

Minimum Demand South Australia

ESIG June 2020

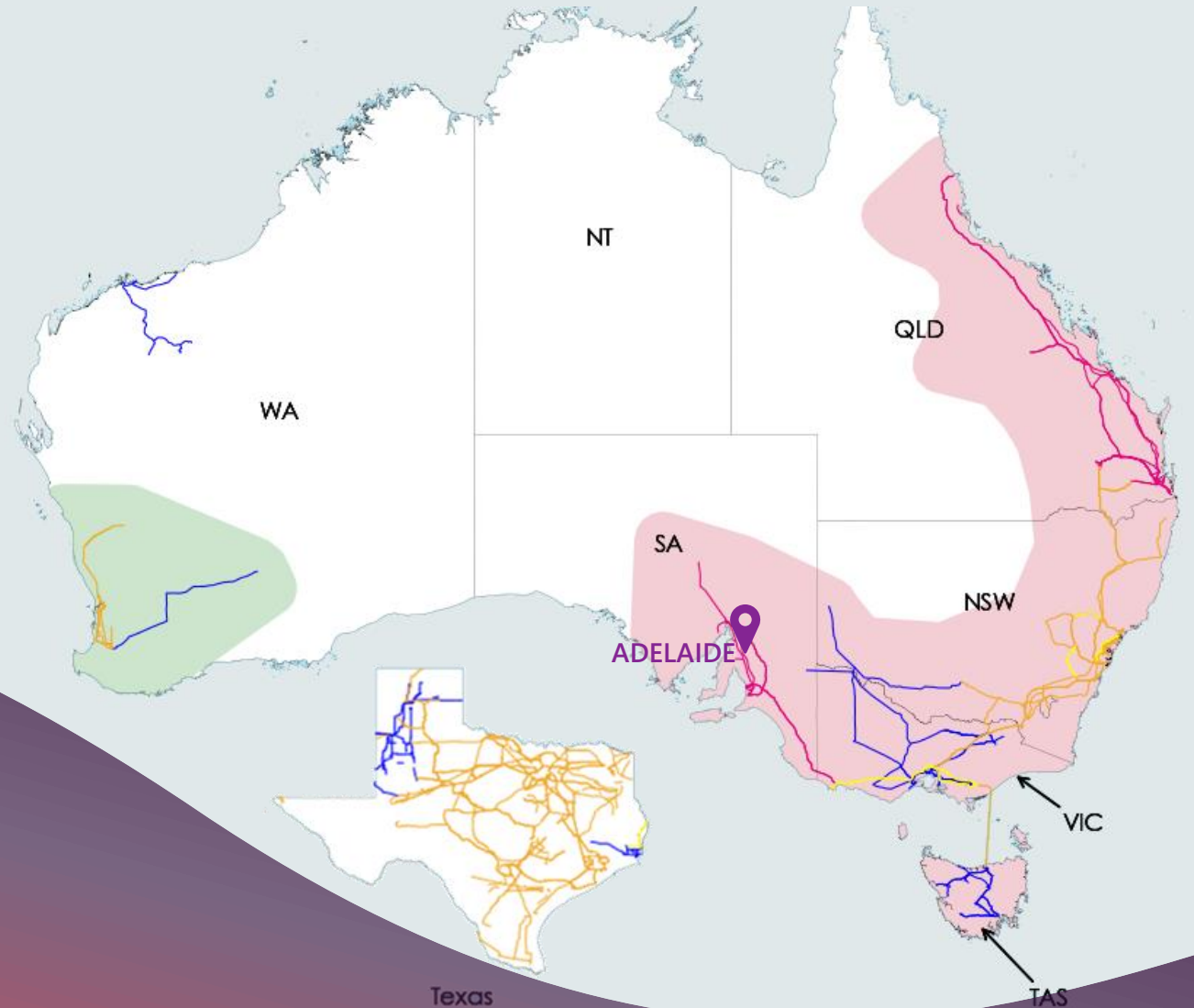
Mike Davidson Manager Operational Forecasting

South Australia

Population **1.8 million**

984,000 km² or **380,000 miles²** which is 1.5 times the size of Texas

Approximately **25%** of homes have a solar system



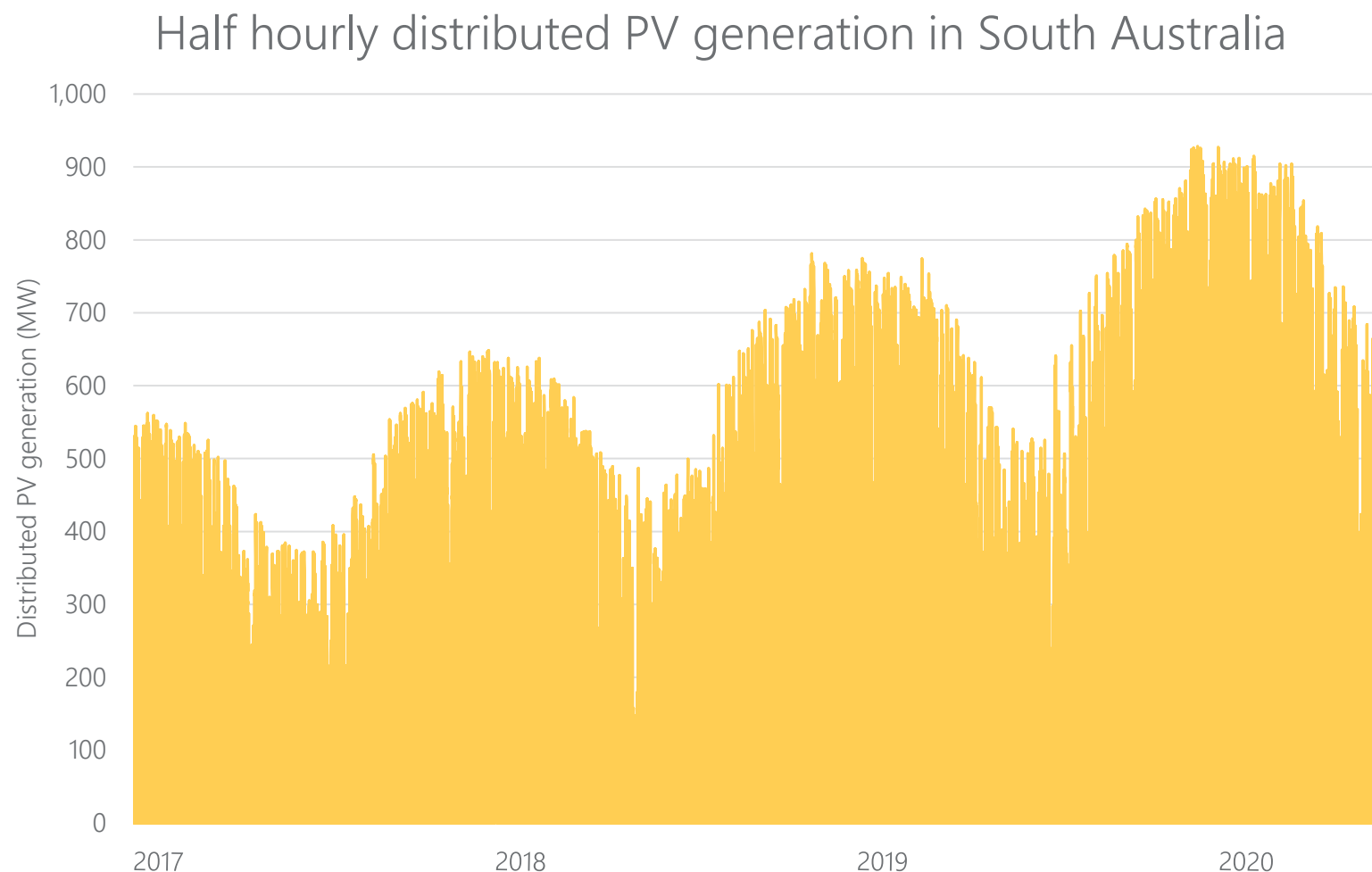
Distributed PV Generator (DPV)

Over **2.2 million** DPV systems installed across the NEM

Collectively DPV is now the **largest generator**

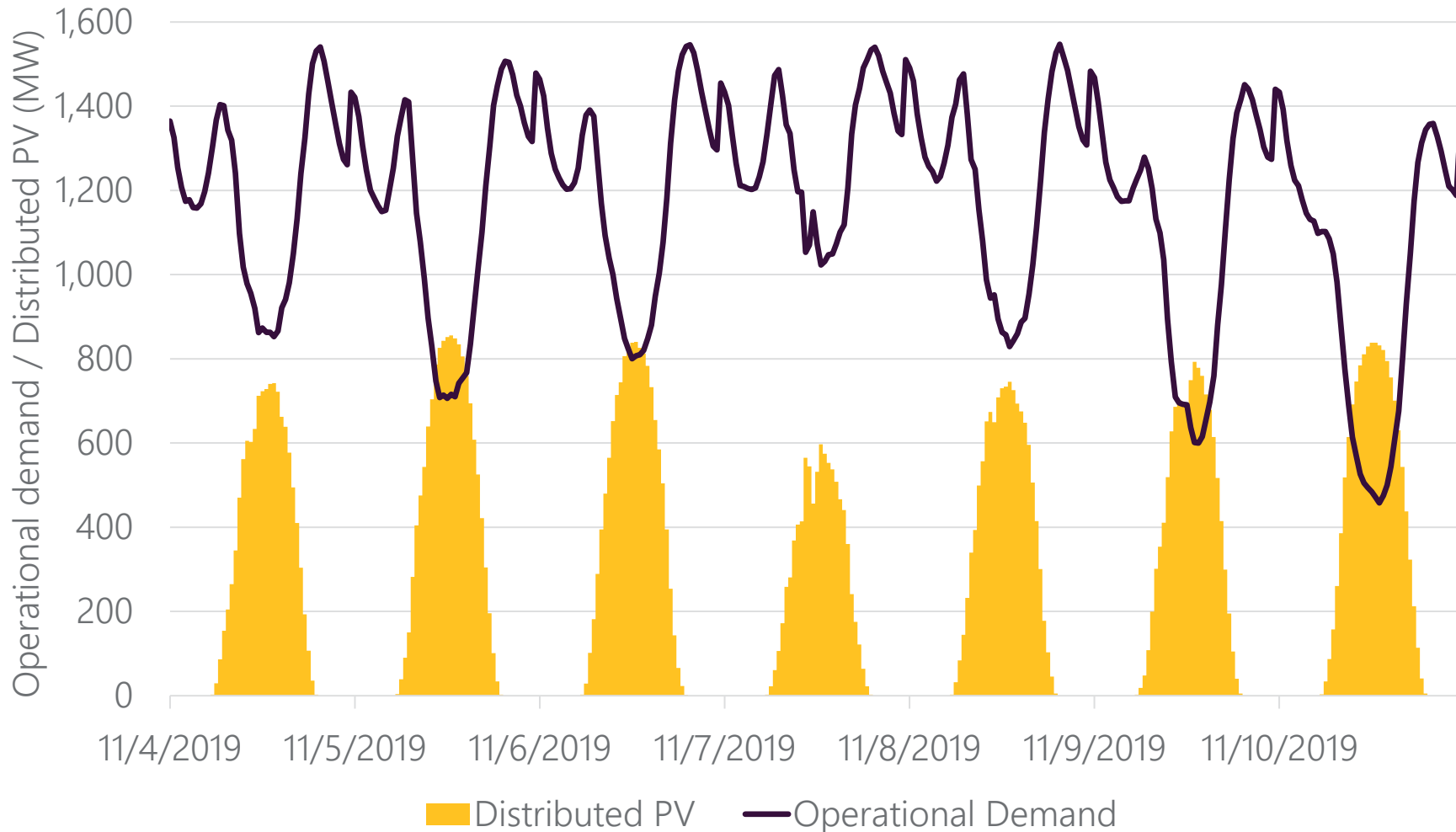
Installed DPV is **~12x** the largest generator in the NEM

DPV is **distributed, passive, invisible** and **not curtailable**



The biggest passive generator

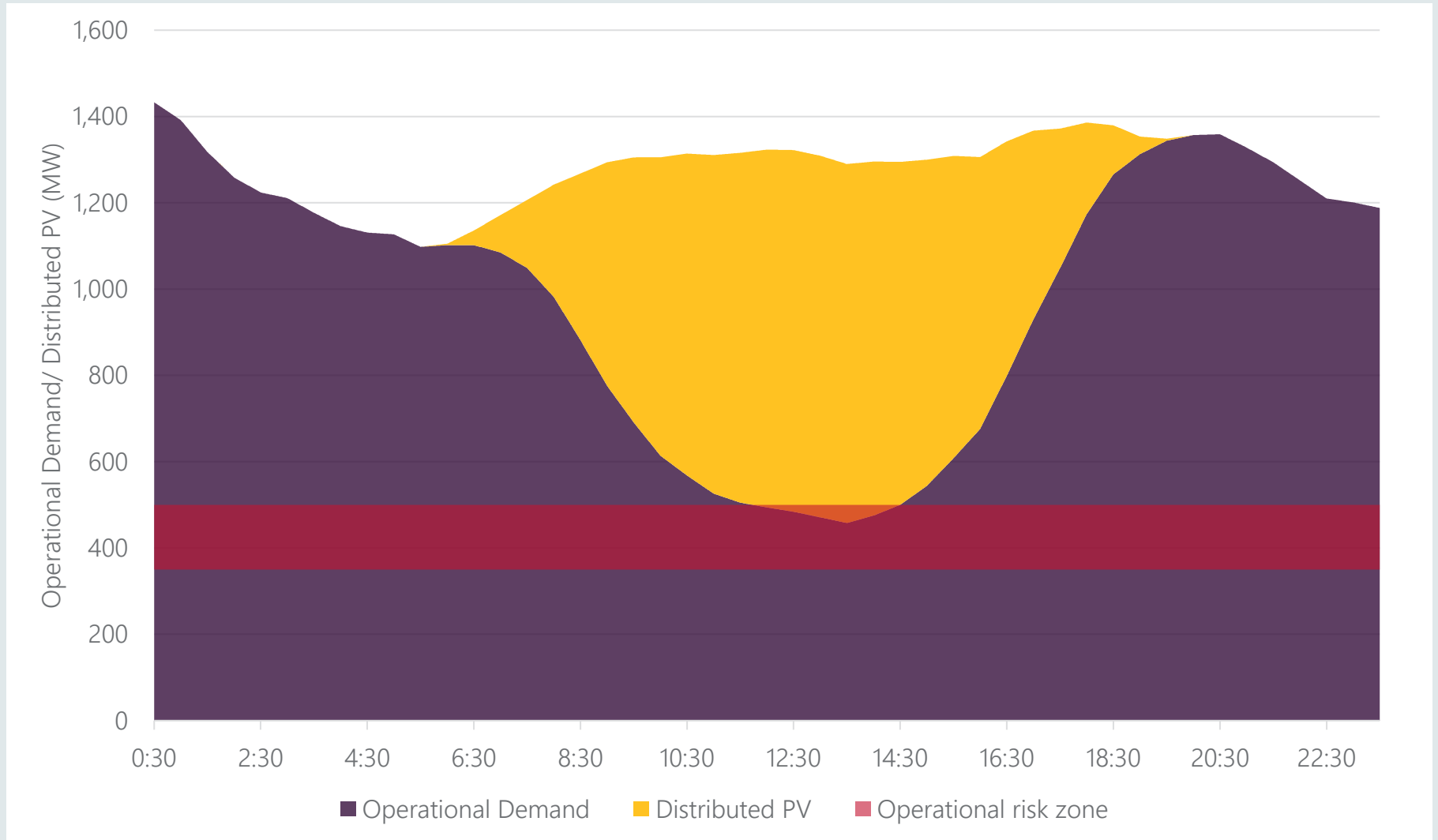
A typical
spring week
in South
Australia:



Record minimum demand

10 November 2019

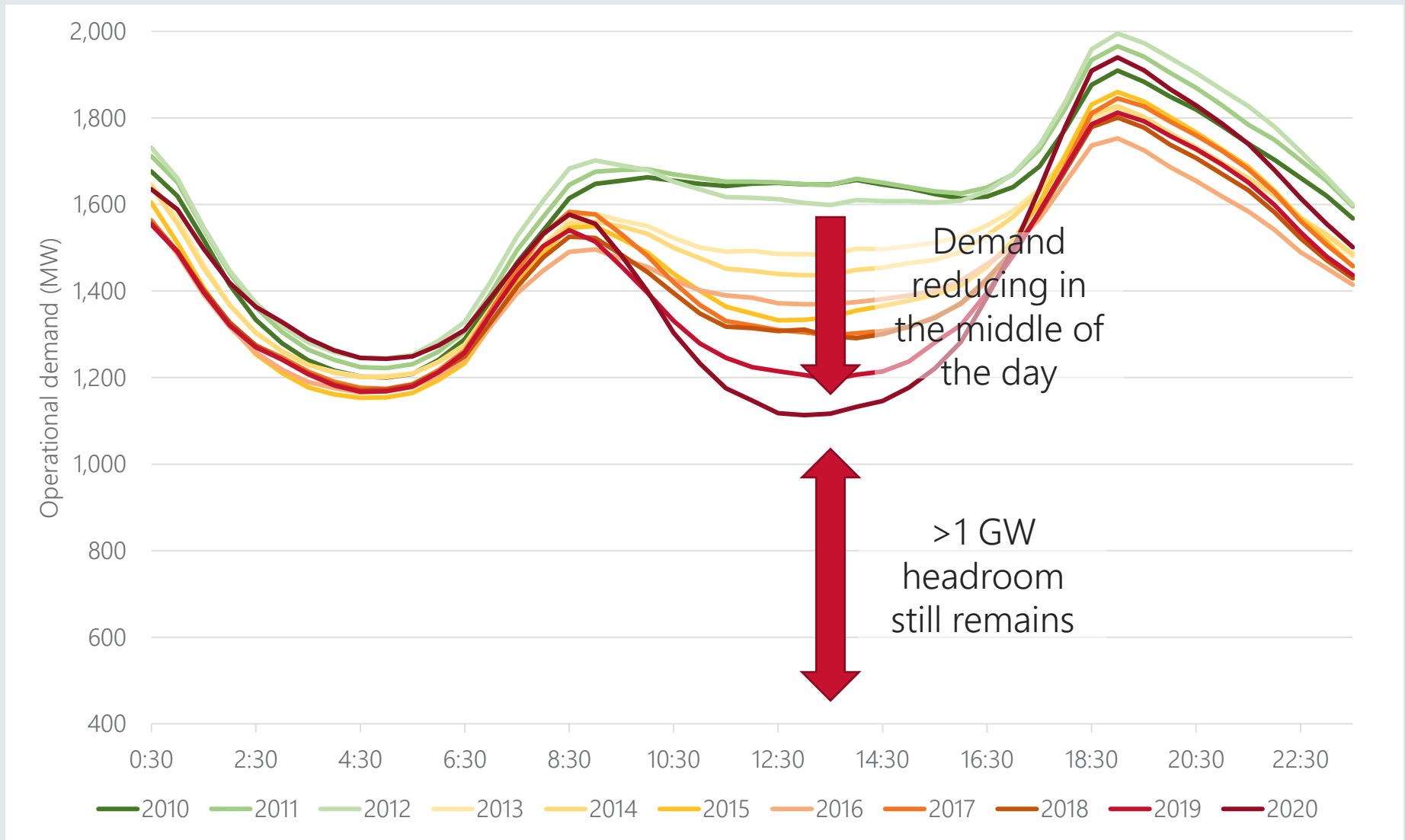
Record minimum
operational
demand in South
Australia was
458 MW



Yearly operational demand

Average May operational demand 2010 to 2020 in South Australia

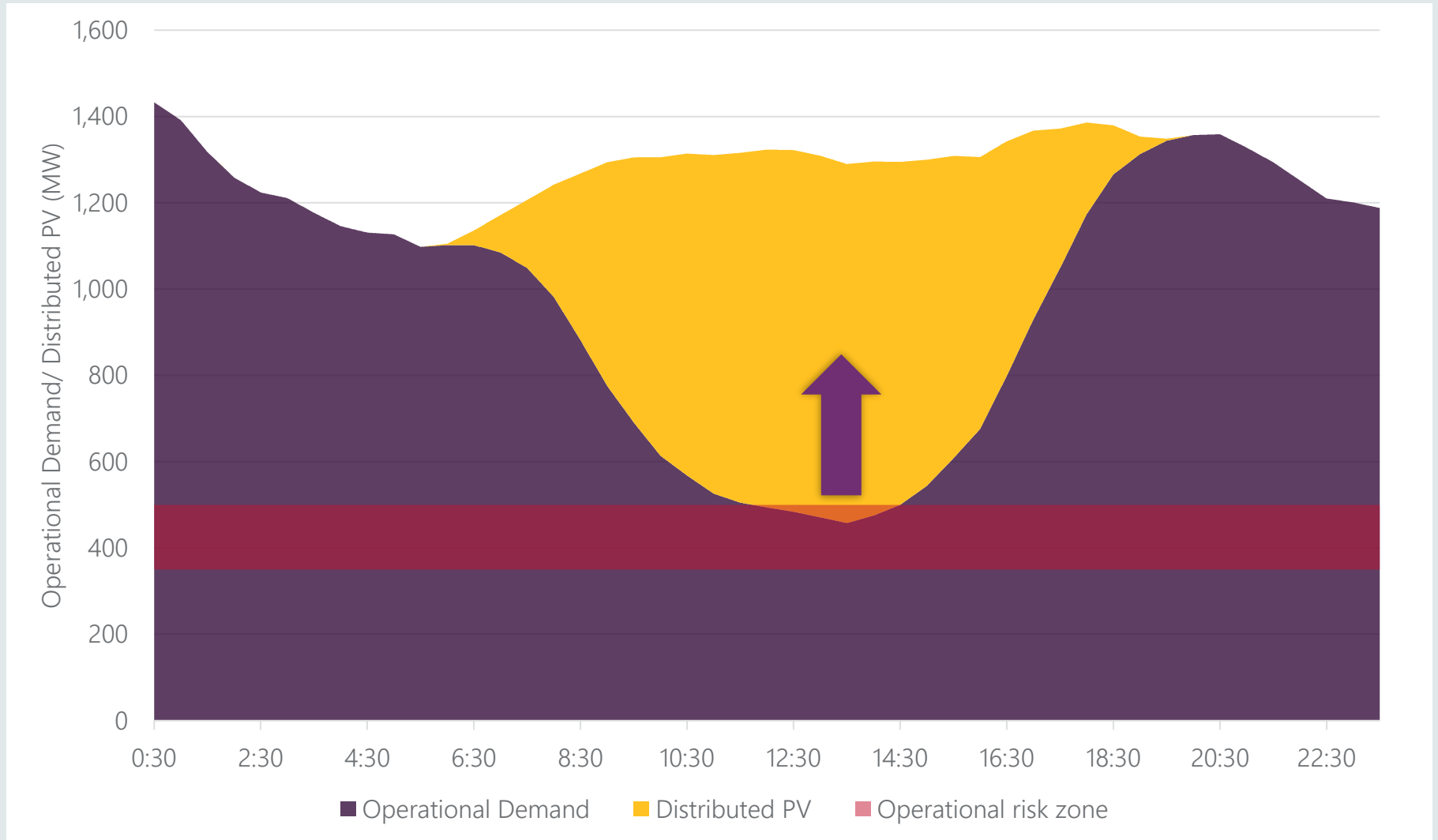
The reduction is more pronounced in Spring and Autumn



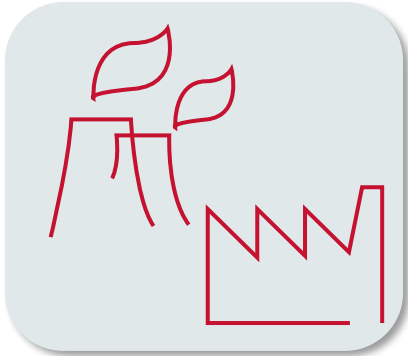
Record minimum demand

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Activating Load & DPV



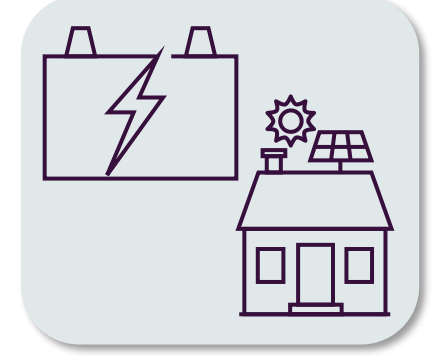
Current Actions

- Engaging large loads
- Visibility & curtailment of >100kW PV



Control & Visibility

- Drafting new Data Communications Standards
- DER Interoperability
- Appliance interfaces: e.g. AS 4777, AS4755 & batteries
- Secure APIs



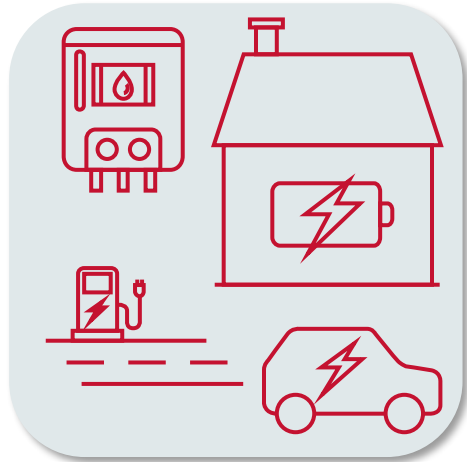
Active Participants

- Roles & responsibilities
- Virtual Power Plants & DER Aggregators
- Batteries, load & DER

Long term actions

Initiatives

- Load shifting
 - Existing hot water
 - Home batteries
- New load
 - EVs
 - Hydrogen



Market Activities

- Wholesale Demand Response & market development
- DSO / DMO & new Network Tariffs
- Retail products and services



Presenter

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