

Concerning IRP Assumptions

... and Better MicroGrid Scenarios

Mike Barker

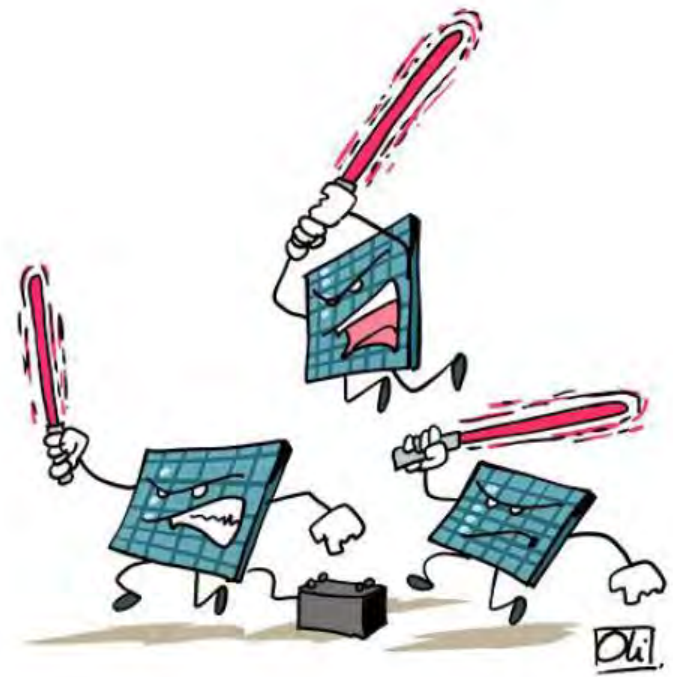
BSc Elec Eng LEED AP

ASHRAE CIBSE IBPSA IEEE SAIEE

**Energy
Wars**

Episode VII

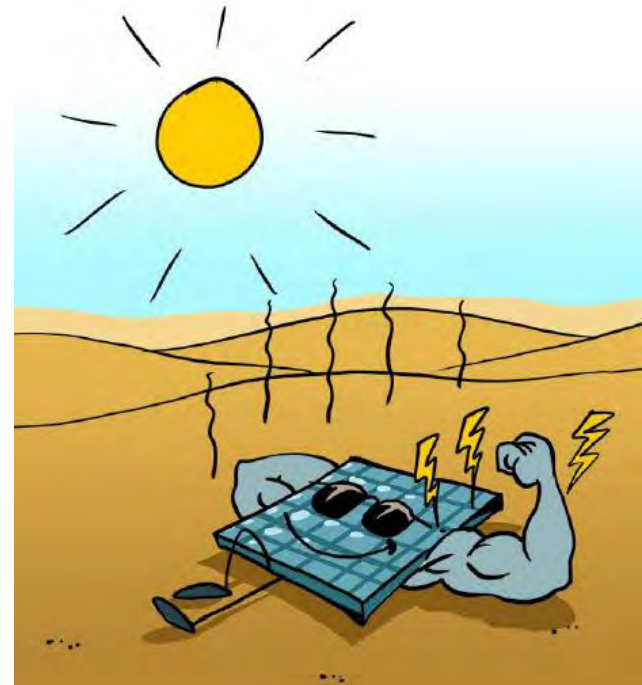
THE FORCE AWAKENS



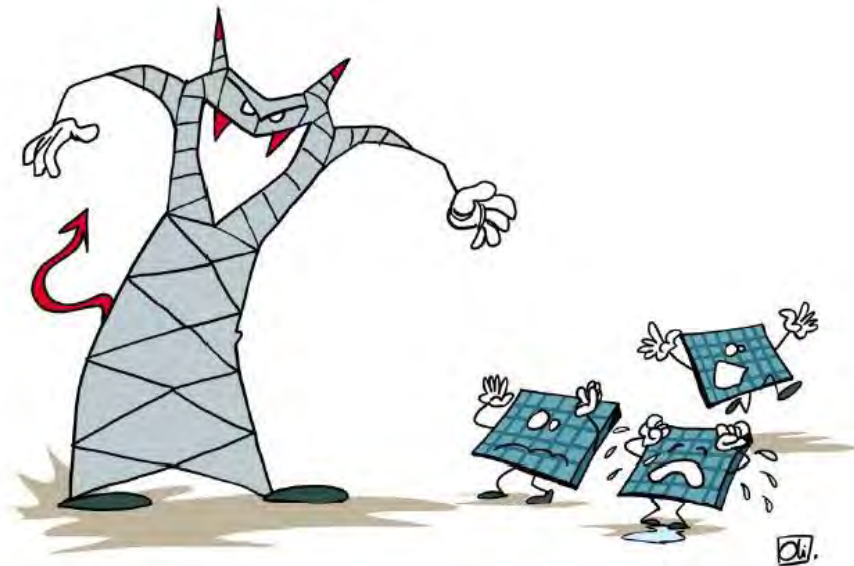
**Good vs Evil
Really ?**



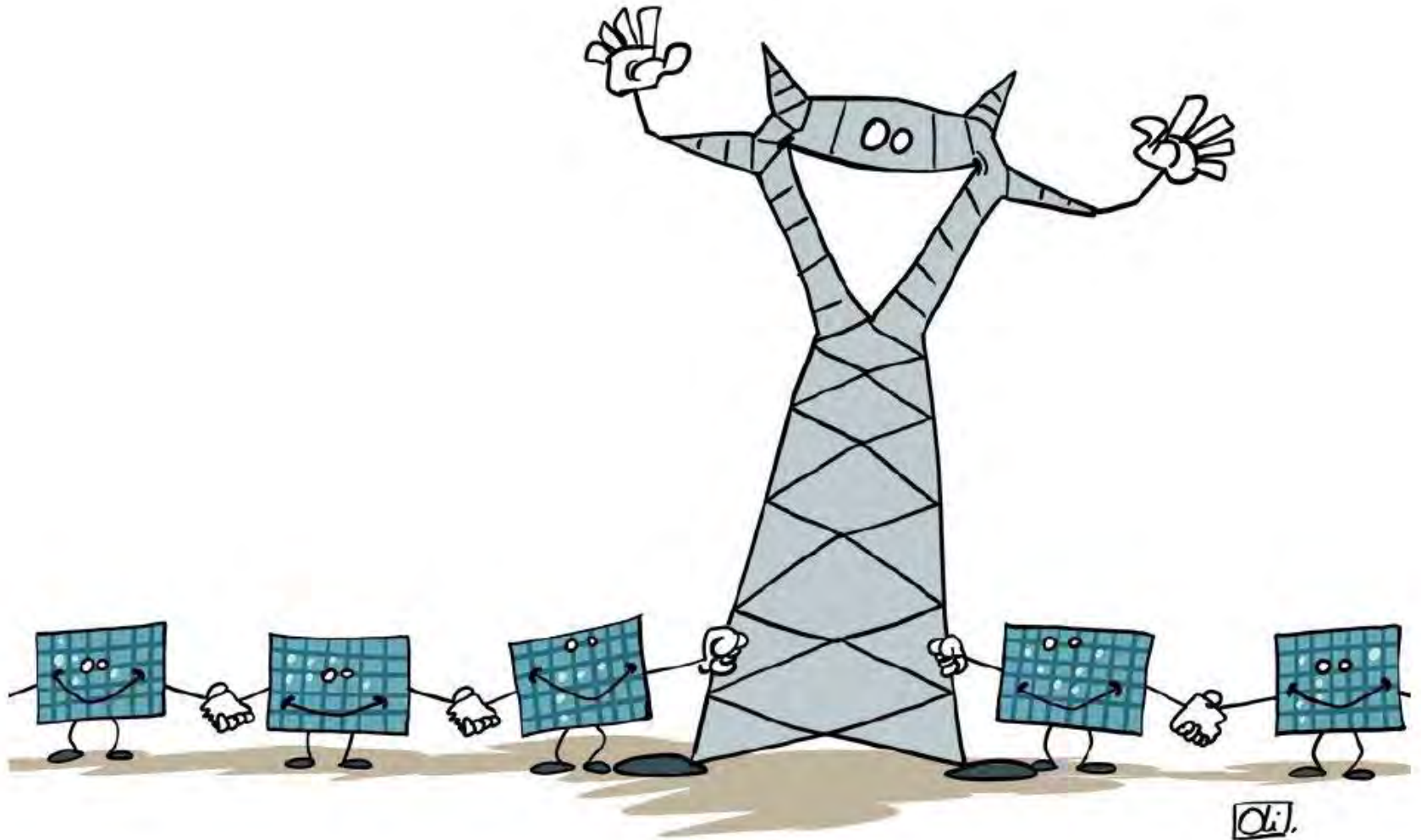
All Good ?



Many sides to the Story



What if there was a Win – Win ?



Remember ... all the Dinosaurs died

What came next was smaller & better



#BaseLoadist (beis'ləʊd'ɪst), *n*, a person who :-

- can't conceive of any electric delivery system beyond massive centralised plants (eg. fossil fuel, nuclear, & even renewable plants).
- is unaware of the #SmartGrid and the value of contributing #SmartLoads.
- will not accept that PV & Storage will become ubiquitous, something that will simply happen in any infrastructure.

Every Building can be both Power Station and Petrol Station

#EnergyDemocracy - only for the Rich ?



Building a Stronger Nation



BUILDING REGULATION FOR RESILIENCE

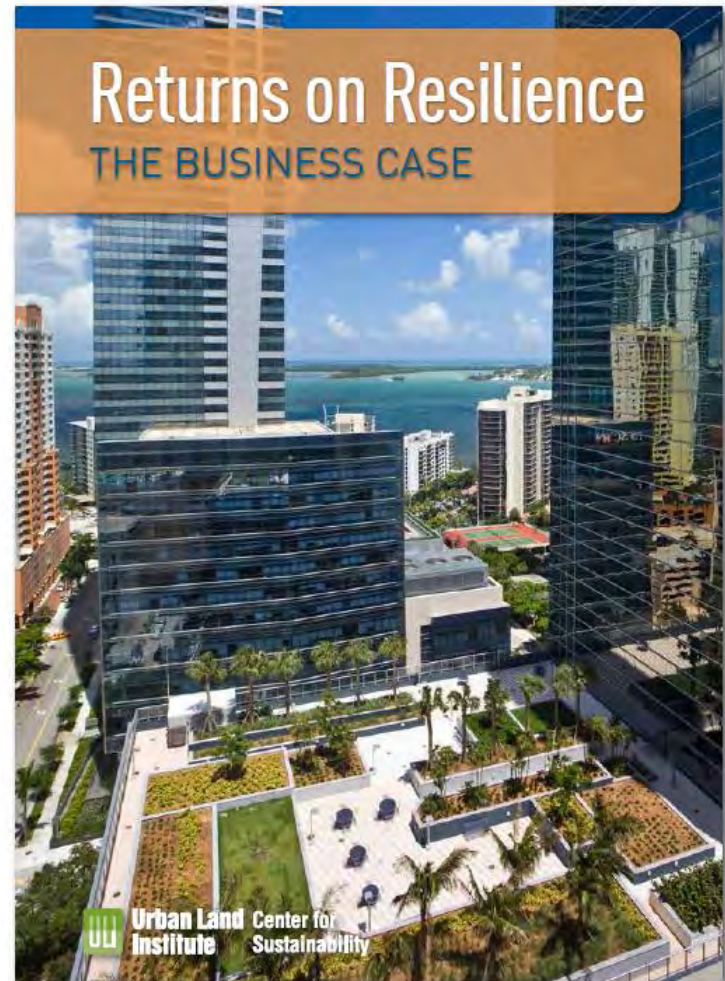
Managing Risks for Safer Cities



WORLD BANK GROUP



GFDRR



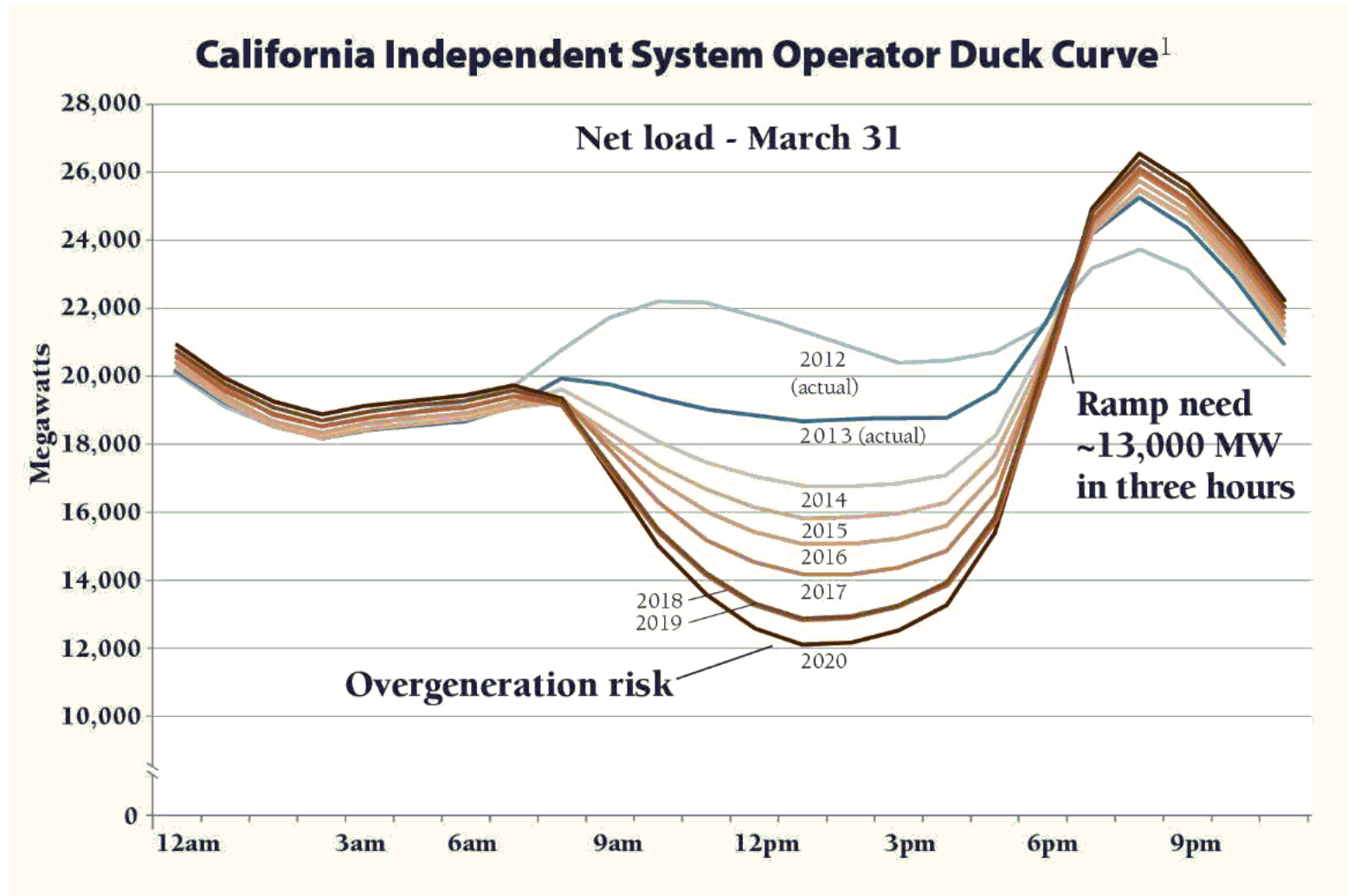
Returns on Resilience THE BUSINESS CASE



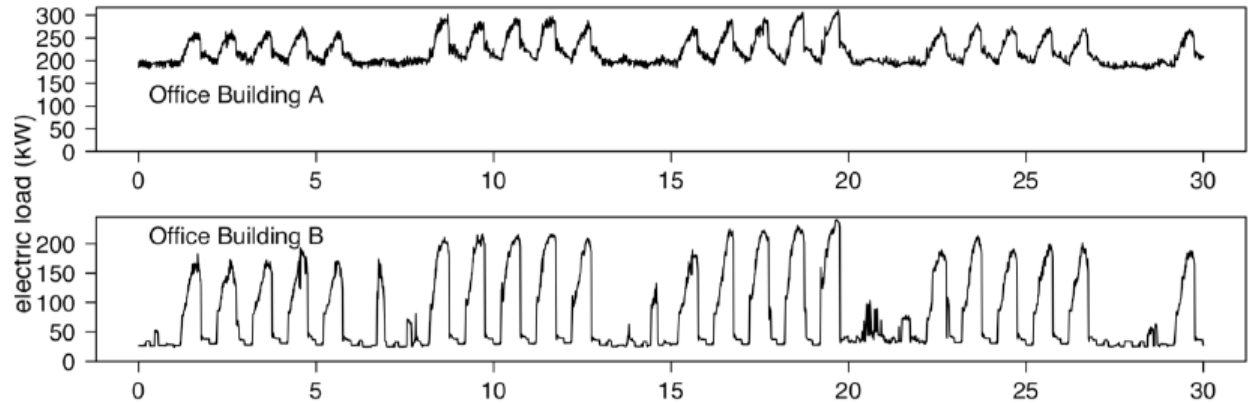
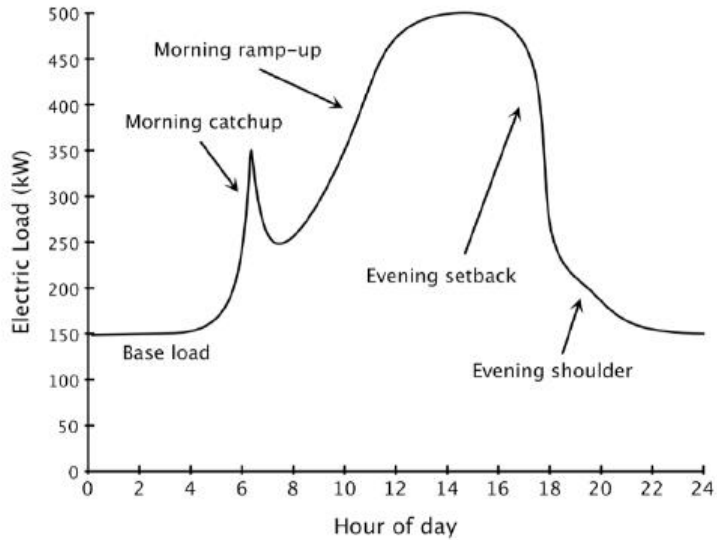
Urban Land
Institute

Center for
Sustainability

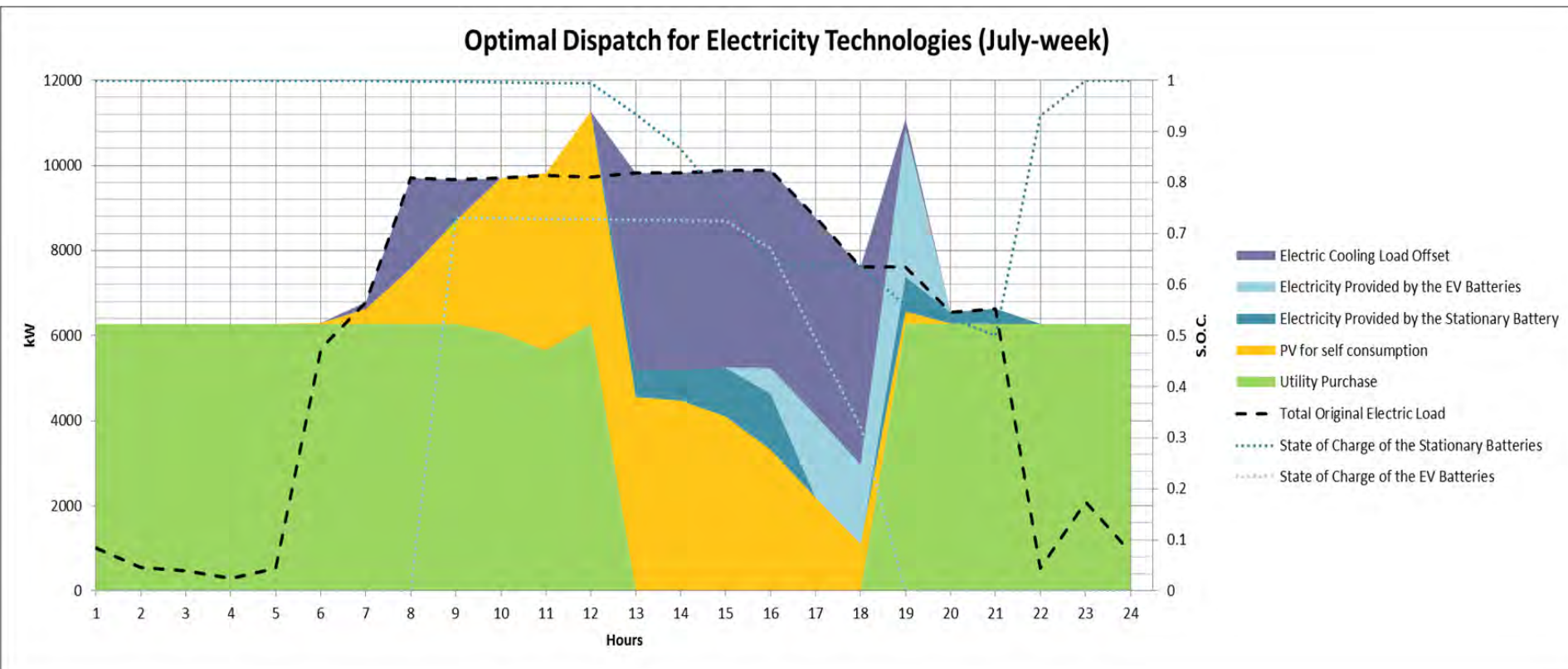
Duck Curves & what keeps Mr Koko awake at night



Shape-Shifting Building Loads



Shape-Shifting Building Loads



“ We shape our buildings,
and afterwards our buildings shape us “

Winston Churchill

We shape our buildings,
and afterwards,
our buildings shape ESKOM's peak demand