

THE
FREEING ENERGY
PROJECT

The Coming Age of Self-Powered Buildings

Shadow Summit, September 23, 2020

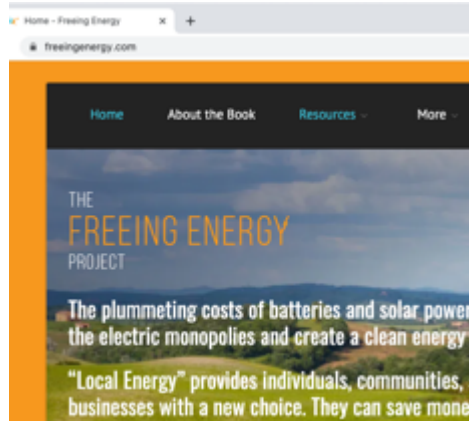
Bill Nussey

Founder, Freeing Energy

CEO, Solar Inventions

THE Freeing Energy PROJECT

“Clean energy will improve billions of lives and create the biggest business opportunity in history. And, the most dynamic, innovative, and entrepreneurial part is local.”



- Local energy means electricity is generated in the same place that it is consumed
- Rooftop solar, solar+battery, electric vehicles, buildings, neighborhoods, stores, factories, campuses, and communities

FreeingEnergy.com/shadow2020



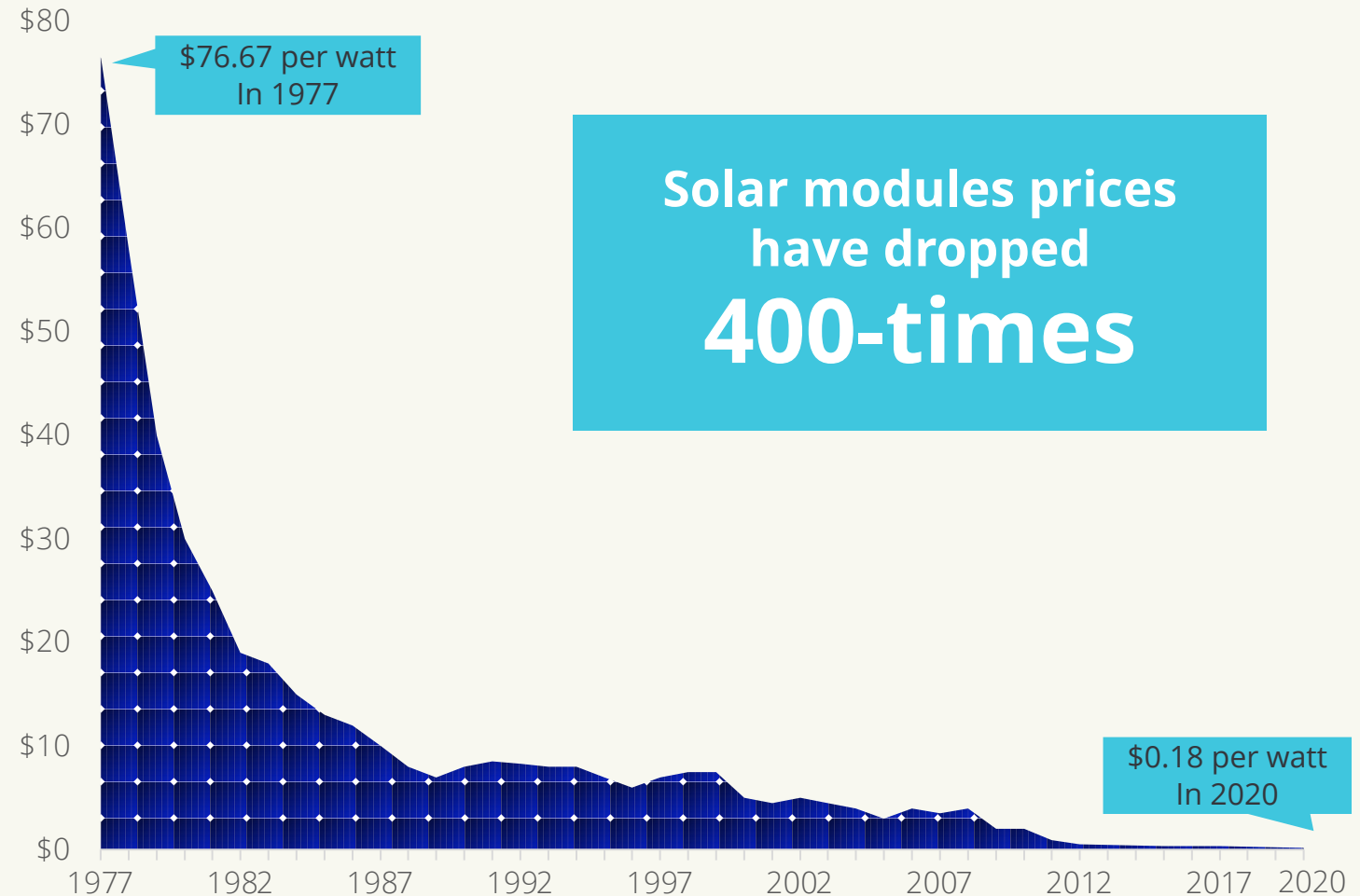
Bill Nussey is a career tech CEO whose companies have created thousands of jobs and billions in shareholder value. He has also been a VC as well as VP Corp Strategy at IBM.

He is now the Founder of the Freeing Energy Project and the CEO of Solar Inventions.

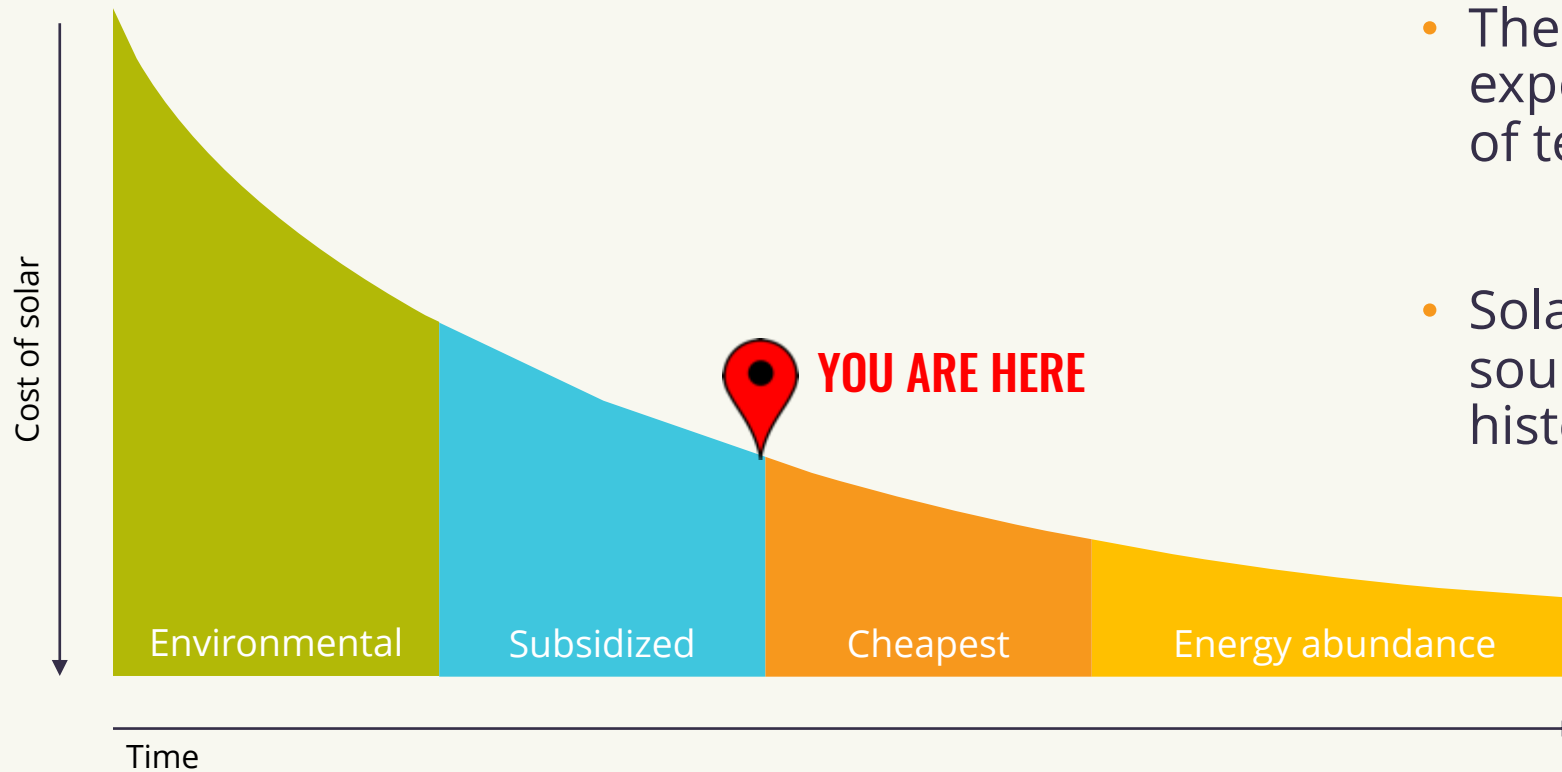
The cost of solar has dropped 400x

Solar is a technology, not a fuel

- This is why prices continue plummeting
- Batteries are the only other technology following a similar curve (wind energy is also declining, albeit more slowly, and from a different dynamic)

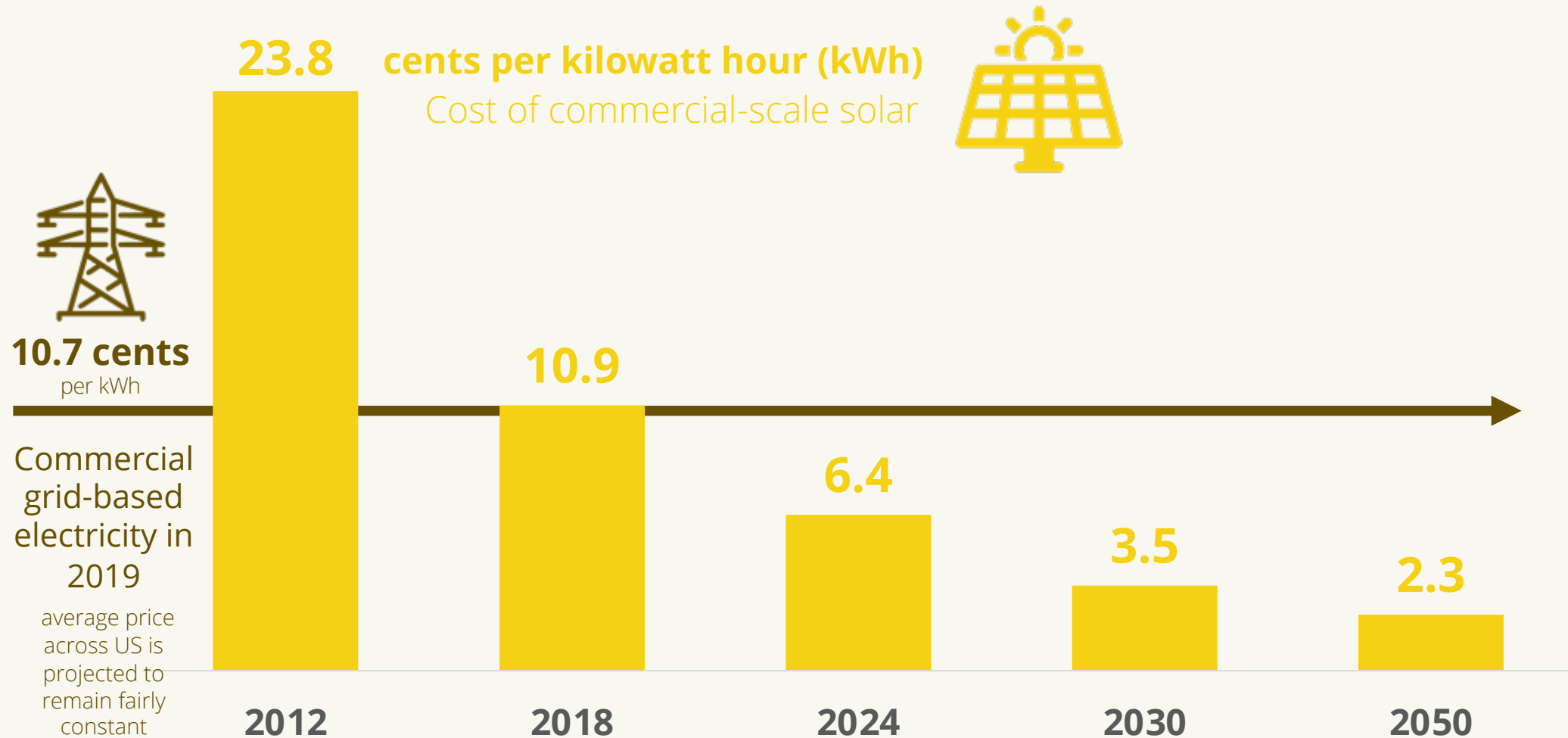


The drivers of solar adoption change with cost



- Solar breaks the rules of energy
- The electricity industry has no experience with the cost dynamic of technologies as generators
- Solar is becoming the cheapest source of energy in human history

Commercial solar has crossed a tipping point



Self-powered buildings

The benefits go well beyond cheaper costs

Local solar beats grid solar

More resilient (90% of
outages occur in powerlines)

Creates local jobs

Cheaper than grid-power in
nearly every location



No compromises: Aesthetic Solar

Building Integrated Photovoltaics (BIPV)



Standard panels used in highly functional and aesthetic design
Kendeda Building for Innovative Sustainable Design on the Georgia Tech campus



Specialty-sized but otherwise normal panels used to shield direct sunlight and cool offices

Ecoprogetti headquarters in Padua Italy (one of the pioneering BIPV manufacturers)



Solar roof. These are not roof-mounted panels. They are the roof.

Ecoprogetti headquarters



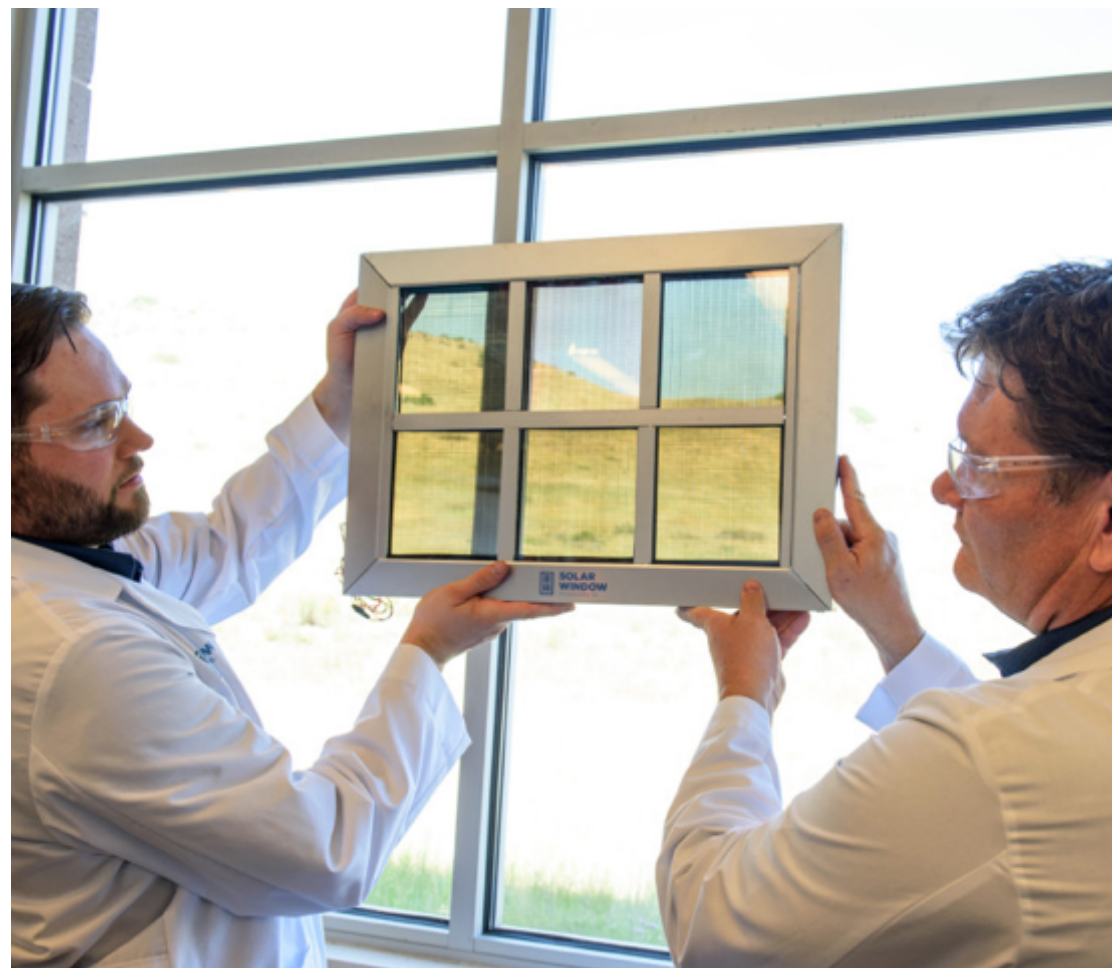
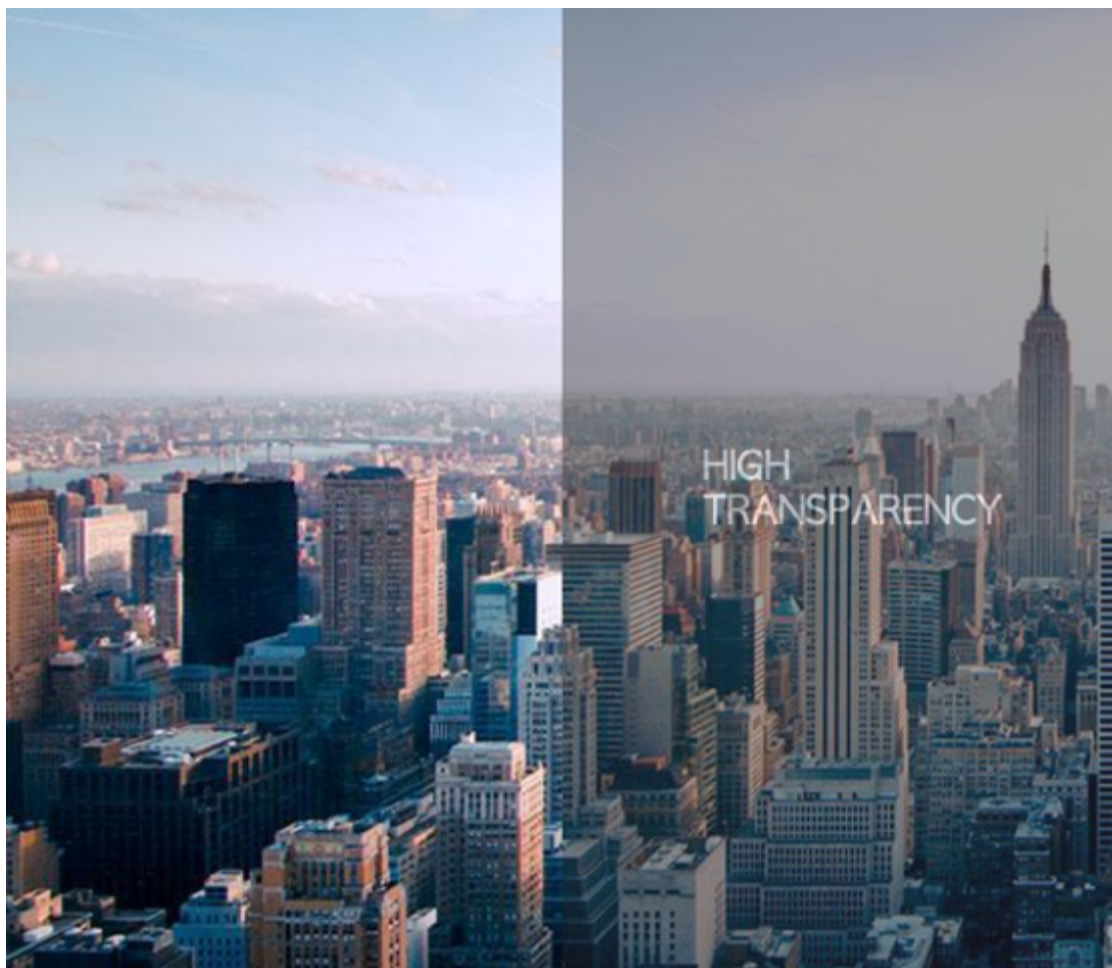
Solar panels can be any color

SolarTerra and Heliartec



Solar panels can look just like normal roof shingles *and* serve the same purpose

Tesla Solar Glass v3 Roof



Solar windows are already here. Prices will drop precipitously.

Onyx Solar & SolarWindows

The opportunity

The potential for self-powered buildings is enormous

- Only 3.5% of buildings currently have onsite solar
- 600,000 commercial buildings can host local solar
- The potential for locally generated solar capacity is 145 GW
 - Total US solar capacity *of all types* is 85 GW (as of mid-2020)





Thank You

<http://FreeingEnergy.com/Shadow2020>

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