



COMPANY OVERVIEW

Mello 2022

25 MAY 2022



- Utility-grade energy storage using vanadium flow technology
- Founded in 2020 through merger of Avalon Battery and redT Energy
- Public (LSE:IES)
- Over 50 projects with more than 33 MWh installed or signed

VANCOUVER/CANADA
Design & Manufacturing



BATHGATE/UK
Solutions Engineering



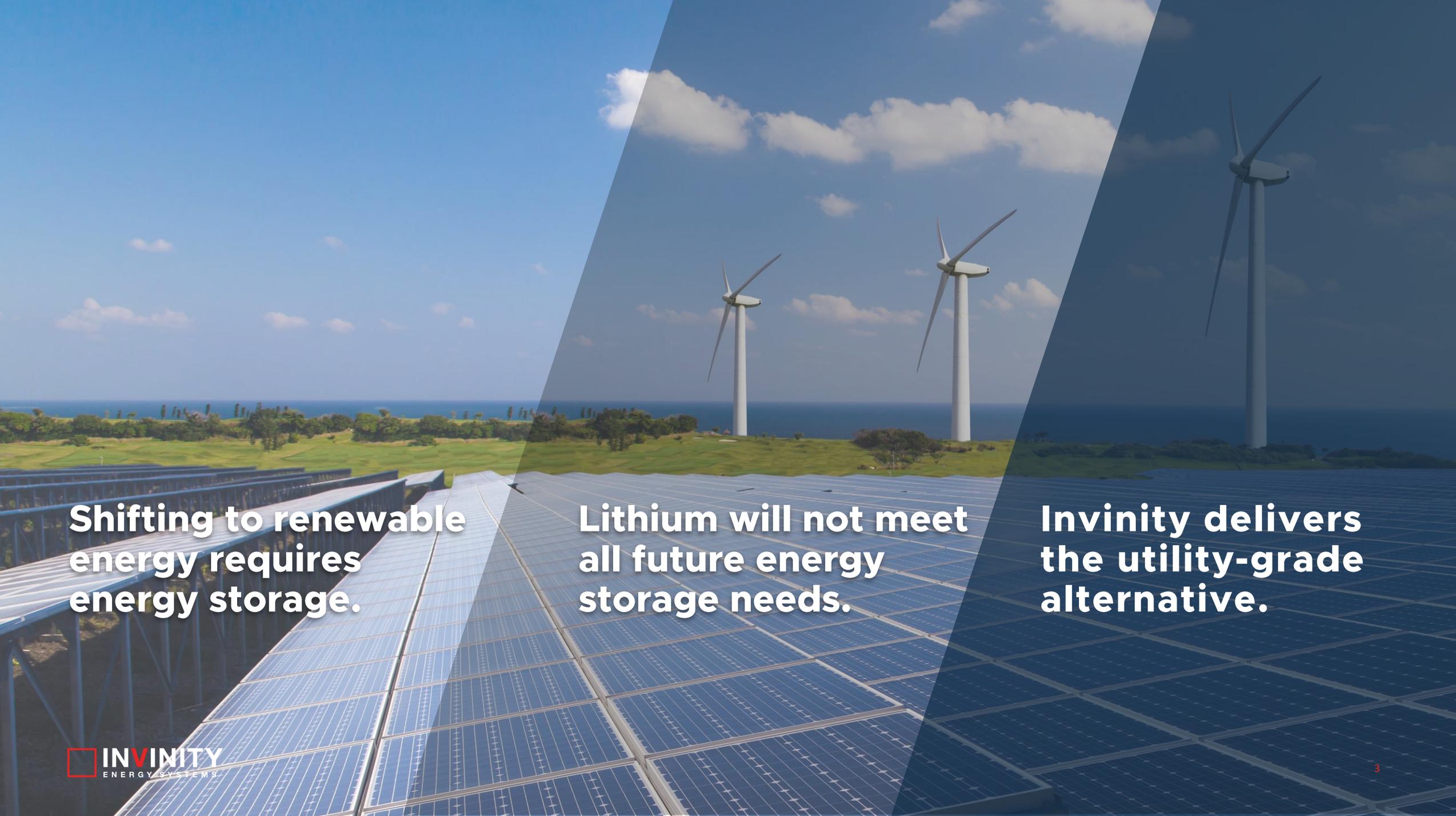
LONDON/UK
Sales & IR

SAN FRANCISCO/US
Sales & Exec



SUZHOU/CHINA
Manufacturing





Shifting to renewable energy requires energy storage.

Lithium will not meet all future energy storage needs.

Invinity delivers the utility-grade alternative.

What makes energy storage utility-grade?



SAFE

Must have no risk of thermal runaway or significant safety risk near residential areas



LONG-LIFE

Match the lifespan of solar & wind assets; 25+ years of constant cycling



ECONOMICAL

Low LCOS; the price per MWh stored & discharged over the lifetime of the battery



PROVEN

Demonstrated performance in commercial applications in the field

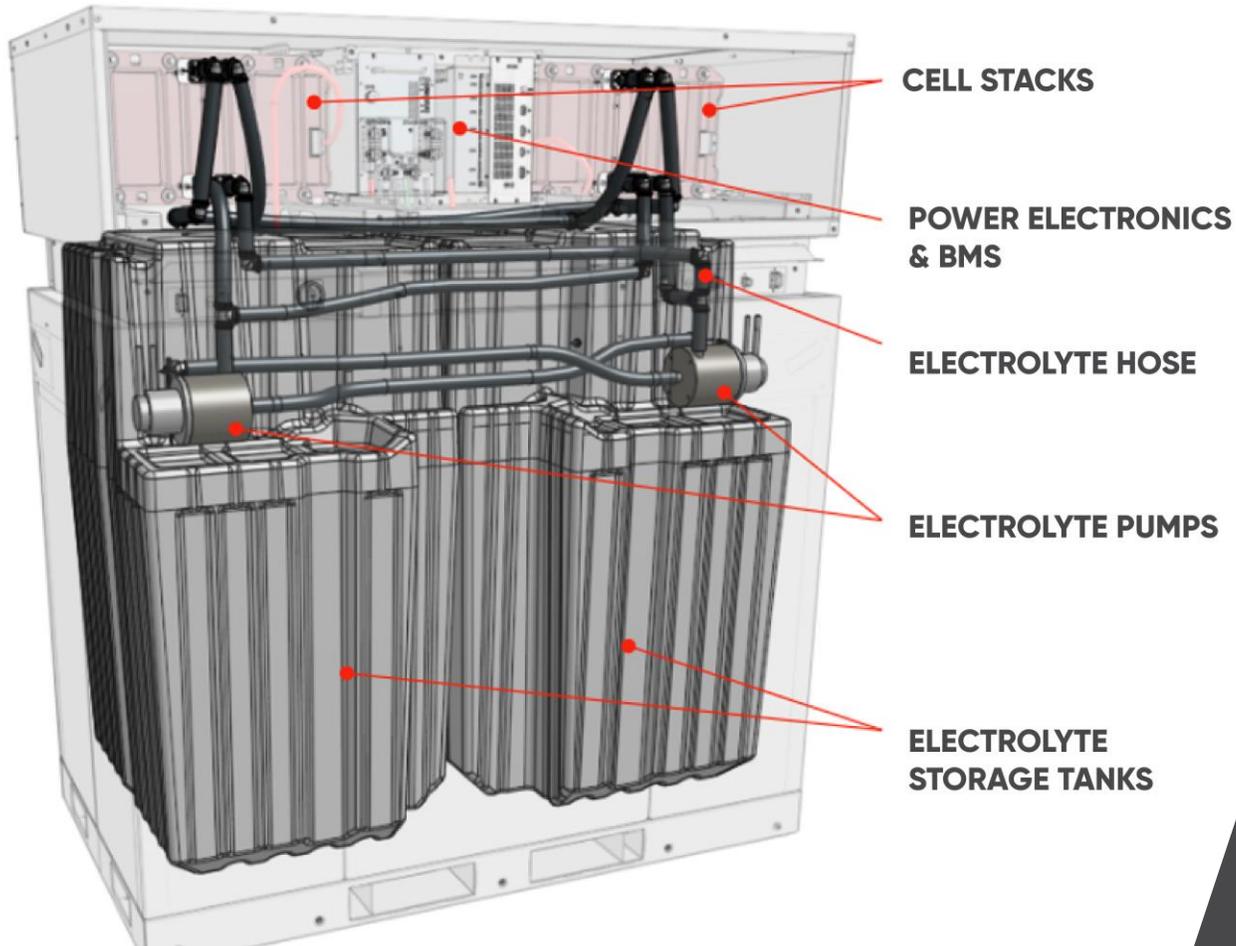
Triple ISO Certified

RARE TRIPLE CERTIFICATION

- Awarded April 2022
- Invinity may be the only flow battery company to hold all three concurrently
- Demonstrates Invinity's leading role in commercialising flow batteries



Inside a VFB



VANADIUM

□ AVAILABLE

Element 23, readily available and more abundant in the Earth's crust than copper. Accessible reserves in Australia, South Africa, United States, Canada

□ REUSABLE

Virtually unlimited working life. 97% proven recovery rate from used electrolyte

□ SAFE

Vanadium electrolyte is mild battery acid. Mixing fully-charged electrolyte leads to a small temperature increase.

Invinity VS3

 **Safe. Long Life.
Economical. Proven.**



**RATED POWER:
CONTINUOUS**

**78
kW**

**ENERGY STORAGE:
NOMINAL**

**220
kWh**

**ENERGY STORAGE:
DURATION**

**2-12
HOURS**

LIFETIME:

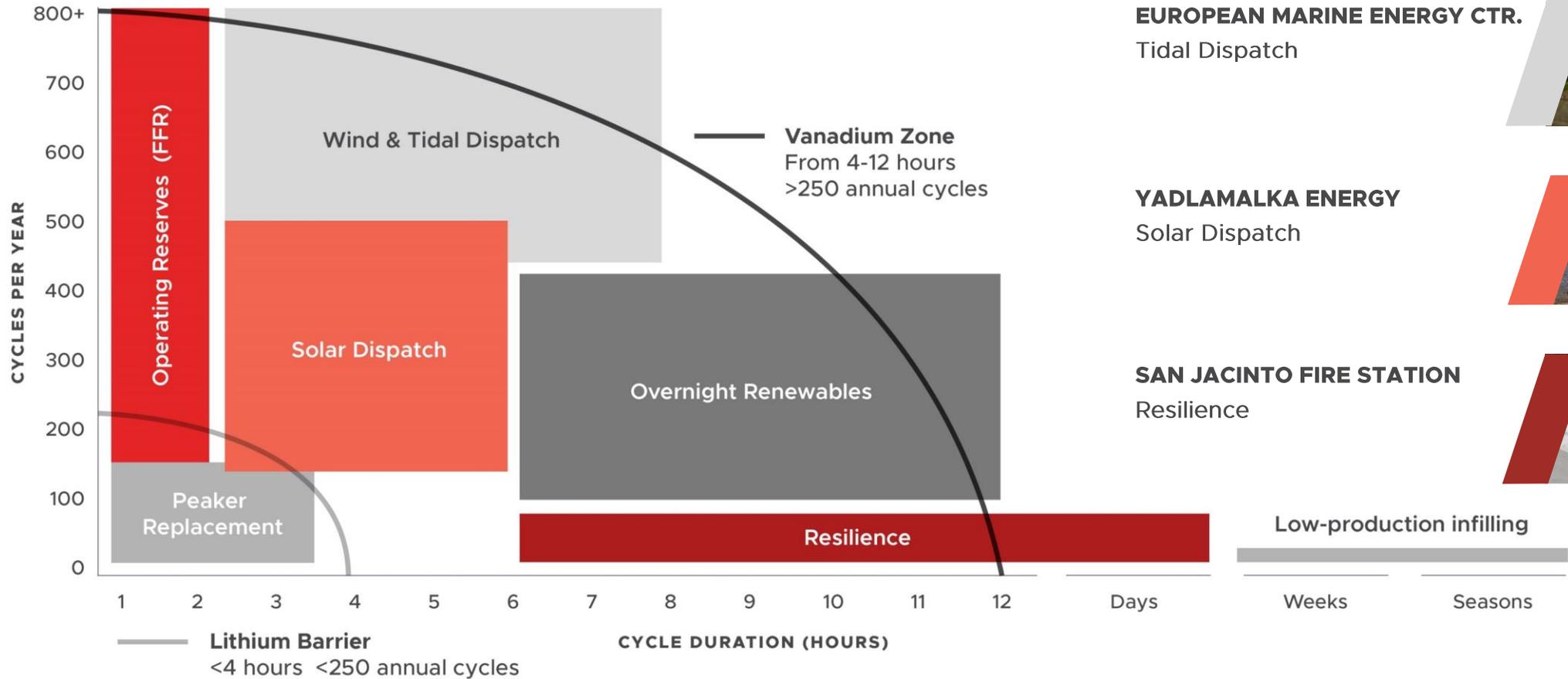
**25
YEARS**

**RECOMMENDED
DEPTH OF
DISCHARGE:**

100%

**CYCLE LIFE:
UNLIMITED**

VFB Use Cases



ENERGY SUPERHUB OXFORD
Operating Reserves



EUROPEAN MARINE ENERGY CTR.
Tidal Dispatch



YADLAMALKA ENERGY
Solar Dispatch



SAN JACINTO FIRE STATION
Resilience



Energy Superhub Oxford

THE UK'S LARGEST FLOW BATTERY

2 MW / 5 MWH



Scottish Water Perth

DECARBONIZING WATER TREATMENT

0.8 MWH + 1 MW SOLAR





European Marine Energy Centre

SUPPORTING HYDROGEN PRODUCTION

1.8 MWH

Chappice Lake Solar-Storage

CANADA'S LARGEST VANADIUM FLOW BATTERY

- 8.4 MWh flow battery system + 21 MWp solar array
- Generating clean energy on demand to serve the daily needs of more than 7,000 Albertans
- Order to be fulfilled with 38 Invinity VS3 batteries
- Operational in late 2022

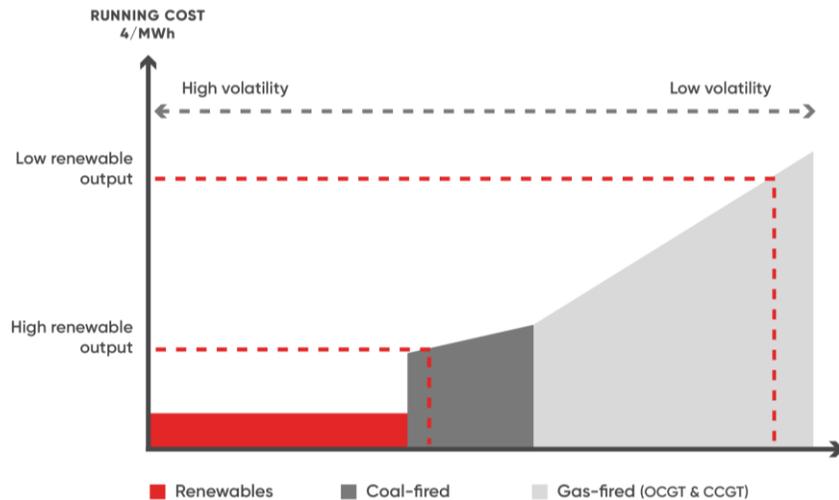


Yadlamalka Solar + Storage

WORLD'S LARGEST SOLAR-POWERED VFB

- 8 MWh Invinity Battery System + 6 MWp Solar PV
- Manufacturing starting H1 2021
- 41 Invinity VS3s
- Australia's largest flow battery
- Delivery 2022

DISPATCHABLE SOLAR TO DISPLACE THERMAL GENERATION



Soboba Fire Station

CLEAN POWER FOR CRITICAL INFRASTRUCTURE

- California Energy Commission-funded project
- 0.5 MWh flow battery system integrated with onsite solar PV
- 10-hours storage duration, supplying resiliency in a region heavily affected by wildfires
- Project to go live in San Jacinto in 2022



Air Station Miramar

US MARINE CORPS AIR STATION IN CALIFORNIA

- Ensuring round-the-clock energy resiliency while reducing overall energy costs
- 0.5 MWh flow battery system integrated for grid-connected or off-grid modes
- 10-hours storage duration, supplying resiliency in a region heavily affected by wildfires
- Project to go live in 2022





 **INVINITY**
ENERGY SYSTEMS