

INCUBATENERGY LABS

2023 Demo Days



Demonstration of Local
Microgrid Energy
Management Control

November 1-2
Vancouver, BC
Canada

EPRI

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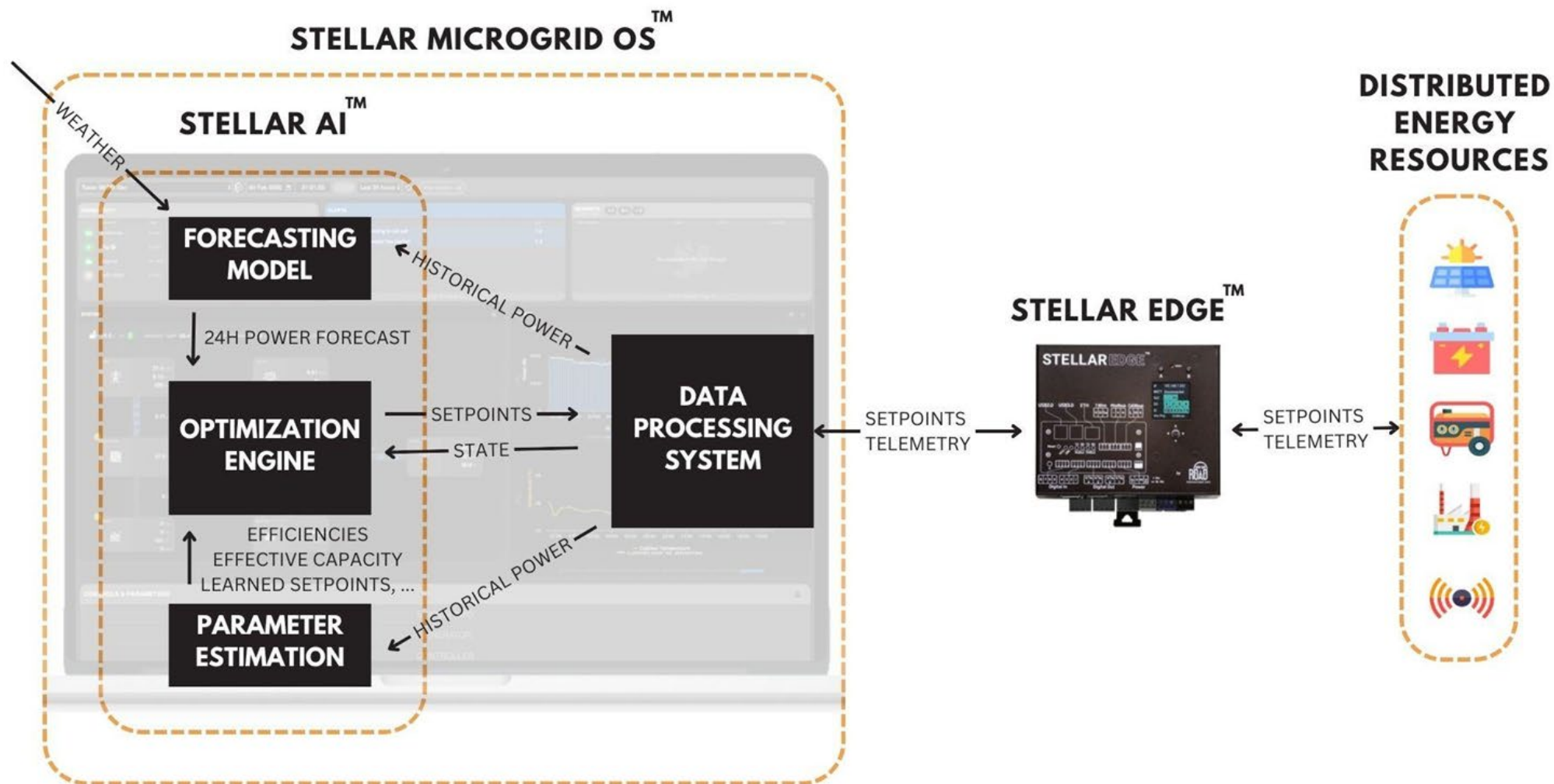


Resiliency drives microgrid deployments

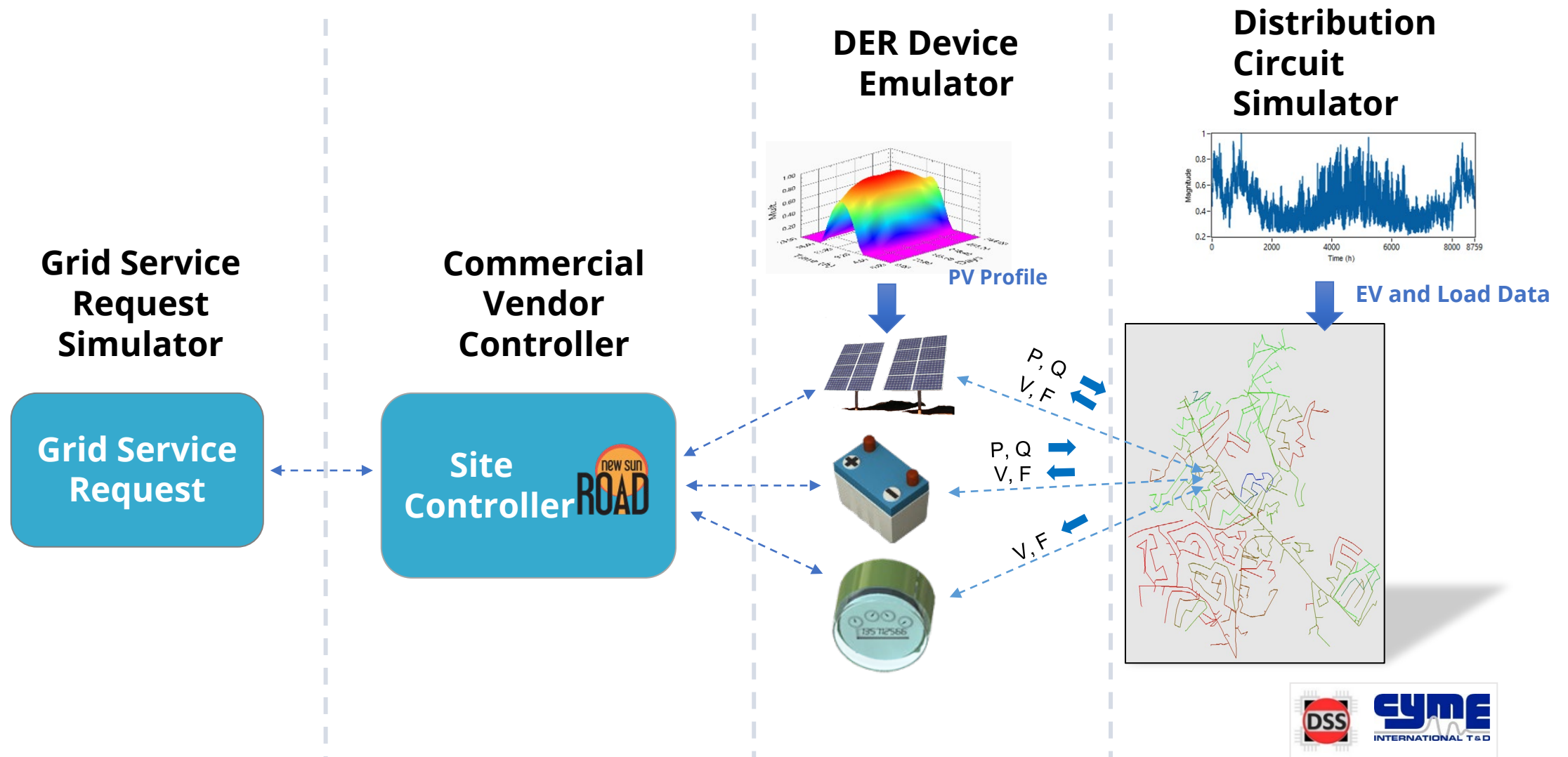
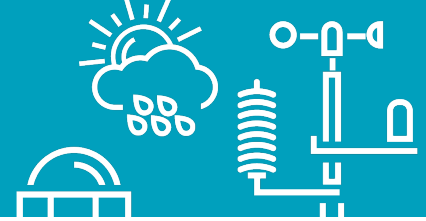
Microgrids can provide daily benefits as well...

- Reducing energy costs
- Increasing renewable energy
- Supporting the utility grid

AI Optimization with New Sun Road



Simulation Platform for Integration of Distributed Energy Resources (SPIDER)



Pilot Demonstration Overview



Setting

Islandable microgrid

EV charging outside the microgrid

Problem

EV charging causes overload

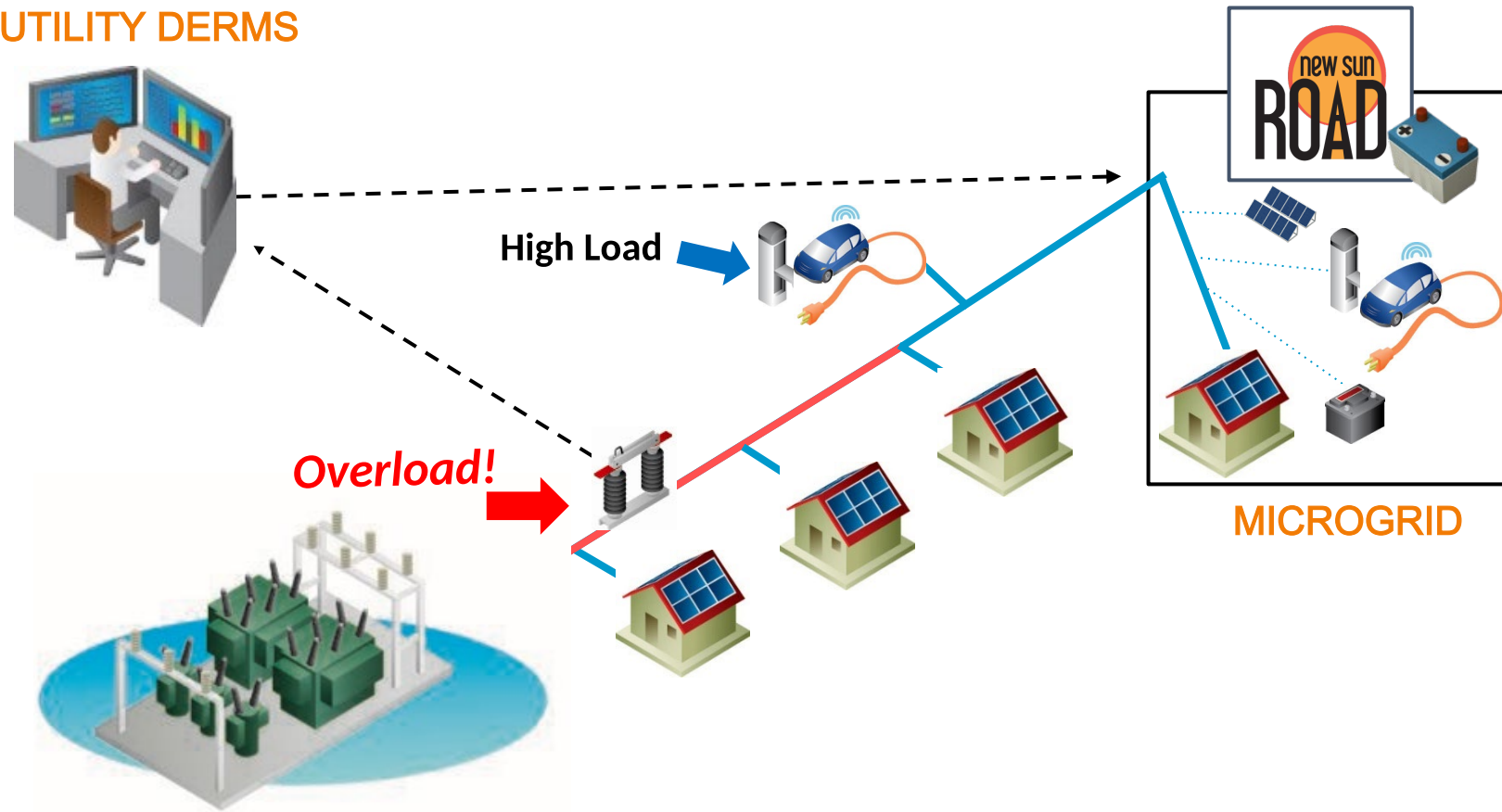
Goals

Utility DERMS requests support from microgrid

New Sun Road controls provide support

Overload prevented

UTILITY DERMS

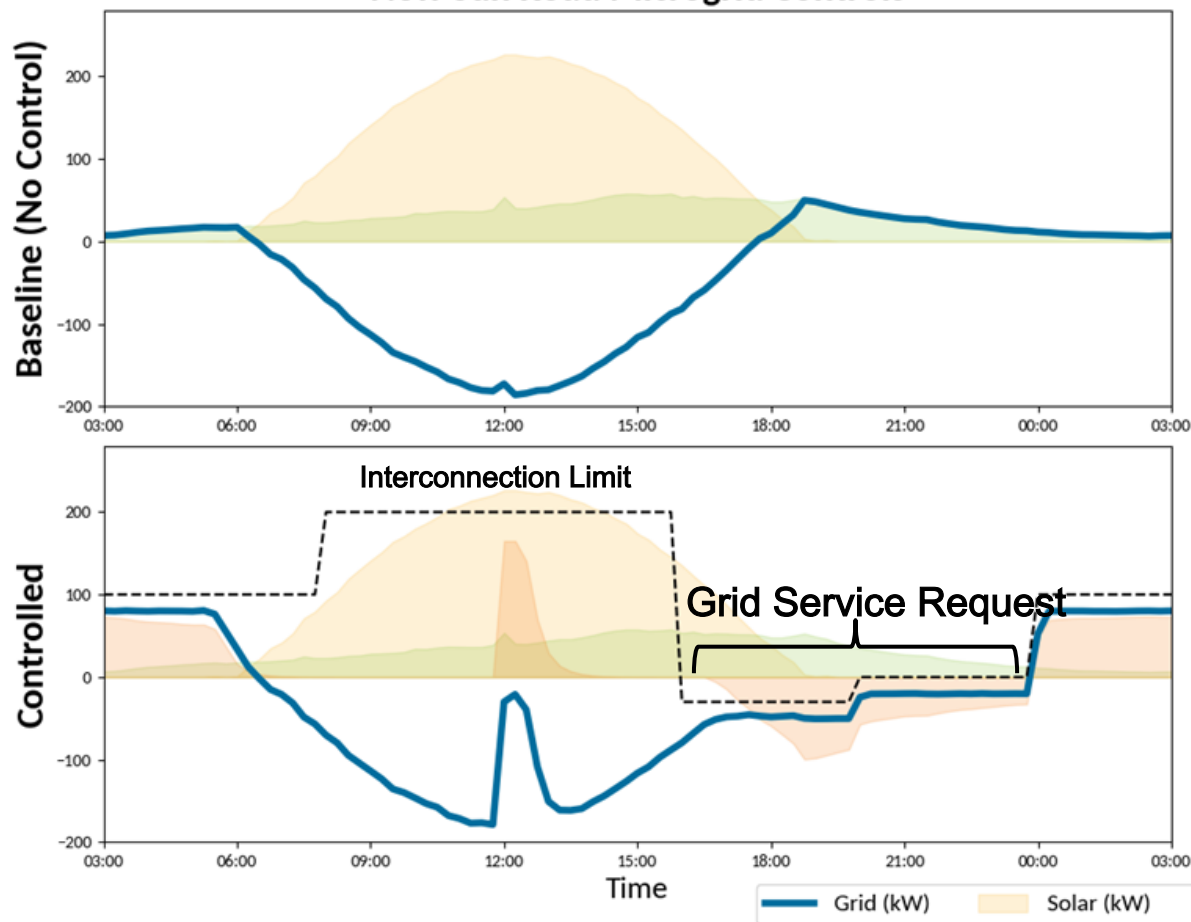


Pilot Demonstration Results

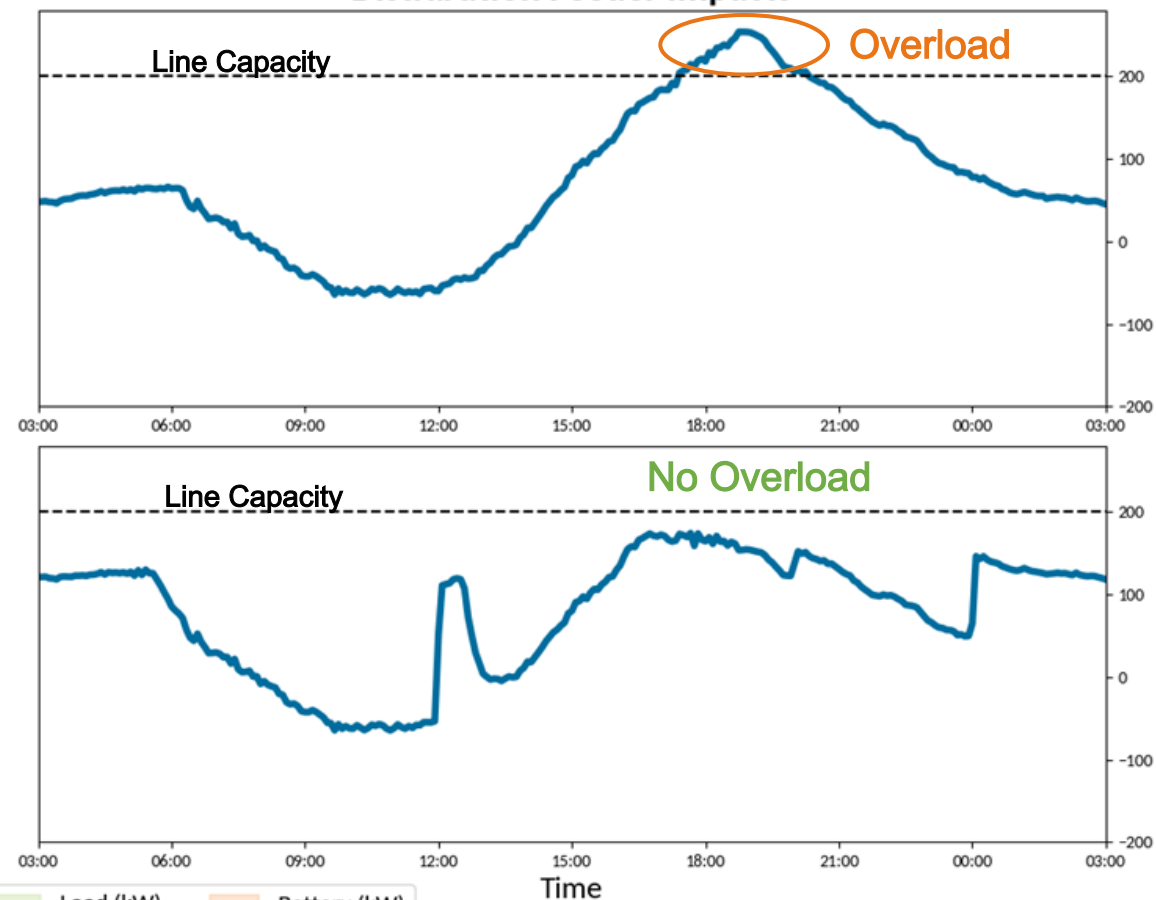


- *Baseline scenario*: Grid overload without controls
- *Controlled scenario*: New Sun Road response to grid service request prevents overload

New Sun Road Microgrid Controls



Distribution Feeder Impacts



What's Next

- Extend this project to include to new use cases and scenarios
- Work directly with utilities on a DER control project
- Demonstrate energy management potential (EMS) with a utility for EV adoption
- Collaboratively use the SPIDER testbed with utility partners to evaluate New Sun Road's technology and applications in a simulation environment



Our Team



ENERGY PROVIDERS

New Sun Road

- Jonathan Lee, *Director of Research, Co-founder*
jlee@newsunroad.com
- Robin Milshtein, *Director of Business Development*
rmilshtein@newsunroad.com
- Michael Goldbach, *Chief Product Officer*
- Adrienne Pierce, *CEO*
- Maya Sprouse, *Applications Engineer & Data Scientist*
- Daniel Wehara, *Applications Engineer*
- Sophia Haoui, *Software Engineer*

EPRI

- Jacqueline Baum, *Technical Leader*
JBaum@epri.com
- Ben York, *Applications Manager*
BYork@epri.com
- Manisha Rauniyar, *Engineer / Scientist I*
- Ahmed Saad, *Senior Research Scientist*
- AHM Jakaria, *Technical Leader*
- Aditi Garg, *Principal Energy Consultant*
- Nandha Kandasamy, *Principal Engineer Consultant*

