

# NOT ALL SOLAR PANELS ARE GREEN

# DEEPER LOOK

GRAPH 1

Polysilicon electricity consumption by region and electricity price, 2021

### **START OF LIFE**

Aiming to be the cheapest, most leading solar panel brands on the Australian market set up their plants or source their key components from Western China, for two key reasons - cheap, dirty coal-fired power, and free slave labour.

#### CARBON INTENSITY

Solar panels (or their key components) sourced from Western China have a significantly higher carbon intensity than panels from other regions. Graph 1 outlines Xinjiang's massive reliance on coal.<sup>1</sup>

#### SLAVE LABOUR

Do you know of the forced detention of millions of Uyghurs in the Xingjian region (Western China)? This ethnic minority is being forced to work for free in a number of industries, including solar panel manufacture.<sup>2, 3</sup>

#### TOXIC ELEMENT INCLUSIONS

It's easier to make solar panels using toxic materials like lead, chlorine and fluorine. Hazardous elements like these cause problems, particularly when it comes to handling the waste at the end of their life. Unfortunately, conventional panels' end of life is around 12 years, and due to their toxic elements, they're nearly impossible to recycle.

### **OPERATIONAL LIFE**

The planet has a big problem with ecological overshoot - humans consume biological resources faster than Earth can replenish them. In 2022, humankind ecologically consumed 1.75 planets. Conventional panels, with an average life of 12 years, are only exacerbating the ecological overshoot problem.

For more on Ecological Footprint and Overshoot visit footprintnetwork.org

## END OF LIFE

After conventional panels' typical 12 years of life, what then? Their toxic elements mean they can't be recycled. Federal and State Environment Ministers are considering introducing a product stewardship scheme similar to the EU's. This means manufacturers of products must account for and manage their products' end of life. This will add considerable up-front cost to conventional panels if/when this scheme is implemented.

## THE SUNPOWER DIFFERENCE

For a true green experience when purchasing a solar system - choose SunPower:

- 1. SunPower use renewable energy in the manufacturer of their panels
- 2. No slave labour is used in SunPower's supply chain independent audits are SEDEX listed.
- 3. There are no toxic elements in the manufacture of SunPower panels.
- 4. Unlike conventional panels, SunPower panels have a long life. The Maxeon panel has a 40 year product warranty. At 40 years its performance warranty states it will still be producing a minimum of 88.3%, compared to when first installed.



Sources: Electricity prices from IEA (2021g), World Energy Prices (database); BNEF (2022d), Power Prices.



