

SA Power Networks Planning Priorities and Outlook

ElectraNet Consumer Advisory Panel Meeting



Empowering South Australia

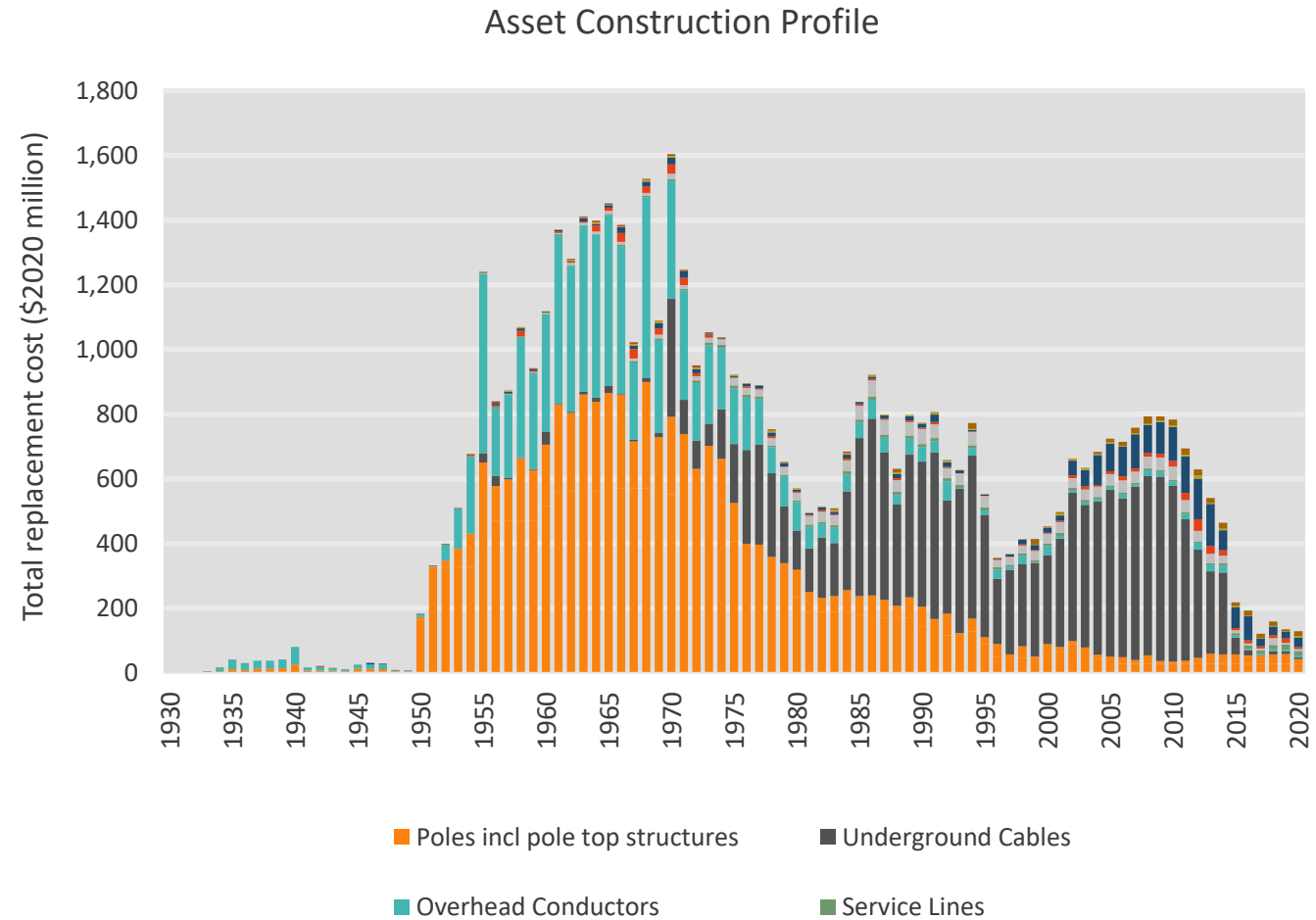
Overview

- Opportunities and Challenges
- Planning Process
- Priorities for Continued Collaboration



Challenges and Opportunities

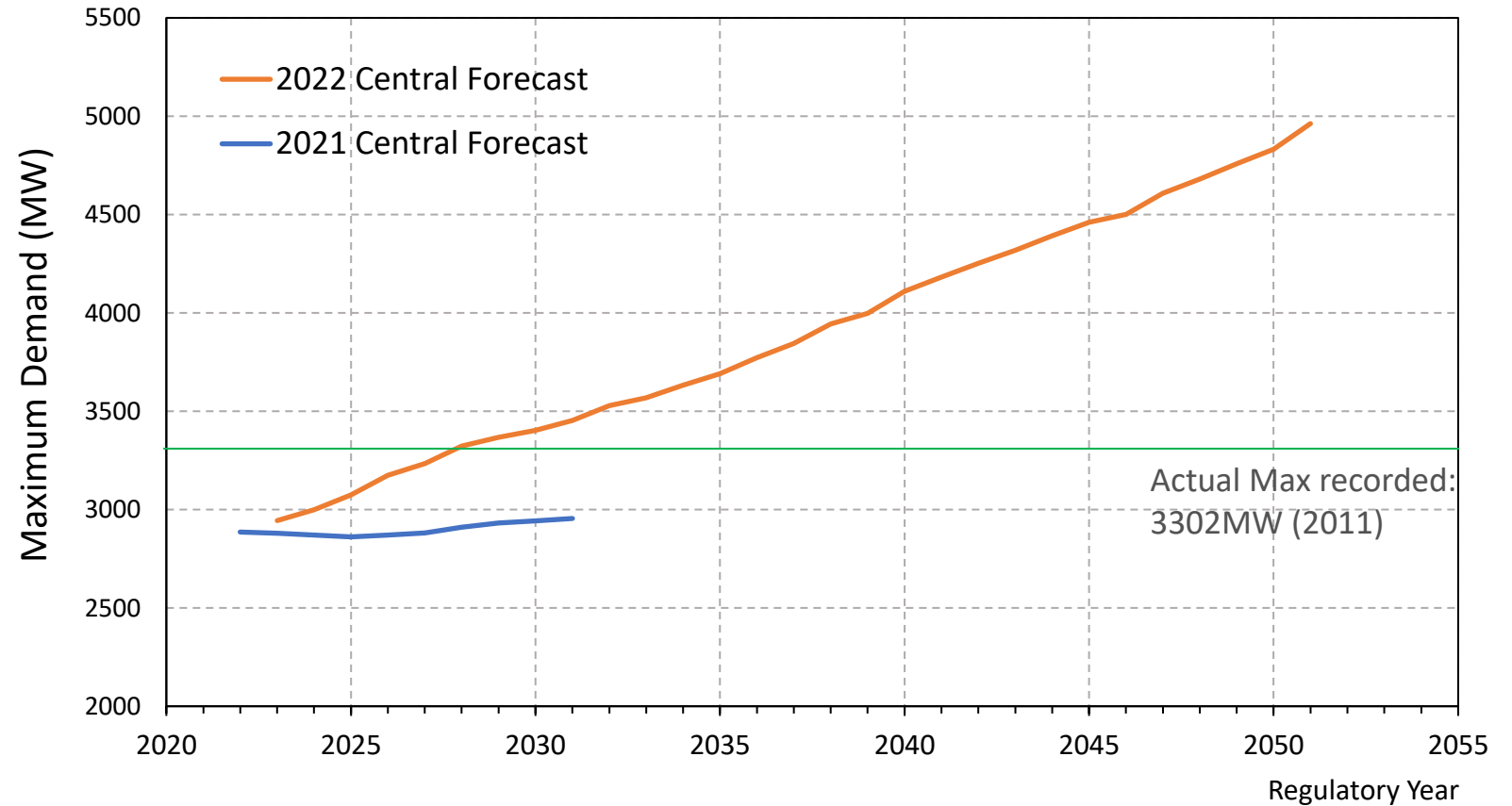
- Aging Assets
- Increasing Demand
- Energy Transition
- Climate Change
- Customer Value



Challenges and Opportunities

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SA Electricity Maximum Demand (Average)

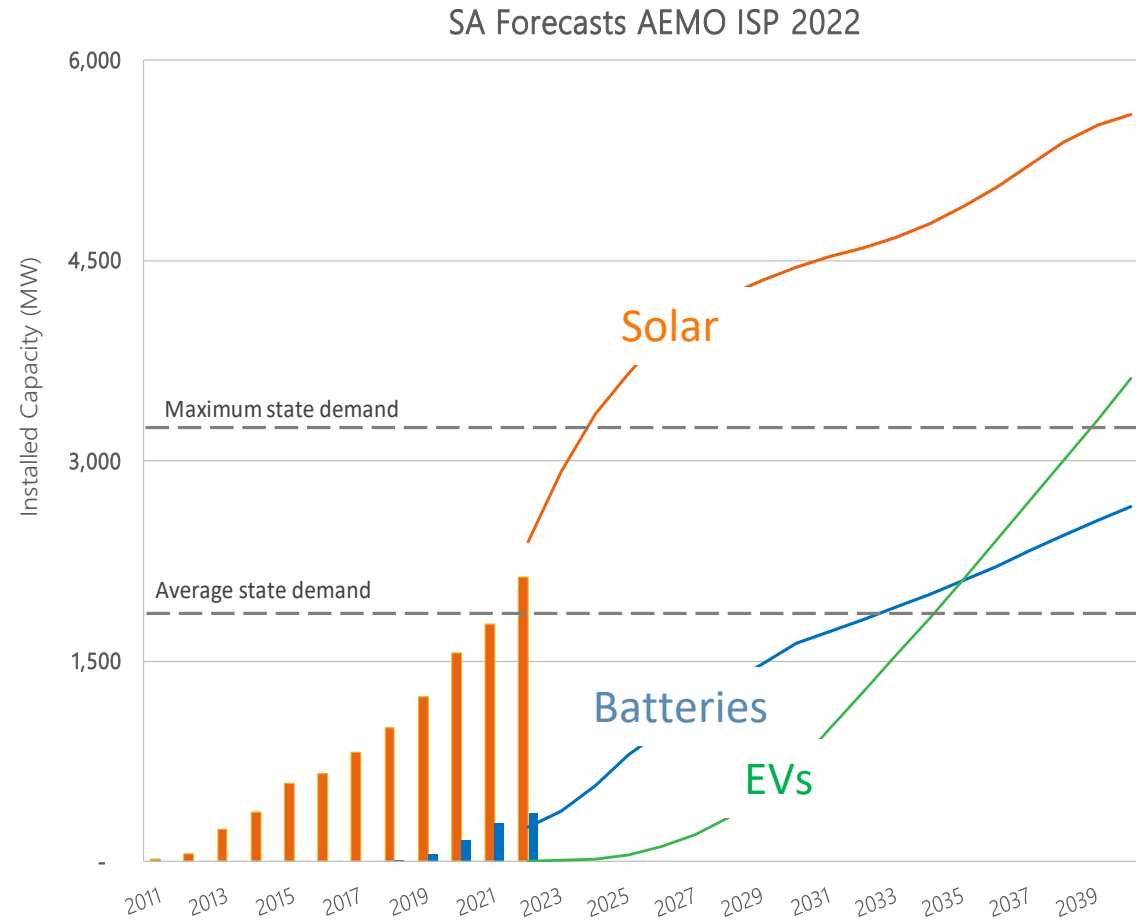


Source: [NATIONAL ELECTRICITY FORECASTING \(aemo.com.au\)](https://aemo.com.au)

SA Operational Demand (Summer 50POE Central) – ESOO 2021 vs ESOO 2022

Challenges and Opportunities

- Aging Assets
- Increasing Demand
- Energy Transition
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- Customer Value



~330,000 Rooftop solar systems

>38% households, world's highest (~50% by 2040)
State's largest generator

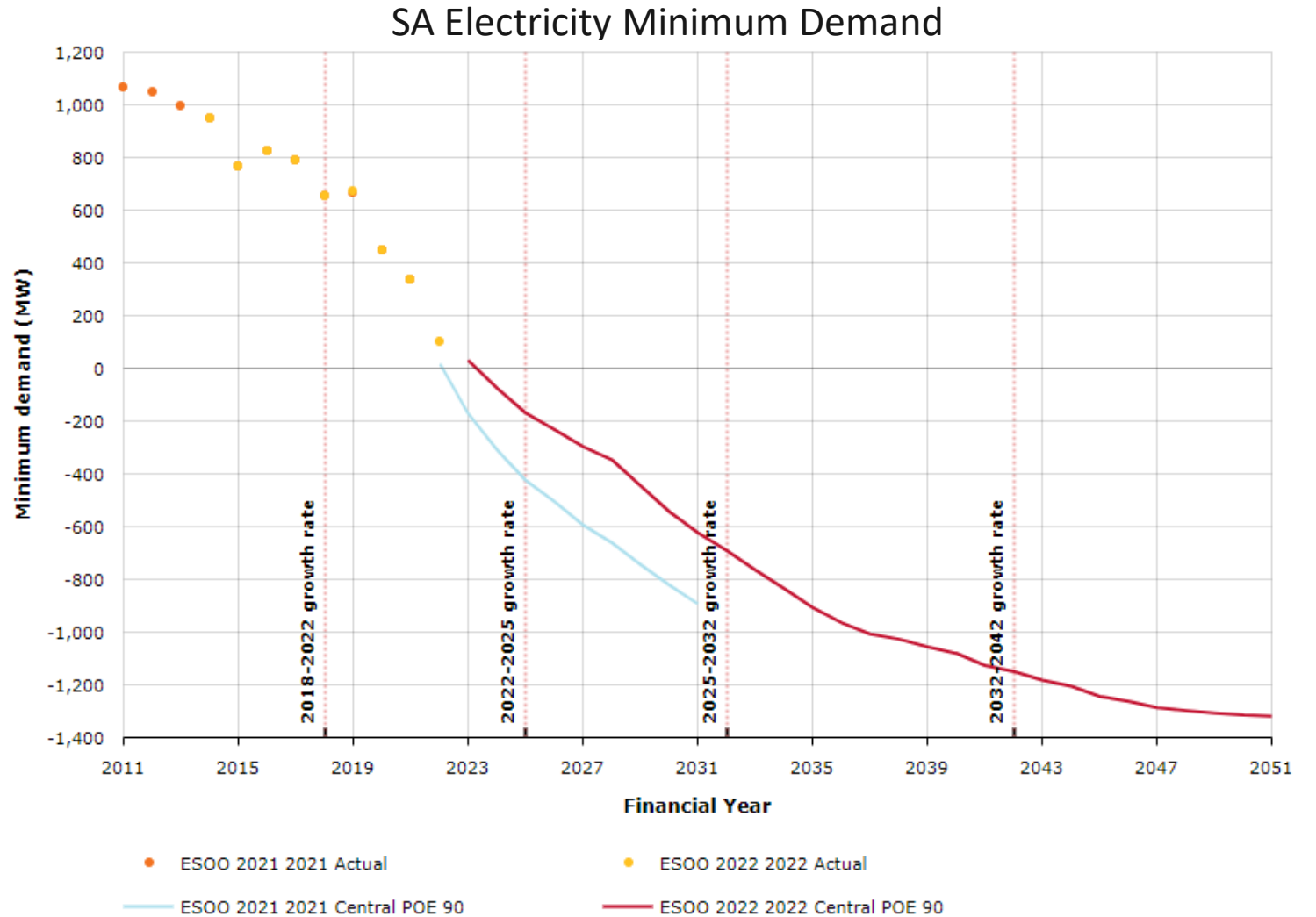


~30,000 Home batteries

9 Virtual Power Plants operating in SA

Challenges and Opportunities

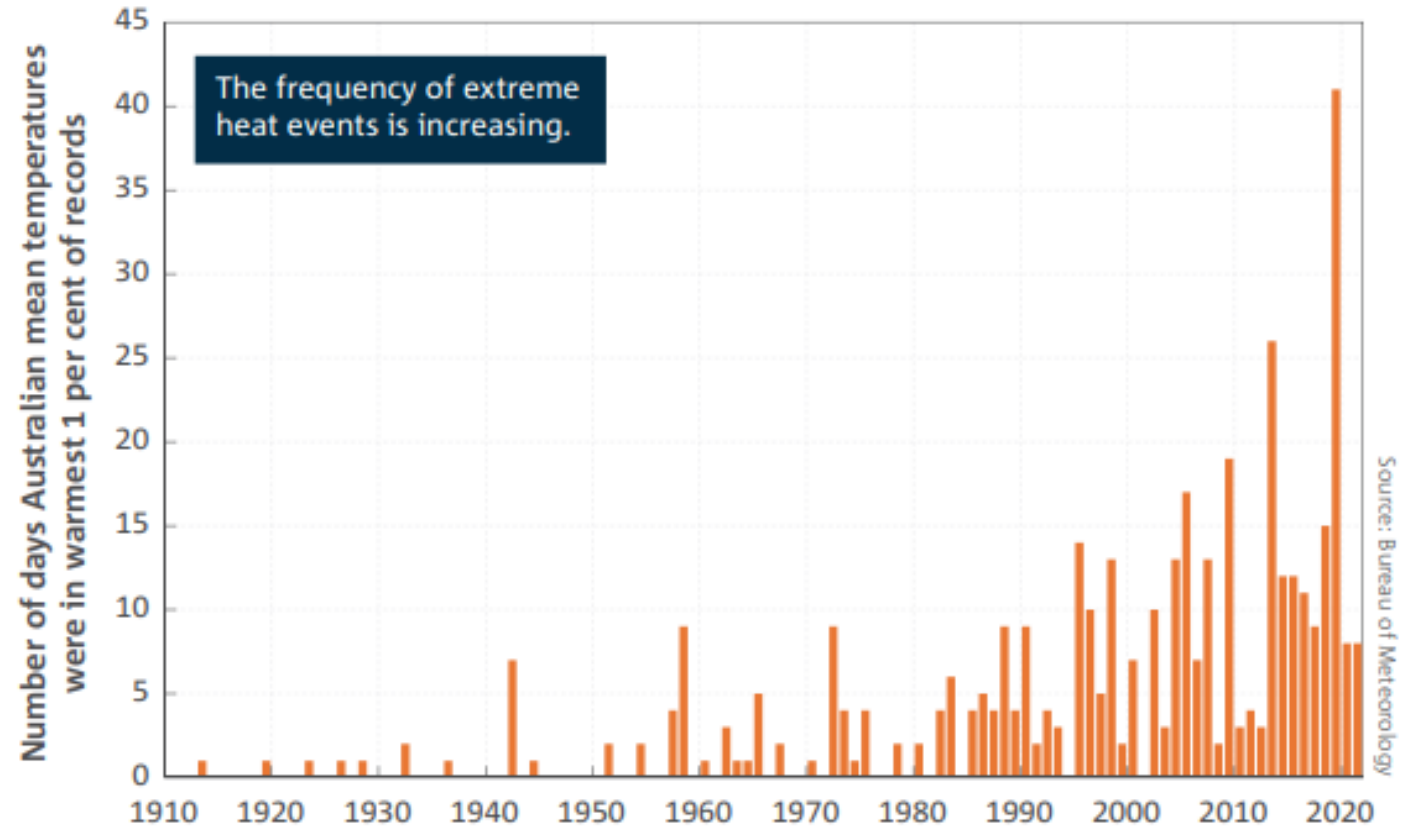
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Challenges and Opportunities

- Aging Assets
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Number of days each year where the Australian area-averaged daily mean temperature for each month is extreme (extremely warm days). Extremely warm days are defined as those where daily mean temperatures are the warmest 1 per cent of days for each month, calculated for the period from 1910–2021.

Challenges and Opportunities

- Aging Assets
 - Increasing Demand
 - Energy Transition
 - Climate Change
 - Customer Value
- Cost of living pressure
 - Increased Customer Value through
 - Increased network utilisation - Flexible exports/ load
 - Cost reflective tariffs – ‘solar sponge’
 - Reduced energy costs through electrification
 - Non-network solutions

Joint Planning

- Interaction at numerous levels across the businesses
 - Strategic, Planning, Asset Management, Operational

“The purpose of joint planning between SA Power Networks and ElectraNet is to enable cost effective planning outcomes for South Australian electricity customers”

- Voltage management issues
- Major customer (including generator) connections
- Demand forecasts
- Asset replacement projects
- Capacity driven augmentation projects
- Non-network solutions



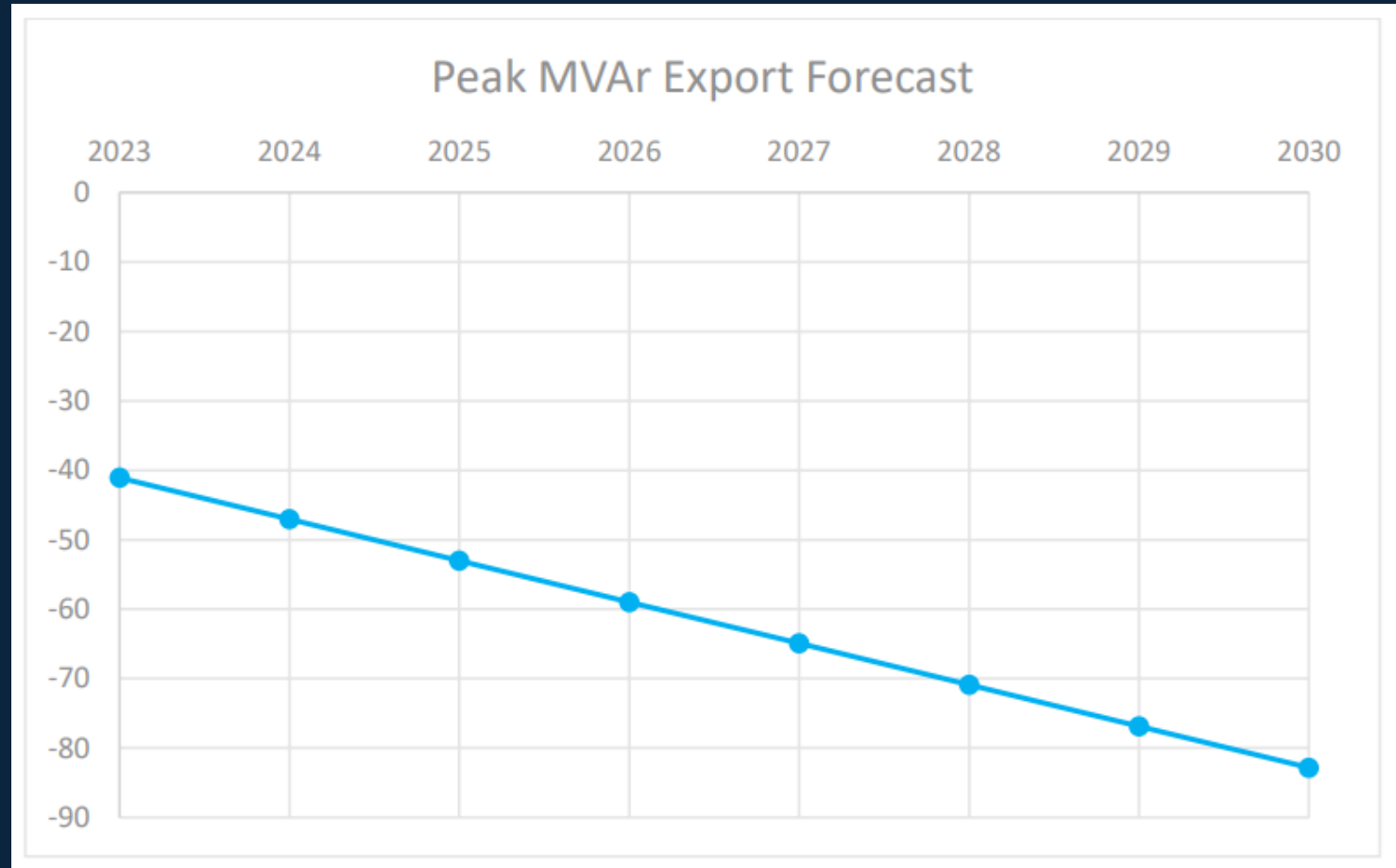
Priorities

- System Security
- Voltage Control Strategy
- Strategic Planning and Joint (Capacity) Planning
- Broader industry engagement, including AEMO and State Govt



Voltage Management

- Capacitive reactive power from distribution system, likely due to changing characteristics of consumer appliances
- Detrimental to voltage management and system security
- NEM wide phenomenon





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