

## Slowing the pace of building solar capacity

### What is the issue?

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- Solar power tariffs dropped to Rs 3.15 per unit in recent power auctions.

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- In this level, solar energy seems roughly competitive with thermal power.

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### What is the present scenario?

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- Lower solar power costs are now a global phenomenon. e.g California derives about 40% of its grid power from solar energy.

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- This has led to **wholesale electricity rates dropping to zero at noon**, when solar power generation actually exceeds grid demand.

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- India's current solar power capacity is about 12 Gigawatt (GW) and if the Jawaharlal Nehru National Solar Mission targets are fulfilled, it will hit 100 GW by 2022.

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- As solar power capacity increases and it becomes cheaper to boot and it could replace thermal power, which uses coal and gas.

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### What are the problems?

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- Though solar energy much cleaner and does not involve dependence on imported fossil fuel building huge solar capacities at rapid speed also has its consequences.

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- **Subsidies** - The industry still receives large subsidies thus make this form of energy deceptively cheap.  
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- Without the subsidies and generous tax holidays, solar power is still substantially more expensive than thermal power.  
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- **Storage** - Solar power is **discontinuous**, therefore expensive and hard to store.  
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- Hence, when solar power is available, it receives preference on grids, forcing thermal power plants to reduce production at such times.  
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- This affects the plant load factor and hence, profitability, of thermal power plants.  
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- Without alternate arrangements fast growth in the highly subsidised solar power industry could lead to economic distortions.  
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- **Import dependence** - Solar energy equipment **needs rare earth metals** and China is pretty much the only source of these at the moment.  
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- Hence in strategic terms, solar power could also lead to a critical **import dependency on China**.  
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- **Research** - With growing research, it is very likely that current state-of-the-art solar energy technology will be outmoded in a few years.  
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- A phased adoption will ensure that India's solar energy industry is not locked into obsolete technology.  
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- It will also provide the thermal power industry a chance to review future investments, and grid managers breathing space to develop smarter grids that manage the energy mix better.  
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**Source: Business Standard**

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