Brightmerge is a SaaS platform for microgrid economic optimization. We are accelerating the transition to the next energy era.

Our platform introduces a user-friendly datagathering interface that utilizes an AI optimization engine to achieve the maximum economic potential of microgrids.

Brightmerge allows energy developers to rapidly meet their bankability KPIs, and component providers to easily show the economic benefits to their potential customers.



INTRODUCTION

Future energy systems are rapidly evolving with multi-dimensional design options and business models. Current technologies are not capable of modeling the continually increasing complexity resulting from new technologies and new business models.

We are introducing a SaaS based ROI simulation and optimization platform for today's energy developers and financiers. Our AI tools use the latest technology to perform an economic analysis of your microgrid designs and select the design that best meets your business goals.

A MICROGRID FUTURE

Microgrids – energy networks that locally supply and manage electricity demand, are more efficient, sustainable and resilient against cyber-attack and adverse weather conditions.

Next generation microgrids are even more complex to economically design and operate due to new energy storage and generation technologies as well as the need to support dynamic new demand (e.g. EV's) – all while reducing emissions.

NEW ERA OF ENERGY CHALLENGES



Should we upgrade our fleet to EV?

• How does EV Integrate with my energy network?

 I'll get a \$\$\$ expert advice? Or just wait..



How can I promote my new storage product?

\$\$\$ economic models per client
Plugged-in numbers,





I want to get rid off my diesel generator!

- \$\$\$ Alternatives Evaluation work
- •I'll wait till Gov policies to kick-in...

Power outages cost my company millions!

- What's the best solution for me?
- Patching with more UPSs?

BRIGHTMERGE – OUR SOLUTION

ON-GOING SIMULATION AND OPTIMIZATION TOOL FOR:

- Future microgrid Make sure you meet your green-field project's bankability KPI's e.g. ROI, IRR or even zero carbon;
- Retrofit into microgrid Create an economic-optimized roadmap for your current site as you upgrade it into a modern microgrid;
- Adjustment of operating microgrid –New technologies and business models along with on-going green-deal policies require your attention. Get personalized notification to make sure you are up to date;

DATA COLLECTION

Simulating microgrids requires vast amounts of data and information – weather, building profiles, tariffs, load profiles, hardware performance curves and more.

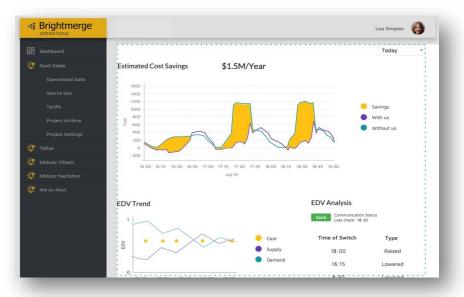
Our platform introduces a user-friendly data-gathering interface to automatically collect and analyze site data and other relevant data from over the world. We do the leg work so that your energy experts will have what they need when they need it – allowing them to scale their work for maximum potential financial performance.

OPTIMIZATION ENGINE

The core of our system: SaaS Transactive Energy AI Simulator for Optimizing Microgrids' economic performance. Uses our load management module, alternative cost of energy, regulatory policies and many other data sets to identify the design that best meets your goals.

BANKABILITY REPORT

Decision-support tool with financial based KPI: The Optimization engine automates the process and quickly determines the financial feasibility of a microgrid project as it relates to both financing and operational performance.



OPERATIONS

CONTINUOUS OPTIMIZATION

Brightmerge helps microgrid operators make sure they are on the cutting-edge of their economic objectives.

A Brightmerge optimizer account allows users to easily log in, upload historical load profiles from an operational site and set optimization criteria.

The system will automatically analyze the network looking for new design opportunities that will better meet your economic criteria.

Brightmerge includes an aggregation platform which allows for direct access to energy data from digital meters and energy management systems. This API will allow streamlined access to live data and analysis of your energy load, component utilization, data and more.

SUSTAIN YOUR LEAD

We recommend optimizing every quarter to review and simulate new technologies enrolled in our libraries that might unlock new value for your microgrid. This action can be done actively by the user, semi active – by alerting the user to take action or passively - automatically by the SW like any "live-update" process.

In addition to the periodic checkup, we recommend using Brightmerge's optimizer whenever energy costs have changed, renewables policies have been amended or in any other case of changes within the operational environment.





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Site data entries:

- Location
- Туре
- Load Profile
- Energy tariff
- Existing DER, e.g. Diesel gen,
- Deferable channels

Set Optimization KPI:

- Financial: IRR, NPV,
- Carbon Reduction
- Resiliency SAIDI/CAIDI / Deferable/Non-deferable load

Components Library Specific or generic: Batteries, PV, EV Chargers., CHP, Etc.

System Data:

Data collected and processed from historical Simulations / **Optimizations**

Auxiliary Data:

Local incentives, etc.

Solution Filter:

Analyse site data to identify probable solutions based on past simulations and expert systems logic

Simulation:

Optimization:

Use Gradient Descent to adjust parameters for improved results

Report:

Optimal Architecture (component types and sizes).





Site Data Entry

Set Optimization KPIs,

Library

System Data

Components

Auxiliary Data

Solution Filter

Simulation

Optimization

Report

Financing Process, EPC Commissioning: Detailed design (DD), BOM, Budget, post

DD optimization



KPI

OK?

No

Yes



OUR MARKET

NOVEL SAAS PLATFORM FOR ECONOMIC OPTIMIZATION

- Enterprise Real Estate Owner Increase your property value by improving Power Reliability, lowering the Energy Costs and maximizing Energy Efficiency.
- Microgrid Developers streamline sales process and proposals, leverage new technologies for cutting-edge solutions
- Financial Expert Evaluate microgrid ventures to scale renewable energy opportunities.
- Component Providers Create cost-effective rapid economic simulations for improved sales.

EVOLVING ENERGY SOLUTIONS

Take a closer look at how Brightmerge is democratizing the energy industry. Contact us for more in-depth information.

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