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Pricey tag on solar power

New Delhi, Aug. 31: Solar energy, often projected by critics of nuclear power as a promising renewable energy alternative, is at least 10 times more expensive than any conventional fossil fuel-based power, energy experts have said.

While India has been using solar energy systems to cook food, heat water and produce electricity for nearly two decades, solar power on a scale that will feed an electricity grid still costs about Rs 20 a kilowatt-hour (kWh). This remains economically unviable because the cost of electricity based on other fossil fuels ranges between Rs 2 and Rs 3 per kWh, they said.

In a statement in the Lok Sabha today, the minister of state for renewable energy, Vilas Muttemwar, said "grid-interactive solar power" is yet to attain economic viability under existing conditions.

India has established a grid-interactive power generation capacity of 10,467MW from renewable energy sources, but not all of India's renewable energy potential is suitable for such grid-connected power, the statement said.

"Solar (power) is frightfully expensive," said Sudha Mahalingam, member of the petroleum and natural gas regulatory board. "I don't see solar power competing with

any of the traditional sources until technology advances bring the cost down."

She said the price of electricity from gas ranges from RS 2.5 to Rs 3 a kWh.

The cost of coal-based electricity depends on the location of the thermal power plant, but may be anywhere from Rs 1.5 to Rs 3, a senior official with the Central Electricity Authority said.

The electricity tariff for nuclear power, notified by the department of atomic energy to the electricity authority, varies from 93 paise per kWh for electricity generated by India's oldest reactors — Tarapur units 1 and 2 — to Rs 2.79 per kWh for power from the newest nuclear reactor in Kaiga, which became operational earlier this year.

But some energy experts argue that the actual cost of nuclear power is probably higher because of subsidies and because there is a question mark over whether cited costs take into account the expenses of dismantling and waste disposal.

At a time fossil fuels are blamed for global warming, critics of nuclear power have been pitching for renewable energy. Wind energy is the only renewable source with a higher grid-connected installed capacity than nuclear power.