Zero Labs

Programmable
Sustainability

zerolabs.green

ZERO LABS

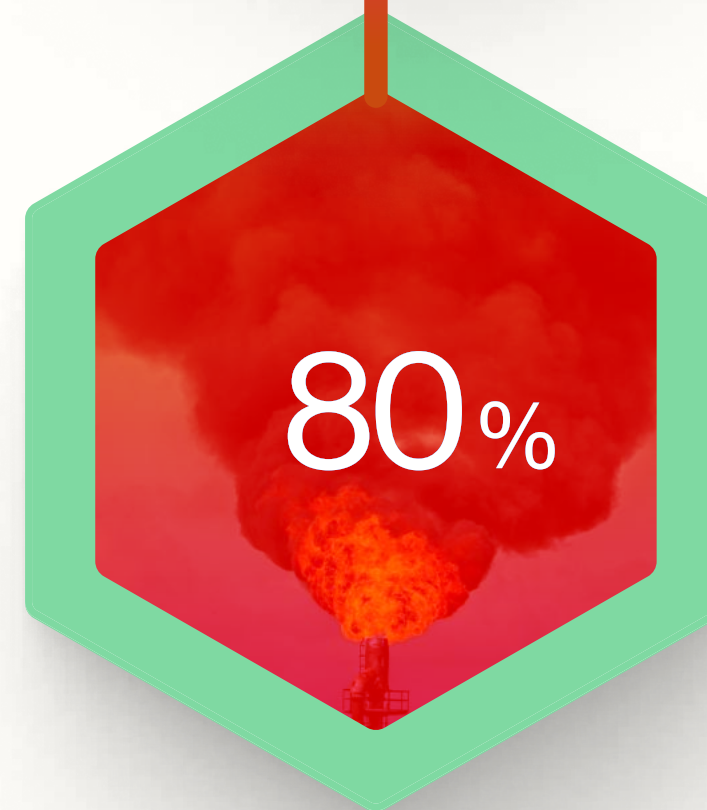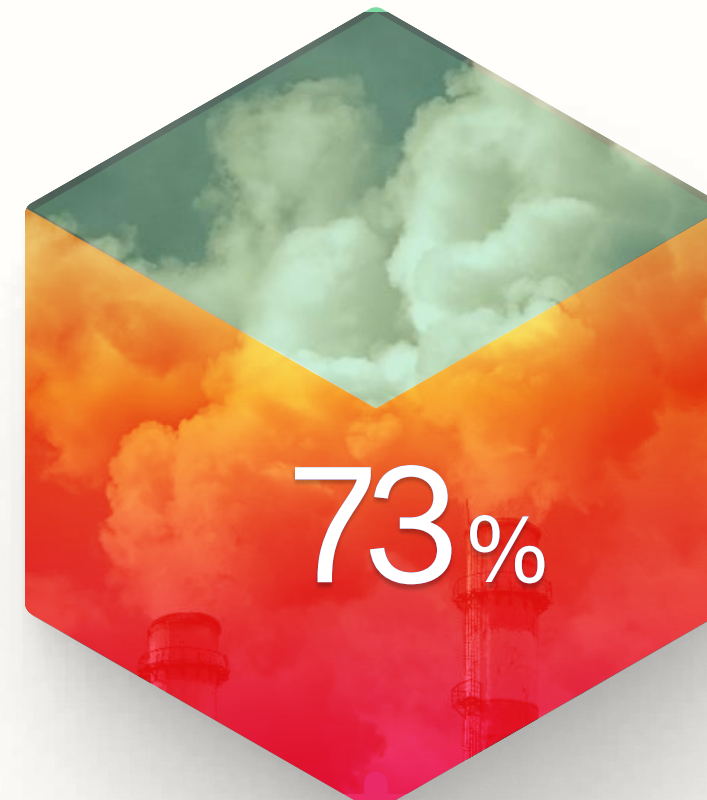# Programmable Decarbonization
with Digital Renewable Energy

the fastest, simplest and cheapest way
to buy renewable energy and prove it

The Problem - Zero or Bust!

Energy is the biggest problem of all in the climate crisis

73%

of greenhouse gases causing global warming are emitted by energy production or consumption

source world in data

73%

80%

80%

of global energy is still being produced with fossil fuels

source REN21

Climate Action is hard

Everyone wants to be sustainable and decarbonize, but climate action can be difficult, complex, sometimes it's expensive.
Everyone wishes for an easy way to make real and reliable impact

# Renewable Energy Certificates are a gated market

The Renewable Energy Certificates market is slowed by analog processes, disconnected, and accessible only to elite corporate buyers

Regulation is ~~coming~~ here

Medium to large companies in the USA and EU will soon be required to report their clean energy, and most don't know how to do it or don't have the time or money to do it
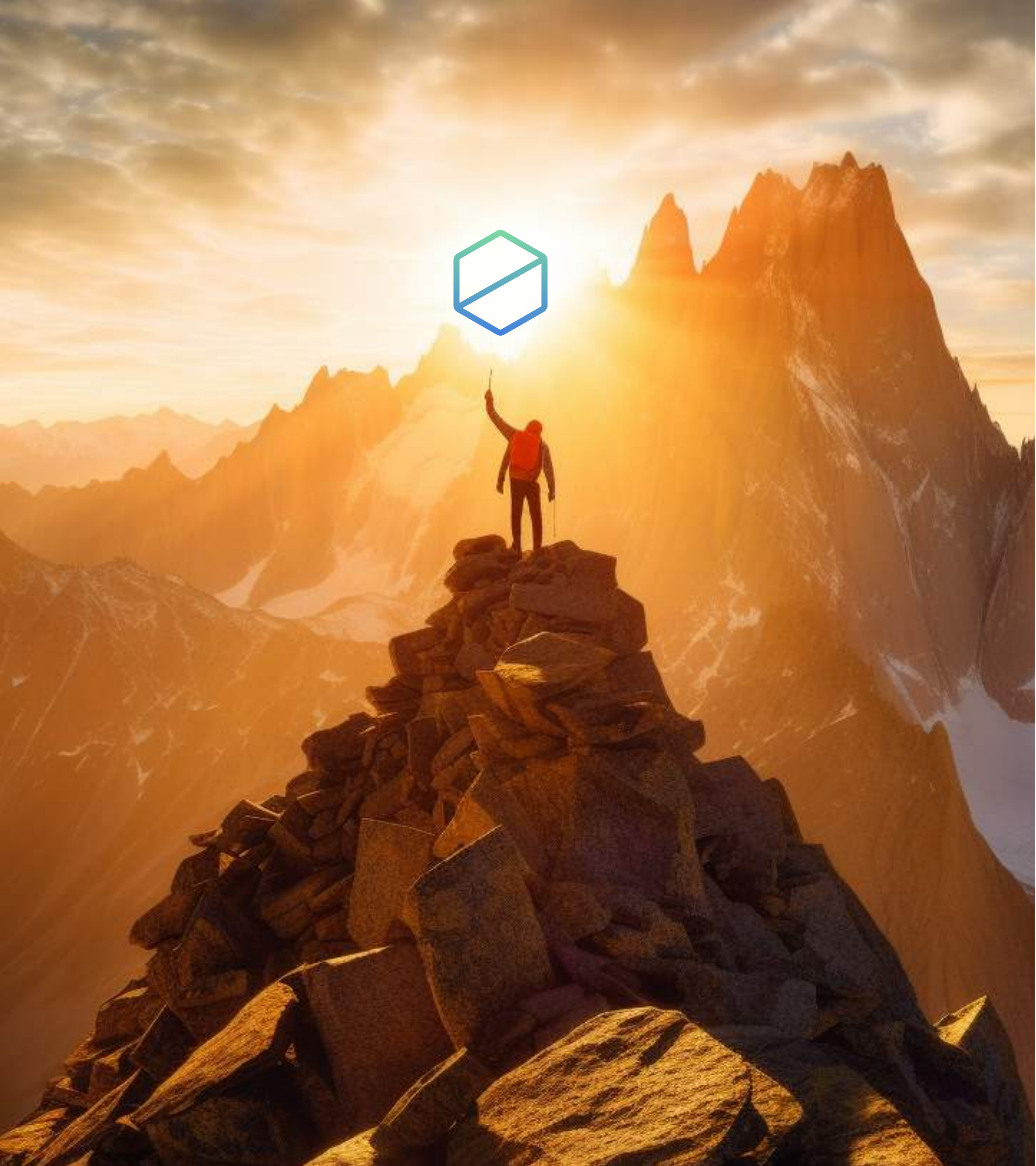
Renewable Energy SaaS

making it super simple for anyone anywhere to easily buy renewable energy and prove it

we do it by digitizing Renewable Energy, turning it into a programmable building block that can be easily "embedded" in every digital process, software or app

1 **We Digitize Renewable Energy Certificates**

to make them a digital, fast and programmable building block: digital RECs enable fractionalization, democratizing access to renewable energy for small buyers and sellers who can now buy and sell any amounts

2 **We provide a simple API**

enabling any developer in the world to program decarbonization into their apps, or to build provably green-first products & services, without having to deal with tedious market complexities or knowing how to work with energy, blockchains, or digital RECs. This radically simplifies buying renewable energy and allows to make climate action automatic and omnipresent
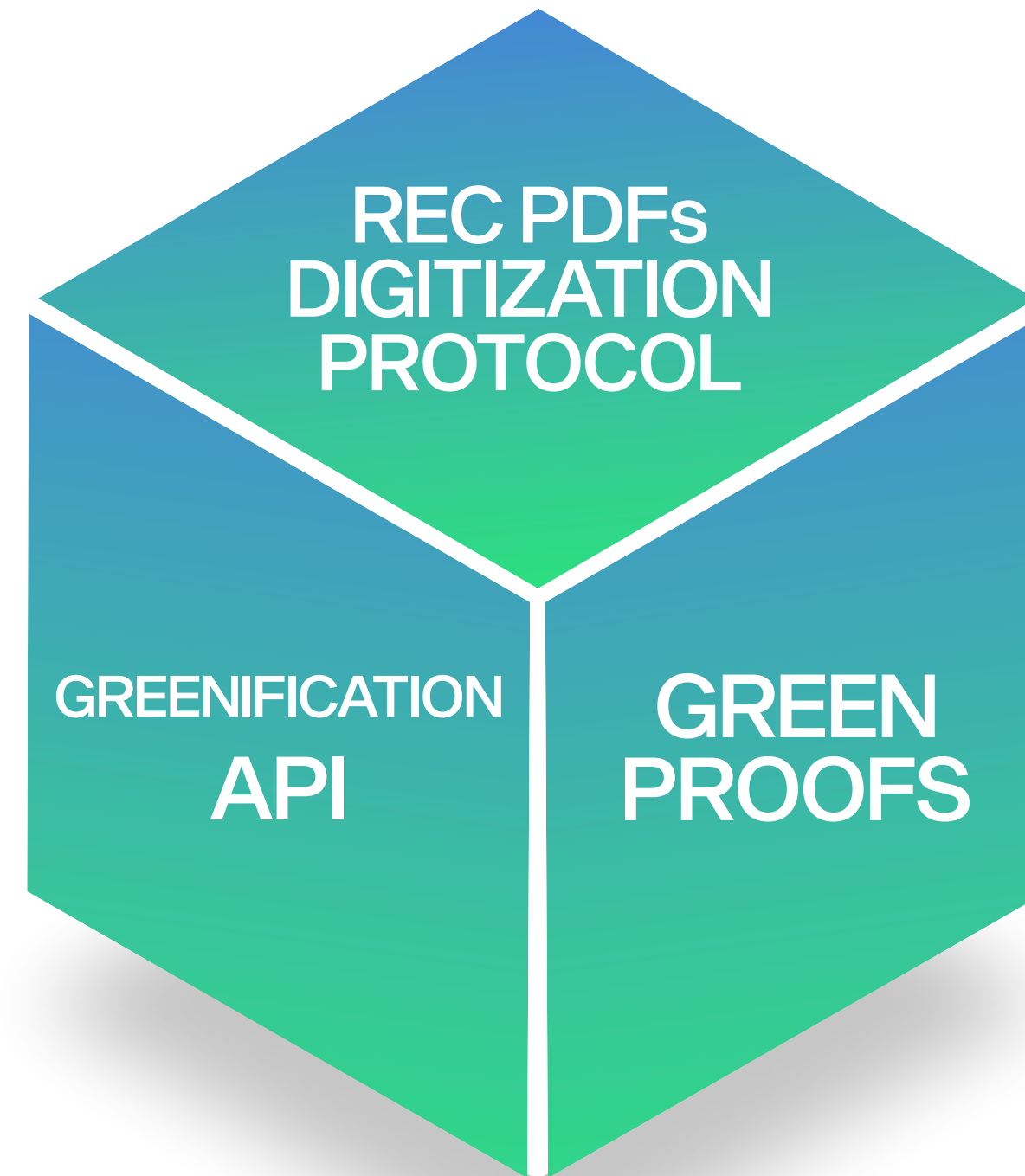
3 **We automatically provide easy-to-understand web proofs**

beautiful and easy-to-understand Green Proof that both tells the story of your impact and enabling anyone to verify that the claims are real and follow industry best practices and sustainability reporting standards

REC PDFs
DIGITIZATION
PROTOCOL

GREENIFICATION
API

GREEN
PROOFS

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Filecoin is a decentralized cloud storage network designed to store humanity's most important information, with built-in economic incentives. Filecoin decarbonized their global network of Storage Providers since launching it in 2020. Filecoin uses our decarbonization API in their filecoin.energy dashboard and for their Green Reputation Score

01   The Green Hero

f0763337

02   Has bought

93 MWh of Renewable Energy Certificates

03   To greenify

Filecoin Storage Provider
f0763337

Consumption Entity

Impact   Verify

Filecoin Storage Provider

f0763337

Filecoin is a decentralized storage network designed to store humanity's most important information, with built-in economic incentives to ensure data is stored reliably over time
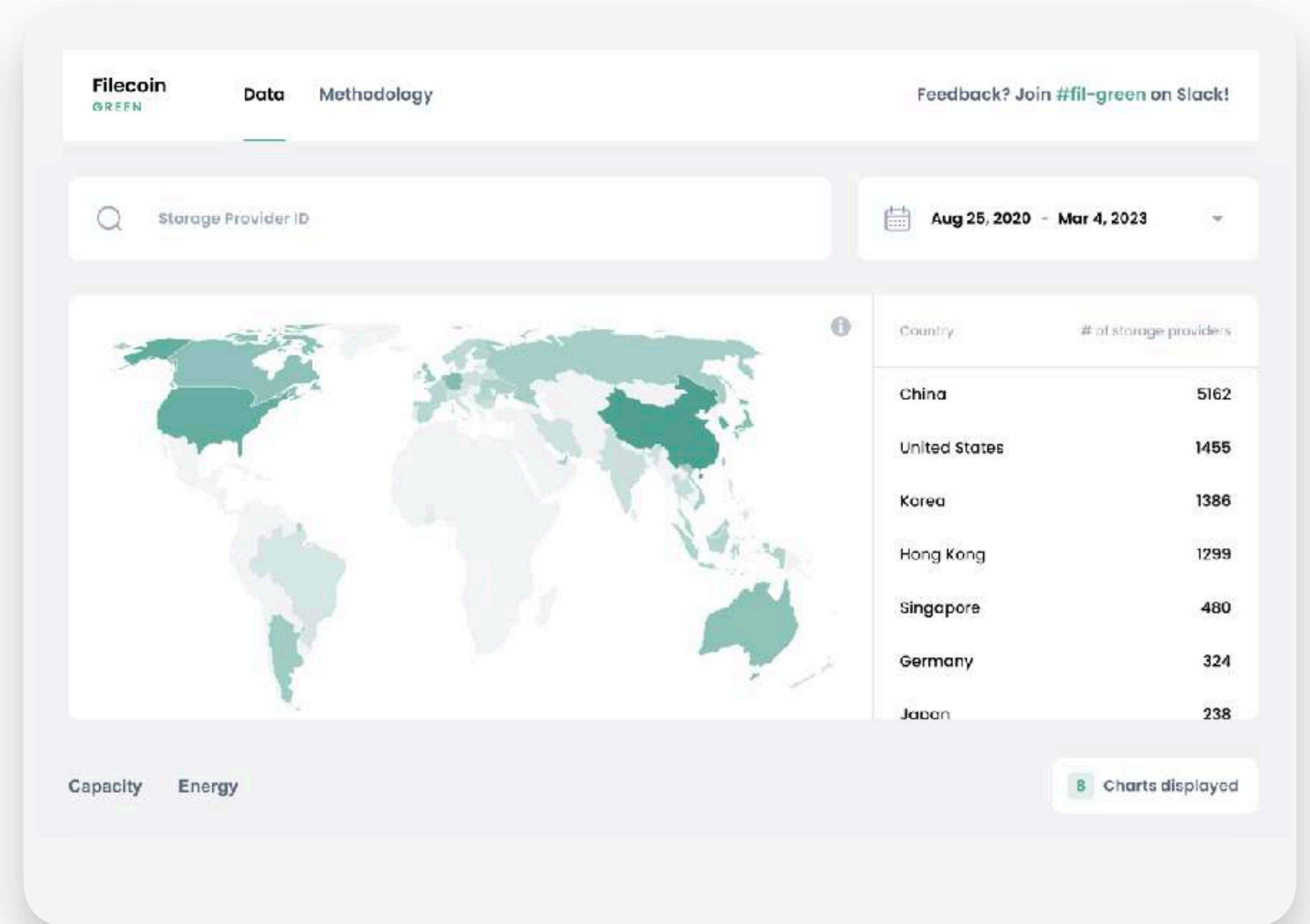
More info

proof: https://app.proofs.green/proof/2673bab8-fbaf-4edf-9ac8-153c873cb38c

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views of the Filecoin Green energy dashboard - filecoin.energy   view a Green Proof for a Filecoin Storage Provder: https://app.proofs.green/proof/2673bab8-fbaf-4edf-9ac8-153c873cb38c

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ZUMO®

We helped our partner Zumo provably decarbonize their Bitcoing holding. Explore the proof
Moreover, Zumo also integrates our API and offers an SDK for Banks and tradFi institutions
to offer to their clients to easily buy provably decarbonized Bitcoin, Ethereum and other crypto assets
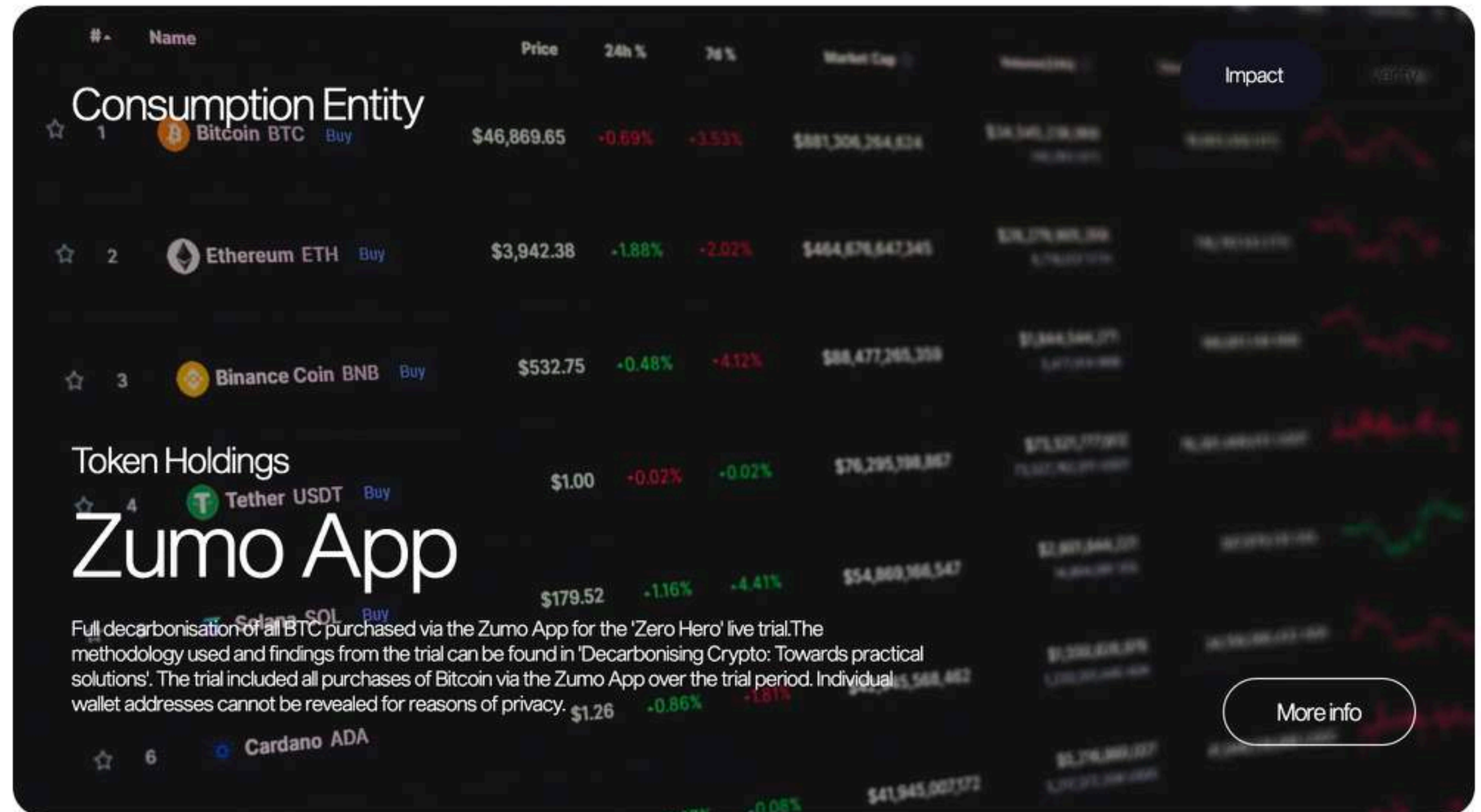

proof: https://app.proofs.green/proof/81d54964-58ef-487a-88f0-5ec01bbb5bb4

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Green Proofs - Impact view

Our easy-to-understand and automatically generated Green Proofs will help you

- communicate your impact to the world
- and enable anyone to verify the environmental claim and that you are following industry best practices and sustainability reporting standards

Green Proofs - Verify view

Compliant with standards

The official Renewable Energy Certificate attestation provided by the EAC registry is always available for you and anyone to download and verify. Feel safe that you are making an impact that is both real, provable and compliant with reporting standards

Radically easy transparency

The sankey diagram allows anyone to trace from their fraction of a REC upstream to the main official registry attestation and beyond

Green Proofs - Radically easy transparency

The sankey diagram allows anyone to trace from their fraction of a REC upstream to the main official registry attestation and beyond

Certificate 20 MWh

Certificate 23 MWh

THIS PROOF 84 MWh

Certificate 15 MWh

Certificate 22 MWh

Certificate 35 MWh

Certificate 23 MWh

Certificate 15 MWh

Proof 9 MWh

Certificate 9 MWh

Proof 11 MWh

Certificate 11 MWh

Proof 32 MWh

Certificate 32 MWh

Proof 3 MWh

Proof 15 MWh

Proof 3 MWh

Proof 9 MWh

Batch 563 MWh

Certificate 162 MWh

Proof 130 MWh
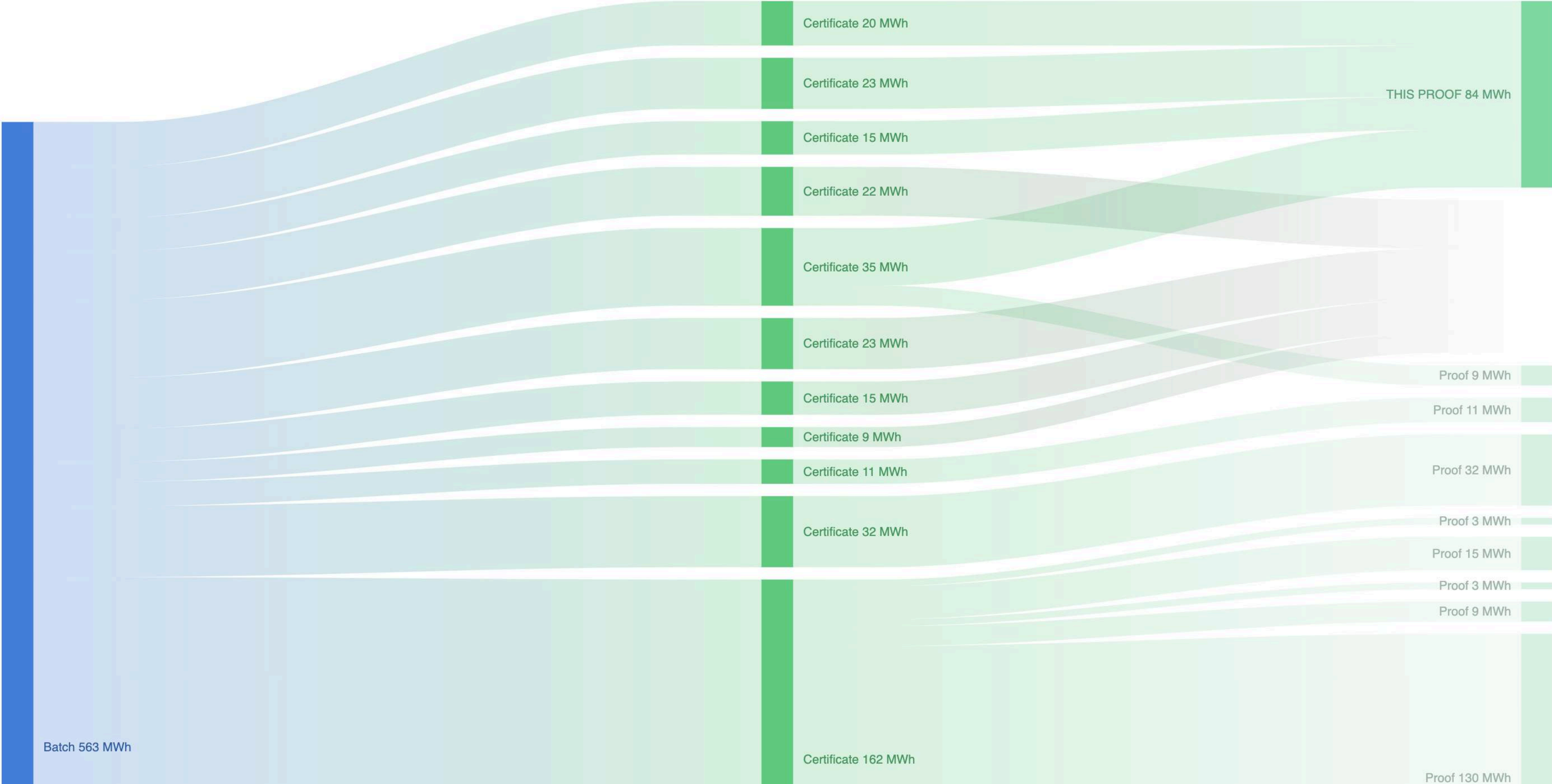
Explore a Real Green Proof
Decarbonize a Museum

https://app.proofs.green/proof/8ae4172f-8cb0-4827-a77a-74d5f3211597

⬡ INTRO

The Berrocal Studio-Workshop is using Renewable Energy and here's the Proof

This page is a proof that

01 - The Green Hero

Fundacion Escultor Berrocal

02 - Bought

0.743 MWh of Renewable Energy Certificates

03 - To decarbonize their

Berrocal Studio-Workshop

Industries

Finance & Assets

Cloud Services

Real Estate & Vacation Rentals

Entertainment Streaming & Gaming

E-Commerce & Consumer Brands

SaaS Digital Apps & Services

Households Electricity

E-Mobility

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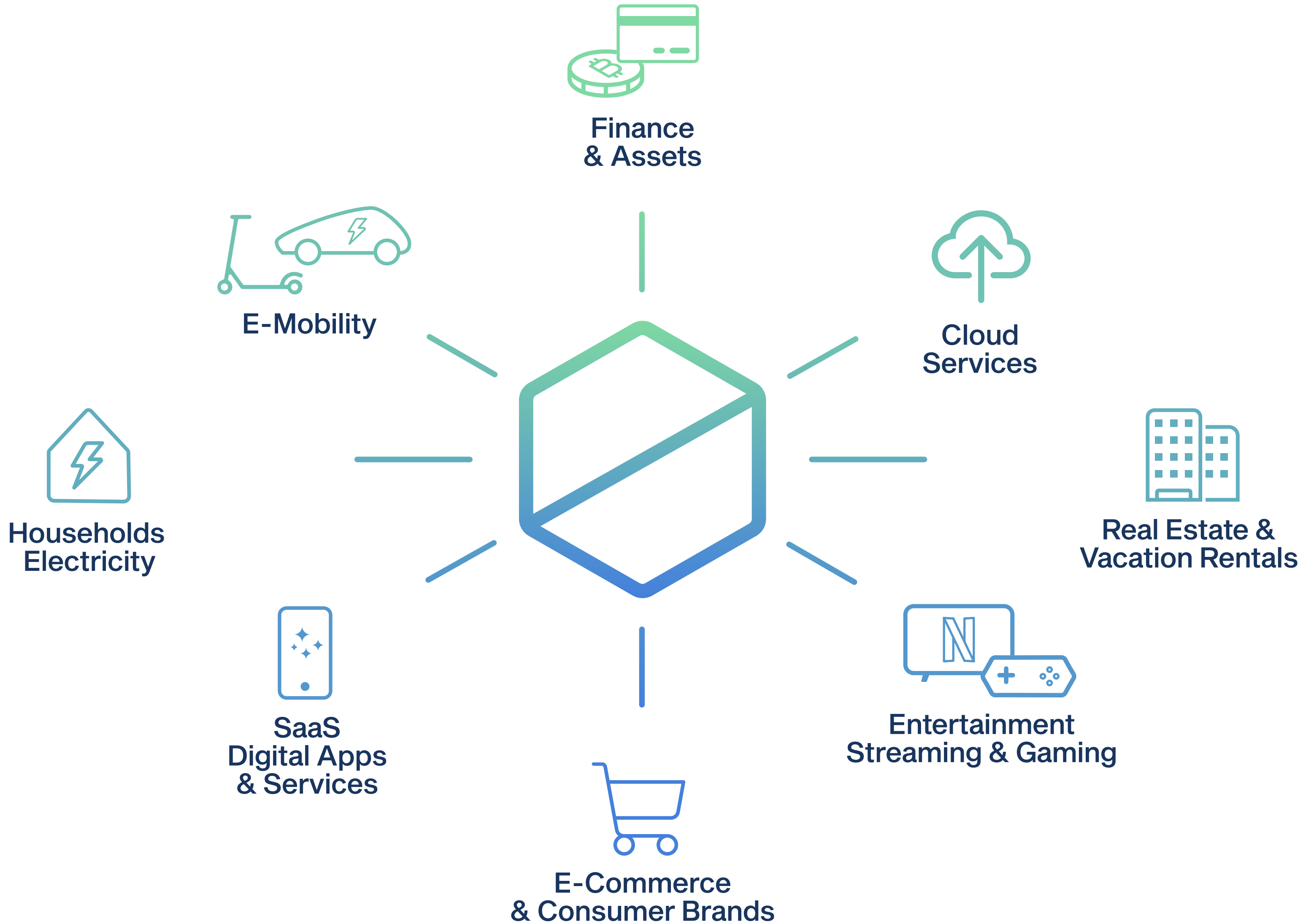
Non-Zero Facts

GWh Decarbonized

2040

BUYERS

2283

COUNTRIES

7
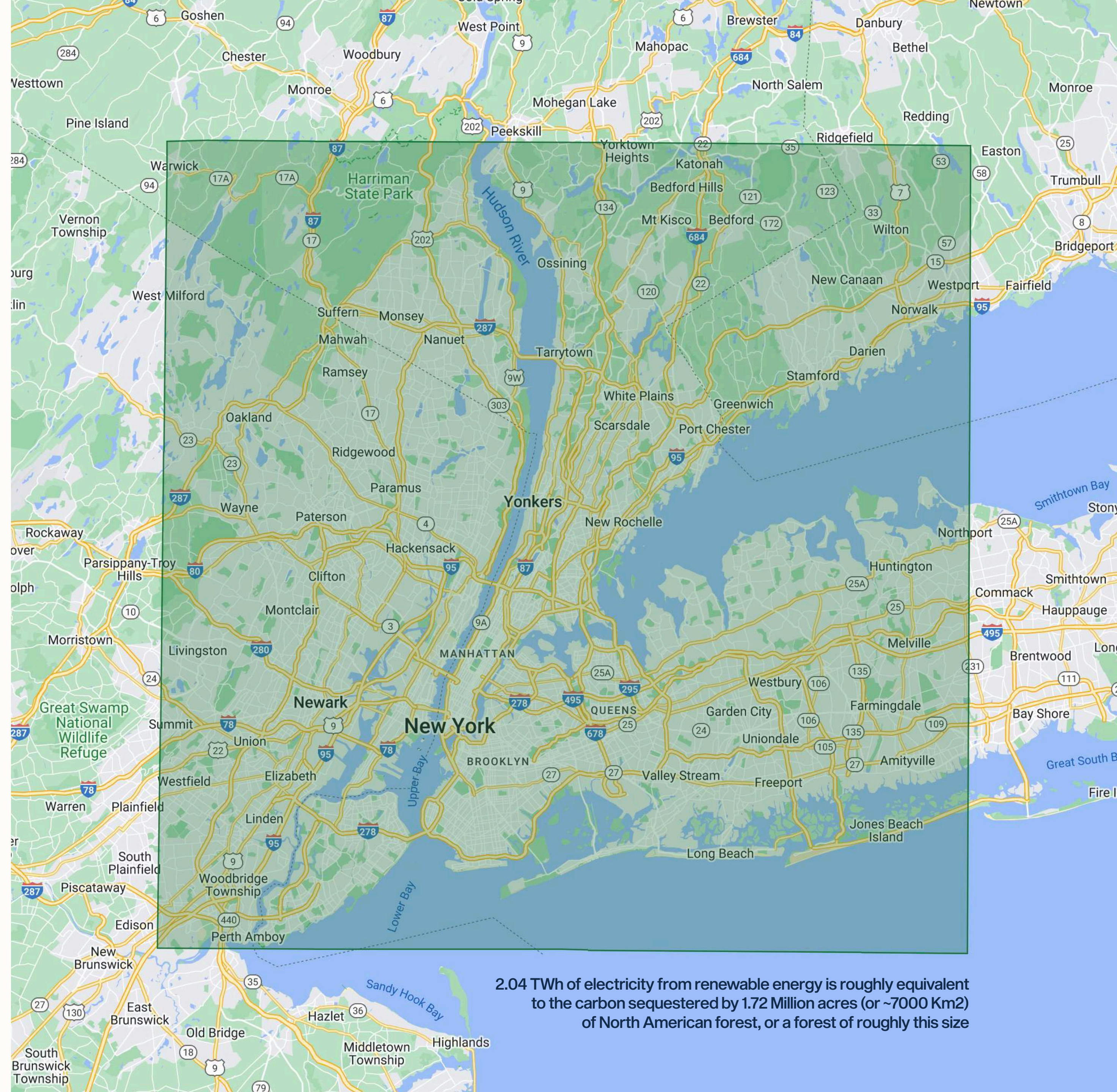
2.04 TWh of electricity from renewable energy is roughly equivalent to the carbon sequestered by 1.72 Million acres (or ~7000 Km2) of North American forest, or a forest of roughly this size

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We are 🎉 thrilled to announce that Zero Labs is the 🏆 winner of **Money20/20** Europe's Got Access competition!

At ZeroLabs, we are dedicated to creating a sustainable future by helping businesses and individuals transition to clean energy effortlessly, rapidly, and transparently.

This recognition fuels our mission to 🏃 accelerate **#climateaction** and the adoption of **#renewableenergy** globally

💚 A huge thanks to Money20/20, Commerce Ventures and the amazing judges:
- **Katherine Brown** – Head of Sustainability at **Visa**
- **Liz Rich** – Head of Strategy and Corporate Development **Bloomberg News**
- **Scarlett Sieber** – Chief Strategy and Growth Officer at Money20/20
- and **Dan Rosen** – Founding Partner, Commerce Ventures who is handing out the 100.000 K$ award

and thanks for this fantastic opportunity to drive change and onboard the fintech industry onto the path to Zero Emissions!

Renewable Energy Certificates

The secret ingredient to changing energy related behaviours

What are Renewable Energy Certificates?

Renewable Energy Certificates (RECs) are tradable, non-tangible energy certificates that represent proof that **1 megawatt-hour (MWh)** of electricity was generated from an eligible renewable energy resource or power plant.

Why do we need RECs?

Once an electron has been added to the electric grid, there is no way to know where it came from. Renewable Energy Certificates represent the verified amount of clean electricity that has been added in a specific period; therefore **RECs are the only way to proove your electricity green**

What's the difference between RECs and Carbon Offsets?

RECs prove that a certain amount of electricity consumed was green, and carbon credits represent a project, somewhere in the world, whose activities reduced emissions or enhanced GHG removal from the atmosphere. **RECs** are special because they **incentivize the adoption of renewable energy** while Carbon offsets redirect the sustainability effort to external projects

Renewable Energy Certificates (RECs)

a REC is a PDF, issued by non-profit registries around the world, that represent that **someone**
used a certain **amount** of renewable energy (min. 1 MWh), in a specific **location**, and in a specific **time** frame

What a REC represents

1 REC is a proof that **1 Megawatt-hour** (MWh)*
of clean energy was added to the grid

*equivalent to 1.1 Months of electricity of an average US household

**1 REC
=
1 MWh**

PDF representation of the REC

Standards names

EAC = Energy Attribute Certificate

GO Guarantees of Origin   **REC** Renewable Energy Certificate   **I-REC** International Renewable Energy Certificate

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Why we need RECs?

Once an electron has been added to the electric grid there is no way to know where it came from.
RECs are the only way to prove that your electricity is green

only these people can claim
the green electrons are theirs

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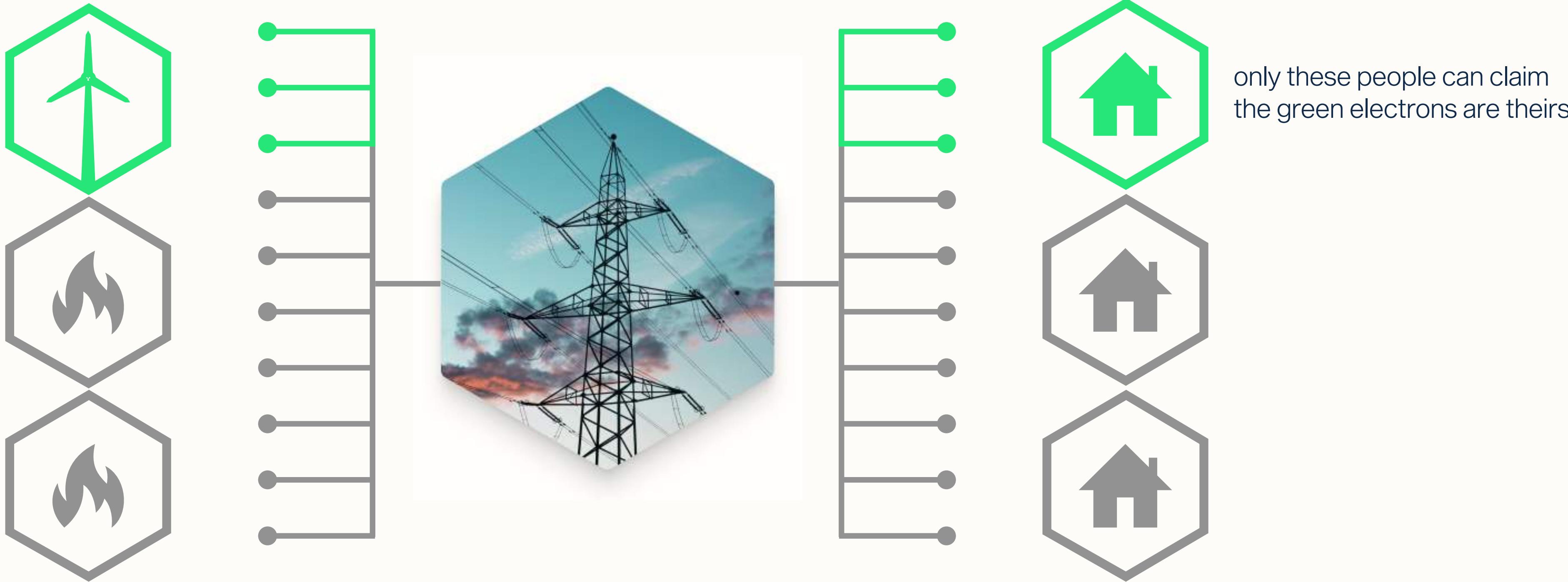
How are RECs different from Carbon Offsets?

both tools are needed in the fight against climate change, but they have important differences

REC

Renewable Energy Certificates prove that a certain amount of electricity consumed was green

VS

Carbon Offset

a carbon offset represents a project, somewhere in the world, whose activities reduced emissions or enhaced Greenhouse Gases (GHG) removal from the atmosphere:

Deterministic

Rapid Cycle (even live & 24/7)

Incentivizes new renewable project
(by making RE investments more profitable)

energy consumer **=** green activist

Contextual methodologies

Slow Cycles

Only Erases emissions
(but it doesn't change the future)

energy consumer **≠** green activist

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What you can build
with our Programmable Decarbonization tech

↗ inquiries@zerolabs.green

WHAT
What it is

WHY
Advantages

HOW
Examples

Your App — Includes a sustainability offer/features for your users

01

Greenify your Users, your Actions, or your Individual Projects

An integration project that, with a few simple API calls, can add one more added value to your existing offering

+ Create new revenue streams by upselling/reselling to your users the green features of your product

+ Create real impact! Make your users be sustainable through your app and contribute to reducing global emissions through industry best practices and sustainability reporting standards

+ Easy and fast to execute
Through a simple and friendly API that any developer can use

+ Automatically give to your users their Green Proofs that include your brand as a delivery partner

• Travel and Hotel platforms sell and track renewable energy purchases by their hosts and locations and offer them a "powered by clean energy" amenity or badge and onboard them to a "Green Stays" listing category on their site.
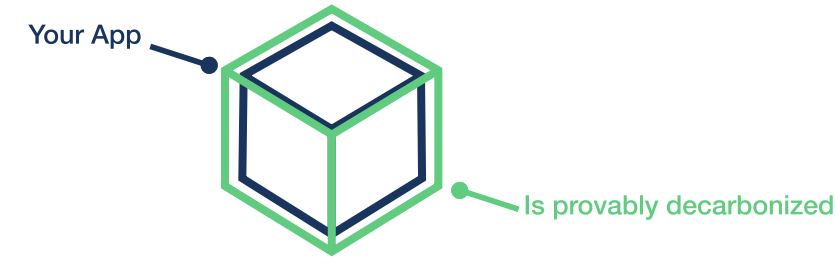
• Shared e-scooter rentals that charge an extra micro-fee on every trip for provably charging with renewable energy


Your App — Is provably decarbonized

02

Greenify Your App or Company

A way to make your app or software green (by decarbonizing its energy consumption) an proving it to your users

+ Stand above the crowd/competition showing your commitment to building a sustainable business

+ Ours is the easiest, fastest, cheapest way to reduce your carbon footprint from electricity, today!

+ Get a new "Powered by Renewables" credential or badge for your site and products

• Filecoin, a distributed crowdsourced cloud storage provider, makes it easy for its "storage providers" to easily buy renewable energy for the electricity consumed by their cloud servers spread all over the world.

• Sustainability conscious restaurants and local businesses, that don't own a roof where to put solar panels, nor can get a real green tariff, can now display a "Here we use Renewable Energy" badge that links to the online green proofs.

Your existing APP — Your new green-first App or service
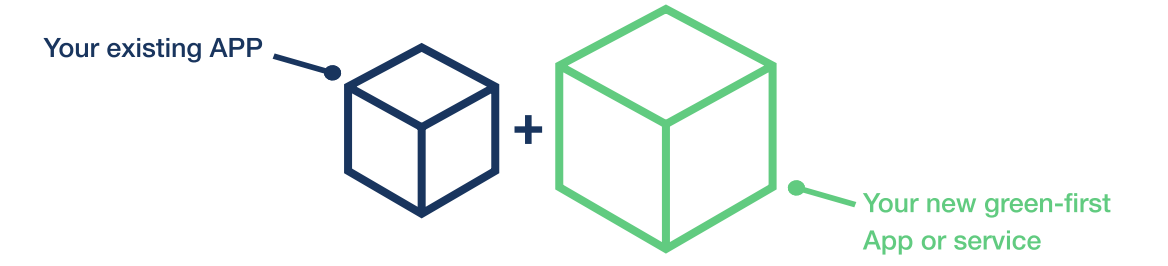
03

Create New Green Products and Services

A Way for you to create completely or partially new "green" products and services for current or new users

+ Cater to Gen-Z and climate conscious buyers

+ Create a truly and provably sustainable brand

+ Innovate with programmable decarbonization and stand way above your competitors

+ Leverage a team of creative climate experts

The sky's the limit here, but here are a couple of examples to illustrate the power of programmable decarbonization

• Build a Green Reputation Score for your users that incentivizes them to be sustainable (with renewable energy) within the context of your app. See how Filecoin built this tool by unleashing the creativity of developers.

• Build an in-app or in-game "green power-up" that gives the users that buy it some temporary super power, ability or perk. Gamify the experience of your app and of buying renewable energy.

Less is more, but Zero is better!

we build radically accessible and transparent tools for programming decarbonization into business and household operations alike

Decarbonize & Prove it

We make it easy to decarbonize your operations and prove it, through open, public proof pages that anyone can check, even programmatically with our API

Trust the trustless blockchain and the sustainability standards
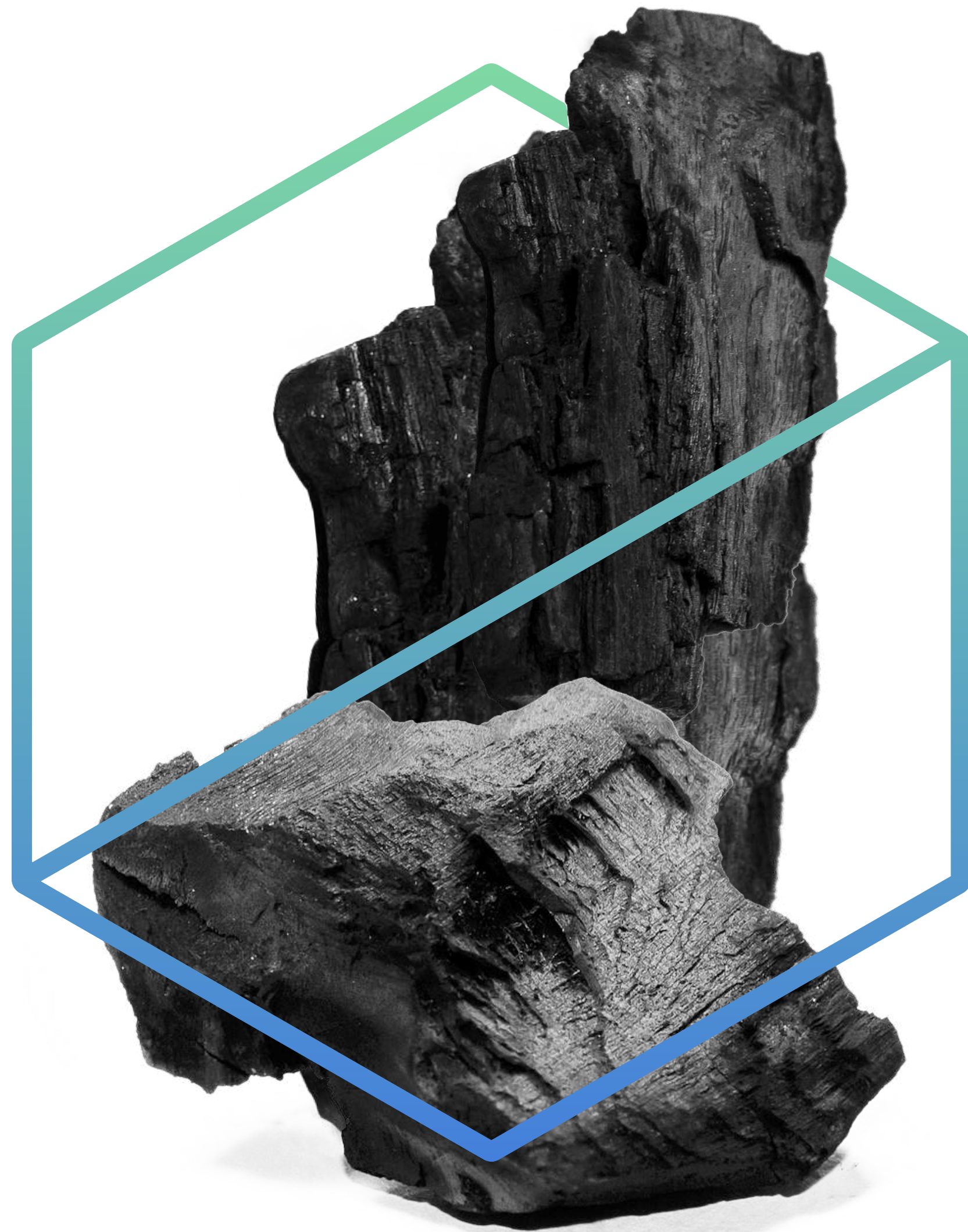
We digitize Renewable Energy Certificates, enabling anyone to verify that the claims are real and follow industry best practices and sustainability reporting standards. Feel safe that you are making an impact that is both real and provable

---

Impact | Verify

Proofs → EAC Delivery Proof → EAC Delivery Proof

Proof of Renewable Energy Consumption ↘

This page is a proof that the buyer **0x1234…ABCD** has bought **35 MWh** worth of Renewable Energy Certificates, and that they have been redeemed in their name

Consumption event

Redeemed RECS

Amounts of RECs redeemed in the name of this user

More info

this Green Hero bought

35 MWh

of clean energy

between

December 2020 - February 2021

Consumption entity

Filecoin Mining

Minting TX	ETH Mainnet
Minting TX	etherscan.io/tx/0x123...ABC
Contract Address	etherscan.io/tx/0x123...ABC

More info

Green Hero

Beneficiary information

Beneficiary type	Filecoin Storage Provider
Beneficiary ID	F123456
Beneficiary address	0x123...ABC

More info

Sourced By

Sellers

sold by
Zero Labs

sourced by
Monsoon Carbon

Seller Name | -
Seller ID | 0x123...ABC

Certificate information

| Proof ID | 0xABD...123 | Generator | 0xCEF...456 | Consumption Period | 2020-12-01 2021-02-01 |
| Beneficiary | F025211 | Energy Source | Hydro | Reporting Period | 2020-12-01 2021-02-01 |

Join the Mission to Zero Emissions

https://**Zerolabs.green**

twitter.com/**zerolabsx**

outreach@zerolabs.green

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