



Solar DC Cooking System

Why in News

Recently, the **solar DC cooking technology** was developed by the **Central Mechanical Engineering Research Institute (CMERI)**.

- The CMERI is an institute under the [Council for Scientific and Industrial Research \(CSIR\)](#).

Key Points

▪ About:

- It is a **Solar Energy based Cooking System** which consists of a solar PV panel, charge controller, battery bank and cooking oven.
- It provides a **Clean Cooking Environment**, Inverter-Less Direct Operation, Fast and Uniform Heating and a potential to save 1 ton Carbon Dioxide emissions per year/household.
- It has **20-25% better efficiency** and is **more Economical** in comparison with **Conventional Solar based Cooking Systems** which loses efficiency owing to AC-DC conversion.
- The simple Technology Design also ensures **Ease-of-Manufacturing** and thus provides a substantial Economic Opportunity for the Micro-Industries.
- It will cost in the range of **Rs 65,000- Rs 70,000** and if Government subsidies are provided there will be a **significant reduction in the price of the product**.

▪ Significance:

- Widespread usage the system can also **play a critical role in achieving the target of 200 GW of Solar energy** and also to **save almost 290 million tons of Carbon Dioxide emissions**.
- Along with the **widening of the popularity base of Technology**, there is a probability of **improvement in Job Prospects**.

▪ Government Schemes Related to Solar Energy:

- [Rooftop solar scheme](#)
- [Kisan Urja Suraksha evam Utthaan Mahabhiyan \(PM-KUSUM\)](#)
- [International Solar Alliance](#)
- [One Sun, One World, One Grid \(OSOWOG\)](#)
- [National Solar Mission](#) (a part of National Action Plan on Climate Change)

Source: PIB

