



CAMUS
Zero Carbon Grid Orchestration

Smarter DER Interconnection and Grid Management

Astrid Atkinson, CEO | ESIG Spring 2025 Technical Workshop



Unlocking grid capacity through orchestration

Enabling utilities and developers to flexibly interconnect resources and better utilize local grid capacity



HOW WE HELP



Grid-wide visibility & forecasting



Flexible interconnections (loads, gen)



Grid-aware DER orchestration



Envelope Active (234 MW)

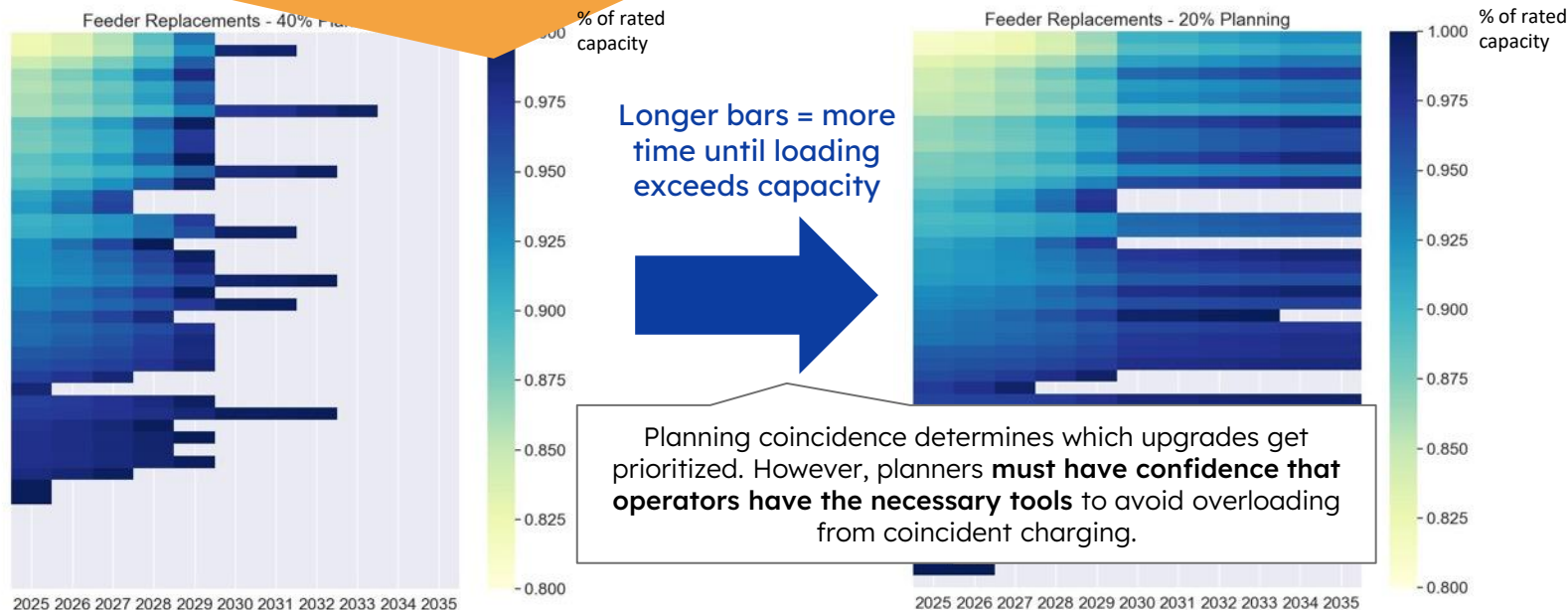
Customer: Big Green Data 5



Grid Power Onsite Generation Operating Envelope

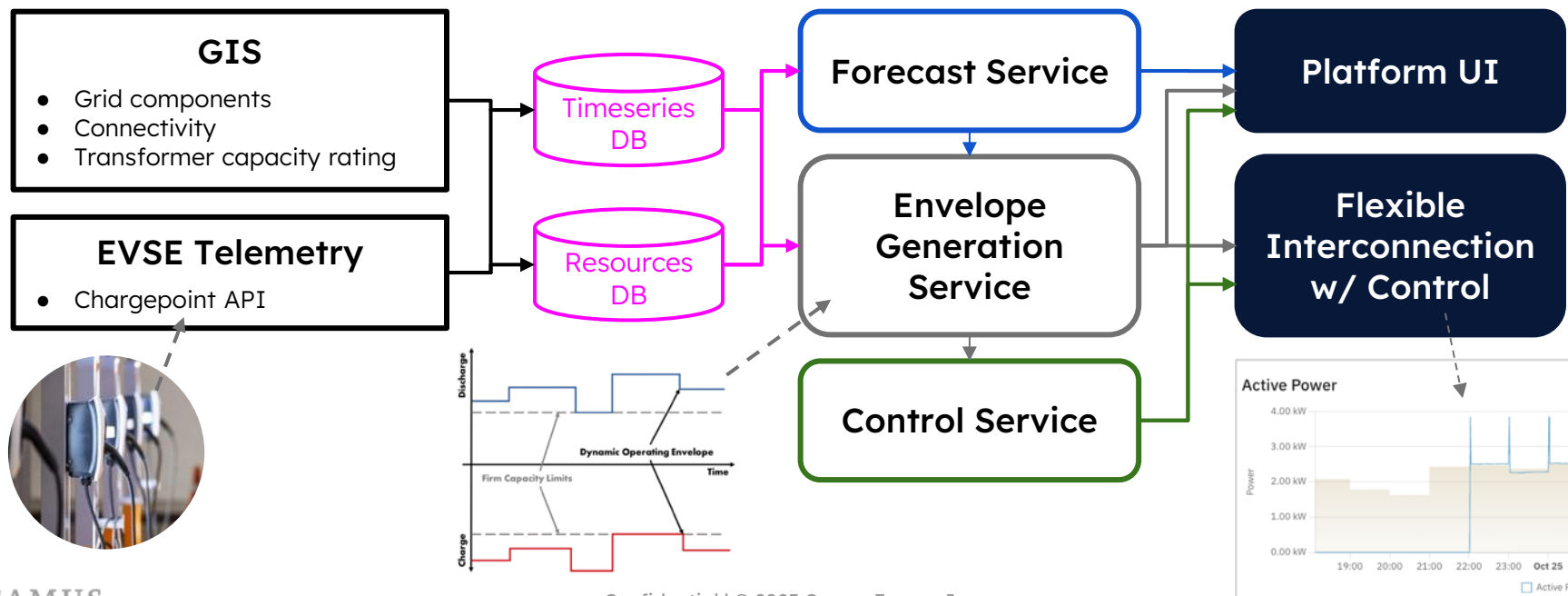
Quantifying the value of grid-aware DER management

Example: By analyzing real-world residential EV charging + available grid capacity, we **identified the tipping point (5% EV adoption)** after which investments in visibility and grid-optimized managed charging provide positive ROI.



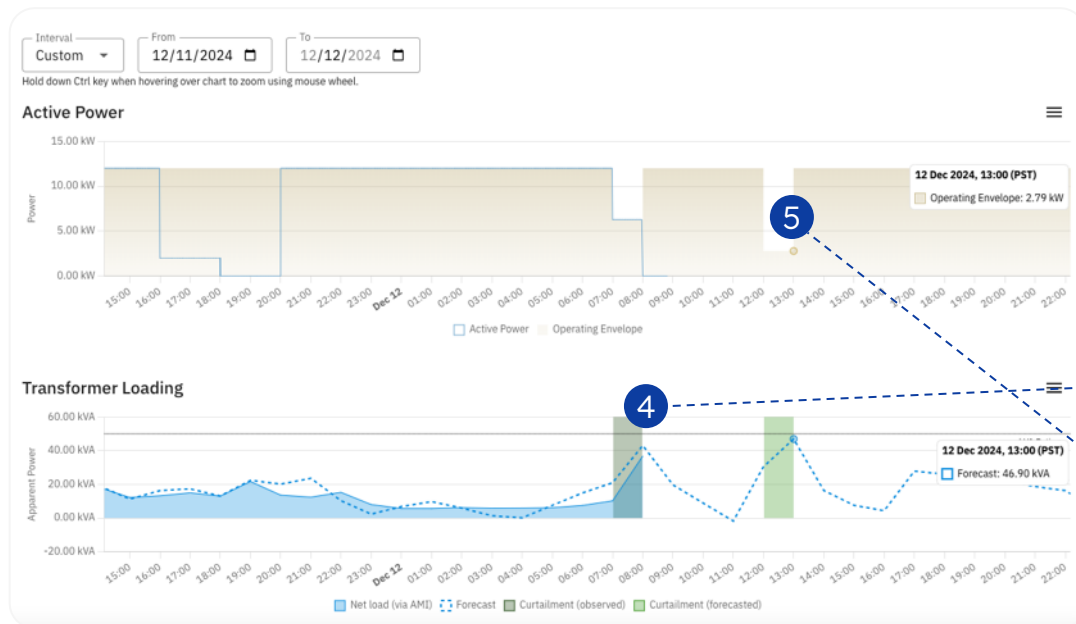
Proving grid-aware DER management works in the field

Control residential chargers constrained to capacity limits of distribution transformers



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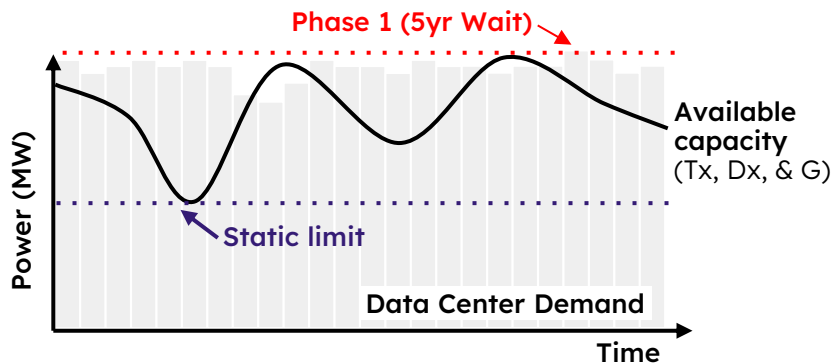


How grid-aware charging works:

1. Establish connectivity via GIS
2. Disaggregate controllable EV load by using EVSE telemetry
3. Estimate net loading for each transformer via aggregated AMI
4. Predict when curtailment may be required (hour blocks)
5. Send operating envelope (hourly max setpoint) for next 24 hours
6. Update envelope hourly
7. EVSE limits power in real-time

Bringing flexible interconnection to large loads & generation

Static Interconnection



Interconnection Delayed (X)

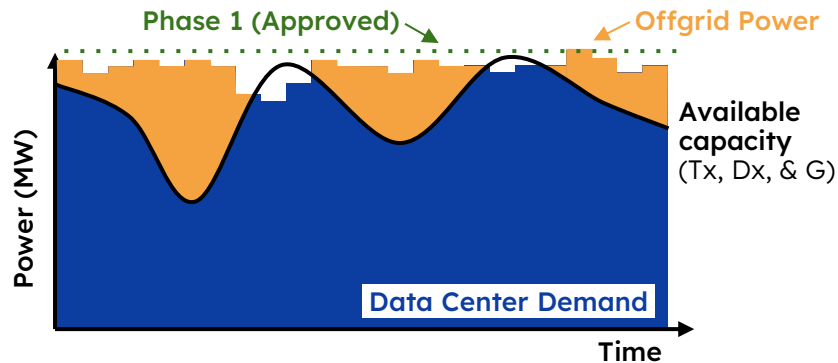
New grid connection date: 2030 (post-upgrade)

Upgrade cost (phase 1): \$20 million

On-site generation: 100% through 2029



Flexible Interconnection



Interconnection Approved (✓)

New connection date: 2026

Initial cost: \$3 million

Off-grid required: 5-20% annually

FASTER

LOWER COST

LESS CO2



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THANKS!

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