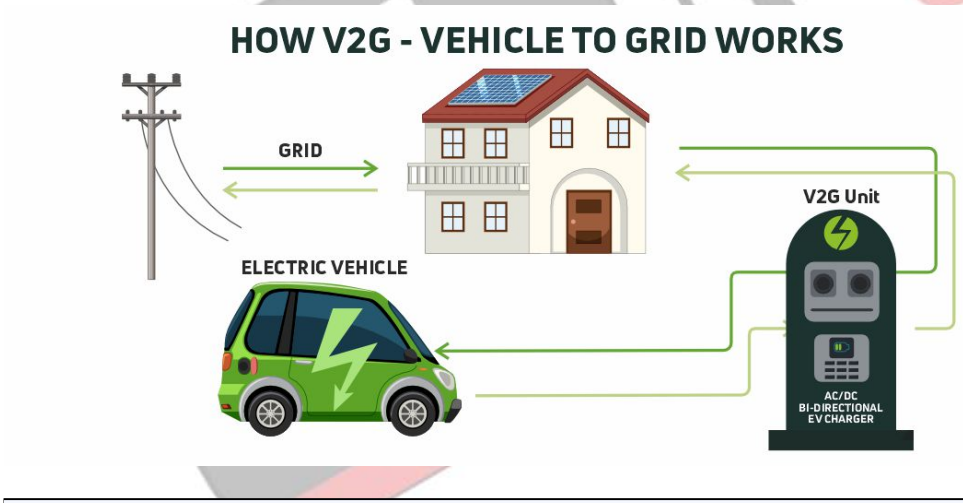
V2G Technology

Source: TH

Kerala, in collaboration with **IIT Bombay**, has launched a **pilot project** to explore the potential of **Vehicle-to-Grid (V2G) technology**.

- **About V2G:** It enables **Electric Vehicles (EV) batteries** to **return power to the grid** when not in use, supporting **renewable energy** **integration** and enhancing grid stability.
- **Modes:** It has two modes:
  - **Grid-to-Vehicle (G2V):** Charging EVs using grid power.
  - **Vehicle-to-Grid (V2G):** Discharging EV power back to the grid.
- **Need:** EV users provide services during **fluctuations in renewable energy generation** and serve as a **decentralized storage resource**, offering emergency power when needed.
- **V2G Adoption:** Globally, U.S., U.K and Netherlands lead with EV owners **compensated** for supplying **power during peak demand**.
  - **India** is in the **early stages** of V2G adoption, primarily focusing on **EV charging infrastructure.**
  - The **Central Electricity Authority (CEA)** has established a **committee** on reverse charging, led by its **chairman.**



Read More: **New Electric Vehicle Policy 2024**