



Team #70

# Alnergize

A solution to optimize current systems and support  
a transition towards renewable energy.



# Meet the Team



Ashutosh Verma

Ashutosh is a 3rd-year undergraduate student studying International Business and Economics at The University of British Columbia



Adeoluwa Adegbeye

Adeolu is a 4th year undergraduate student studying computer science at Covenant University, Nigeria.



Becca Zhu

Becca is a 1st-year graduate student studying Public Administration and Social Innovation at the University of Southern California.



Renewable energy in 2021 saw the fastest-year-on-year growth since the 1970s.

Policy deadlines have accelerated the development of renewable energy infrastructure.

# Renewable Energy Trends

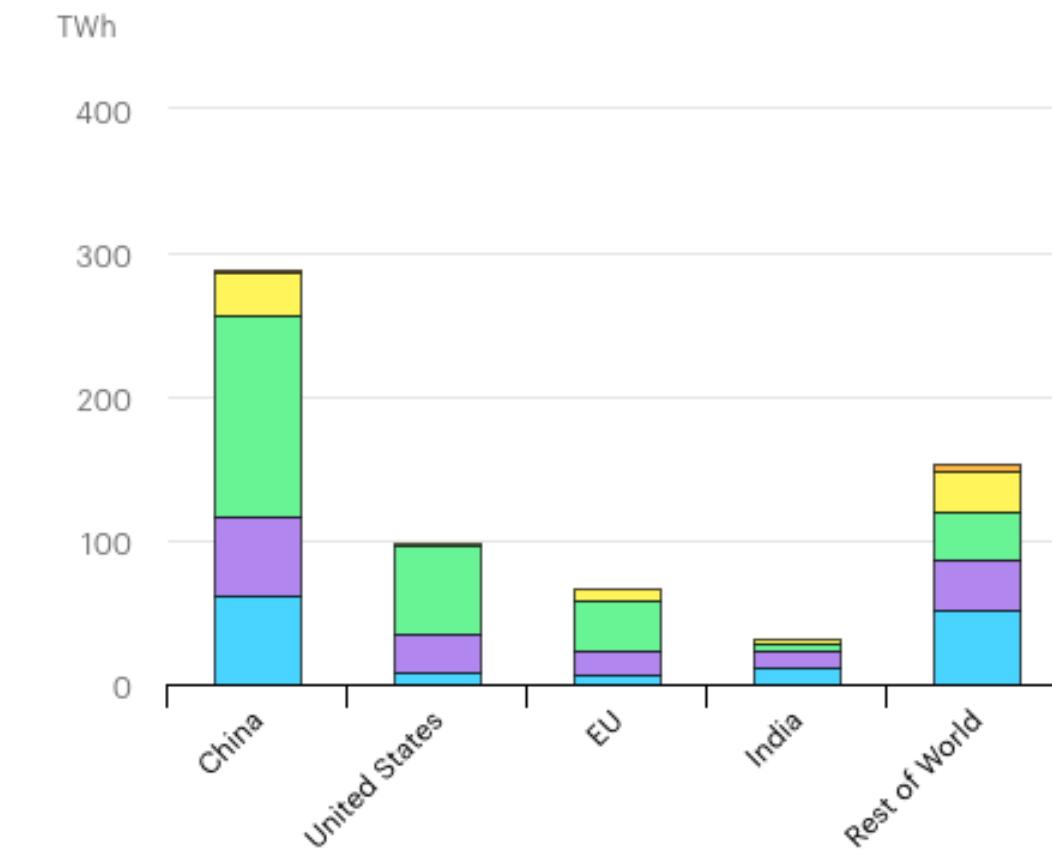
Renewable electricity generation in 2021 was set to expand by more than 8% to reach 8 300 TWh

Global and solar wind generation was expected to increase by at least 17%

China and India's renewable energy sectors are growing rapidly and account for more than half of the year's increase

Renewable electricity generation increase by technology, country and region, 2020-2021

Open 



IEA. All Rights Reserved

● Hydro   ● Solar PV   ● Wind   ● Bioenergy   ● Others

(IEA, 2021)

# Meet Lalita

A single mother of 4 who runs a local dairy

The previous summer was brutal. With frequent power outages, her dairy shop could barely hold any refrigerated goods. She worries that she may have to start searching for odd jobs if she is to pay for her children's education.

But most of all, she fears that the lack of stable energy will disrupt her cooking and force her children into a season of hunger.



# \$150 Billion

The annual cost of power outages in the US

# \$2.5 Billion

The per-hour cost of power outages for large companies

# 570 Million

The number of people with zero access to energy sources in the developing world

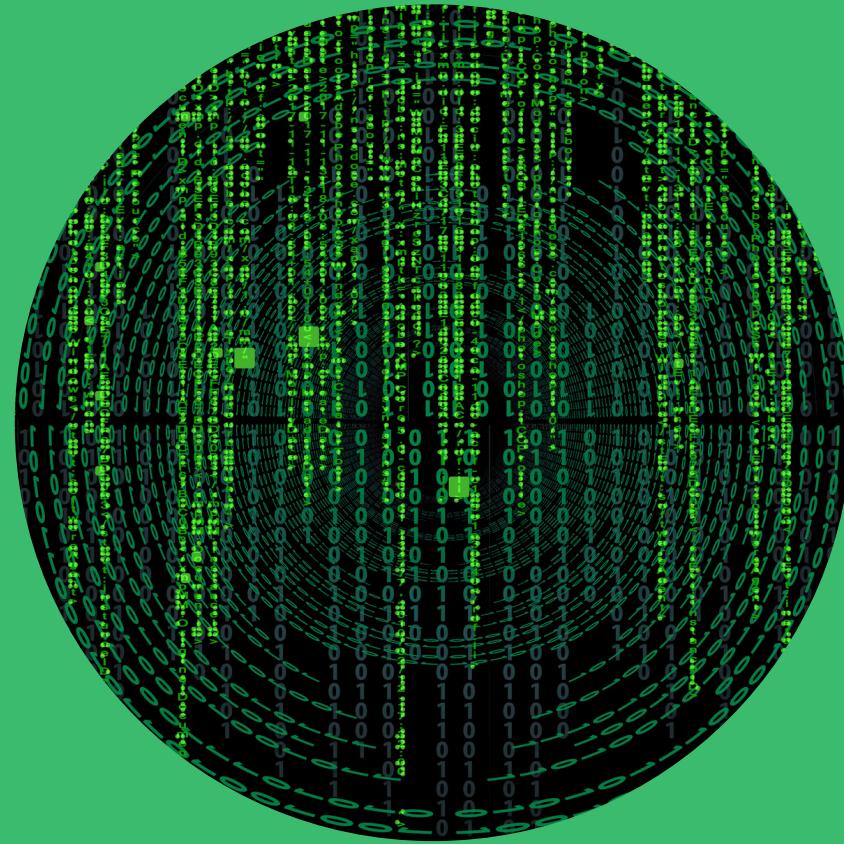


# Our Solution

We aim to address energy efficiency by increasing the transparency of activity in neighboring grids with real-time data and allowing partners to trade excess renewable energy through a block-chain enabled platform.



# How it works



## **View real-time data**

Access real-time energy supply and demand data of neighboring grids.



## **AI powered Insights**

View insights on how to improve energy efficiency and better energy management.



## **A blockchain trading platform**

Buy and sell excess energy at affordable prices.



# Sign up

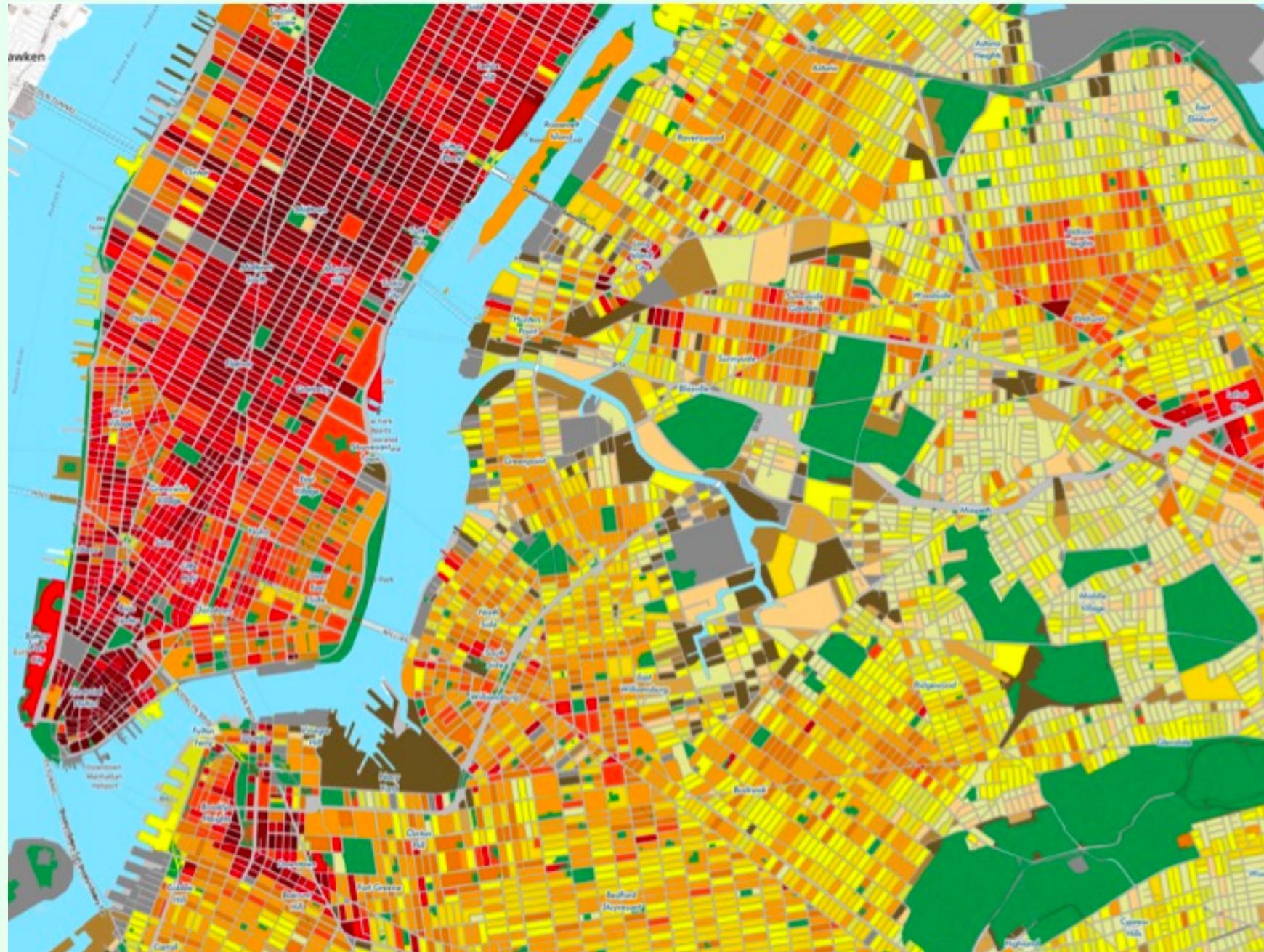
**Real-time data and energy offers are  
just a few clicks away.**

Name of OrganizationPasswordType of OrganizationConfirm Password

B E C O M E   A   P A R T N E R   T O D A Y

CONTINUE

# Partner Dashboard





# Impact

## Efficiency

Greater transparency of neighboring grids would allow our partners to better match the supply and demand of energy/

## Reliability

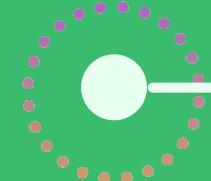
Our platform and AI-powered insights will help alleviate transmission congestion and thus increase grid reliability.

## Affordability

Our solution will search all available offers of energy to find the most affordable price and save costs associated with energy storage.

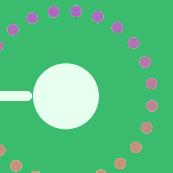
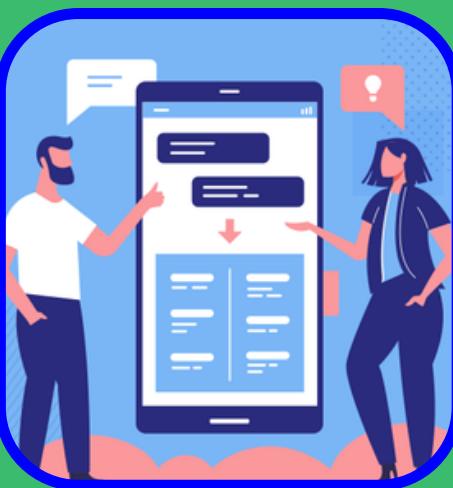
# Stage 1

Research & Development for back-end product design and UI/UX



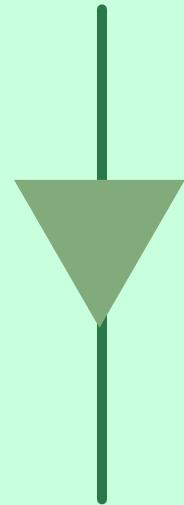
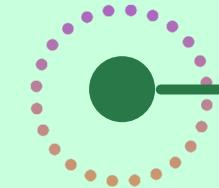
# Stage 2

User test runs for verifying data and quality assurance



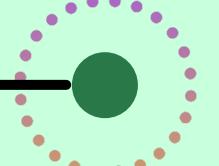
## Stage 3

Establish partnerships with utility companies, collect data on energy usage patterns, use AI to optimize processes



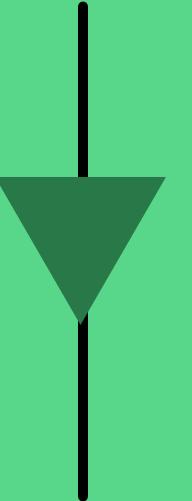
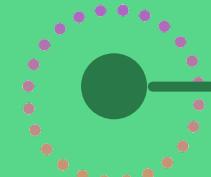
## Stage 4

Market testing of our product followed by continuous R&D on backend design



# Stage 5

Scale-up from a B2B to a B2C solution allowing for increased revenue generation



# Stage 6

Shift from energy consumers  
to energy prosumers!





Team #70

Please let us know what  
questions you have.

Thank you  
for your time!

# References

- <https://www.iea.org/data-and-statistics/data-product/energy-efficiency-indicators-highlights#>
- <https://www.iea.org/reports/global-energy-review-2021/renewables>
- <https://www.youtube.com/watch?v=xhxo2oXRiio&t=4s>
- <https://foreignpolicy.com/2021/02/10/is-germany-making-too-much-renewable-energy/>
- <https://www.degruyter.com/document/doi/10.1515/rmef-2020-0011/html?lang=en>
- [https://cri-world.com/publications/qed\\_dp\\_4523.pdf](https://cri-world.com/publications/qed_dp_4523.pdf)
- <https://www.sciencedirect.com/science/article/pii/S014098832030222X>
- <https://www.vox.com/energy-and-environment/2019/6/18/18681591/renewable-energy-china-solar-pv-jobs>
- Assessing the Costs of Major Power Outages (lbl.gov)
- <https://www.bcg.com/publications/2021/maximizing-value-from-scale-renewable-energy>
- Assessing the Costs of Major Power Outages (bloomenergy.com)
- India wastes 15-20% of its renewable energy due to lack of storage: Panasonic Energy head - The Hindu