and only after passing all required tests is a specific batch approved for dispatch.
- Additionally, MGVCL conducts random sample testing at local laboratories as per established regulations.
- Thus, smart meters are installed at consumers' premises only after passing all mandatory accuracy and quality tests.

10. Are Smart Meters faster than conventional meters?

- This is a rumor spread by people who do not understand the technology.
- As explained in Question 1, both smart meters and conventional meters work on the same principle and record the same electricity consumption for a given consumer.
- However, if any consumer has doubts, the electricity company provides a check meter facility. In this process, a conventional meter is installed alongside the smart meter, which functions as a check meter for comparison.

11. Do Smart Meters lead to higher electricity bills?

- Electricity bills are based on a consumer's electricity usage.
- As the usage of various electrical appliances increases, so does the electricity bill. The type of meter has no impact on electricity charges.
- If any consumer has doubts, they can use a check meter to compare the readings of both meters.
- In some past viral media cases, certain consumers misinterpreted billing discrepancies after switching to a smart meter.
- Investigations revealed that errors occurred due to manual data entry mistakes when transitioning from the old meter's last recorded reading. These errors were corrected, and such manual errors can also happen with conventional meters.
- The installation of a smart meter requires several technical processes at the electricity company, where strict measures are taken to minimize human errors. However, if any discrepancies occur, the company is committed to resolving them.

12. Additional Information on the Smart Meter Project

- Technical experts and individuals interested in learning more about smart meter technology, standards, cyber security, etc., can find a detailed ‘Smart Meter Technical FAQ’ on MGVCL’s website.
- The Smart Meter Project is part of the National Smart Grid Mission (NSGM), aimed at establishing a smart grid system.
- As of February 2025, more than 20 million consumers across various Indian states have had smart meters installed.
- The state-wise installation numbers (as of January 2026) are given here under, however same is available on the official NSGM website (www.nsgm.gov.in).

Sr. No	Name of State	No of Consumers on which Smart Meter Installed	Sr. No	Name of State	No of Consumers on which Smart Meter Installed
1	Maharashtra	8,609,373	17	Delhi	260,000
2	Bihar	8,520,568	18	Kerala	170,756
3	Uttar Pradesh	7,908,567	19	Tripura	166,832
4	Assam	5,391,979	20	Tamil Nadu	129,641
5	Gujarat	3,747,315	21	Sikkim	81,551
6	Madhya Pradesh	3,577,564	22	Andaman and Nicobar	75,200
7	Chhattisgarh	3,384,390	23	Ladakh	55,580
8	Rajasthan	2,991,251	24	Arunachal Pradesh	53,653
9	Andhra Pradesh	2,308,914	25	Manipur	34,201
10	Punjab	2,021,087	26	Nagaland	30,571
11	Jammu and Kashmir	1,203,744	27	Mizoram	29,233
12	Jharkhand	1,084,001	28	Chandigarh	24,214
13	Himachal Pradesh	926,902	29	Puducherry	11,747
14	Haryana	847,467	30	Telangana	8,882
15	West Bengal	564,168	31	Odisha	4,500
16	Uttarakhand	446,659			

Conclusion:

- MGVCL is committed to providing the best service to all its consumers and is continuously working towards that goal. The real-time data provided by smart meters will play a crucial role in strengthening the power infrastructure in the future. MGVCL is dedicated to ensuring the safety and well-being of its consumers. In this journey of enhancing services through advanced technology, the support, cooperation, and trust of consumers are essential.