

Developing Self Healing Grids & Supporting the Clean Energy Transition

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together



Who are we?



Serve 2.7 million people

living and working in Sydney's Greater West, Blue Mountains, Southern Highlands, Illawarra and South Coast of NSW



Cover 25,000

square kms across 23 council areas and 5 First Nations



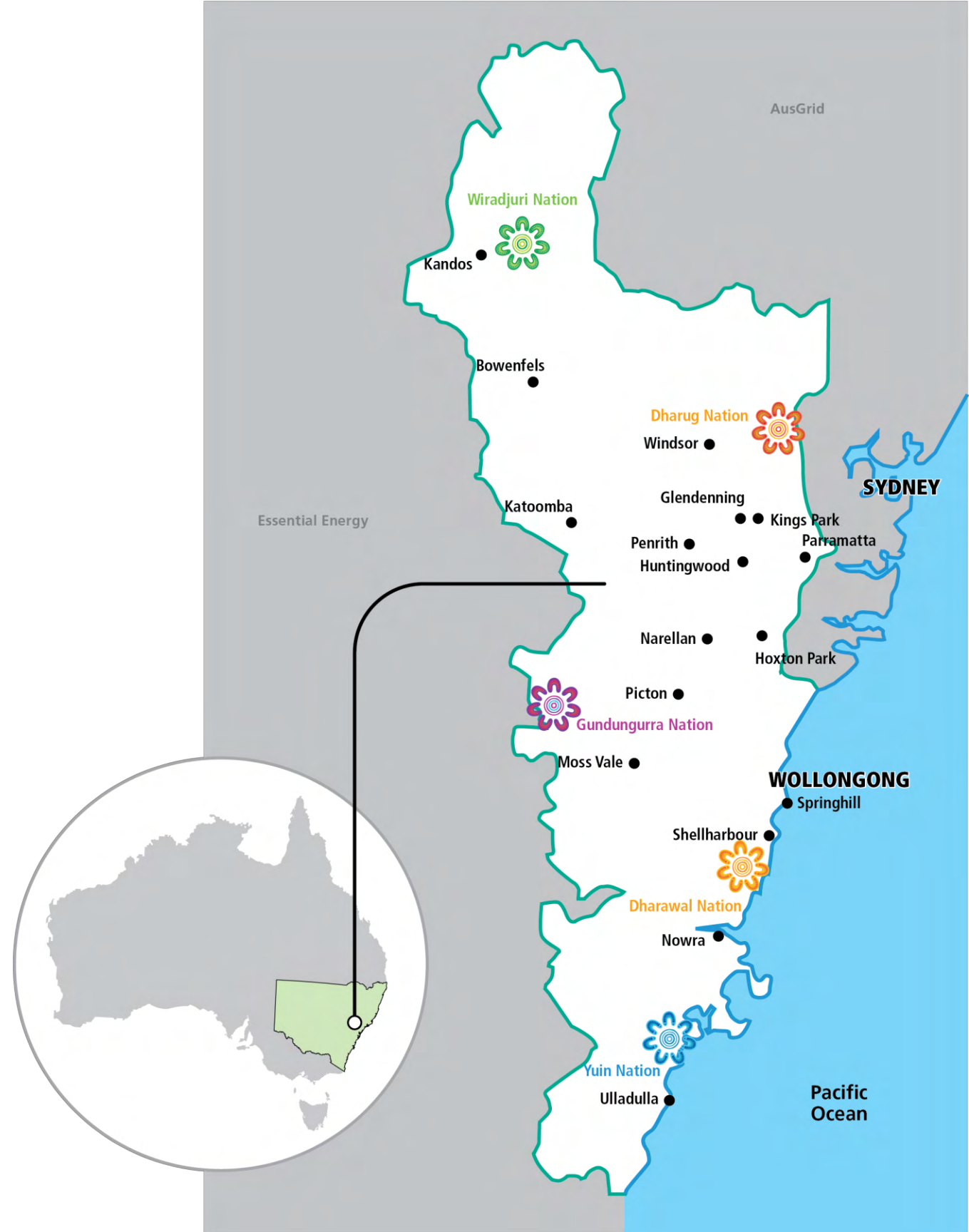
60,000

km of powerlines

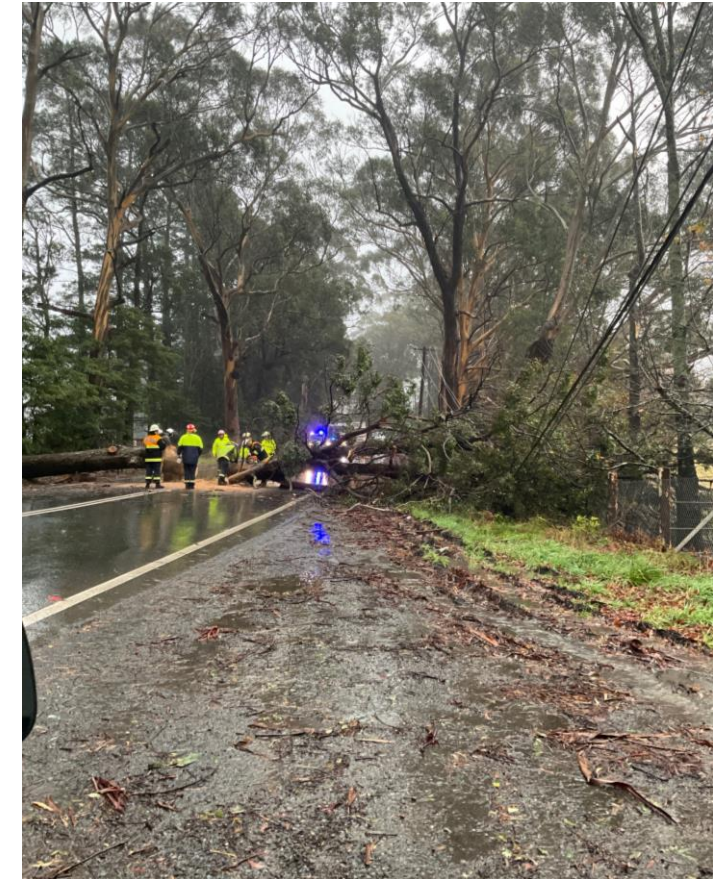


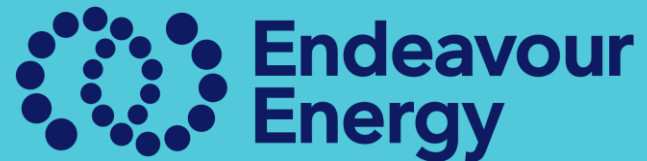
Powering communities

For a brighter future



The impacts of climate change has resulted in more frequent and devastating bushfires, floods and storms affecting our customers





**Imagine a world where we
can use our electrical digital
twin and artificial intelligence
to create a self healing grid...**

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Implementing our Advanced Distribution Management System involved considerable data cleansing, integration development, change management and system testing



ADMS Go Live



New Control Room fit-out



Pre 2021

2021

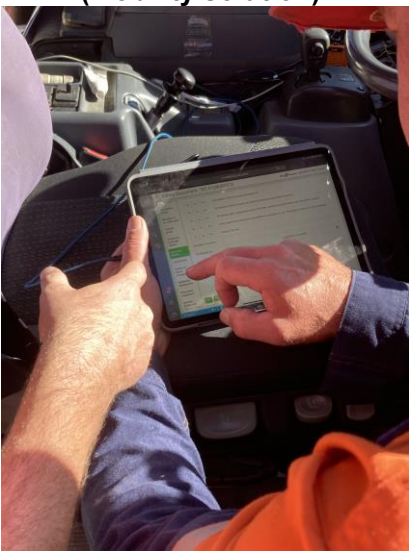
2022

2023

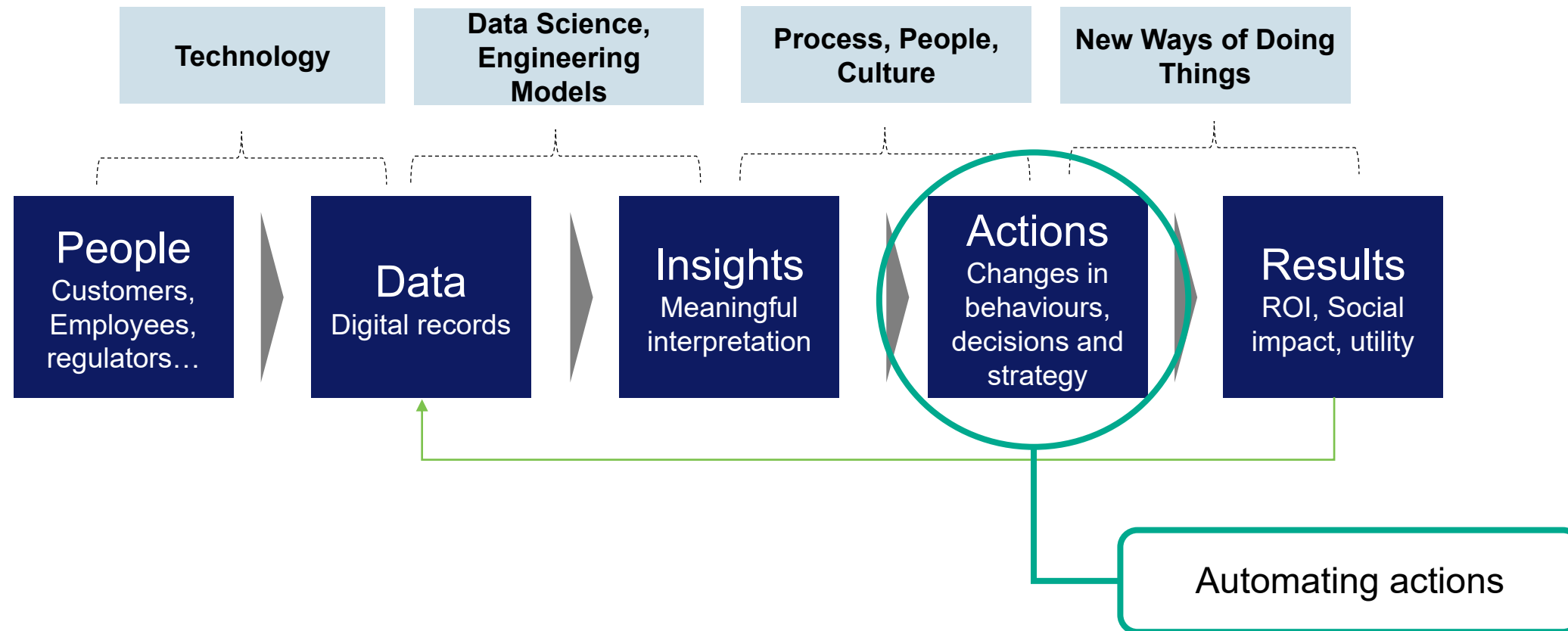
Paper Pin Boards & OMS



ADMS Field Client (Mobility solution)



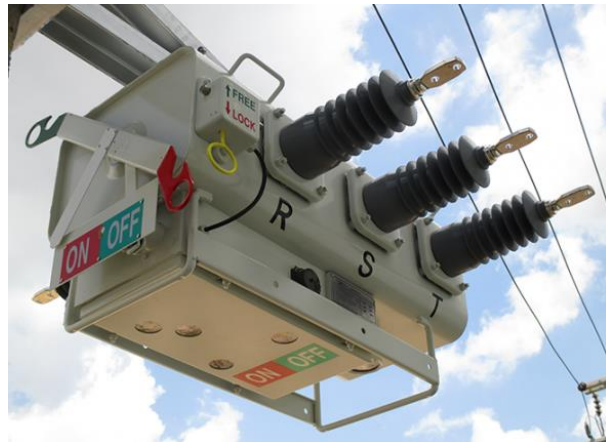
How imagination becomes a reality...



Chamorro-Premuzic (2021)

Self healing grids need 3 key components

Automated (smart) switches



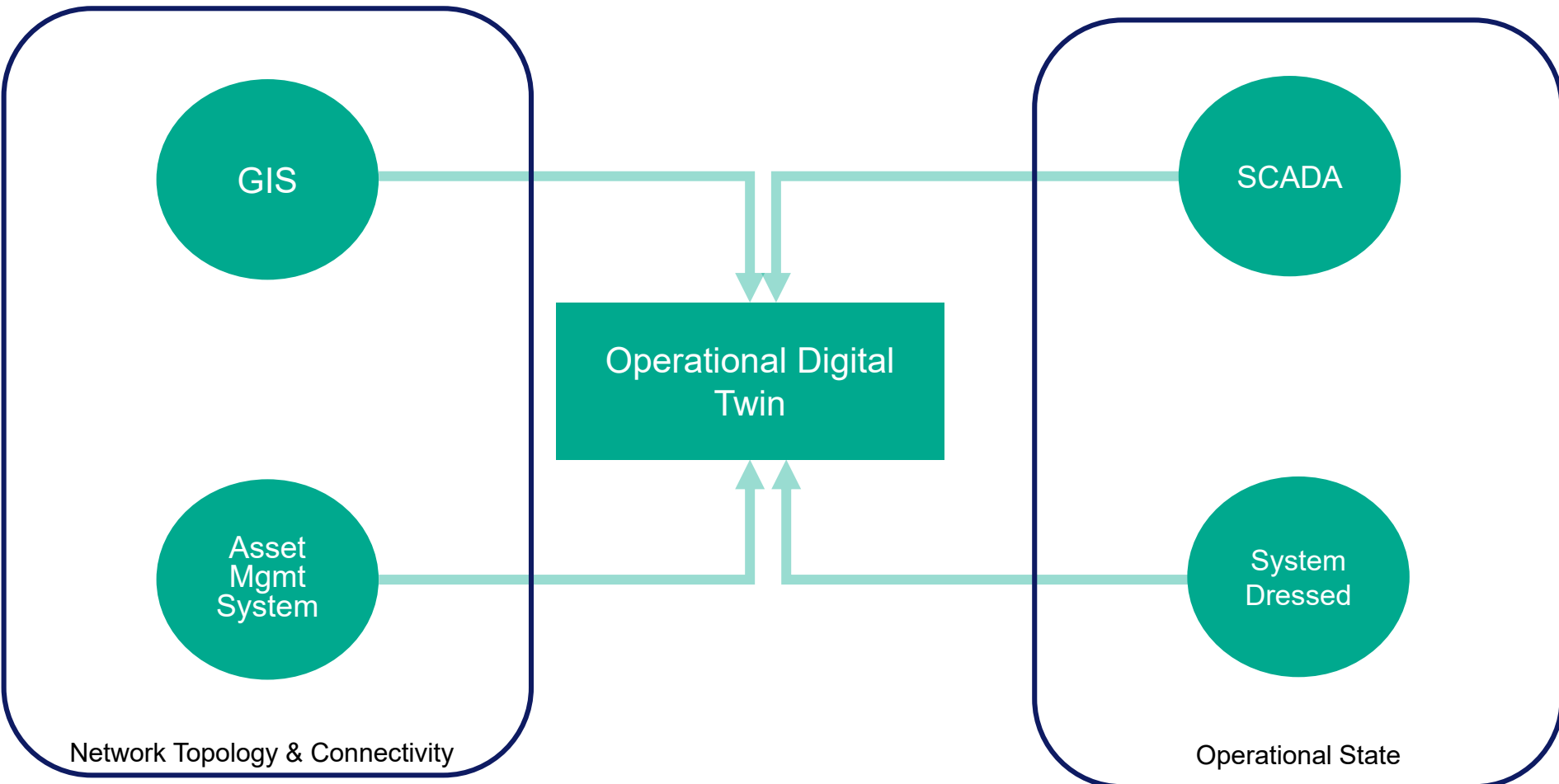
Reliable Communication Infrastructure



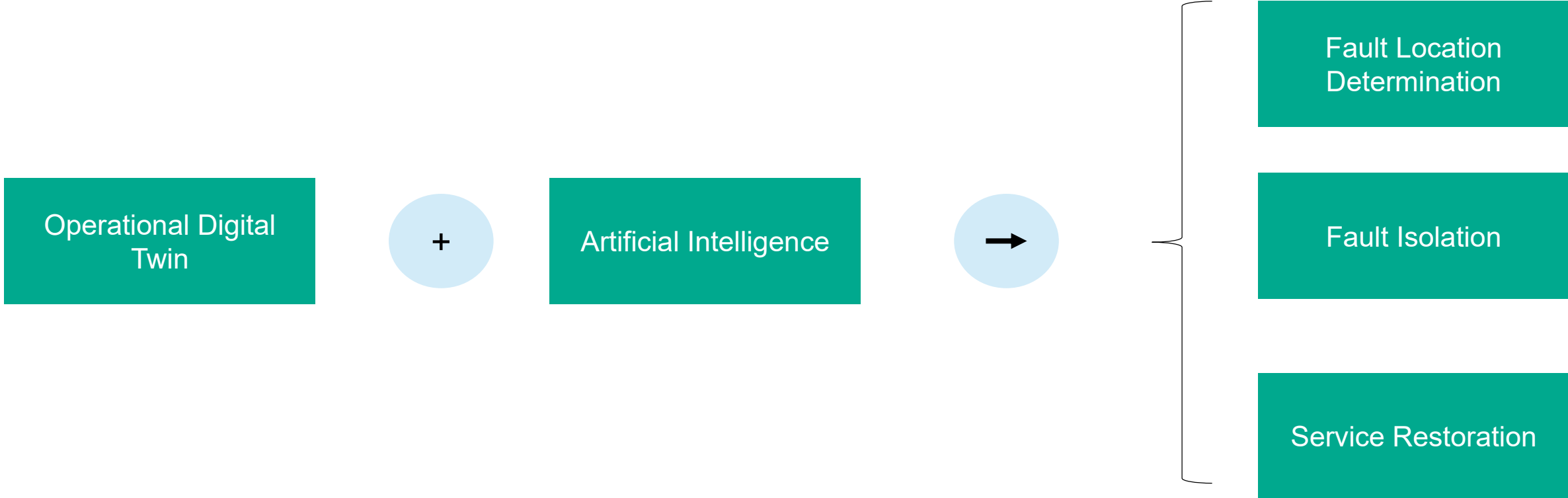
Advanced Distribution Management System



Our Advanced Distribution Management System is an operational digital twin of our electrical network



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Results in the first 4 months

Reduction of

64%

in customers affected

Avoided

300k

Customer minutes
interrupted

Avoided

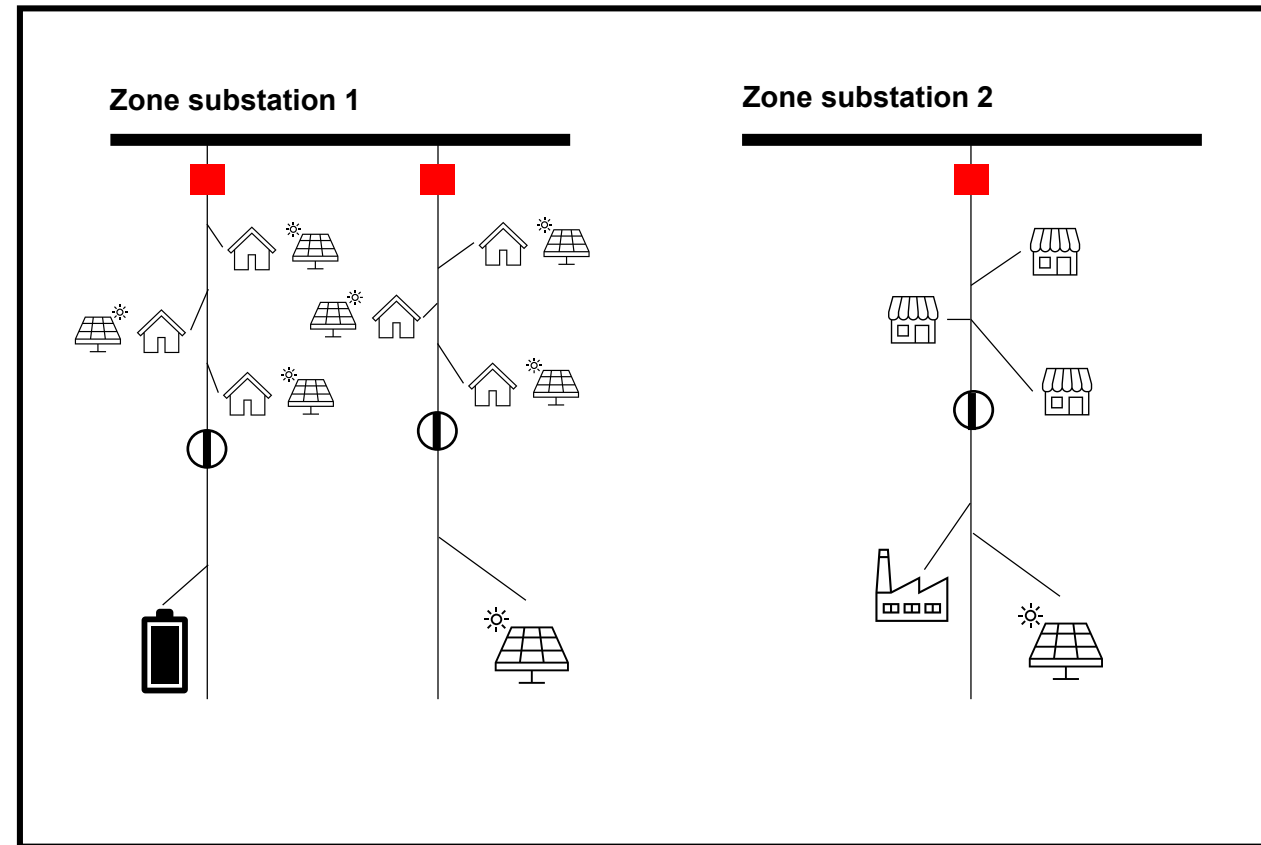
20km

Distance travelled

Building block for supporting the Clean Energy Transition



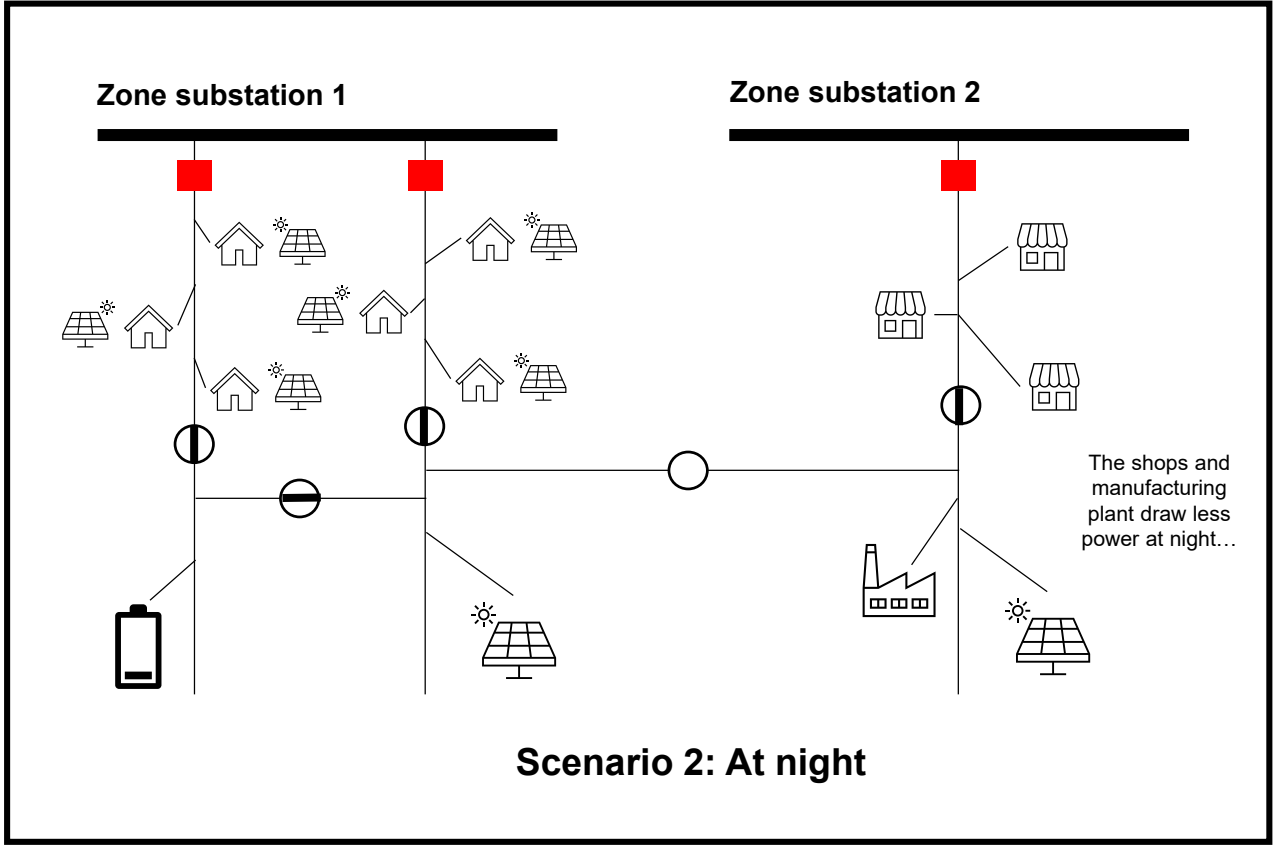
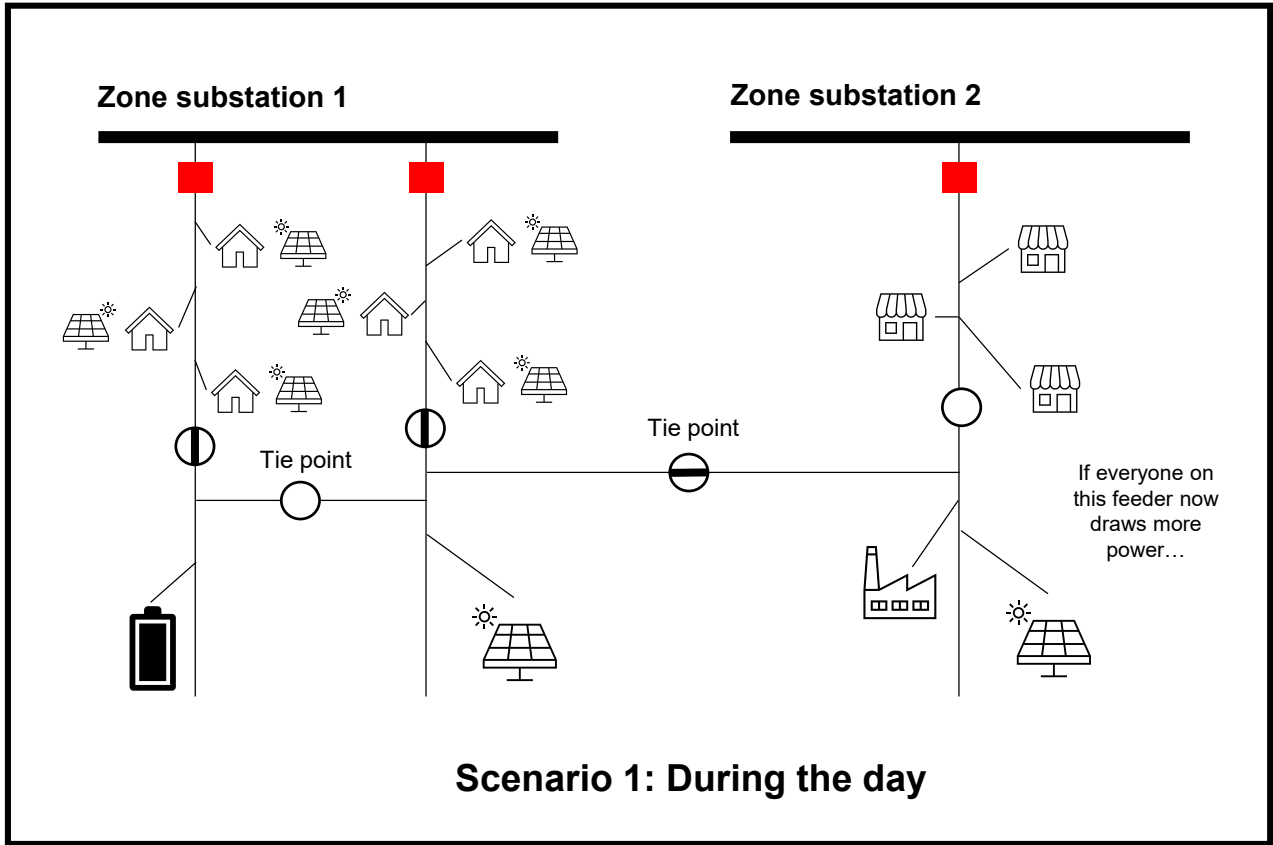
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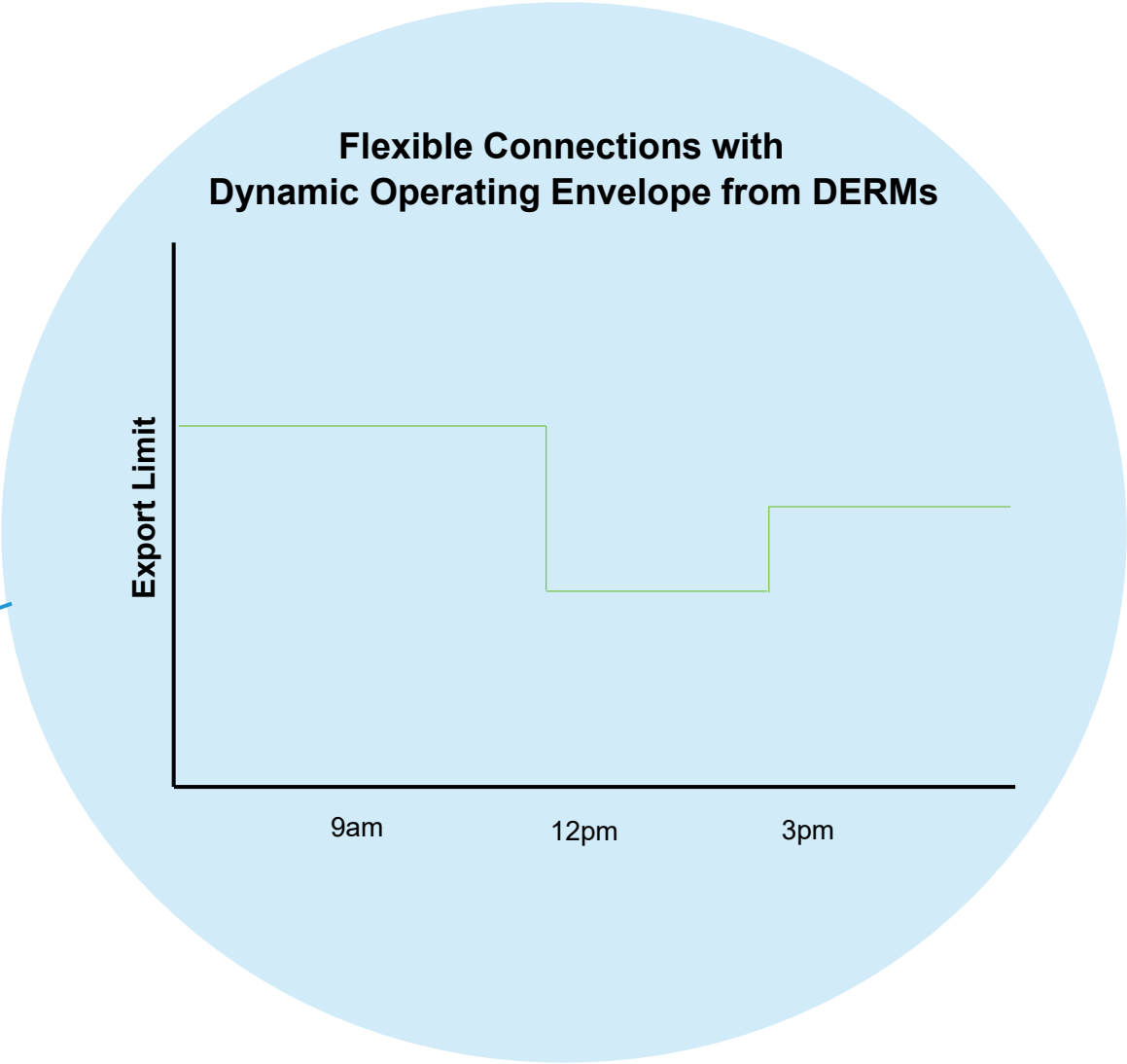
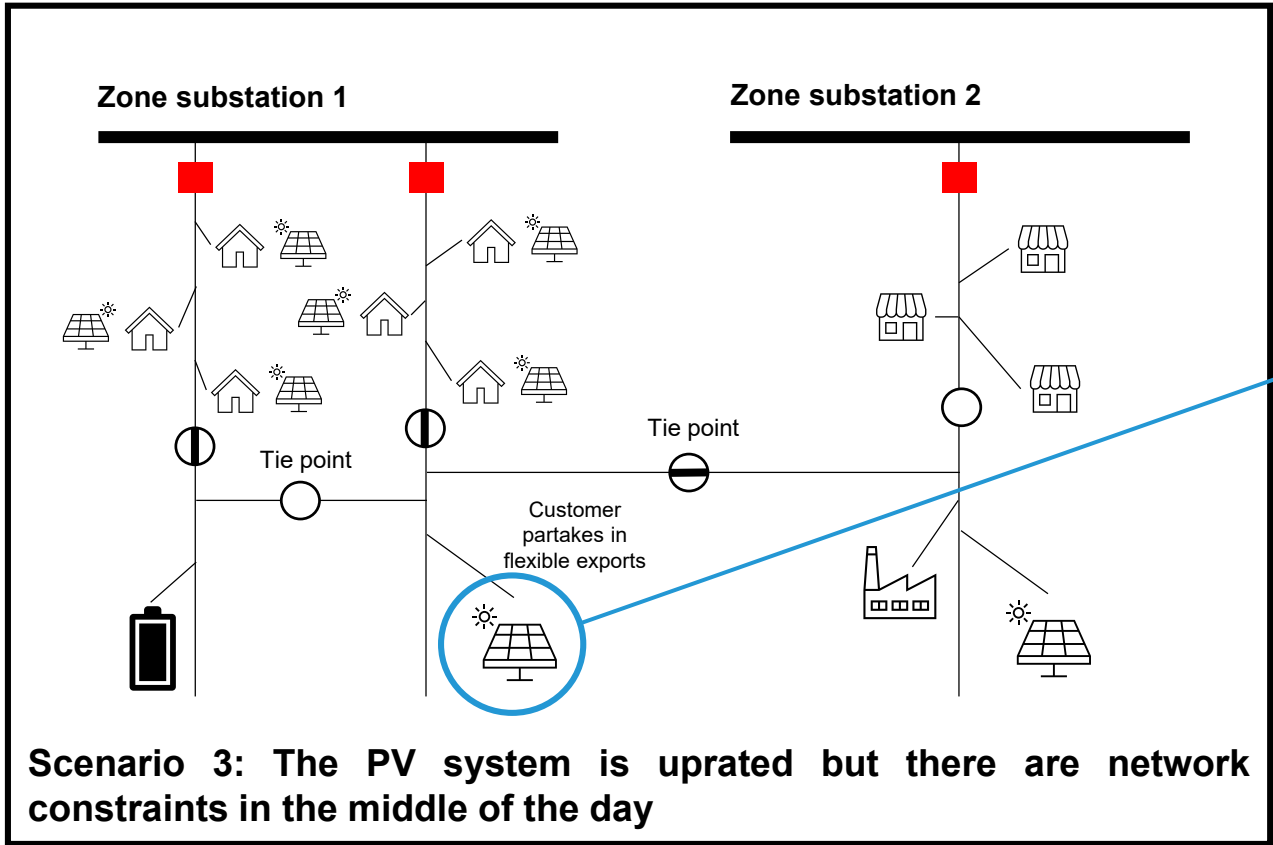
1 Optimise Hosting Capacity

2 Minimise network losses using a community battery



The work that is happening is also a foundational piece for dynamic distribution network reconfiguration to reduce network line losses, loss of load or increase hosting capacity for customer energy resources

3 Combined use of Dynamic Operating Envelope





**Endeavour
Energy**



**POWER
together**