

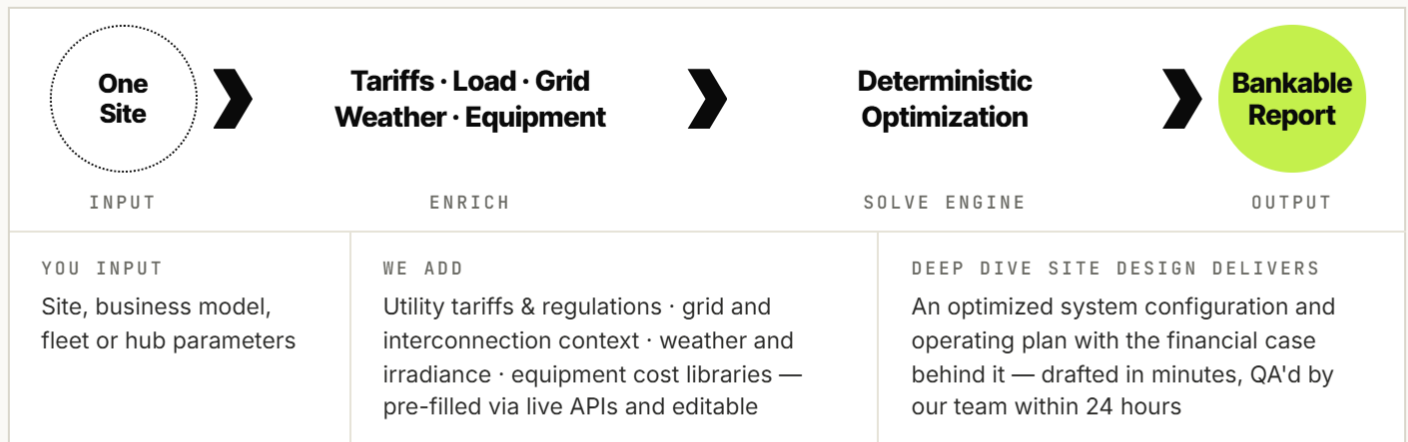
¶ DEEP DIVE SITE DESIGN

Deep-dive analysis that turns a single site into a *bankable* investment case.

Deep Dive Site Design takes a single location — EV charging, battery storage, or both — and optimizes the infrastructure and the financials together, producing a report suitable for securing financing.

A deterministic optimization engine		OVERVIEW
Deep Dive Site Design consolidates third-party data, project-specific assumptions, and advanced financial and technical optimization models in one secure, collaborative platform — built for reproducibility and auditability. Replacing spreadsheets and fragmented tools, it delivers multi-scenario investment analysis in a fraction of the time.		WHAT IT DELIVERS Optimized infrastructure design Reduced CAPEX and revenue uncertainty Stronger, more predictable financial performance
Where Deep Dive Site Design fits		PORTFOLIO → SITE → OPERATIONS
STEP 01 · SCREEN Site Selector Ranks a portfolio of locations by serviceable demand to show where to look first.	STEP 02 · DESIGN Deep Dive Site Design Go deep into a specific site — EV charging, storage, or both — optimizing the configuration against tariffs, load, and capital structure.	STEP 03 · OPERATE Site Operator Optimizes site performance on an ongoing basis once the designed site has been built.
Scenarios, solved together		ILLUSTRATIVE OUTPUT
CONFIGURATION	BASE	+ BESS + PV + BESS
Solar PV	—	— 480 kWp
Battery storage	—	600 kWh 900 kWh
CAPEX	\$3.4M	\$3.9M \$4.6M
IRR	22%	28% 34%
Payback	3.3 yr	2.6 yr 2.1 yr
↳ Illustrative demo · every scenario is re-solved end to end, not scaled from a base case		

HOW IT WORKS



A CLOSER LOOK AT YOUR INPUTS

PROJECT Project & business model Business model and goals, currency, interest rates, and top-level assumptions. Onboard your team to contribute data, run simulations, and decide together.	FLEET / PUBLIC Fleet, vehicles & public demand Vehicles grouped by model, battery capacity, and duty pattern — and, for public sites, local traffic, projected growth rates, and more. Returns the structure and operating plan that fits the usage, goals, and budget.	HUB Charging hub & energy system Equipment, operational parameters, utility capacity, and tariffs — or review the values auto-filled from live databases. Returns the recommended hub layout and dispatch plan.
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Challenge addressed

- ✗ Feasibility work spread across spreadsheets and one-off calculators
- ✗ Sizing and financial modeling done separately, then reconciled by hand
- ✗ Assumptions that cannot be traced or reproduced under lender review

Technical solution

- ✓ One platform holding data, assumptions, and models together
- ✓ Co-optimization of technical configuration and financial outcome
- ✓ Deterministic engine — same inputs, same result, fully auditable

Enterprise-grade under the hood

PLATFORM

INTEGRATIONS Automated dataset and API updates for weather, telemetry, tariffs, and regulations. Multi-cloud on Azure, AWS, and Google Cloud. Python, Kubernetes, MongoDB. Power BI and Tableau export.	FUNCTIONALITY Vehicle- and business-model-agnostic load-profile optimization for buses, trucks, vans, and passenger vehicles. Mix-and-match energy library: wind, solar, fuel cells, storage, hybrid AC-DC.	STANDARDS GDPR for data security and privacy · FAST for bankability · OCPP for EV charging software · OpenADR for distributed energy resources · telemetry standard compliance. * Available upon customer request.
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WHAT A COMPLETED INVESTMENT CASE LOOKS LIKE

site-design · investment case · demo

Brightmerge

DEEP DIVE SITE DESIGN

INVESTMENT CASE
Generated Jun 2026

SITE	SEGMENT	RECOMMENDED
Bronx · I-95 Hutchinson	Last-mile fleet · 58 vehicles	+ PV + BESS · 480 kWp · 900 kWh

PROJECT INTERNAL RATE OF RETURN

34%

Solved against the site's tariff structure, load profile, and capital assumptions — with the full cash-flow model and source data attached to the report.

HEADLINE FINANCIALS

NPV

\$6.8M

CAPEX

\$4.6M

Payback

2.1 yr

DC FAST CHARGERS	AC DEPOT POINTS	UNMANAGED GRID PEAK	MANAGED PEAK
12 × 180kW	22 × 19kW	2.1MW	1.3MW

FLEET & ENERGY DEMAND

VEHICLE GROUP	UNITS	BATTERY	DAILY RANGE	ENERGY / DAY
Delivery vans	40	90 kWh	180 mi	2.6 MWh
Box trucks	14	210 kWh	140 mi	2.1 MWh
Yard tractors	4	320 kWh	60 mi	0.7 MWh

↳ Illustrative demo · figures vary by site, tariff, duty cycle, and capital structure

Customer benefits		IMPACT
✓ Commit capital on a sized, costed design rather than an estimate	✓ Present lenders an auditable case with traceable inputs and assumptions	
✓ Lower CAPEX by sizing generation, storage, and charging against real load	✓ Test more configurations per site, in minutes instead of weeks	

Bring us your toughest site.

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BOOK A CALL →