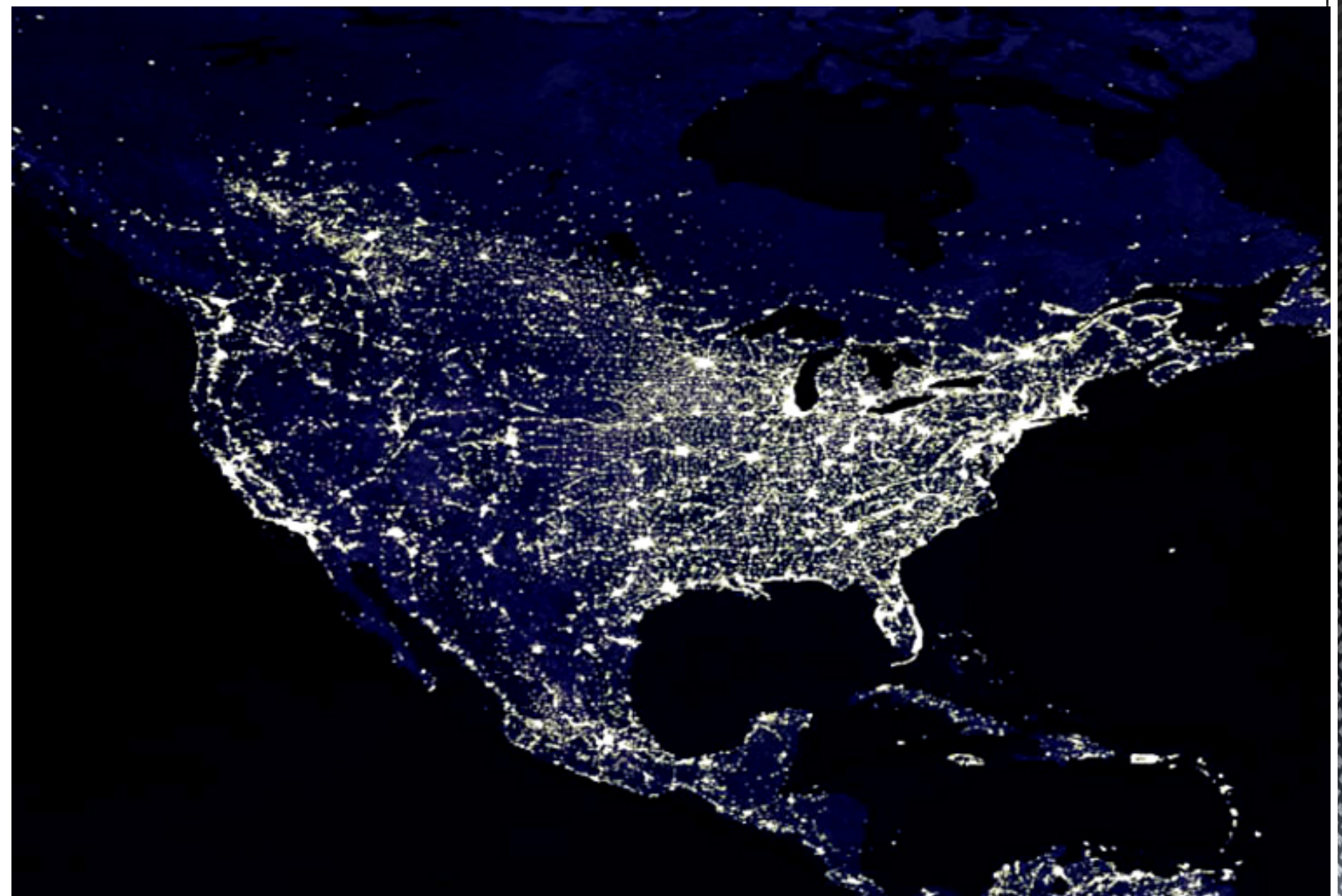


Solar Roadways

Garima Yadav

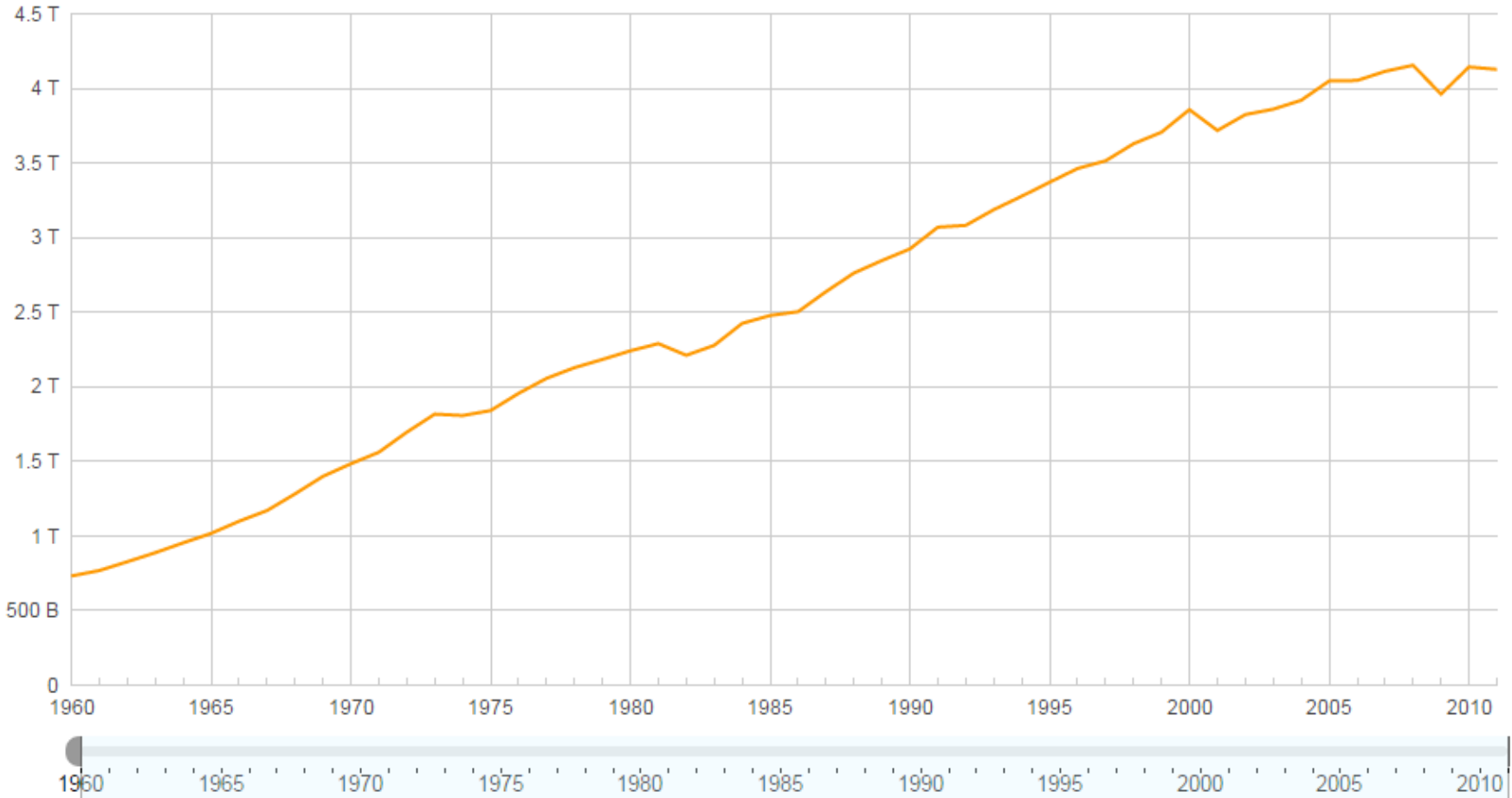
HON 301

Fall 2014



Electricity Consumption

Electric power consumption (kWh) ?



Data from [World Bank](#) Last updated: Oct 21, 2014

PRICE OF ELECTRICITY HITS RECORD FOR JANUARY

Average Price for a KWH of Electricity in
Each January Since 1978

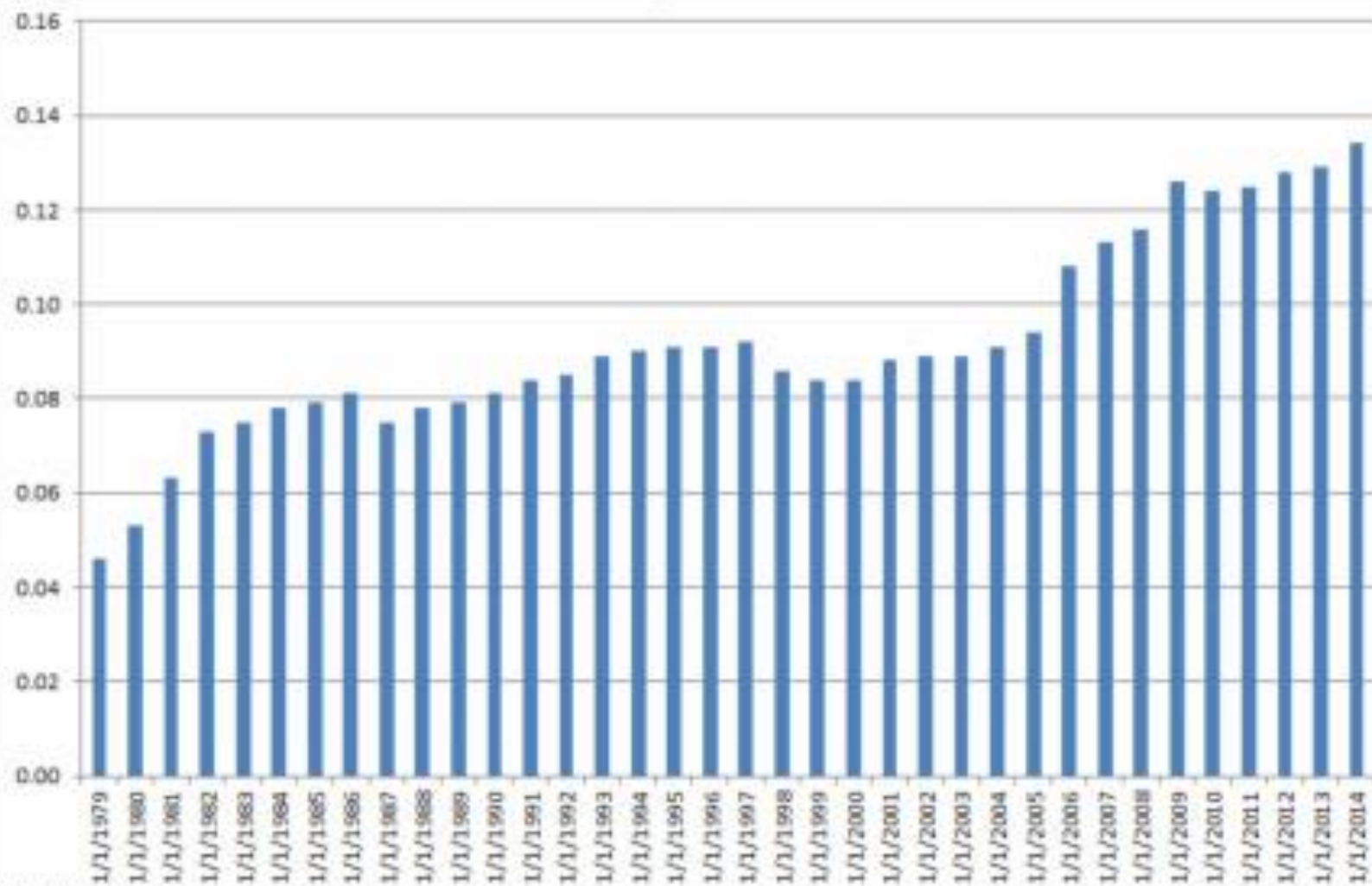
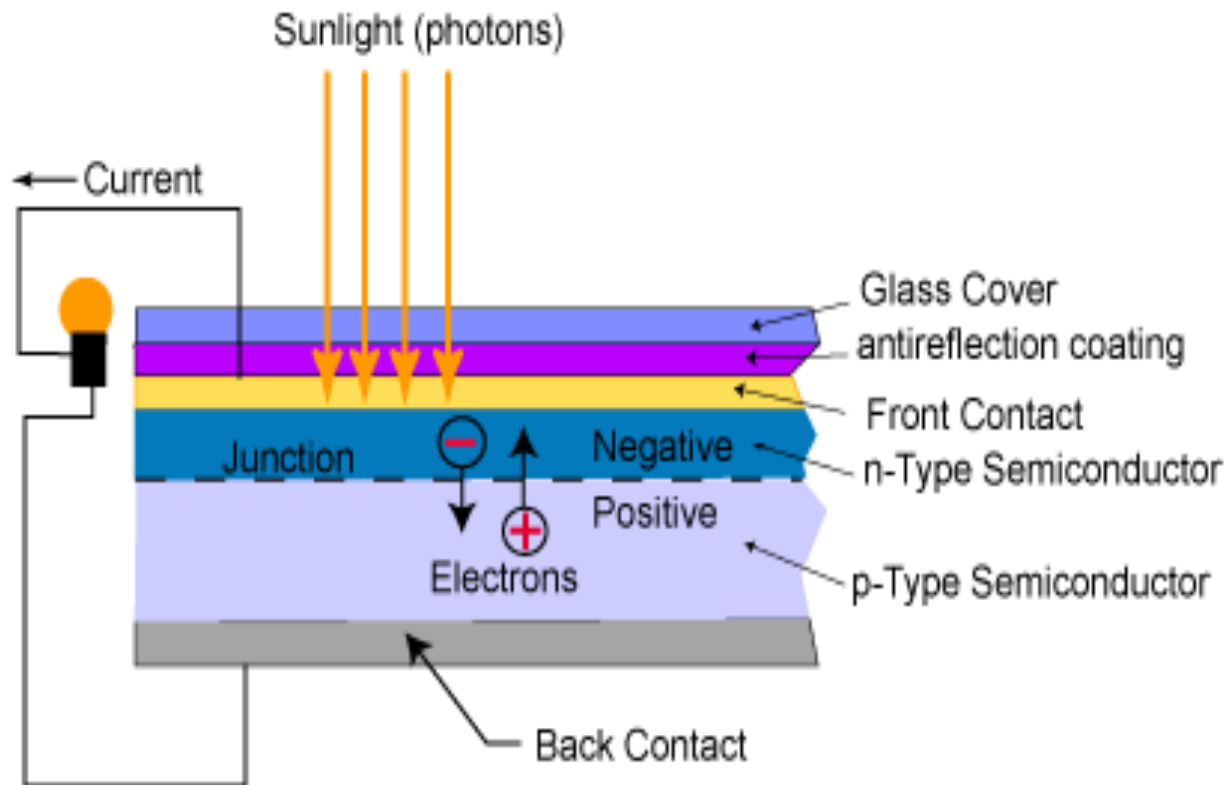


Chart by Ali Meyer

Source: Bureau of Labor Statistics

Photovoltaic (PV) Cells

- Conversion of light energy into electricity
- First created by Daryl Chapin, Calvin Fuller, and Gerald Pearson at Bell Labs in 1954

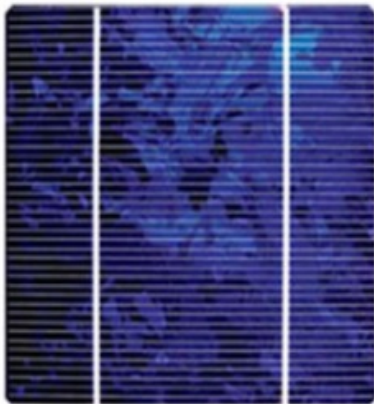


Types of Solar Cells

Crystalline



Mono

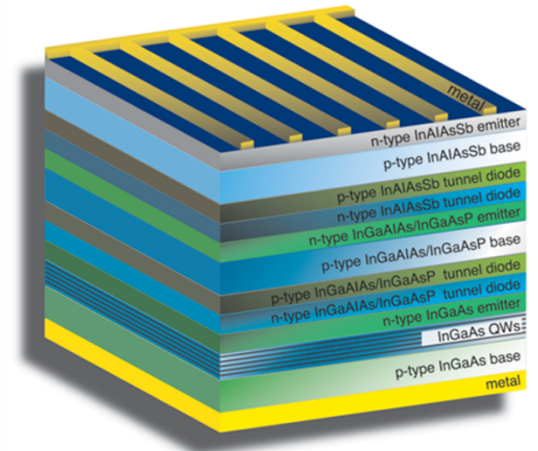


Poly

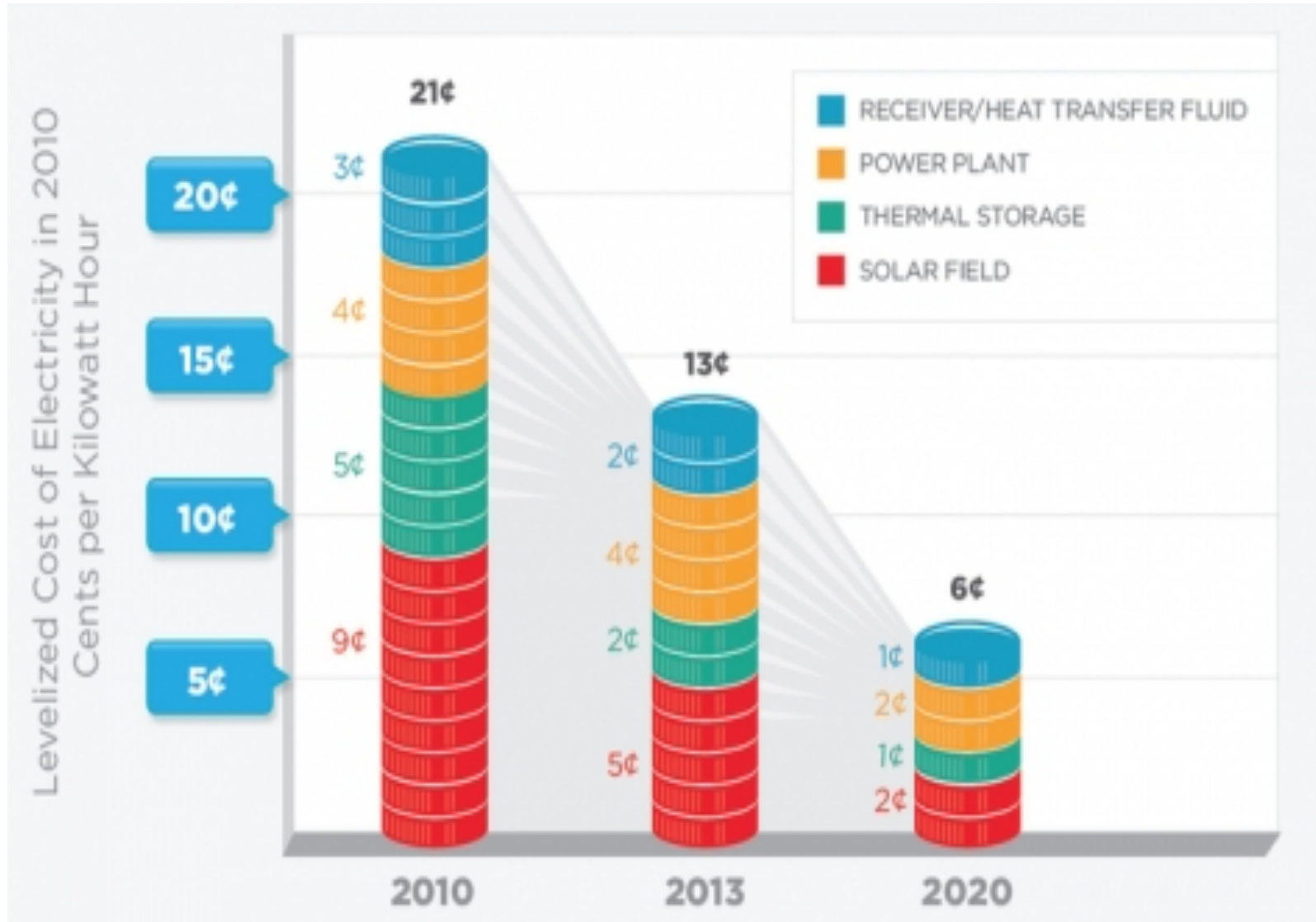
Thin-Film



Multi-Junction



Costs of Solar Technology

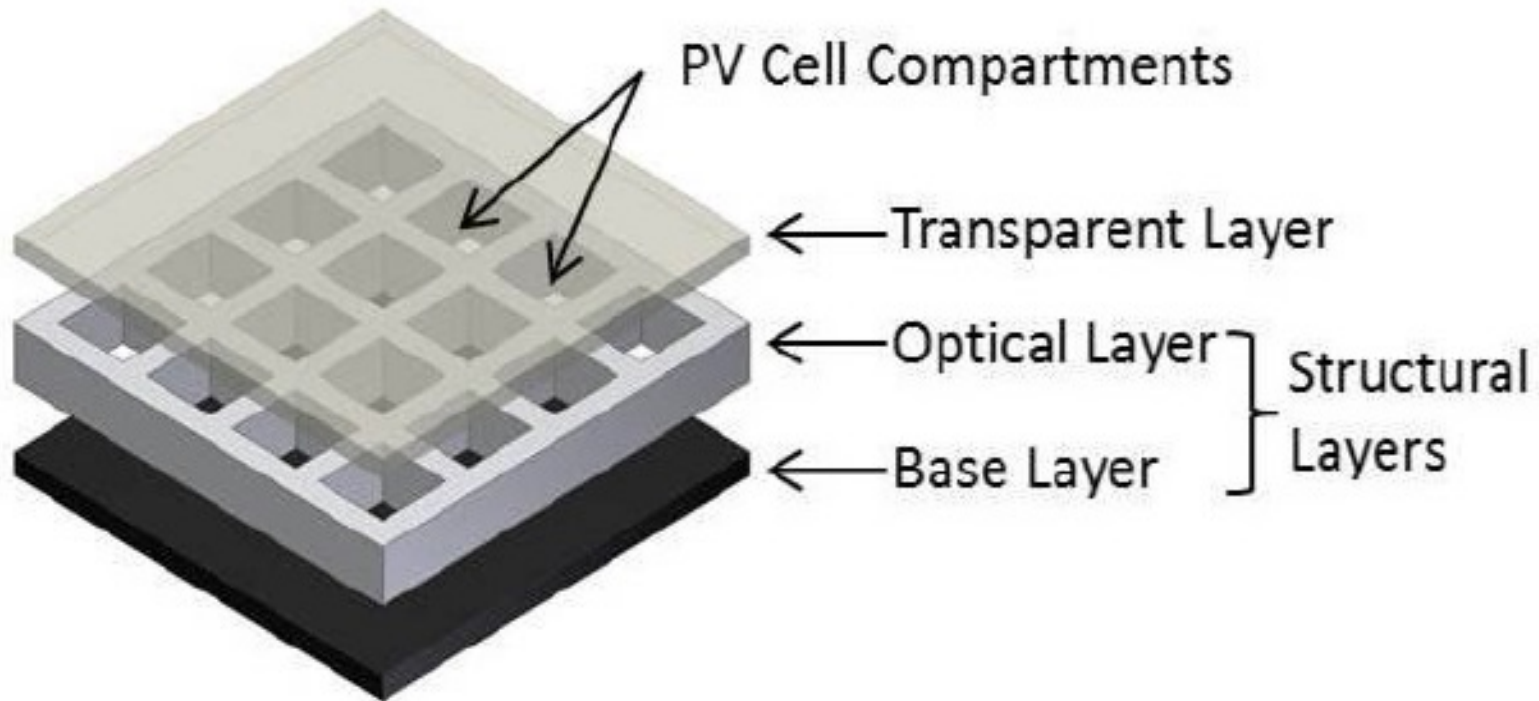


Solar Roadways



<http://www.tubechop.com/watch/3879665>

What is a solar road panel?



Prototype 1

- 12 ft by 12 ft square panel
- Solar cells embedded with a heating element and programmable LED lights
- Polycarbonate surface



Prototype 2

- Hexagonal and trapezoidal solar panels
- Solar cells embedded with a heating element and programmable LED lights
- Textured glass surface



Implementation

Small-Scale



National



Transportation Revolution



References

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