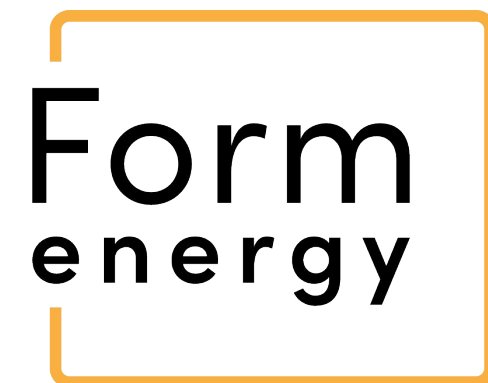


NEW SOLUTIONS THAT ENABLE:

- **GRID RESILIENCY**
- **CARBON REDUCTION**
- **COST STABILITY**
- **COAL REPLACEMENT**

November 2023

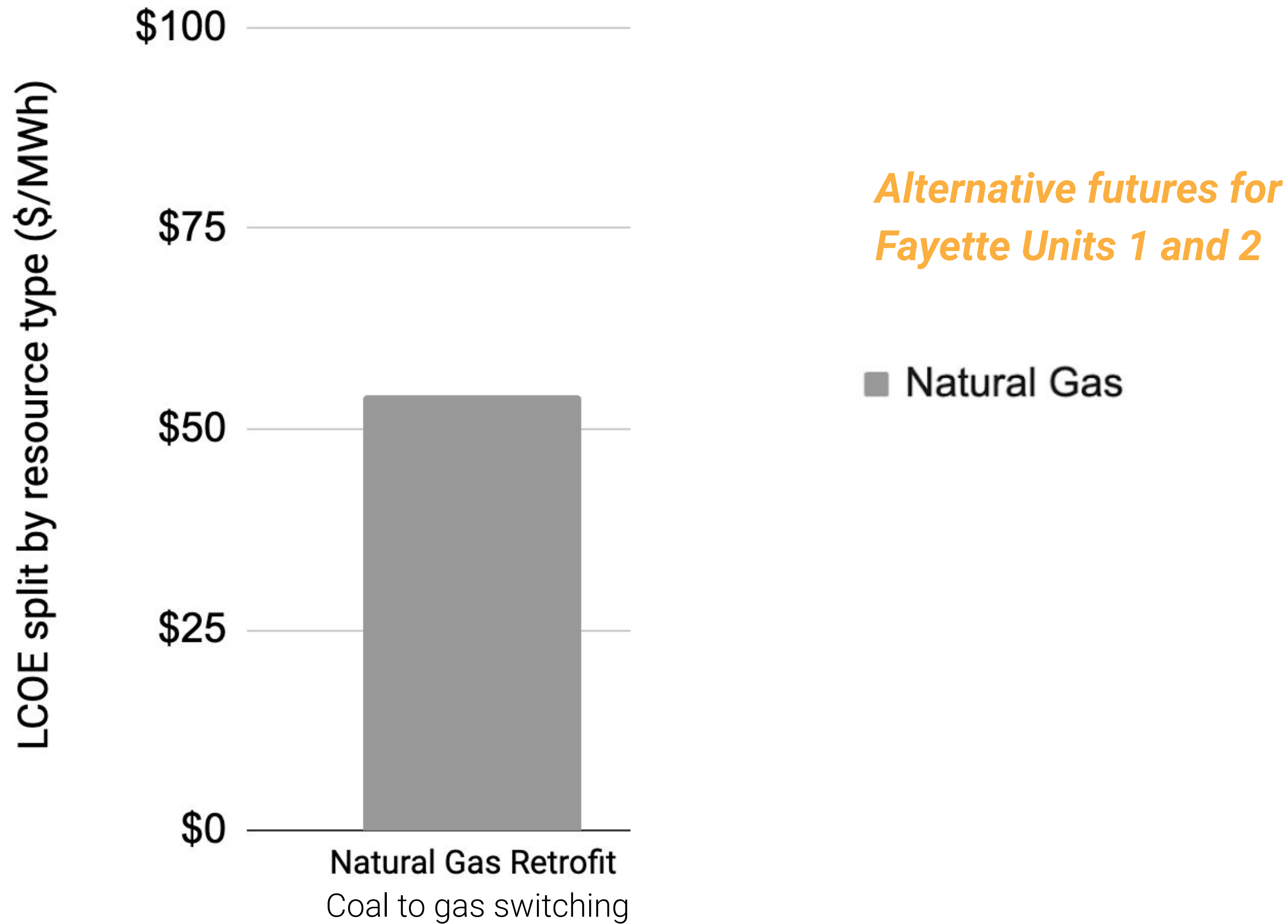


Energy Storage
For A Better World

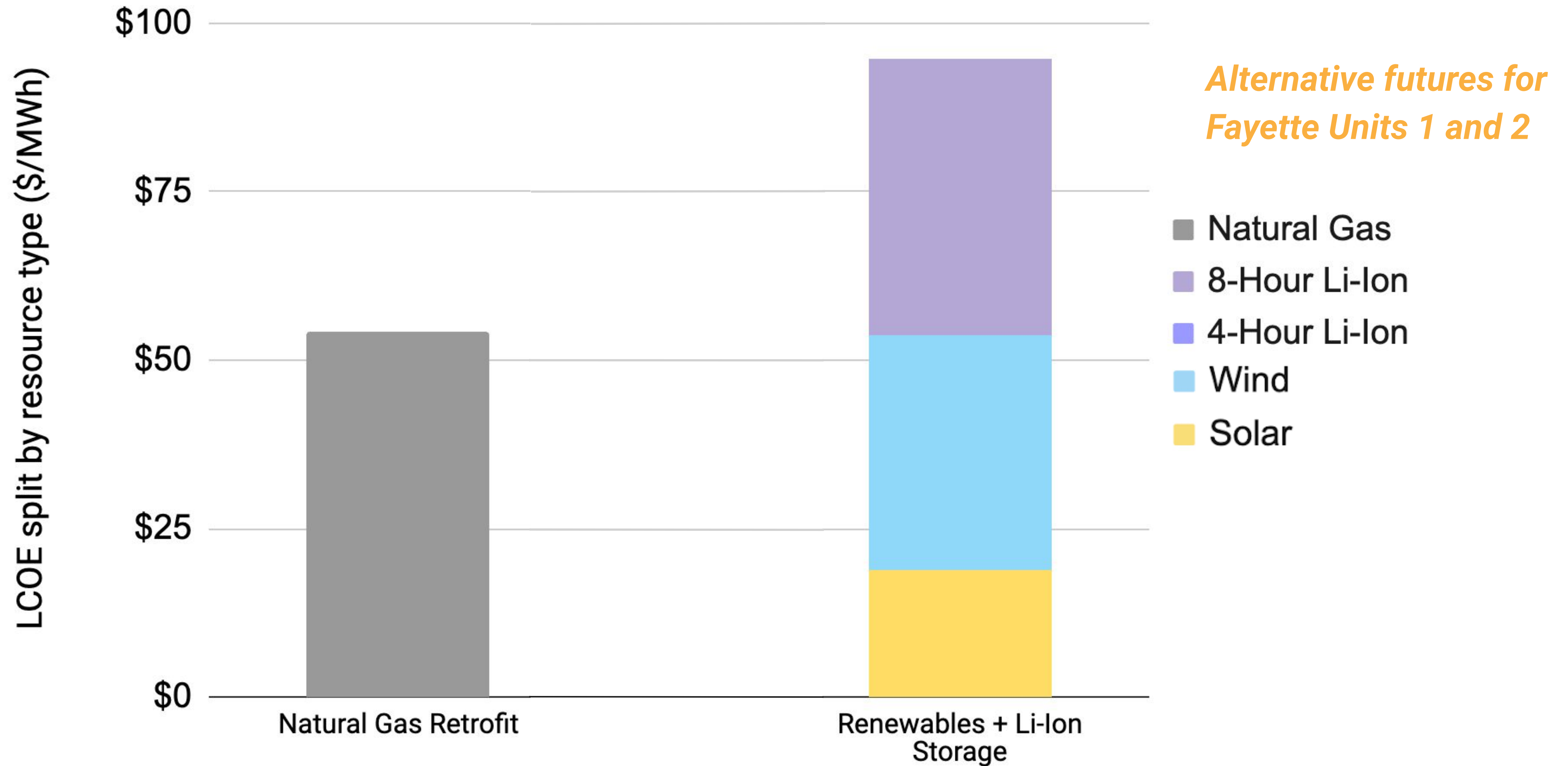
CONFIDENTIAL



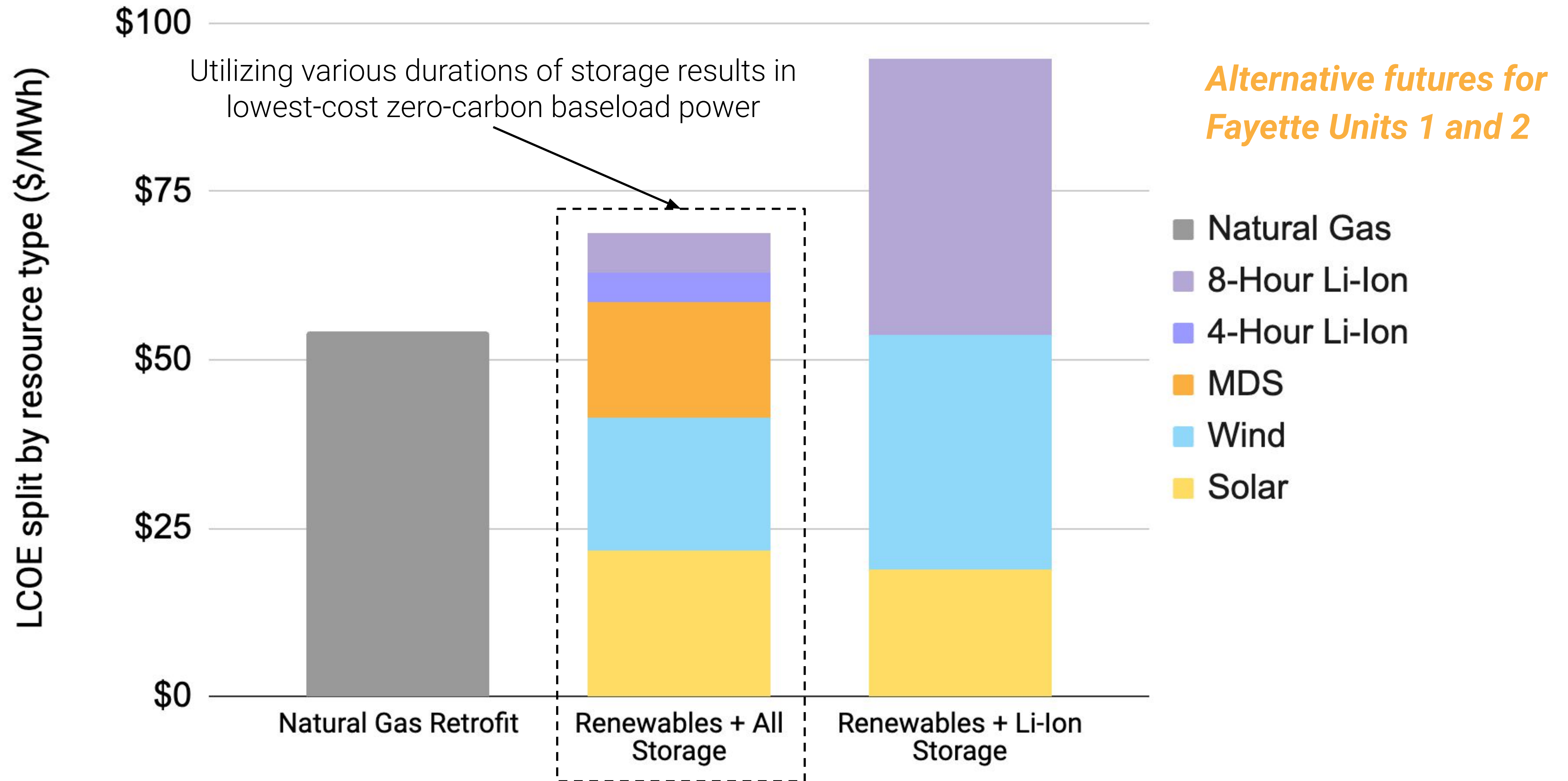
New options for coal replacement: Coal to gas switching



New options for coal replacement: Zero-carbon Renewables + Li-Ion



New options for coal replacement: Renewables + all storage



Why we started Form

To give utilities the tools they need to solve their biggest problems associated with the energy transition:



Intermittency of renewable assets creates periods of undersupply



Clean energy goals and changing economics risk stranding fossil assets

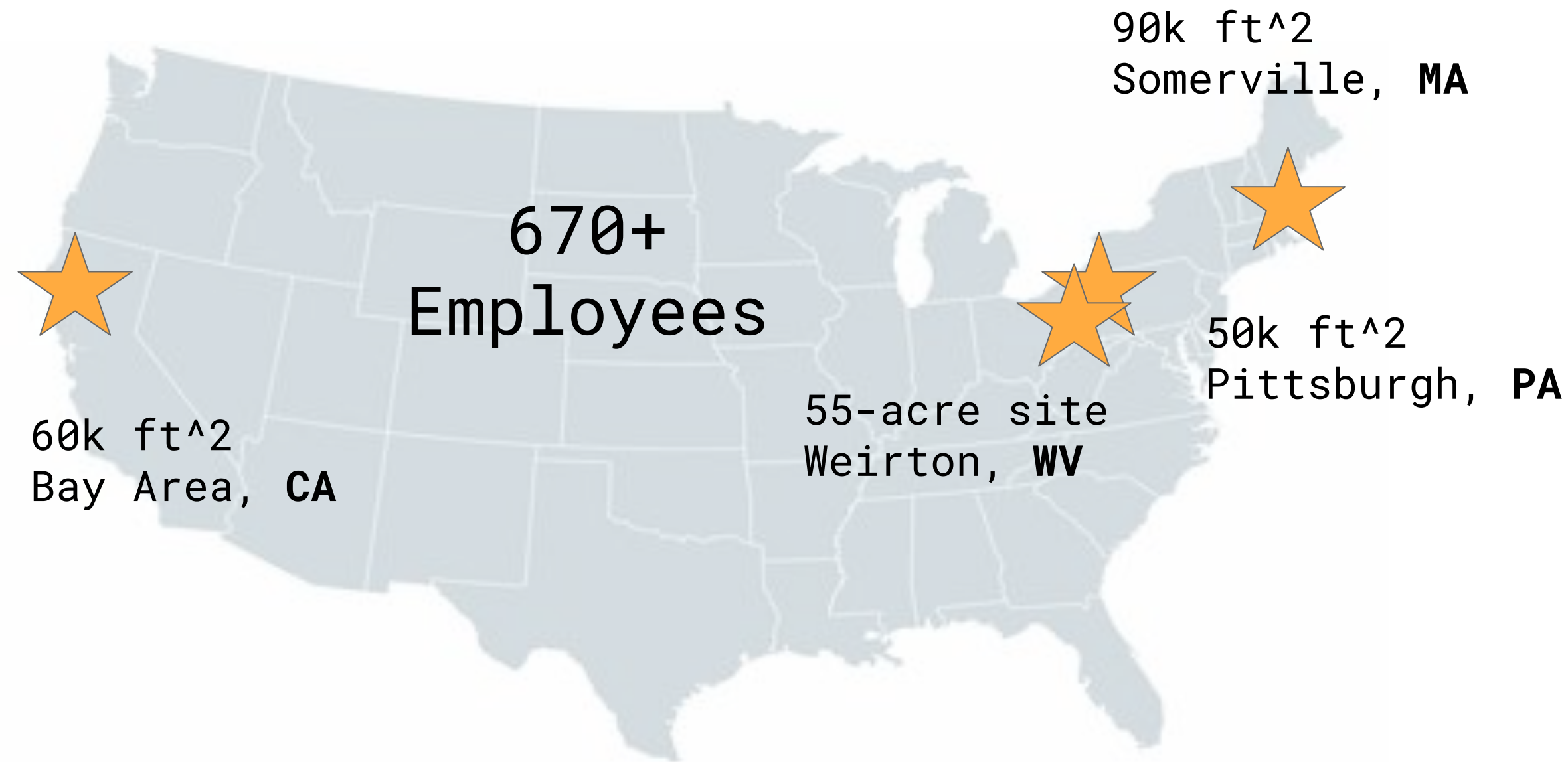


Extreme weather events are becoming more frequent and disruptive to customers



Transmission congestion and interconnection queue backlogs are increasing

Rising to the grid's challenges with a team that will deliver



OUR INVESTORS: LONG-TERM AND IMPACT-FOCUSED

\$820M in venture capital from top investors including: Breakthrough Energy Ventures (BEV), TPG's Climate Rise Fund, Coatue Management, GIP, NGP Energy Technology Partners III, ArcelorMittal, Temasek, Energy Impact Partners, Prelude Ventures, MIT's The Engine, Capricorn Investment Group, Eni Next, Macquarie Capital, Canada Pension Plan Investment Board, and other long-term, impact oriented investors

LED BY ENERGY STORAGE VETERANS

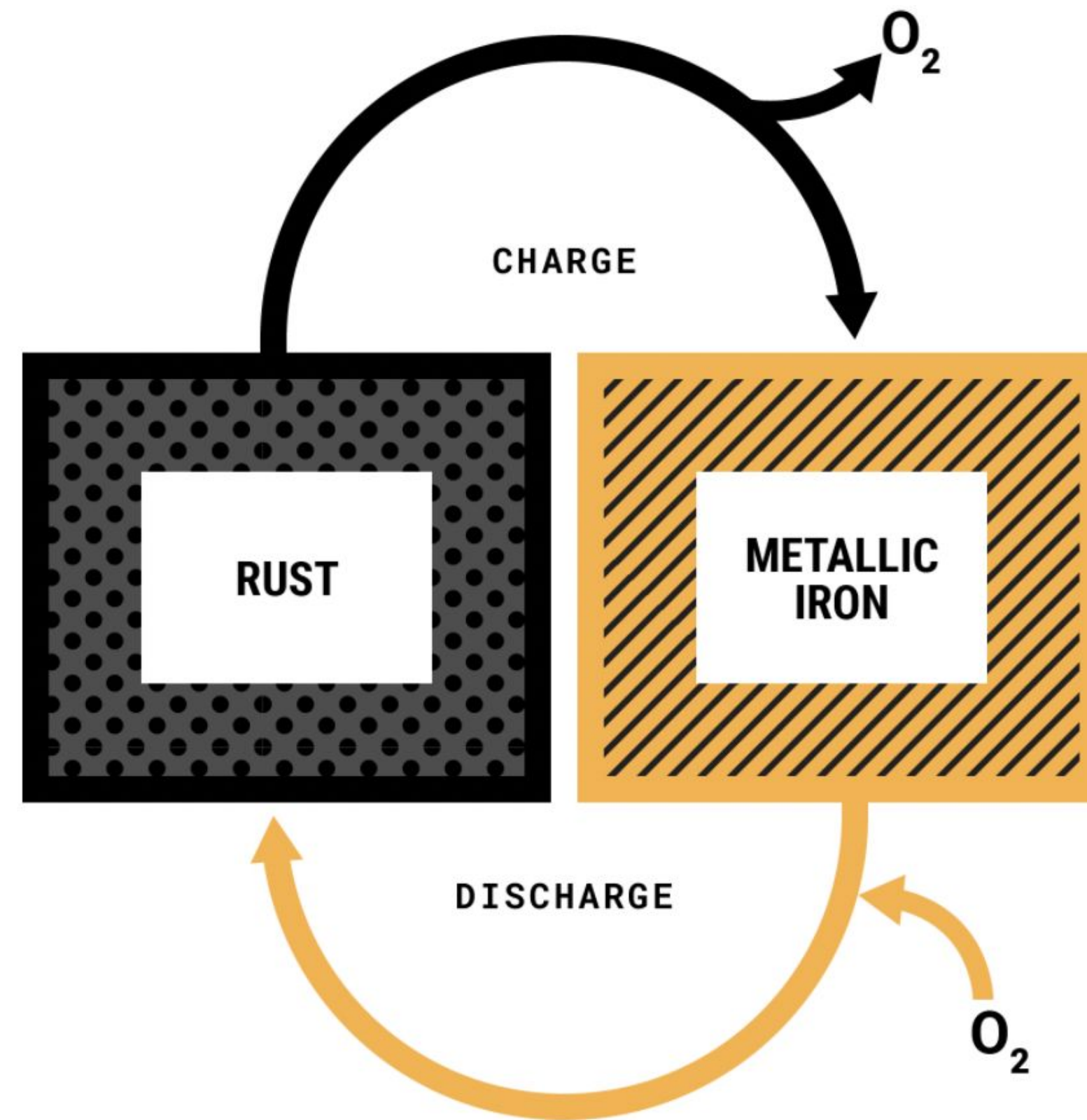
Decades of cumulative experience in energy storage

- 100's of MW of storage deployed



Our new solution: multi-day storage (MDS) through a rechargeable iron-air battery system

Form's 100-Hour
Reversible Rust Battery



What makes up a Form Energy system

Modular design enables easy scaling to GWh systems

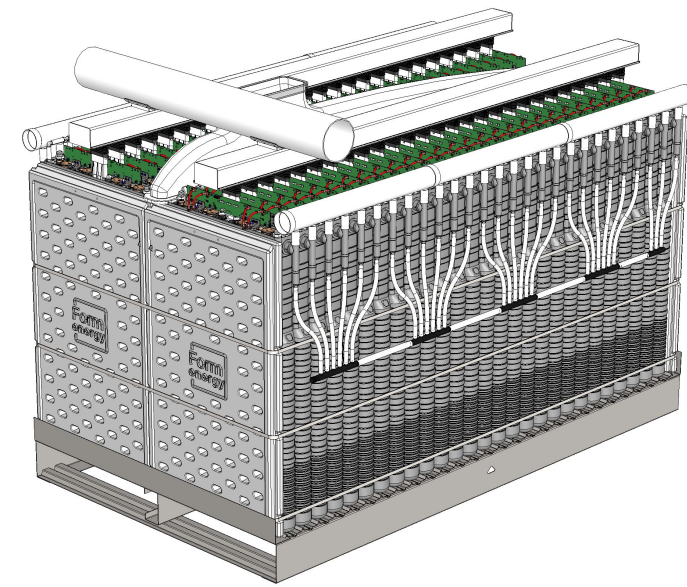
Cell



Electrodes + Electrolyte

Smallest **Electrochemical** Functional Unit

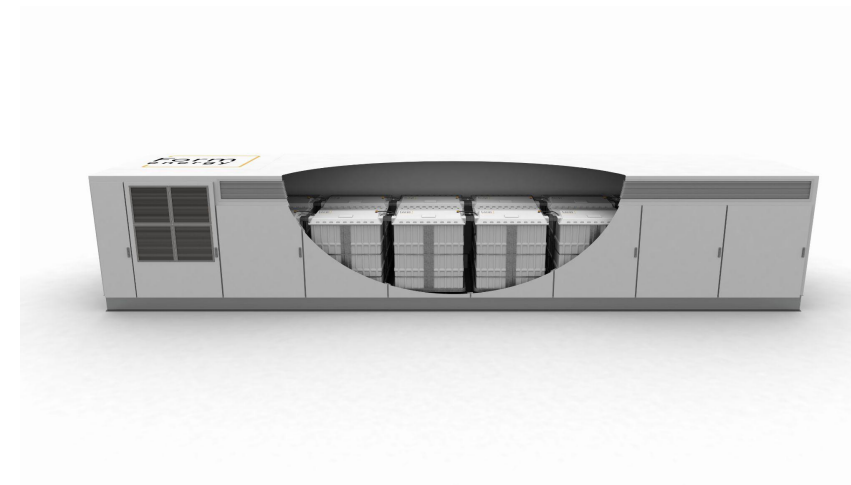
Battery Module



~50 **Cells**

Smallest Building Block of **DC** Power

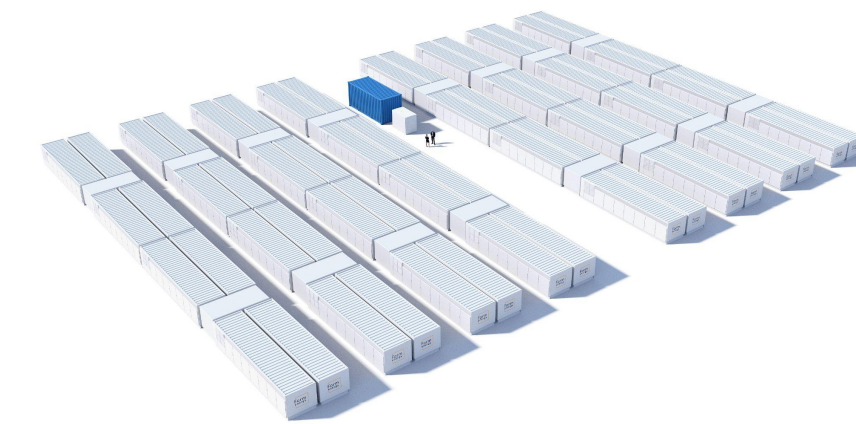
Enclosure



~5 **Modules**

Product Building Block with **integrated module auxiliary systems**

Power Block



~3.5 MW / 350 MWh

<2 acres

~50 - 100 **Enclosures**

Smallest independent system and **AC Power** building block

System



10 MW / 1000 MWh

5+ acres

10s - 100s of **Power Blocks**

Commercial Intent System

Over 5 GWh of Commercial Engagements



First-of-its-kind **1.5 MW / 150 MWh** MDS project in Cambridge, Minnesota to come online in 2024



Two 10 MW / 1,000 MWh MDS systems; one in Becker, MN and one in Pueblo, CO. Both projects are expected to come online as early as 2025



5MW / 500 MWh Darbytown Storage Pilot Project in Henrico County, VA expected to be operational by 2026



15 MW / 1500 MWh MDS system in Georgia to come online as early as 2026



10 MW / 1000 MWh MDS system in New York to come online as early as 2025

Why they chose Form

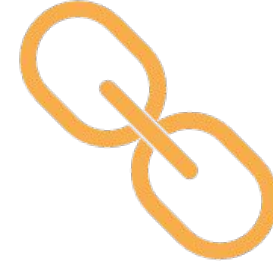
SAFETY



Non-flammable aqueous electrolyte.

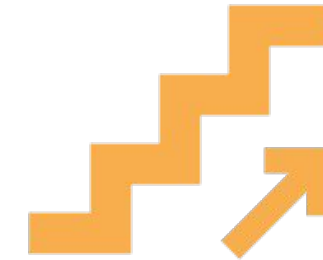
No risk of thermal runaway. No heavy metals.

RELIABILITY



100+ hr duration required to make wind, water and solar reliable year round, anywhere in the world.

SCALE



Uses materials available at the global scale needed for a zero carbon economy.

High recyclability.

COST



Lowest cost rechargeable battery chemistry.

At scale, < 1/10th the cost of lithium-ion batteries.

Why they chose Form

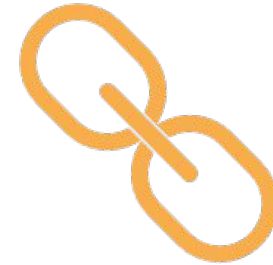
SAFETY



Non-flammable aqueous electrolyte.

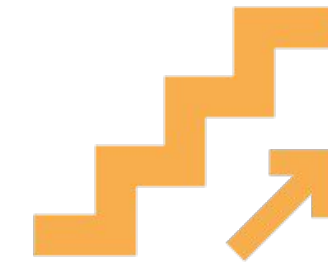
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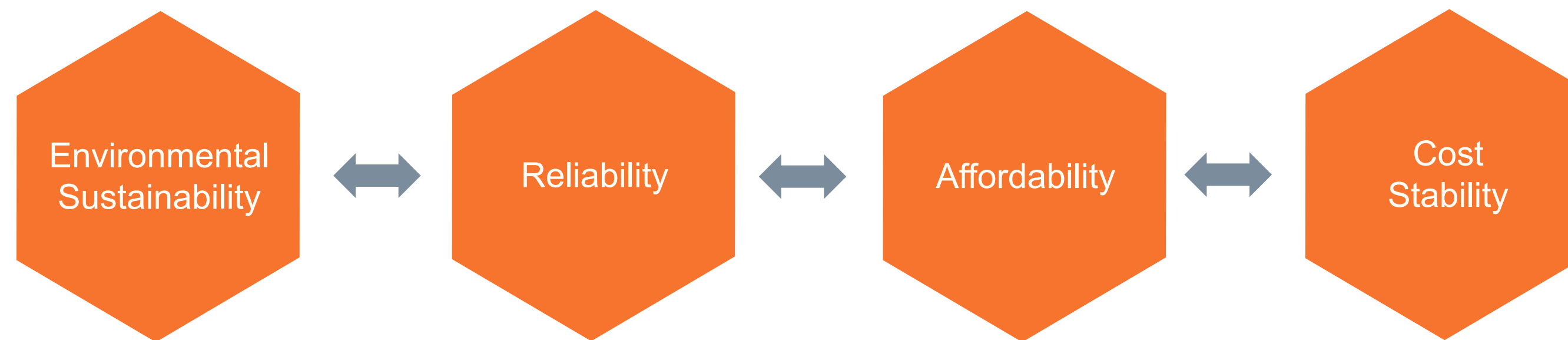
COST



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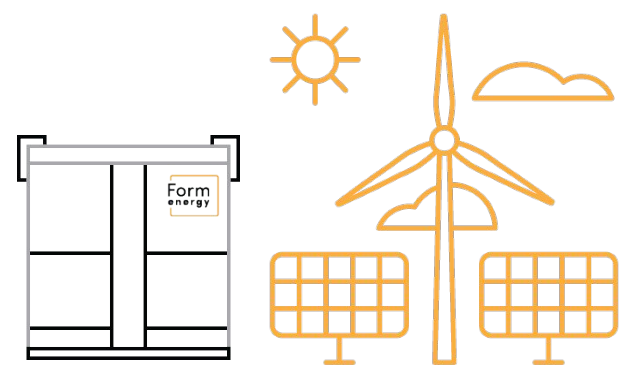
Aligns with Austin Energy's REACH Pillars



Austin Energy: Form Energy's Initial Analysis

Identified 3 applications where multi-day storage would contribute significant value

Application 1



Replacing Fayette Power Project Coal Generation

- Providing zero-carbon baseload power.

Application 2



Decker Creek GT Generation Replacement

- Clean, low cost peaker plant alternative.

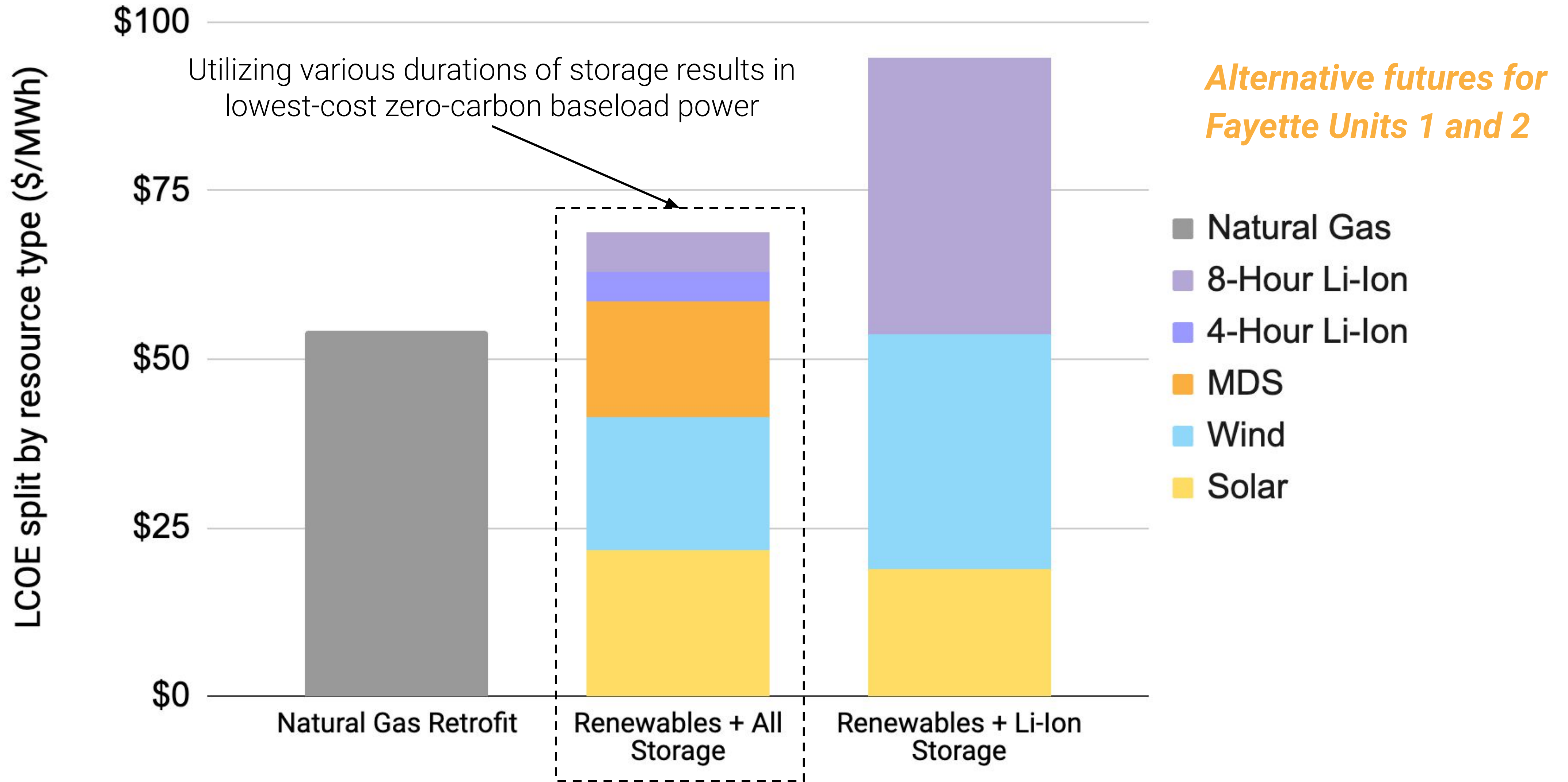
Application 3



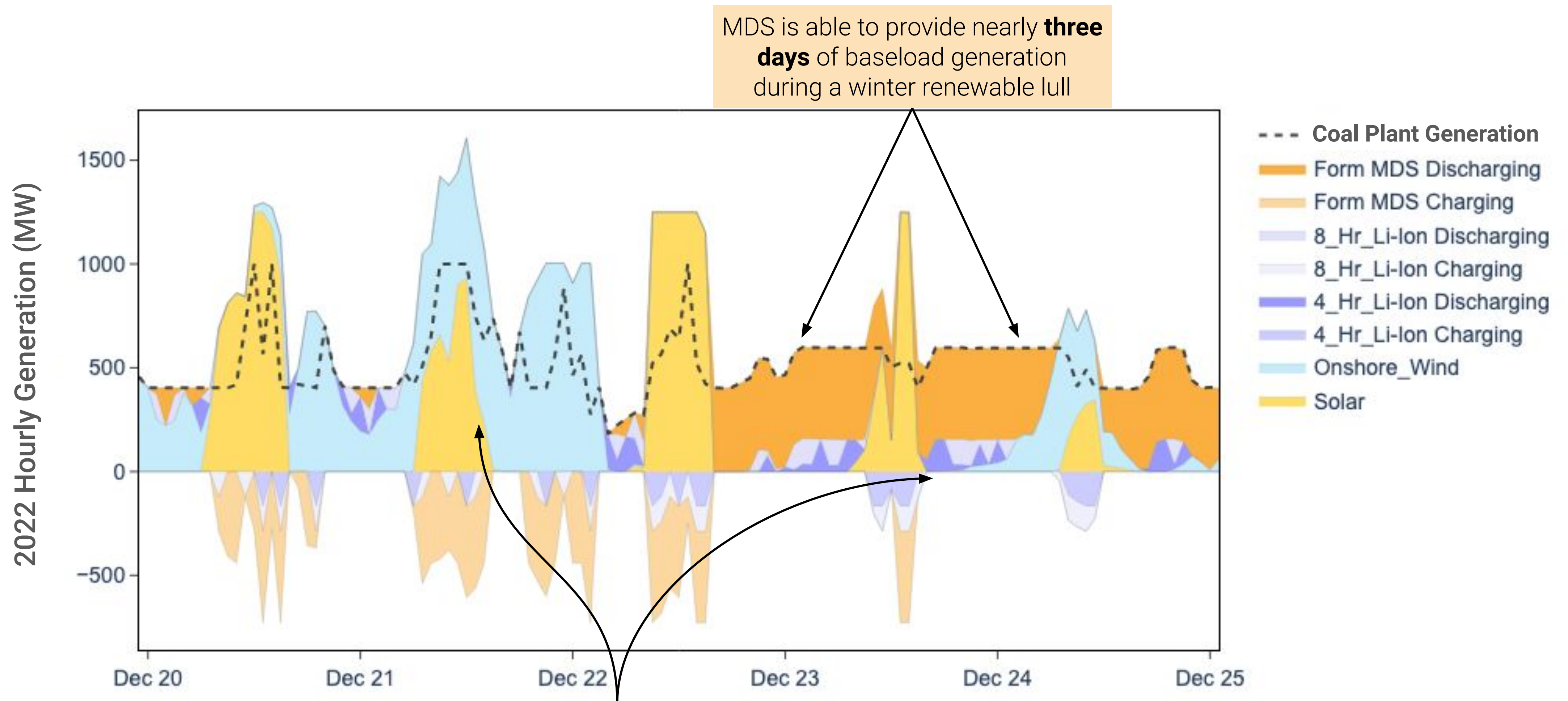
Resiliency for Extreme Weather Events

- Significantly de-risk major weather events, such as: Winter Storm Uri, storm Mara, heat waves, and low wind production.

Application 1 | Replacing Fayette Power Project Generation

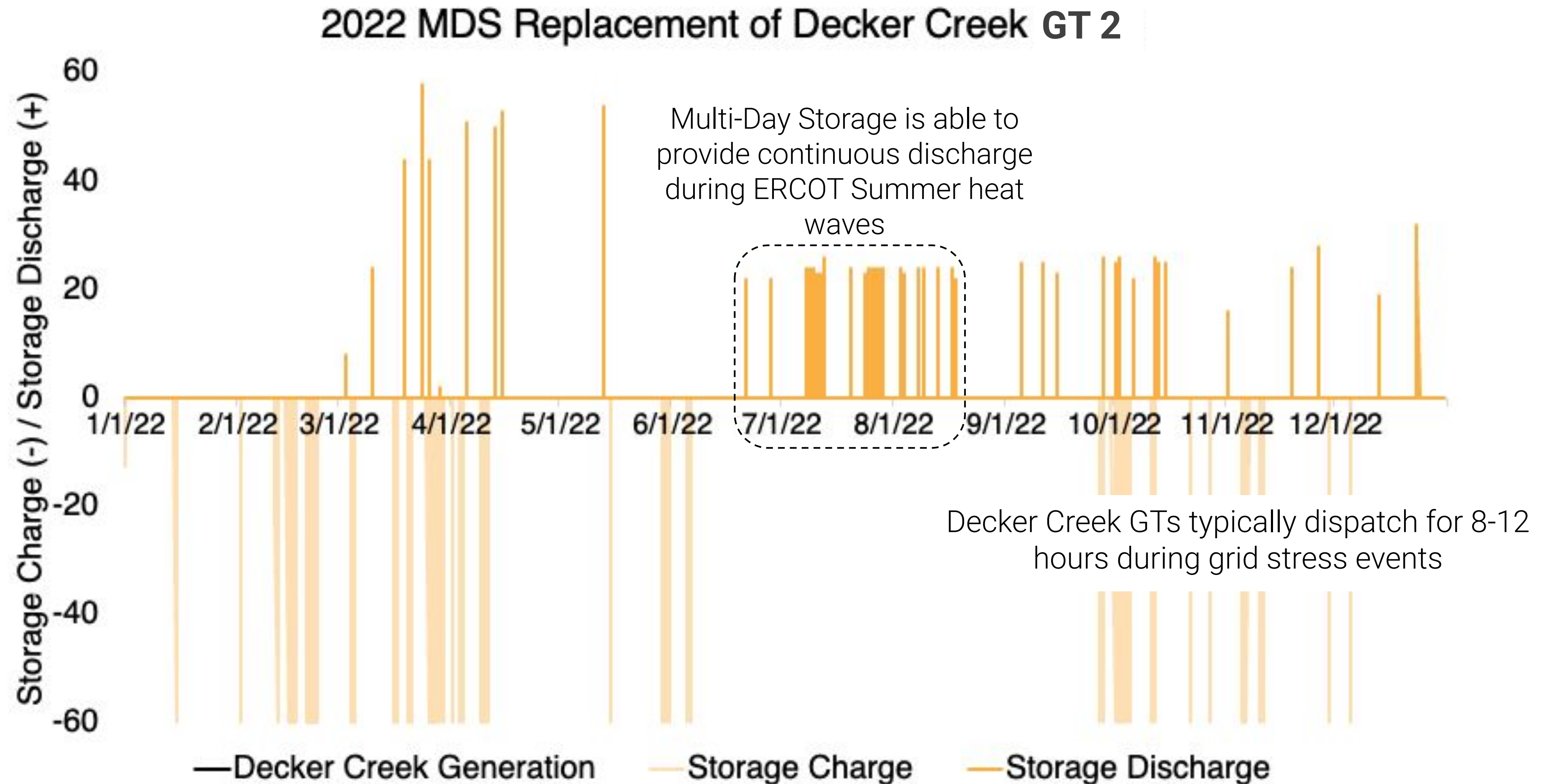


Extra hours really matter during renewable lulls



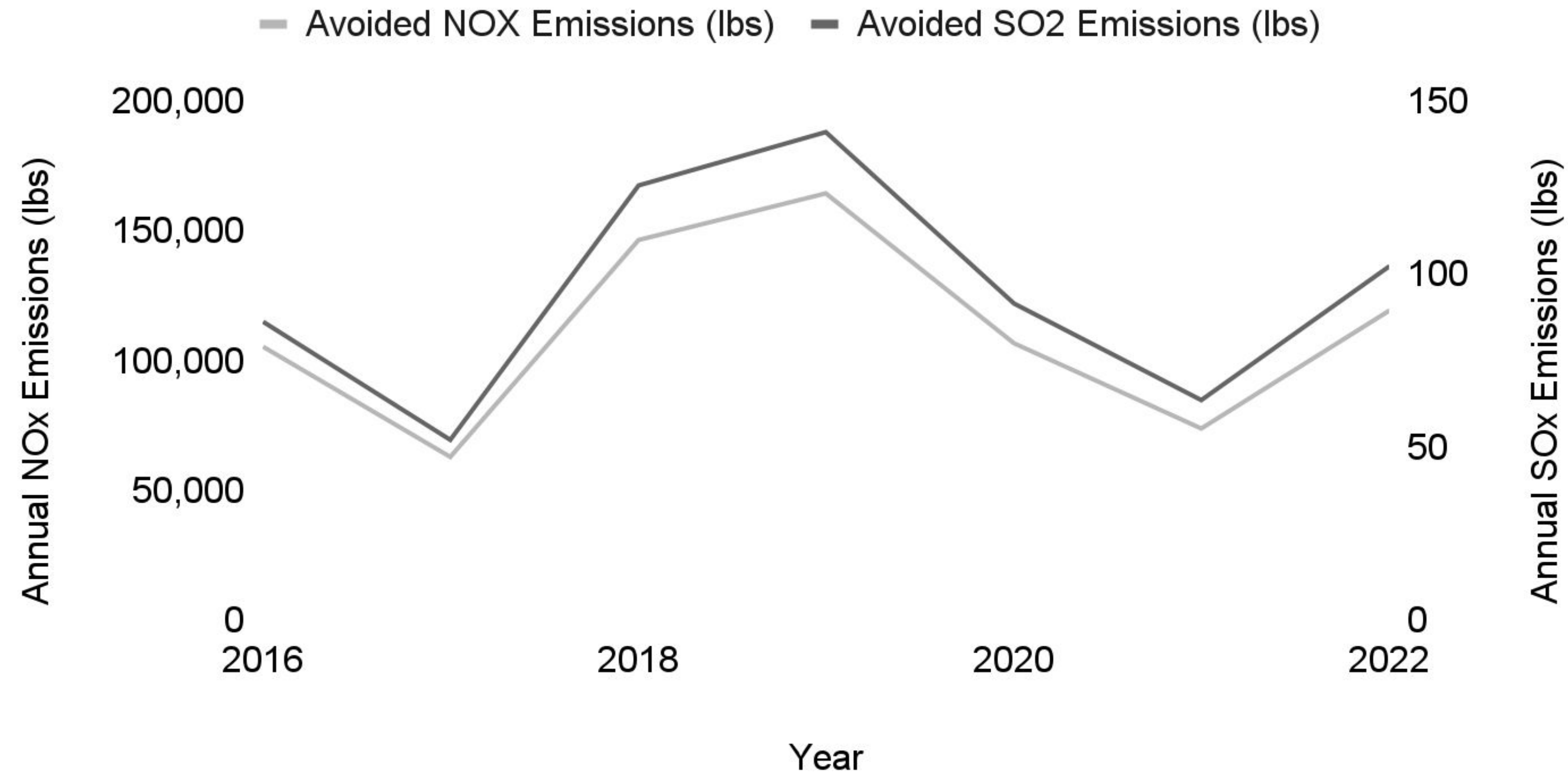
Application 2 | Decker Creek natural gas peaker replacement

60 MW of Form's 100-hour battery is able to **provide full coverage** of GT 2's 2022 generation



Replacement = Reduced emissions

Avoided Criteria Pollutant Emissions, assuming MDS replacement of Decker Creek GT



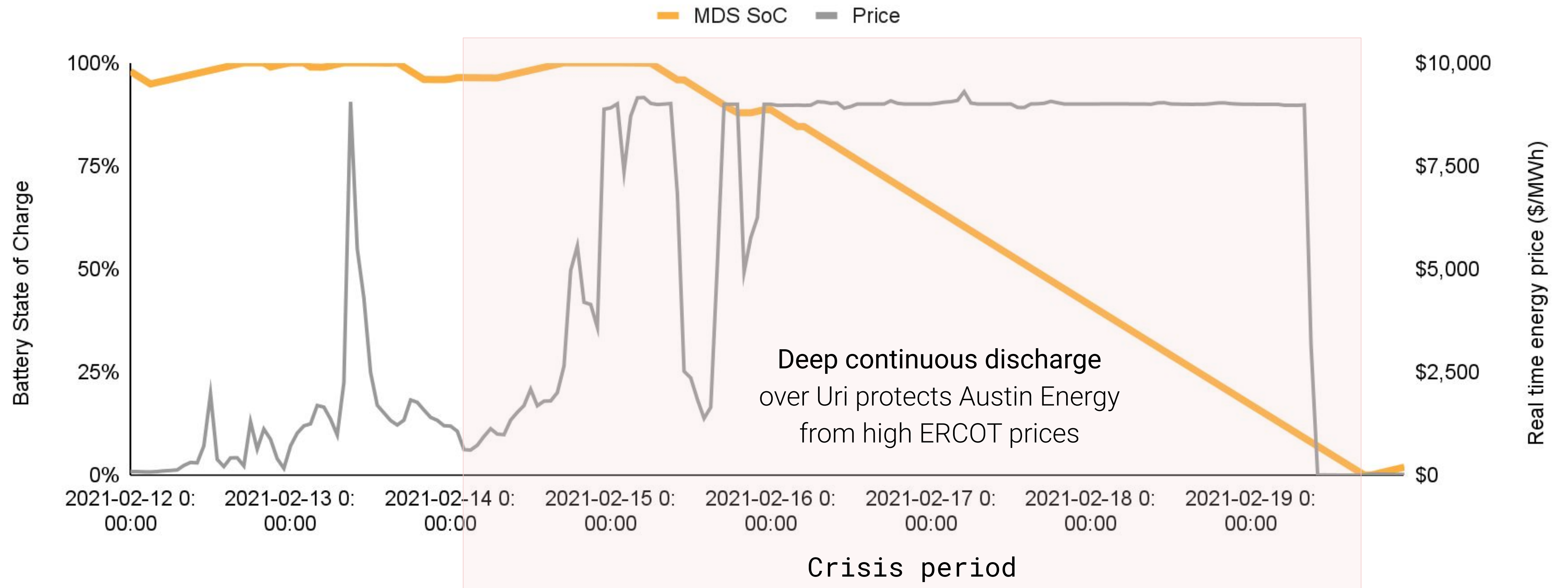
Source: 2016-2022 CEMS data for Decker Creek GT 2, as compiled by S&P Global Market Intelligence.

- Form Energy's battery provides generation with no on-site criteria pollutants
- As Austin Energy's portfolio continues to decarbonize, grid emissions from battery charging will continue to decline, eventually approaching net-zero by 2035.

Application 3 | Resiliency for the next extreme weather events

During events like Uri, MDS provides significant cost savings for Austin Energy

Iron-air battery operations during Winter Storm Uri

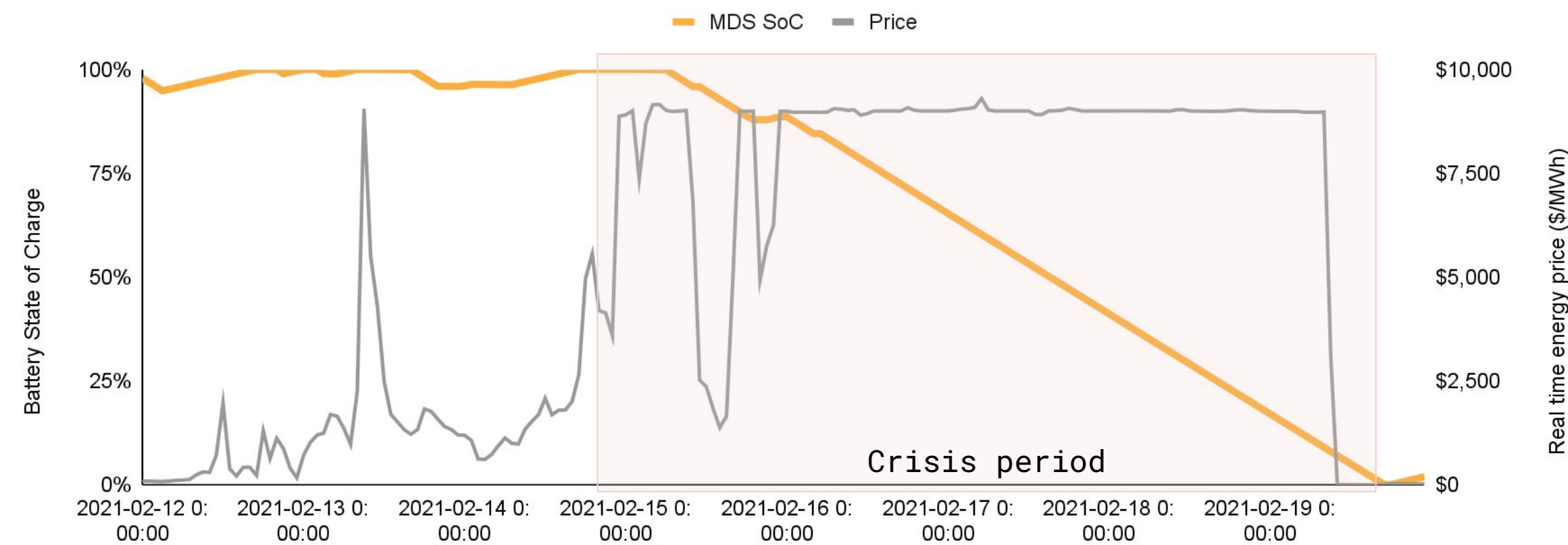


Application 3 | Resiliency for the next extreme weather events

During the week of Uri, MDS would capture 5x the savings vs. a Li-ion system

50 MW MDS system during 2021's Winter Storm Uri

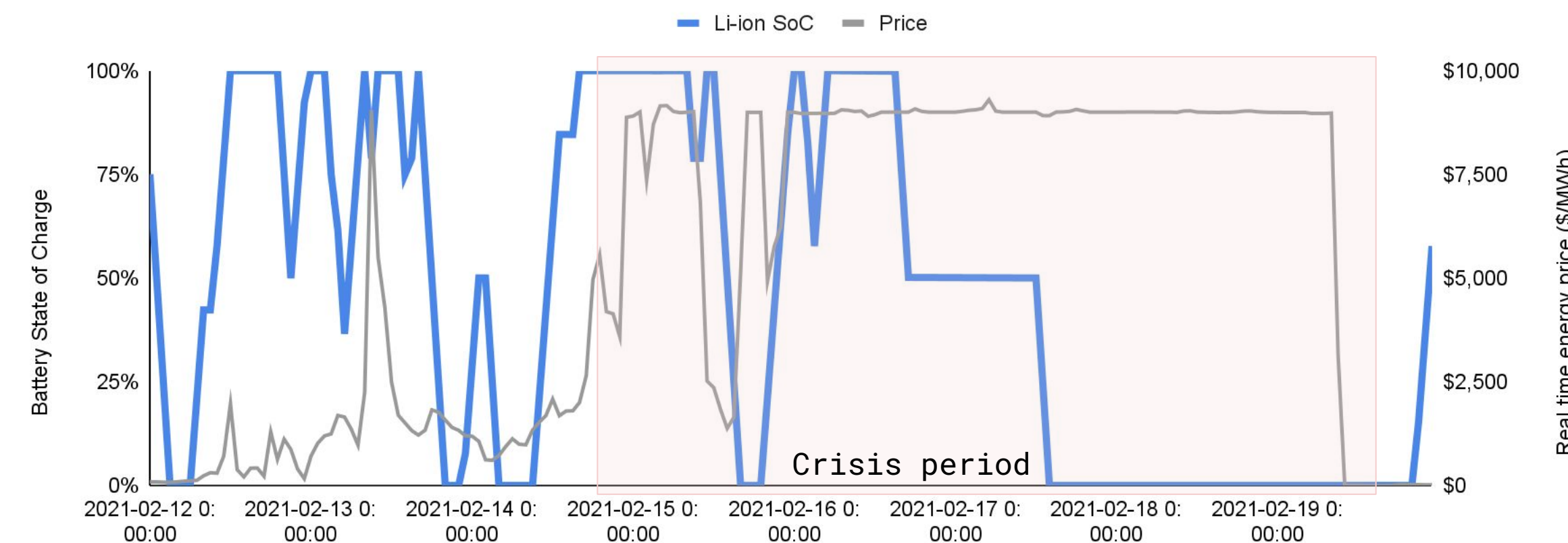
Iron-air battery operations during Winter Storm Uri



Deep continuous discharge over the event allows MDS achieve >90% utilization

50 MW 4hr Lithium ion system during 2021's Winter Storm Uri

Li-ion battery operations during Winter Storm Uri



Shallow cycling increases charging costs, allowing only ~45% utilization

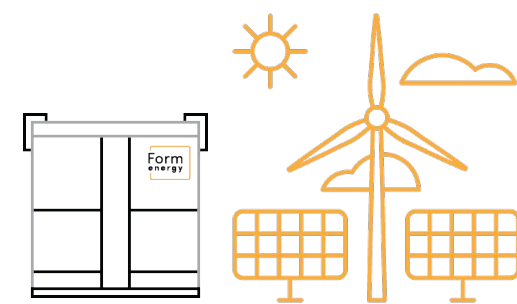
A partnership between Austin Energy and Form would enable transition to a deeply decarbonized, cost-effective, reliable system

Demonstrate

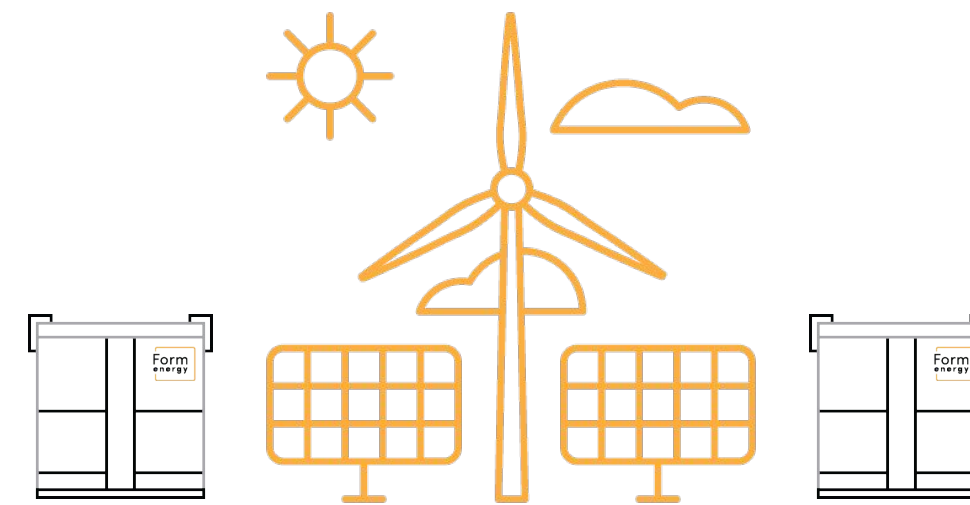
Scale

Transform

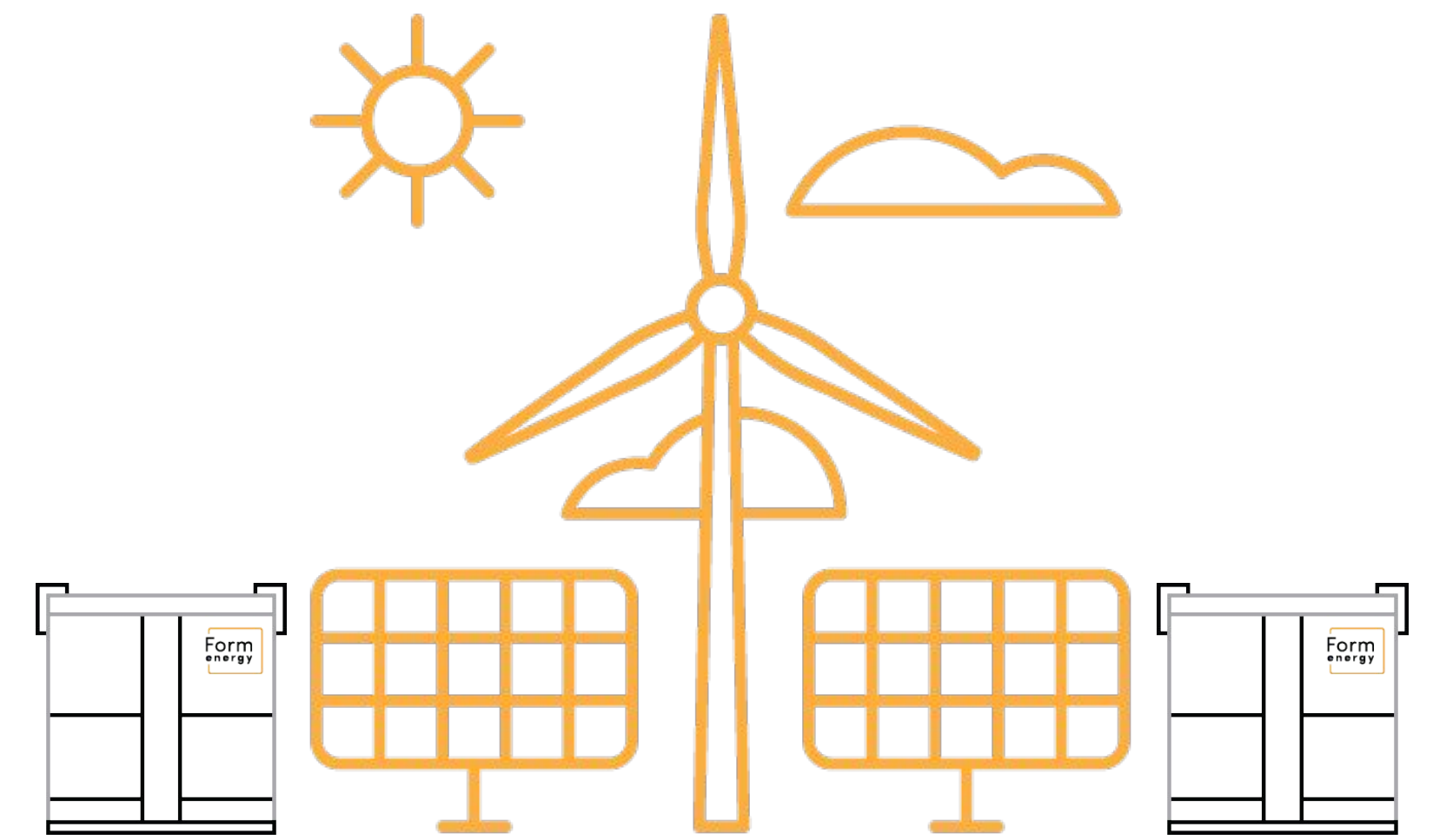
Inclusion in Resource Generation Plan



2026



2027-2028



2035

Multi-day Storage
Cumulative Capacity

20 MW

300 MW

~800 MW

Percent Decarbonized



100%

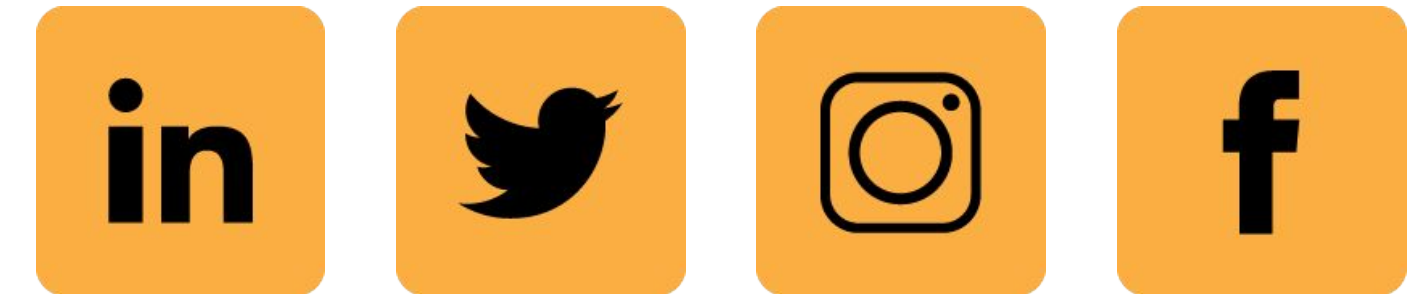
Let's stay in touch!

Ford Wyatt

Senior Project Development Manager

(703) 554-3834

fwyatt@formenergy.com



30 Dane St.

Somerville, MA 02143

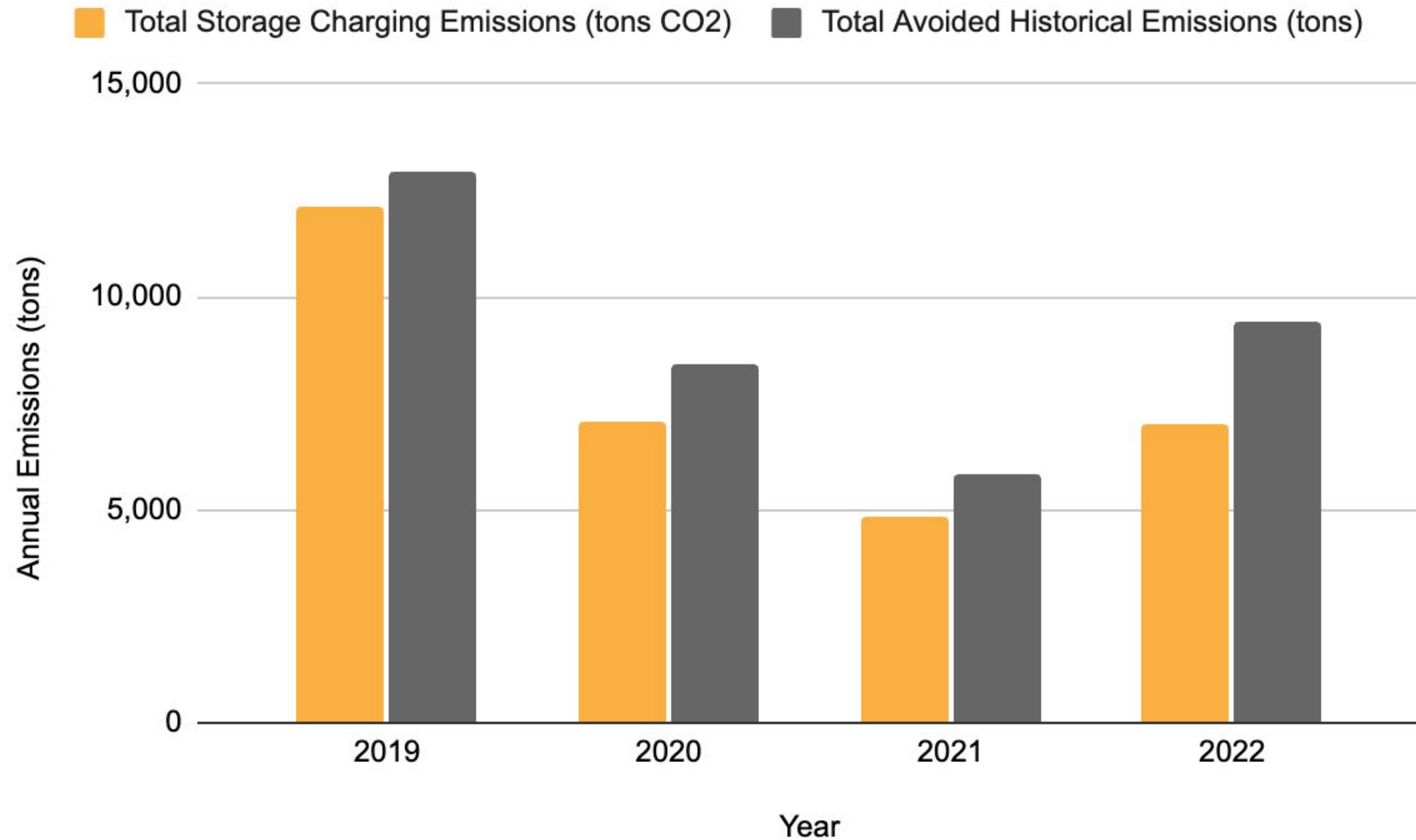
1 (844) 367-6462

info@formenergy.com

www.formenergy.com

Appendix

Decker Creek Replacement: Carbon Emissions Reduction



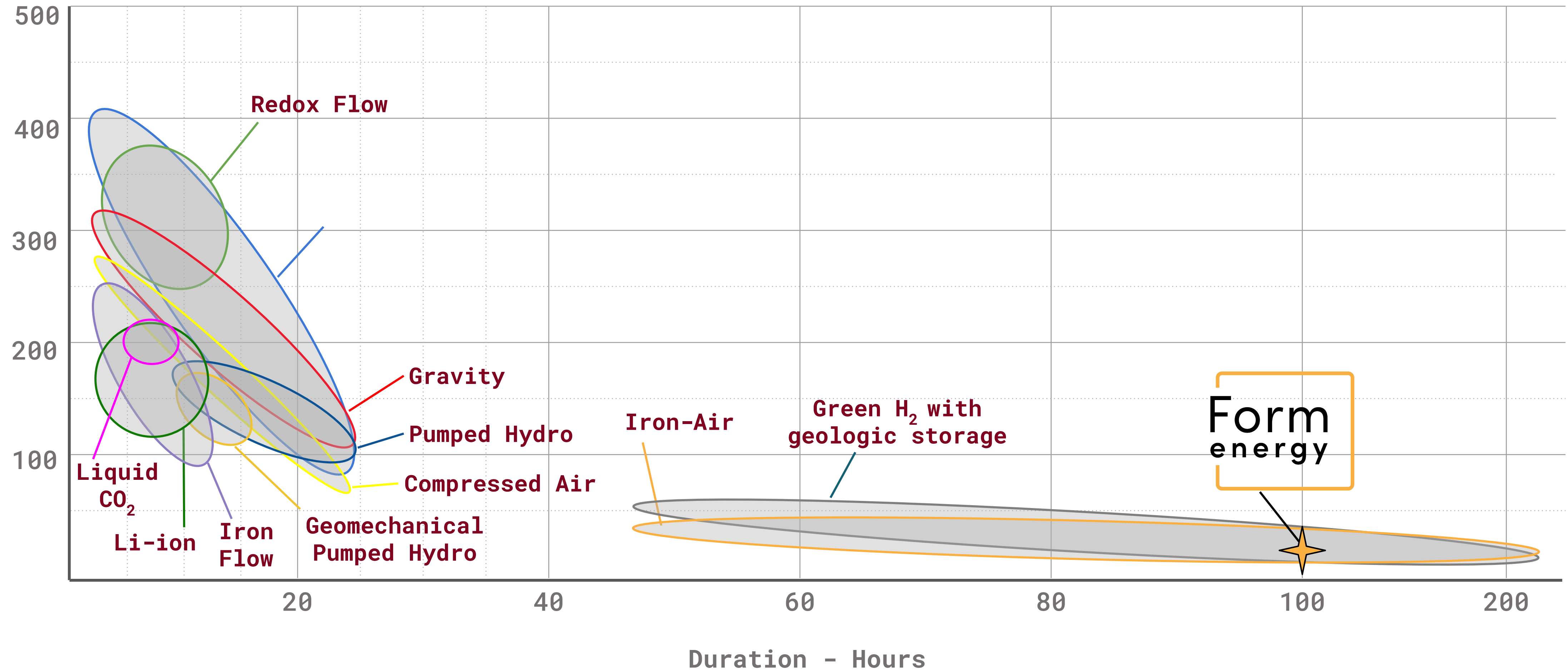
Assumptions:

Storage Charging Emissions were assumed from Austin Energy historical average emissions

Storage Discharge: Typical Emissions from Gas Peaker CT, Decker data was not available on CEMs

Form's iron-air battery is the only technology targeting multi-day duration without geographic constraints

2030 Installed Cost - \$/kWh



Form MDS is the only asset class that delivers clean, firm low-cost capacity at scale

Solution attributes		Form MDS	Lithium Ion	Pumped Hydro	Gas Turbine CT	100% Green H ₂
Clean	Zero emissions	●	●	●	○	●
	Technology can be widely deployed at scale by 2030	●	●	◐	●	○
Reliable	Reliable capacity over multiple days	●	○	●	◐	◐
	No geographic limitations	●	●	○	●	○
Affordable	Cost competitive relative to alternatives	◐	◐	○	●	◐
	Low risk of stranded asset	●	●	●	○	●

What makes up a Form Energy system

Sample 3.5 MW Power Block

Water treatment skid
(optional water storage not shown)

2-4 MW Inverter

50 kW Battery Enclosure

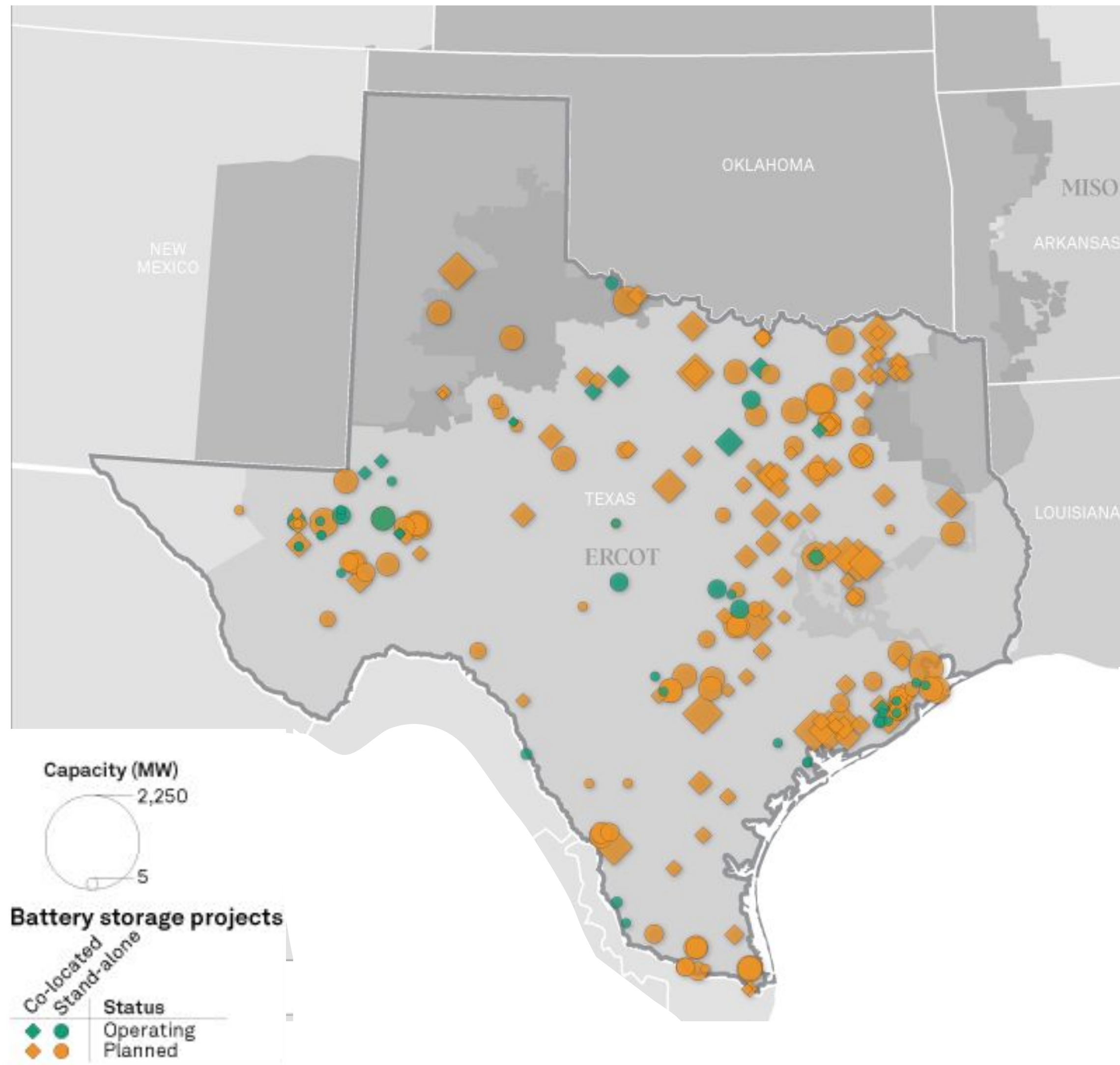
~10x battery modules per enclosure

Auxiliary Skid

Each Auxiliary skid houses a DC/DC converter and comms/electrical panels for a group of 4 battery enclosures

~200 ft
(~2 MW/Acre)

ERCOT is embracing storage



OPERATING

2.2 GW of operating large-scale battery storage.

FUTURE BUILDOUT

29.2 GW to come online by end of the 2020s.

CO-LOCATION

13 GW of stand-alone capacity.
16.2 GW co-located storage systems, of which 97% are to be paired with a solar project.

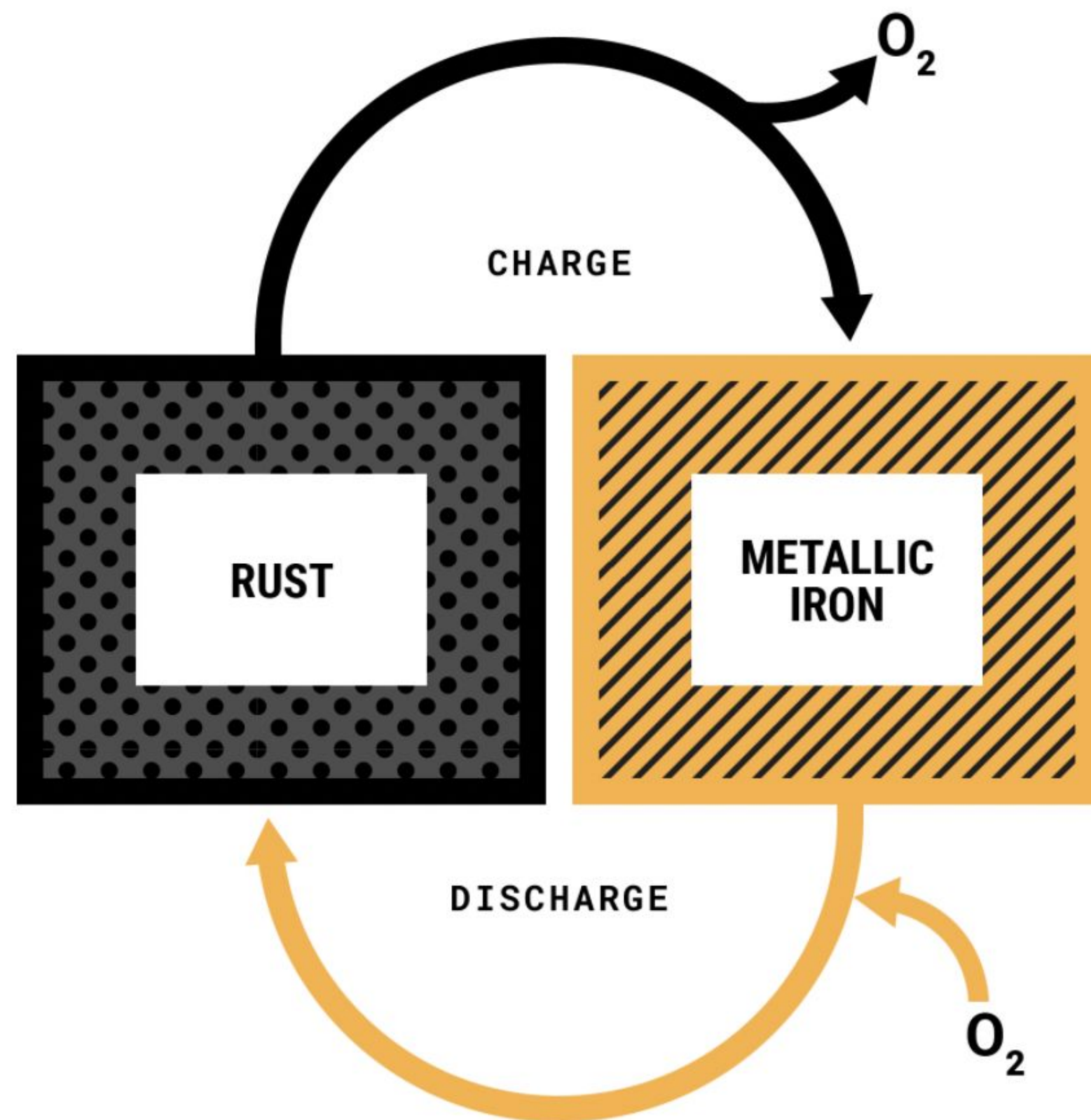
DURATION

Primarily 1-2 hours with ancillary services comprising majority of value stack. Movement towards longer durations given reliability concerns.

Source: S&P Global Market Intelligence, March 2, 2023

Our new solution: multi-day storage (MDS) through a rechargeable iron-air battery

Form's 100-Hour Reversible Rust Battery



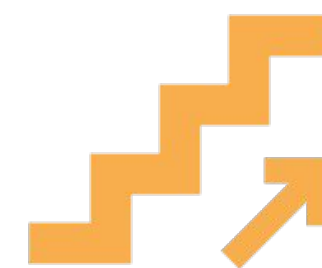
COST

Lowest cost rechargeable battery chemistry. Less than 1/10th the cost of lithium-ion batteries.



SAFETY

Non-flammable aqueous electrolyte. No risk of thermal runaway. No heavy metals.



SCALE

Uses materials available at the global scale needed for a zero carbon economy. High recyclability.



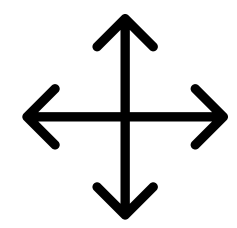
RELIABLE

100+ hr duration required to make wind, water and solar reliable year round, anywhere in the world.

Formware Capacity Expansion & Dispatch Model

What should we build? How should it operate?

Inputs



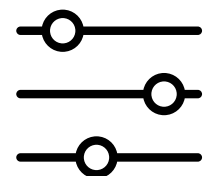
Project-Specific Constraints

Site capacity, target availability, ...



Sophisticated Storage Models

\$/kWh, \$/kW, RTE, ...



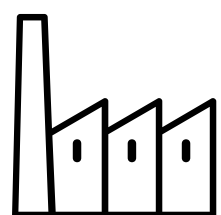
Market Conditions

PPA price, capacity prices, energy and ancillary prices, RPS, ...



Grid Data

Transmission limits, load forecasts, retirements, ...



Generator Data

Capex, opex, start costs, heat-rates, fuel costs, solar & wind resource, ...

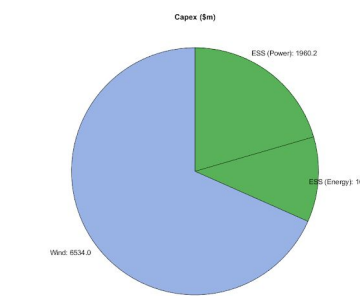
Formware™

Capacity expansion & dispatch model

Differentiators

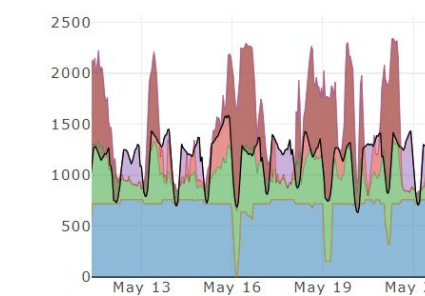
- **Granularity:** 8760+ model captures price and resource volatility
- **MDS Modeling:** Can capture dynamics of multiday storage operation
- **Scenario Modeling:** Multi-scenario optimization validates solution across range of conditions
- **Model Customization:** Customizable model allows Form to deliver bespoke analyses on-demand

Outputs



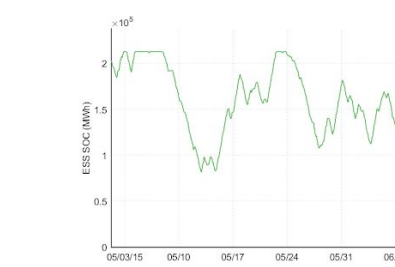
Recommended Energy Asset Sizing

Power, energy capacity



Hourly Operational Profiles

8760+ by energy asset



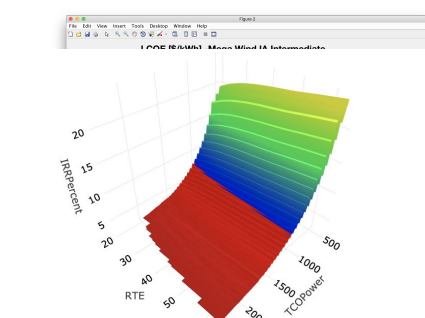
Storage "Duty Profile"

Cycles/yr, peak power



Project Financials

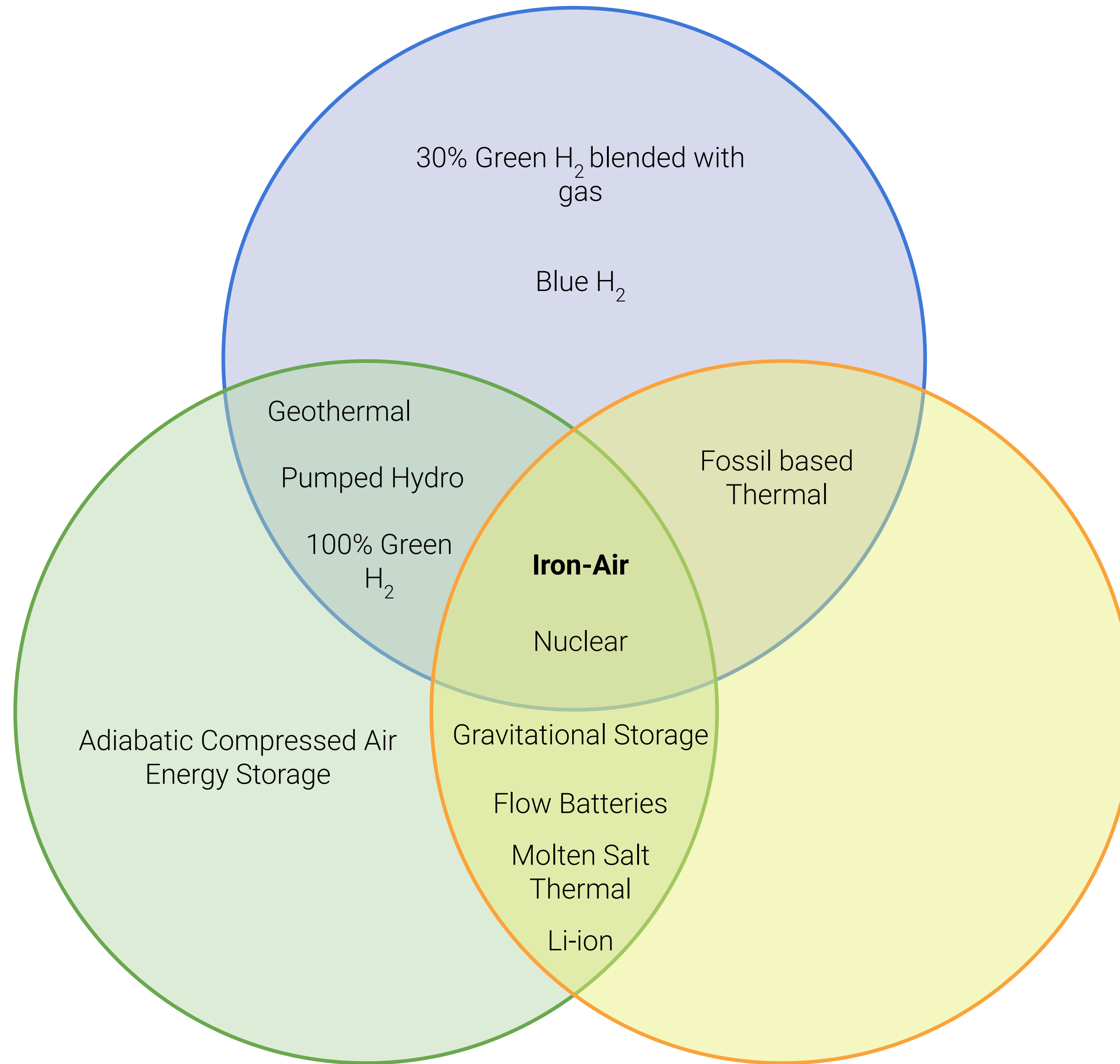
LCOE, FCF, IRR



Sensitivity Analysis

Risks and trade-offs from input uncertainties

Firm



Clean

Geographically Unconstrained