



the future of energy trading

why AI-powered energy trading
services are crucial for a successful
transition to clean energy

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this is the world we live in

geo-political instability

A photograph of an industrial facility, likely a refinery or power plant, with several large ships docked at a pier. The scene is set during sunset or sunrise, with a dramatic sky filled with large, billowing clouds illuminated from below. A prominent smokestack on the right side of the facility is emitting a thick plume of white smoke that drifts across the sky. The ships in the foreground are dark, with some white superstructures and masts visible. The overall atmosphere is one of industrial activity and environmental impact.

this is the world we live in

dependence on fossil fuels



this is the world we live in

impact of climate change

what does the world need to
keep global warming below 2 degrees
Celsius compared to pre-industrial levels?

until the
year:

2040

(2020)

gigawatt (GW)
energy storage:

942

(17)

investments
in billions:

\$620

(\$11)

iea

A landscape of rolling green hills with several wind turbines in the distance under a cloudy sky. The hills are covered in lush green grass, and the wind turbines are spaced out across the horizon. The sky is filled with soft, white clouds, and the overall scene is bright and clear.

“switching to augmented trading technology is the only way to shape the clean energy markets of the future.”

enspired

A perspective view of a server room with rows of server racks on both sides, illuminated with blue light. The racks are filled with equipment, and the floor is dark. The text is overlaid in the center.

enspired is a fully
digital power
trading company

our customers are owners of flexible assets



utilities of
all sizes



asset developers
& manufacturers



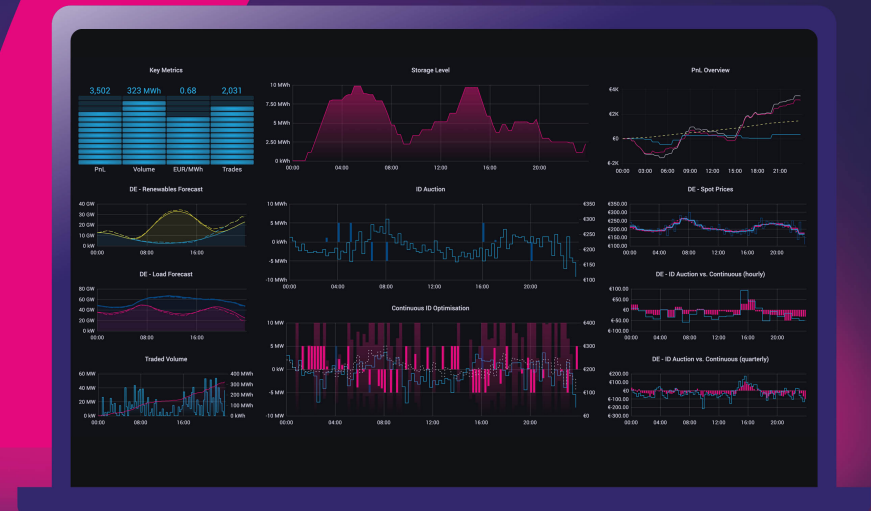
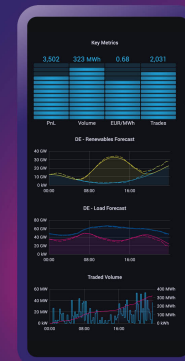
energy-intensive
industry



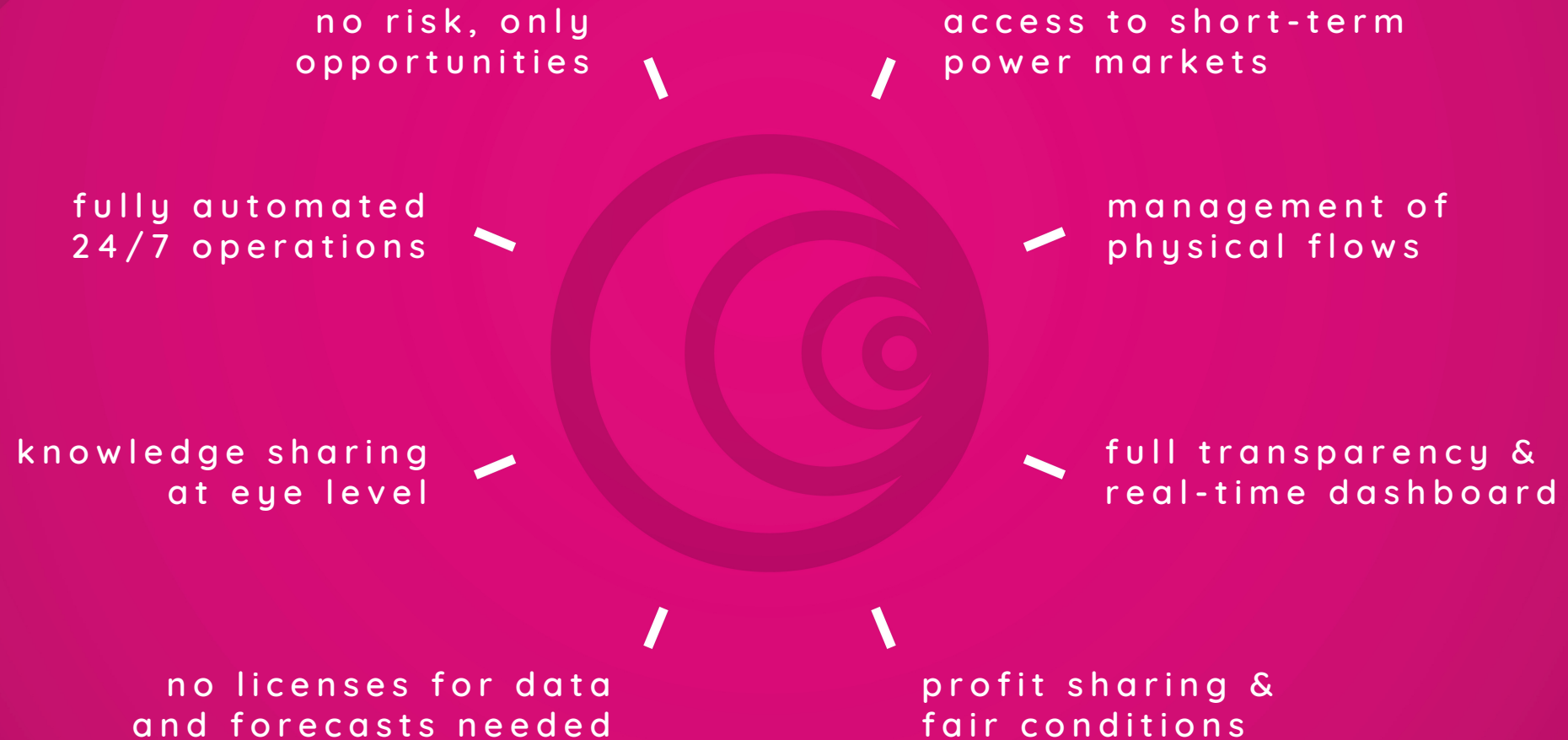
virtual power
plants

we enable our customers to

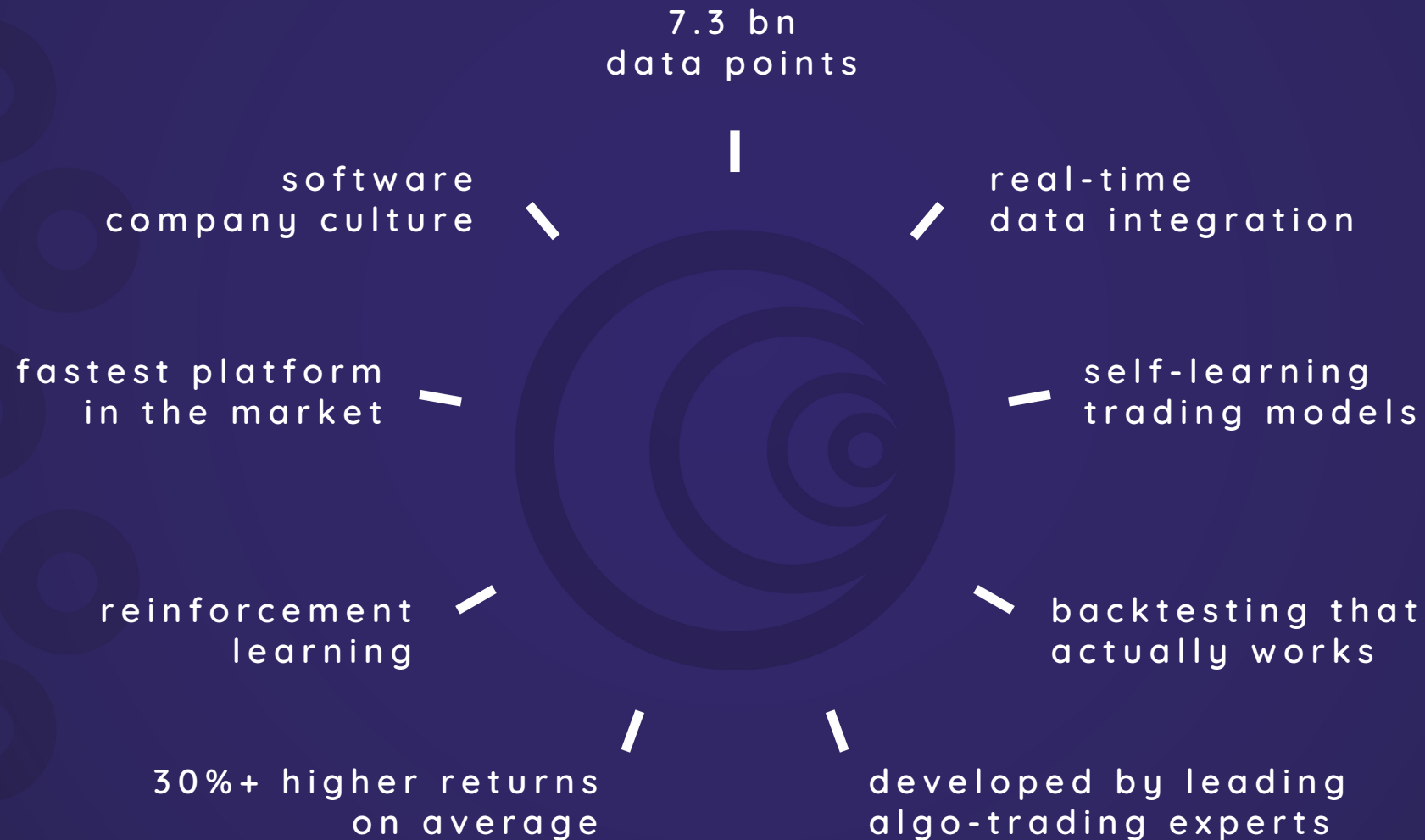
- make an active contribution to the clean energy transition
- effortlessly participate in short-term power markets
- ensure economic viability of innovative use cases
- maximise returns of existing power assets
- minimise risk through diversification

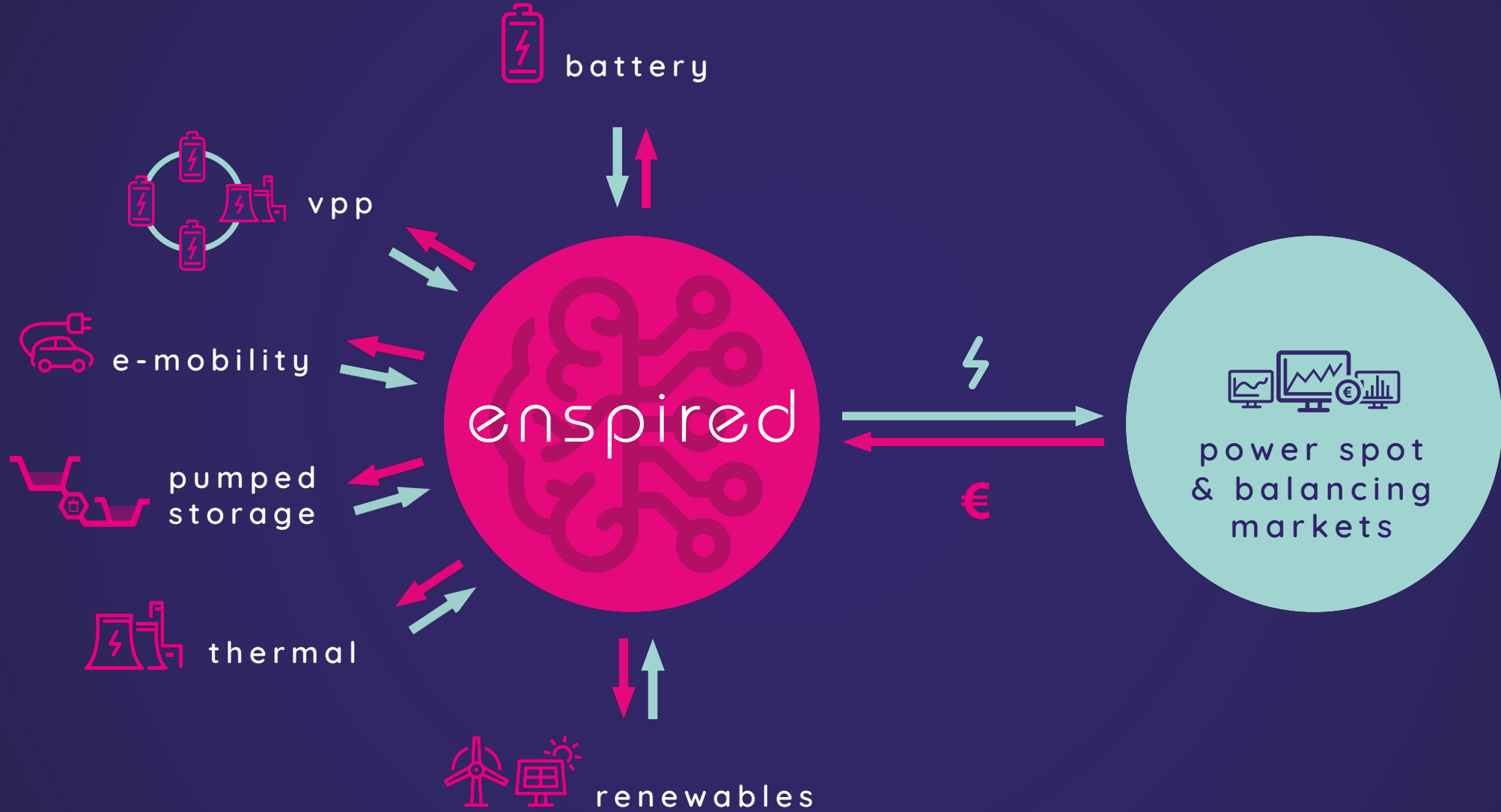


everything you need: Trading as a Service



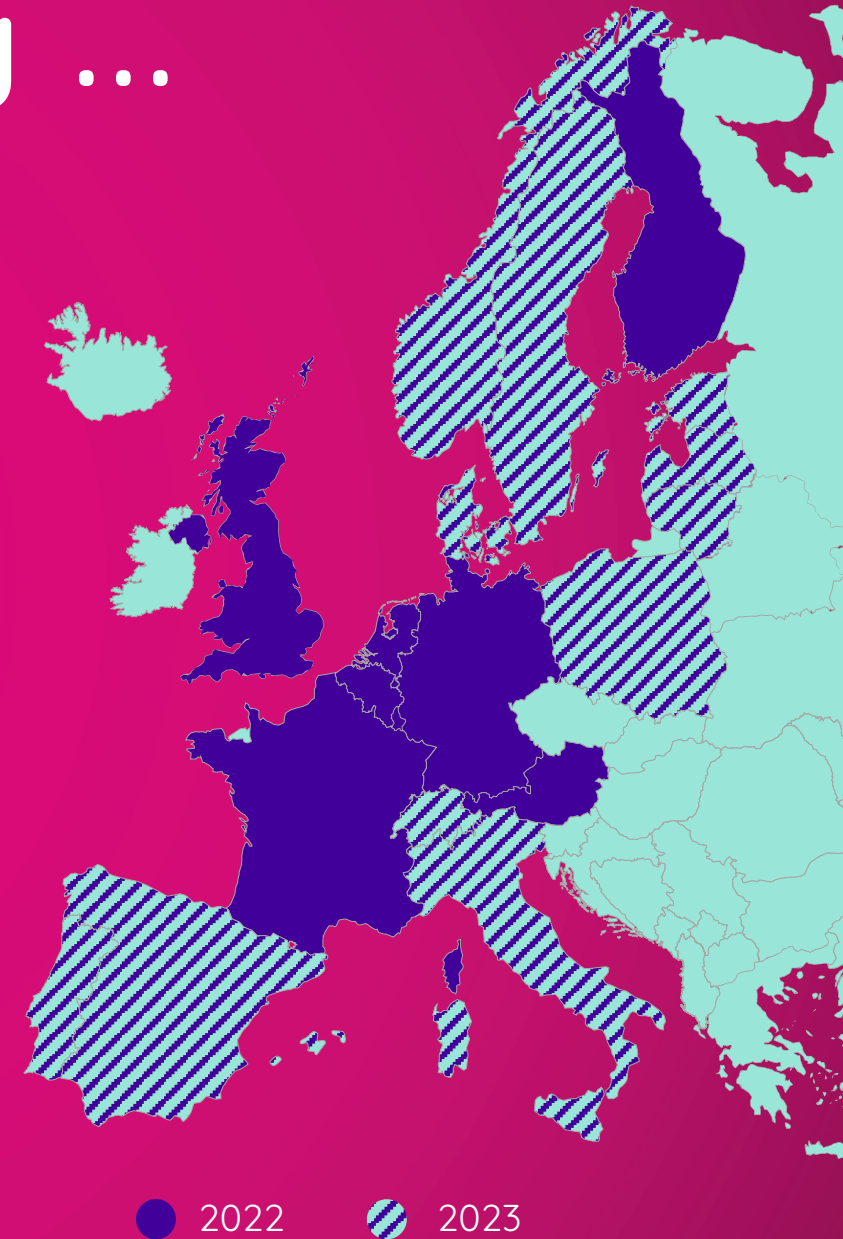
AlphaGo for energy trading





this is just the beginning ...

- founded January 2020
- experience since 2015
- 53 colleagues in 5 countries
- 20 nationalities
- 64% developers
- first global market in 2024

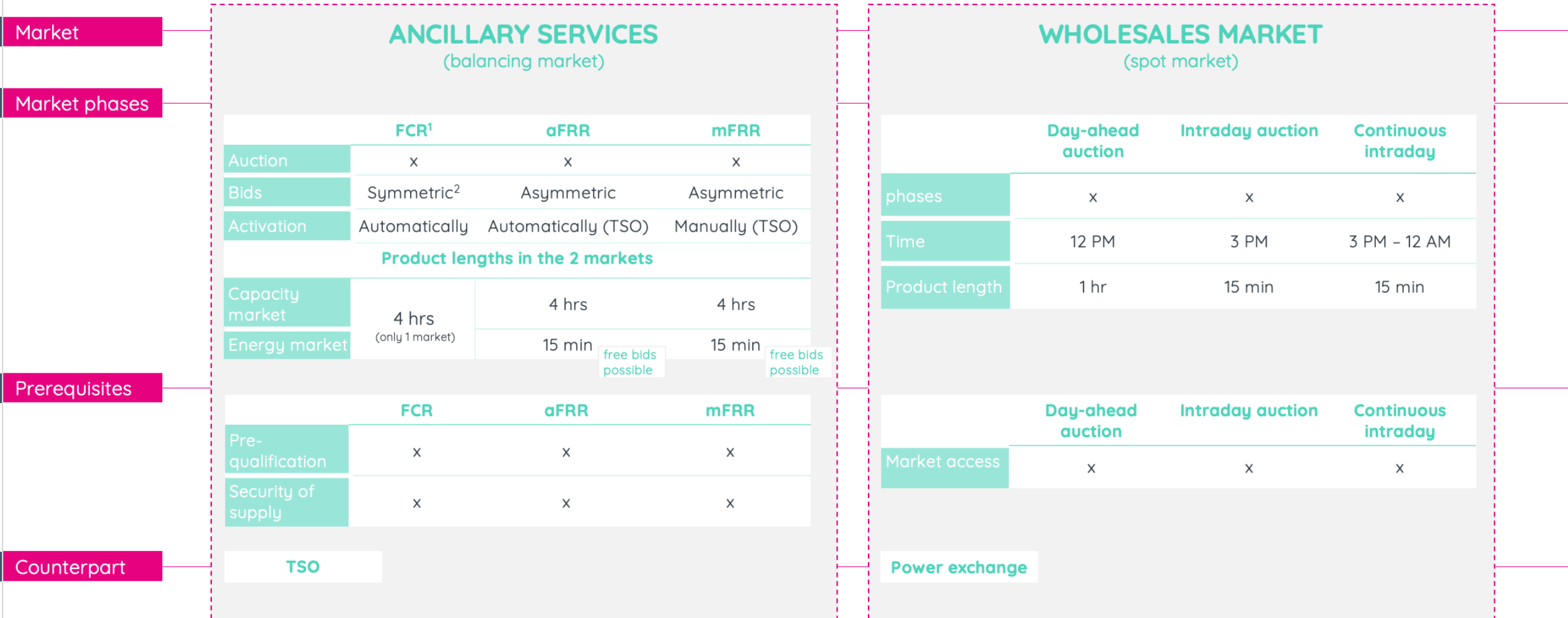


relevance of wholesales markets for battery storage integration



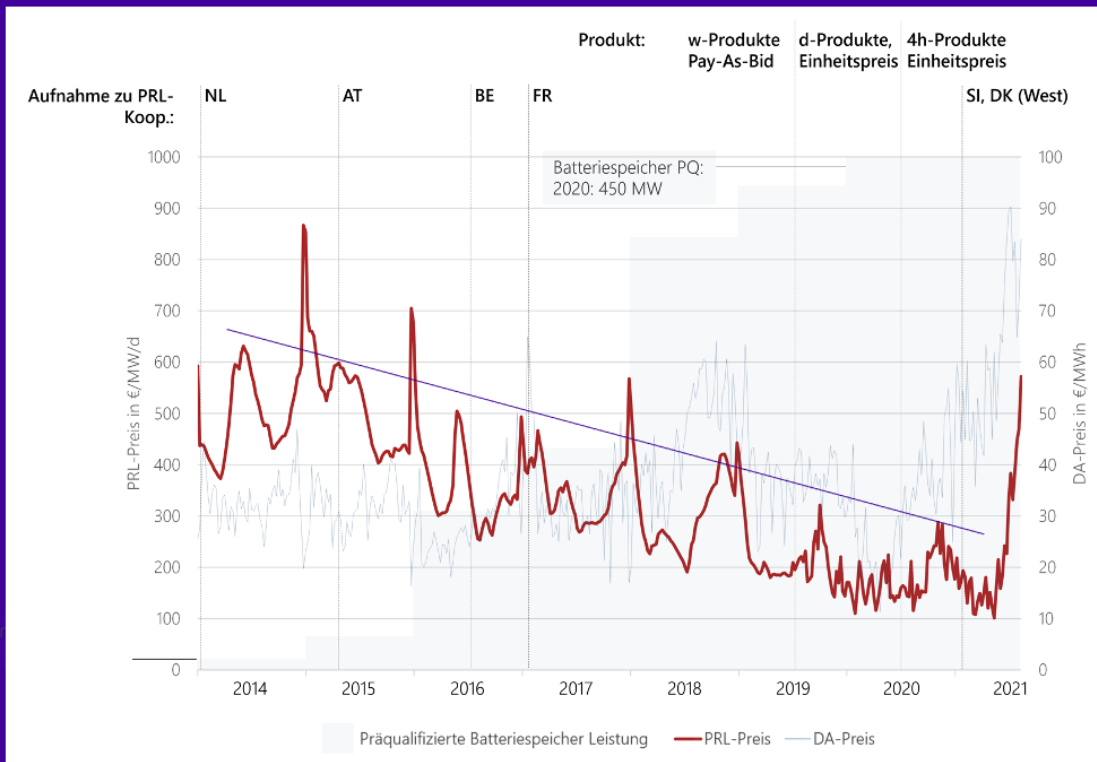
two main markets must be distinguished regarding the commercialization of a battery energy storage system (BESS)

Example Germany



the current situation in the FCR market increases the need for diversification

FCR PRICE HISTORY



CURRENT SITUATION OF THE MARKET ...



FCR prices have been constantly falling over the past years



Batteries have become a main source of FCR for the TSOs



More players are entering the market, increasing the cannibalization effect

LEADS TO THE NEED OF ...



Diversification minimizes the risk and acts as an insurance for ongoing market trends



Sophisticated wholesale arbitrage to reduce amortisation time



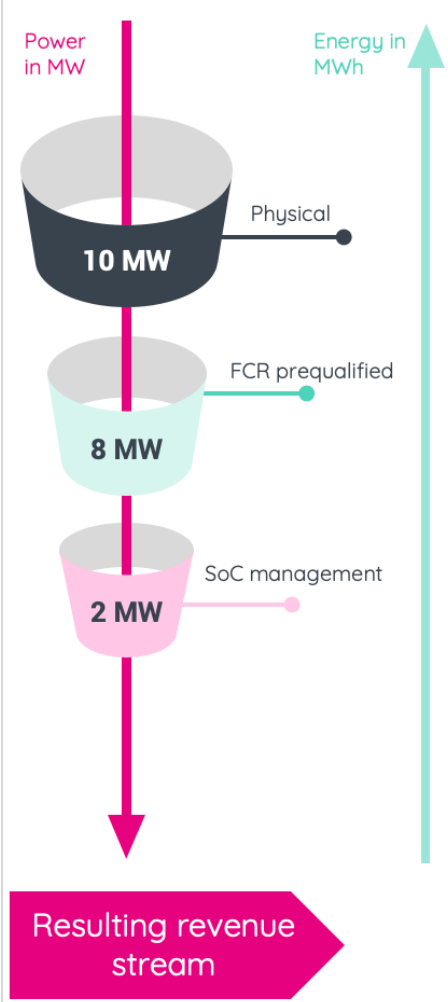
Multi-channel optimisation

different levels of optimization exist when it comes to diversifying the revenue streams of your BESS

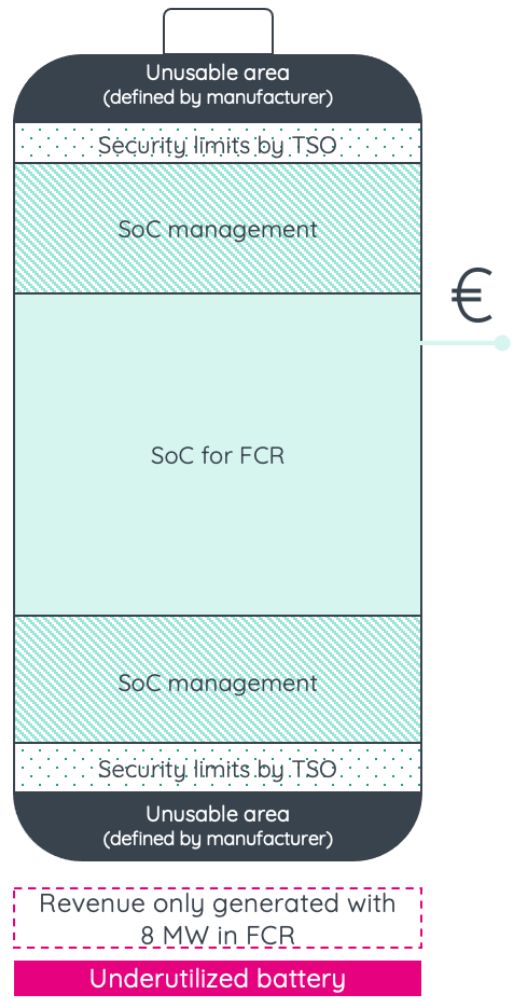
ILLUSTRATIVE

10 MW | 12 MWh

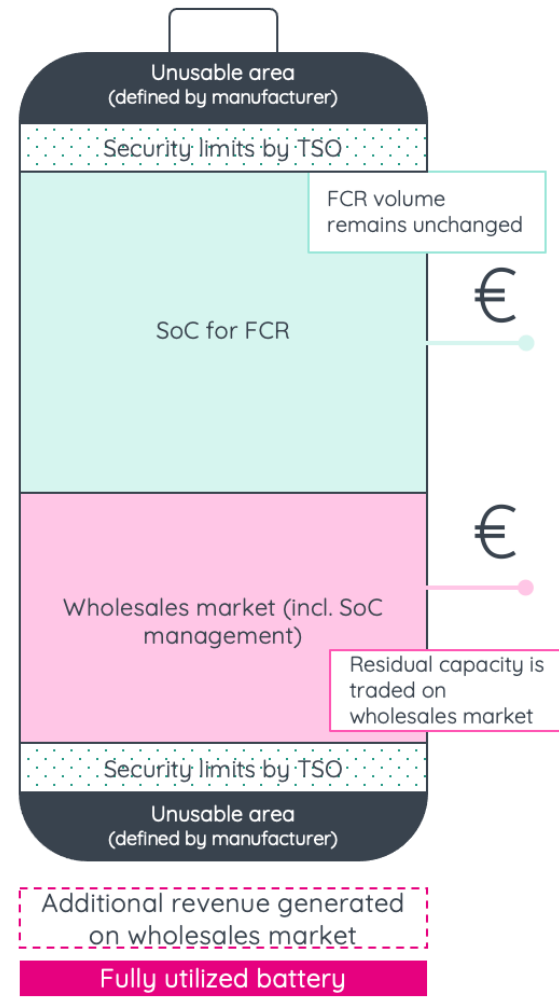
Example Germany



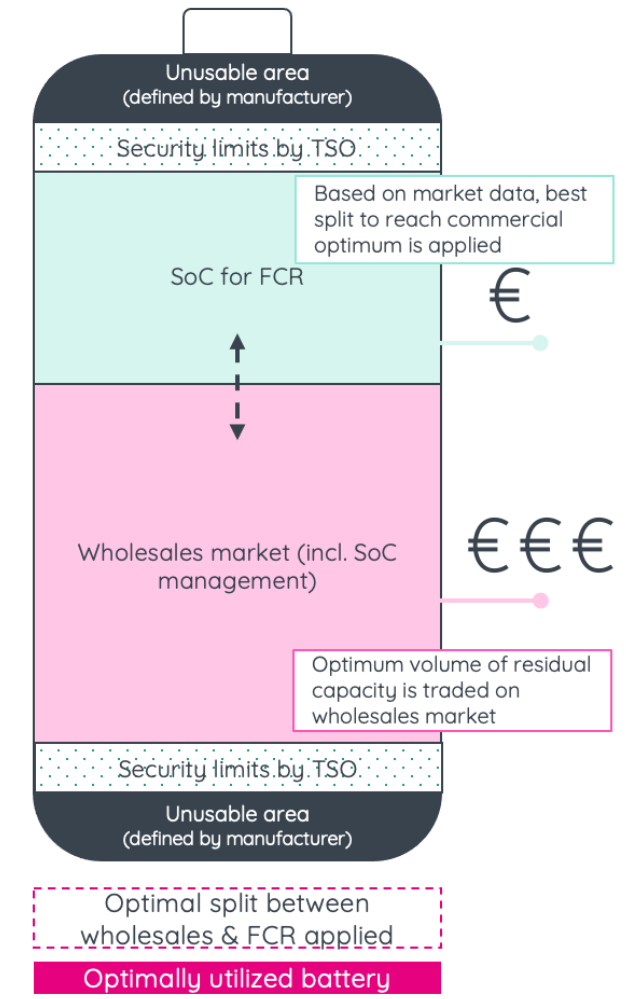
NO DIVERSIFICATION



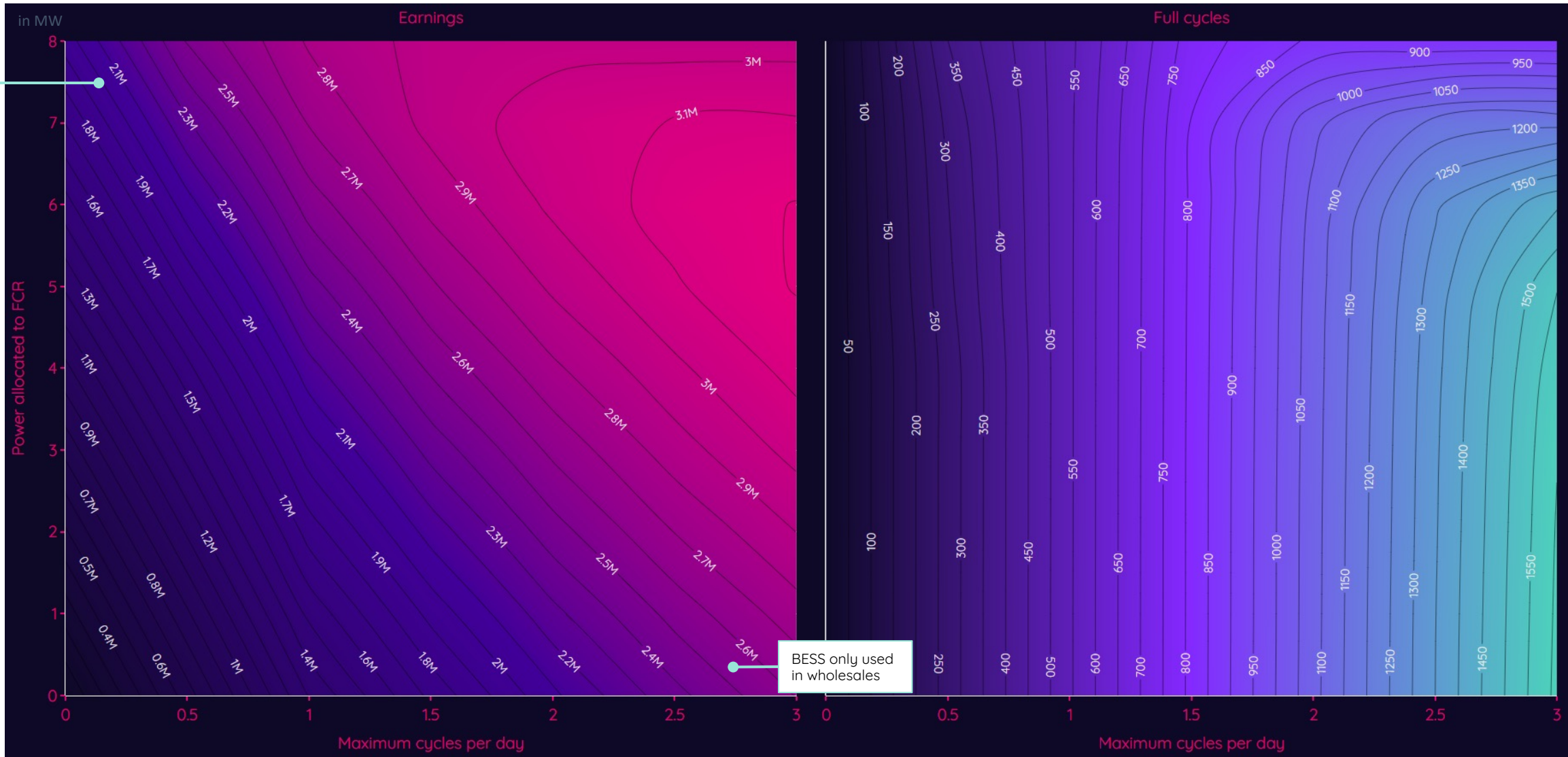
LITE DIVERSIFICATION



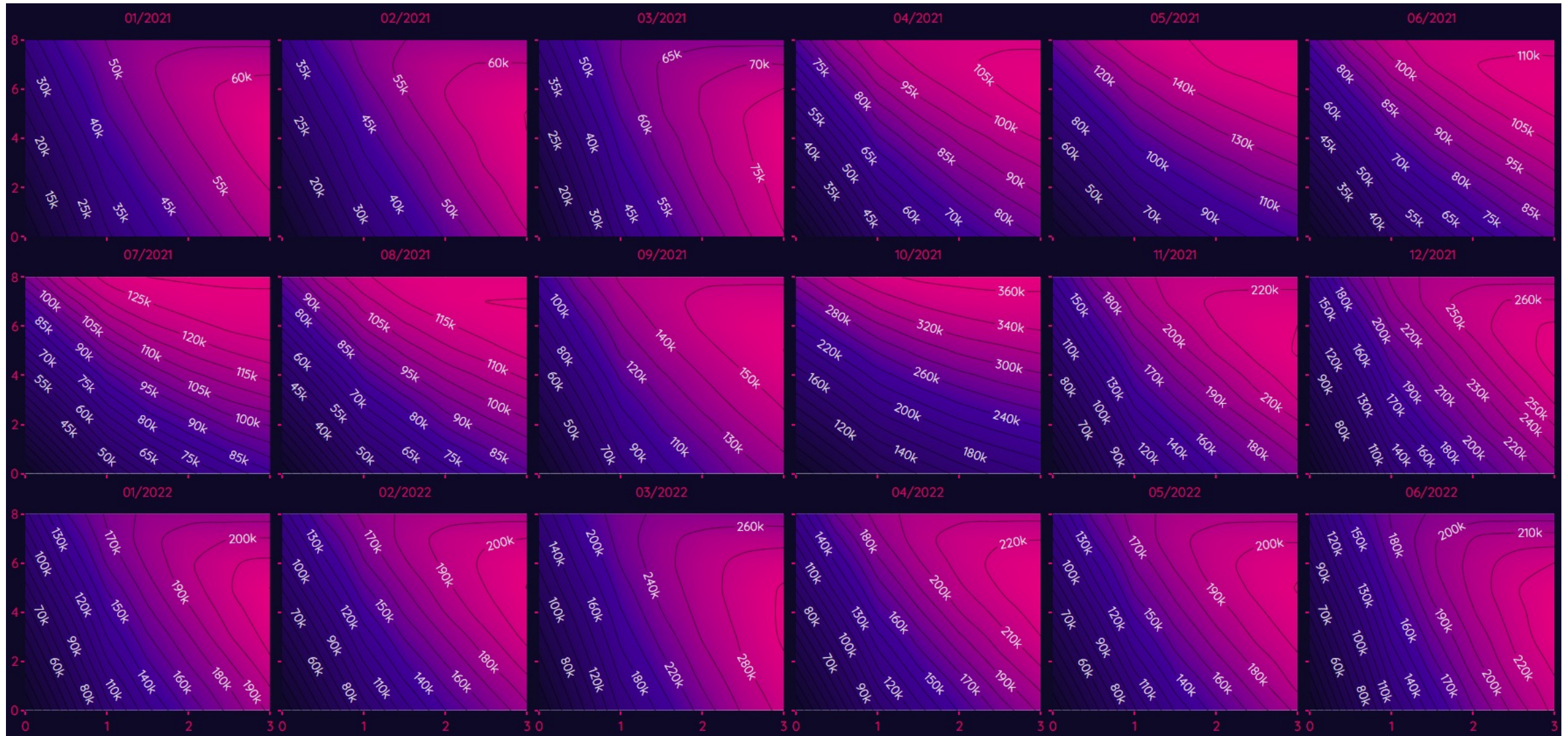
PRO DIVERSIFICATION



the power of technology – an optimum power split between FCR and wholesales (Jan 2021 – Jun 2022)



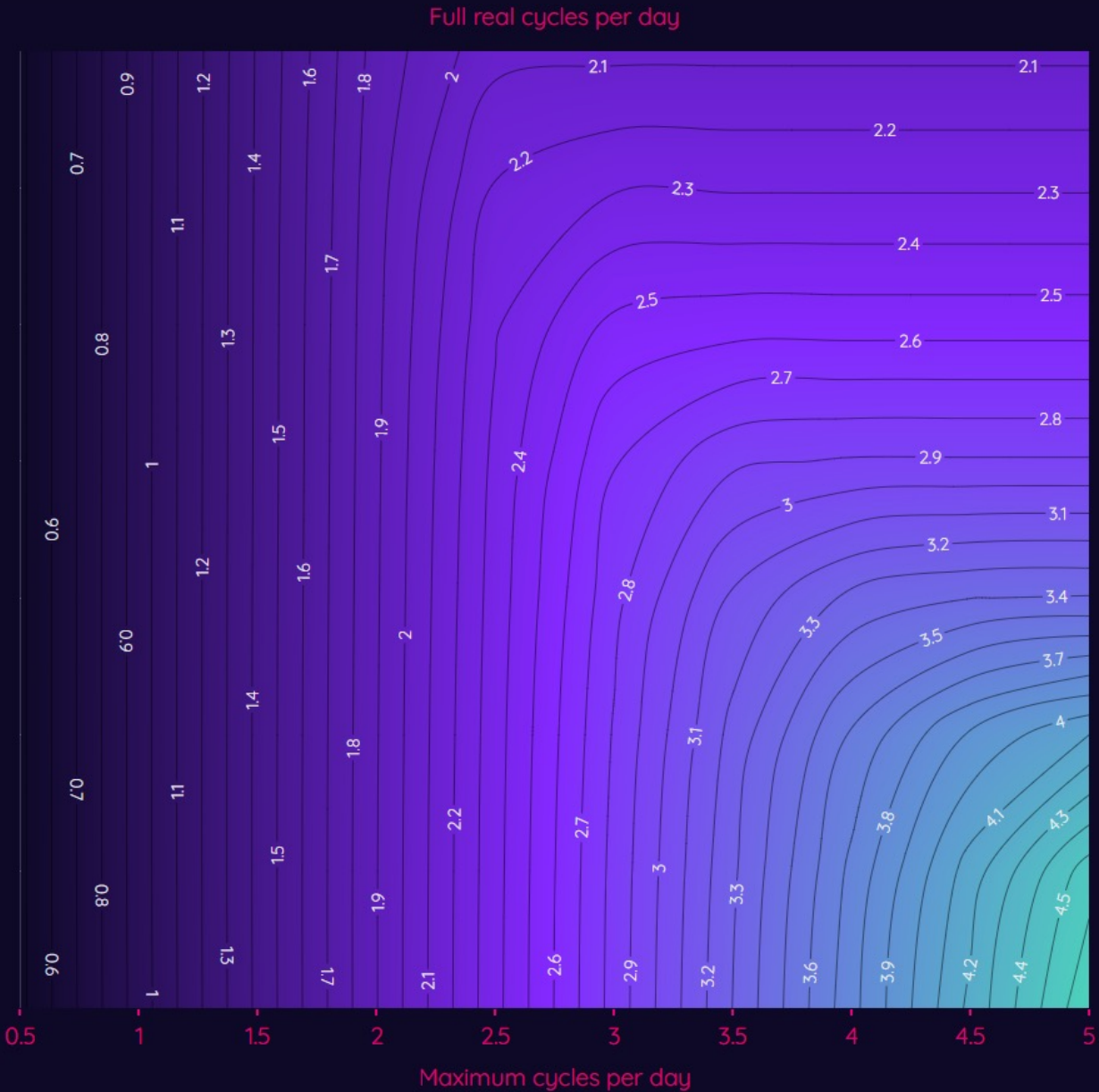
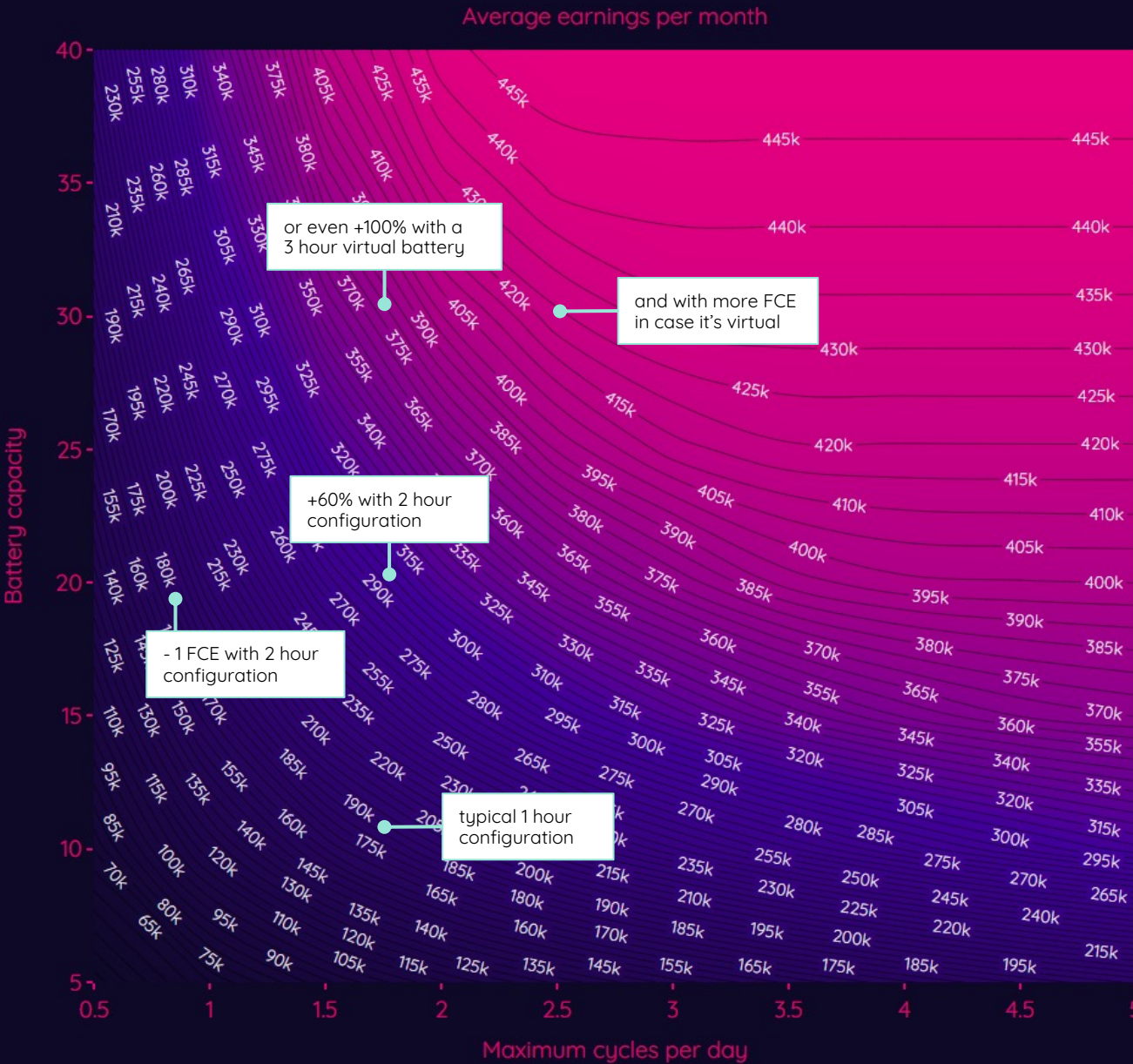
looking at the monthly data, diversification always generates higher revenues than no diversification



how would an ideal wholesales battery look like?



wholesales revenues Jan - Sep 2022

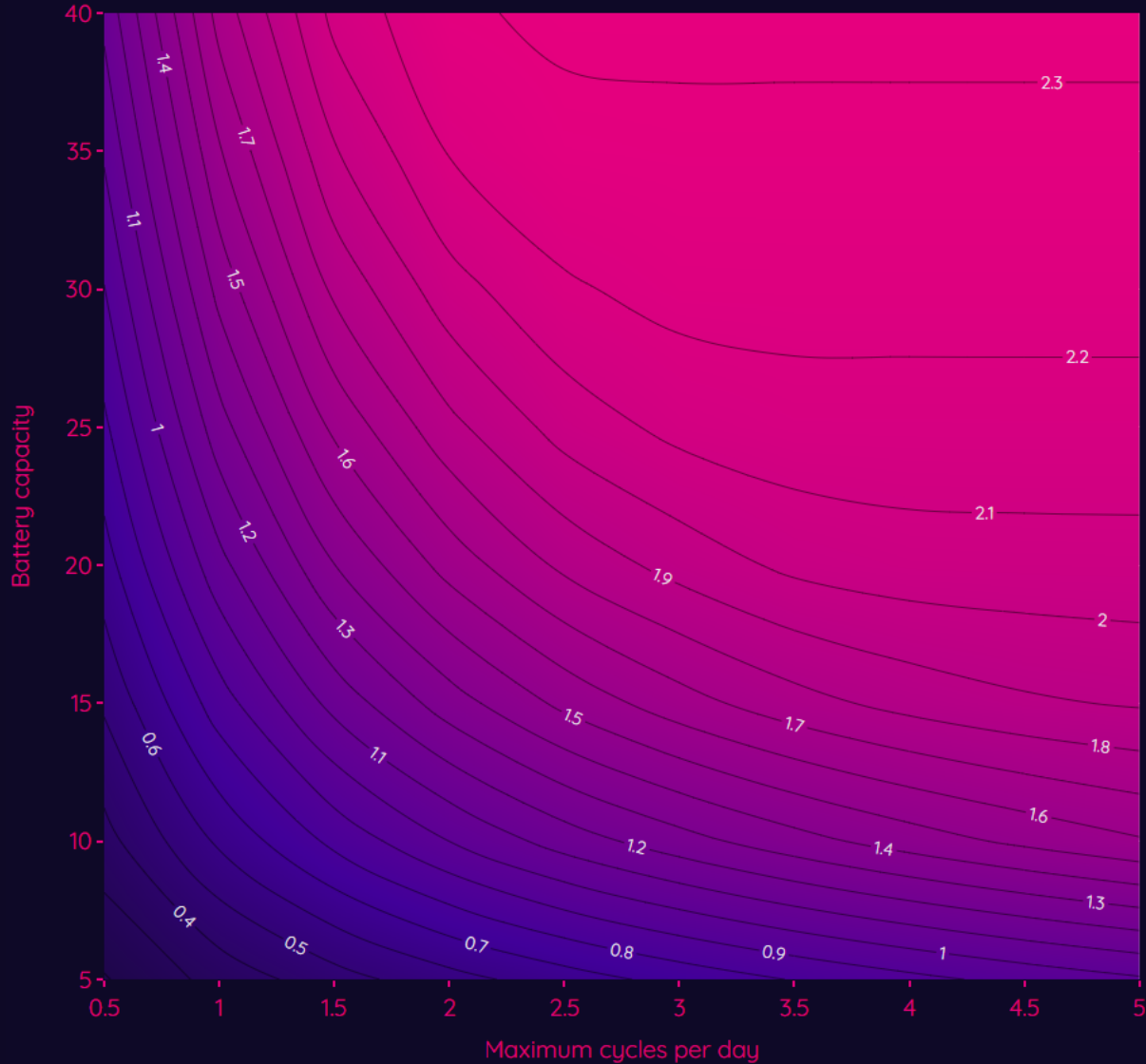


monthly wholesales revenues Jan 21 - Sep 22

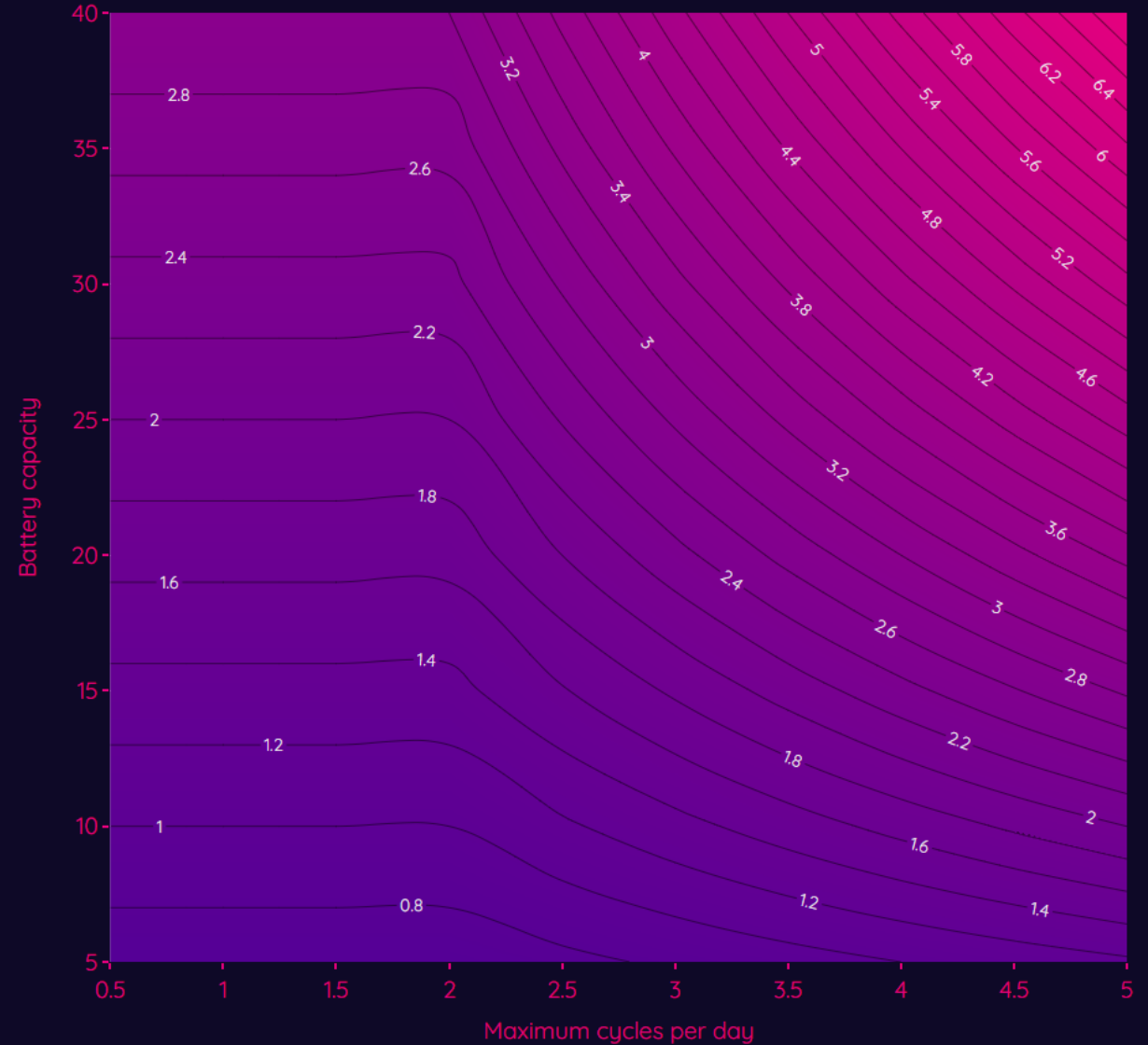


relative revenue and cost

PNL compared to 10MW/10MWh battery at 2 cycles

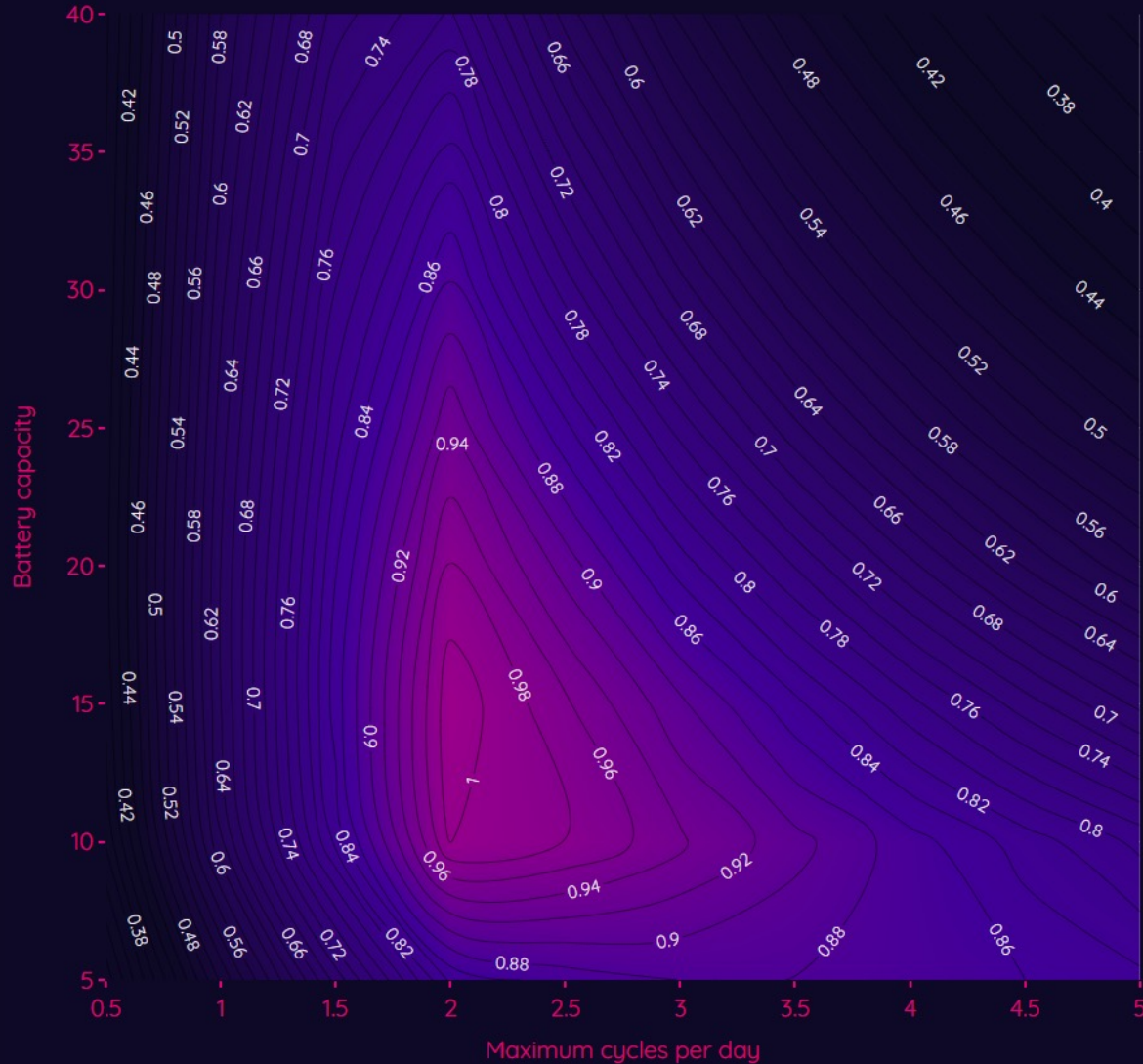


Cost compared to 10MW/10MWh battery at 2 cycles
assuming base costs of the cost of 5MWh and warranty up to 2 cycles

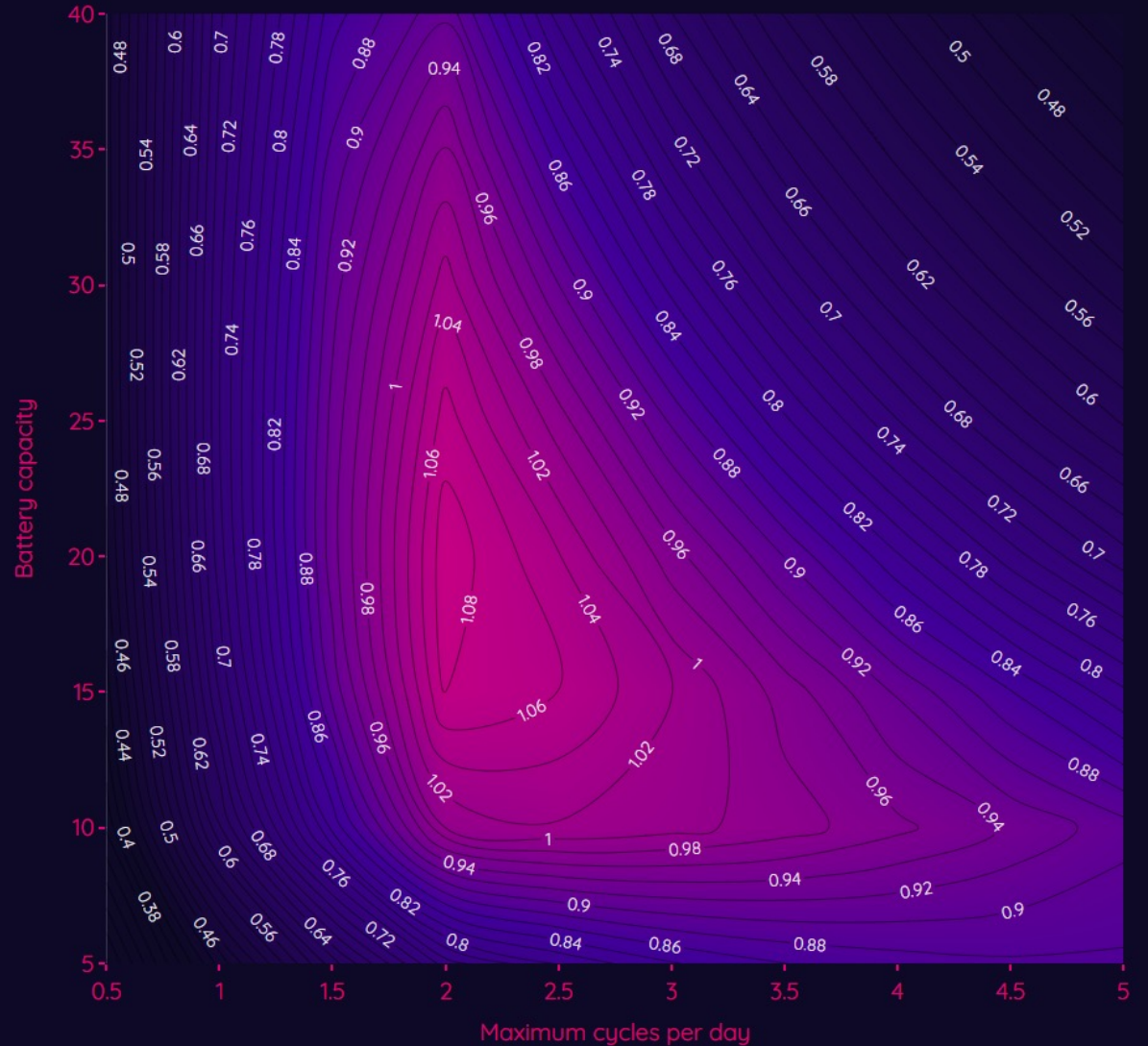


revenue/cost ratios (fixed cost at 5/10 MWh)

Ratio of {PNL compared to 10MW/10MWh battery at 2 cycles} to
{Cost compared to 10MW/10MWh battery at 2 cycles
assuming base costs of the cost of 5MWh and warranty up to 2 cycles}

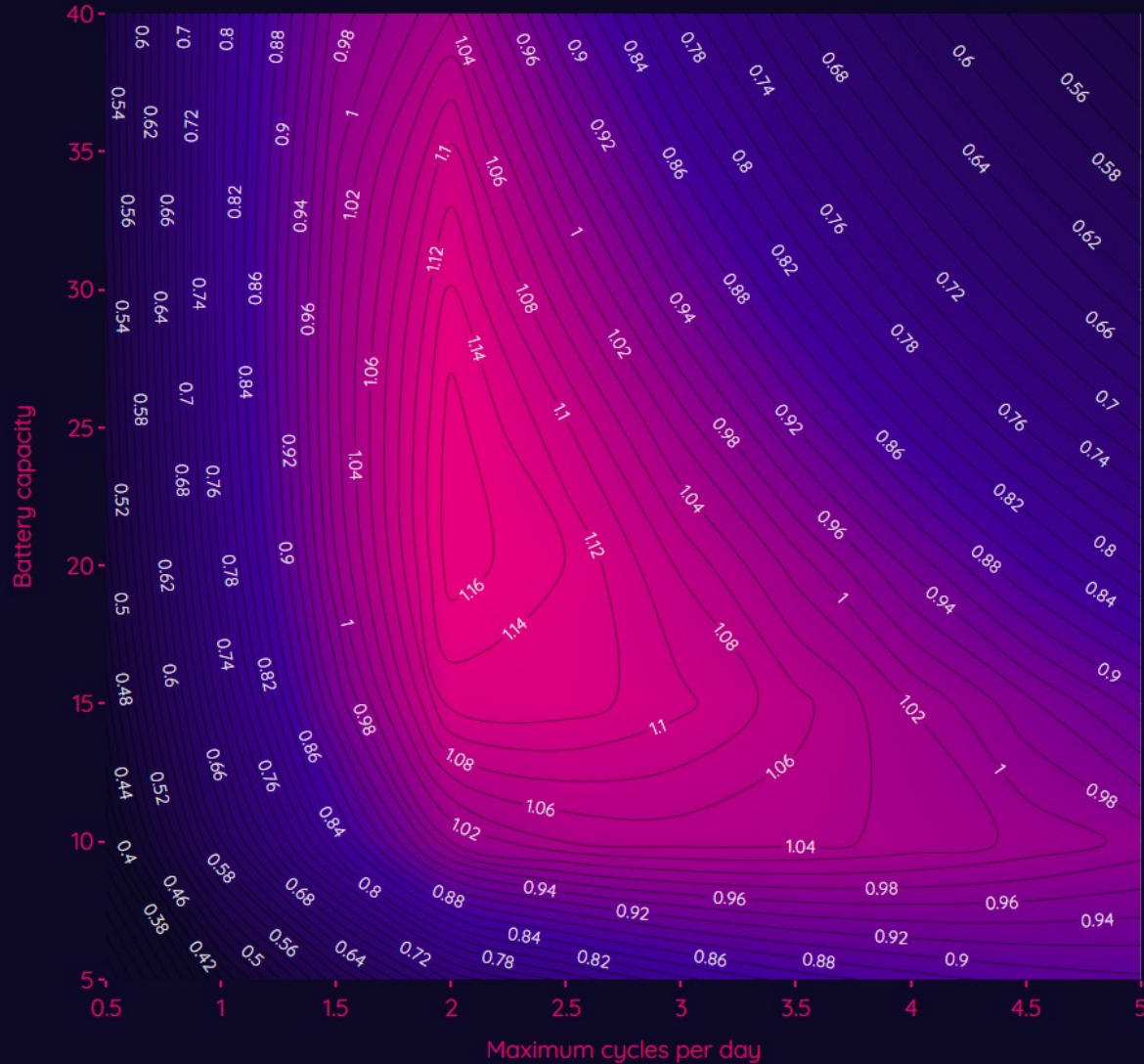


Ratio of {PNL compared to 10MW/10MWh battery at 2 cycles} to
{Cost compared to 10MW/10MWh battery at 2 cycles
assuming base costs of the cost of 10MWh and warranty up to 2 cycles}

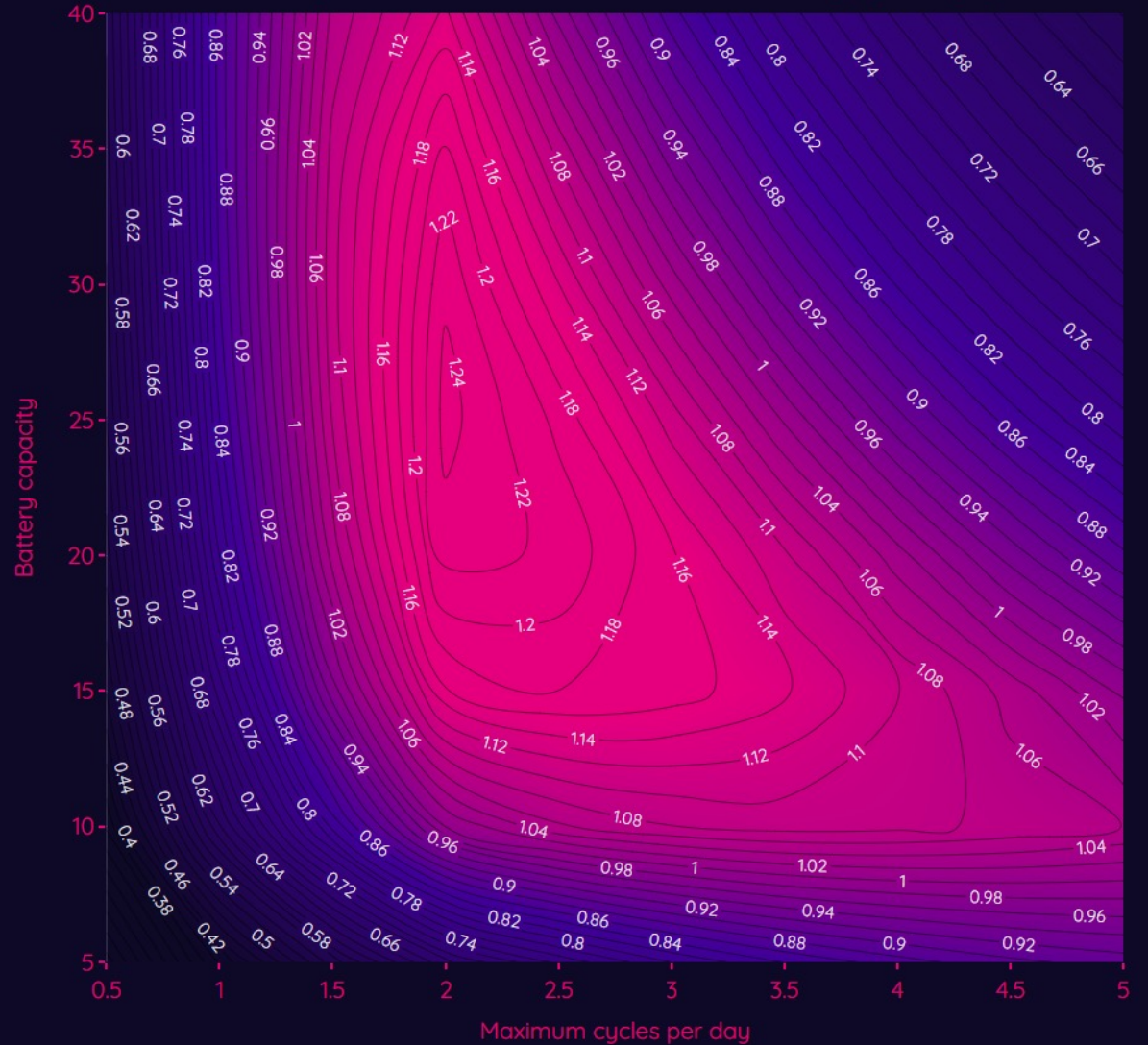


revenue/cost ratios (fixed cost at 15/20 MWh)

Ratio of {PNL compared to 10MW/10MWh battery at 2 cycles} to
{Cost compared to 10MW/10MWh battery at 2 cycles
assuming base costs of the cost of 15MWh and warranty up to 2 cycles}



Ratio of {PNL compared to 10MW/10MWh battery at 2 cycles} to
{Cost compared to 10MW/10MWh battery at 2 cycles
assuming base costs of the cost of 20MWh and warranty up to 2 cycles}





do you want to shape the future
of the electricity market?

let's have a chat

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