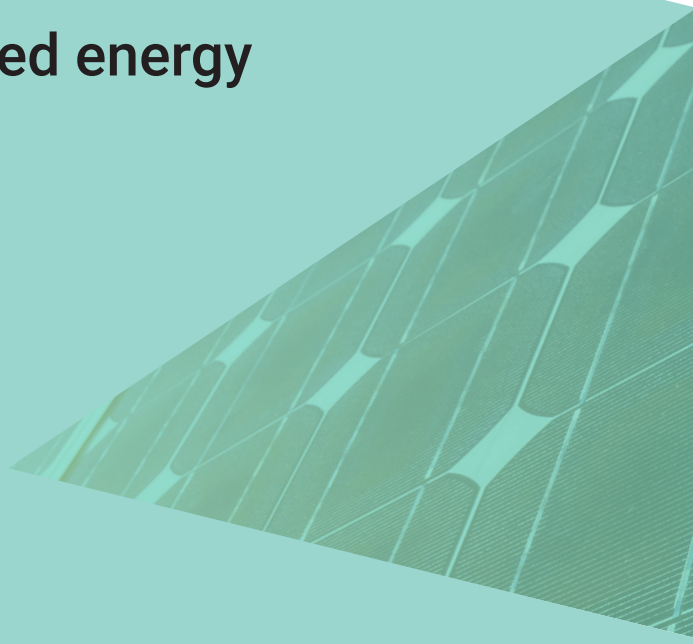
enosi

Open source, community owned energy



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www.enosi.io
info@enosi.io

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OVERVIEW

Enosi Foundation (Enosi) aims to innovate and disrupt the energy market by making available an open source technology platform (the Enosi Platform) that will free participants in retail markets from operating under existing uncompetitive models, to adopt a decentralised model where electricity is increasingly generated in a distributed manner close to the point of consumption, such as, in the case of solar energy, on the rooftop of homes and businesses.

The Enosi Platform will allow small retailers to benefit from economies of scale and shared risk, automate energy transactions and offer households and businesses the opportunity to trade excess power within their communities. It is critical that we first level the playing field for participants in electricity markets, then facilitate choice and innovation in the bundling and trading of distributed energy.

THE OPPORTUNITY

Enosi is a network. It is powered by distributed ledgers, and brings together all energy market participants to minimise the cost of power and maximise transparency and consumer choice. Minimised cost of power is achieved by:

- Creating a level playing field for small energy retailers to compete with the large incumbents. These “neo-retailers” will be able to combine with each other to access the scale benefits that currently only large energy retailers can access - such as lower customer acquisition costs, high volume wholesale contracts, and low cost access to our open source retail software platform

- Creating a market for energy communities to share their load profiles, reduce acquisition and churn costs, spread their market risk and reduce working capital requirements. This enables open market competition (driving efficiency) or cooperation (optimising buying risk) among wholesale energy buyers (market licence holders)

- Encouraging ongoing transition towards decentralised generation (solar, Grid 2.0) lowering overall grid costs for all.

Maximised consumer choice is achieved by:

- Supporting the concept of new entrants to the retail energy market (known as neo-retailers) who bring together communities of energy buyers and sellers with common interest over and above their energy plan

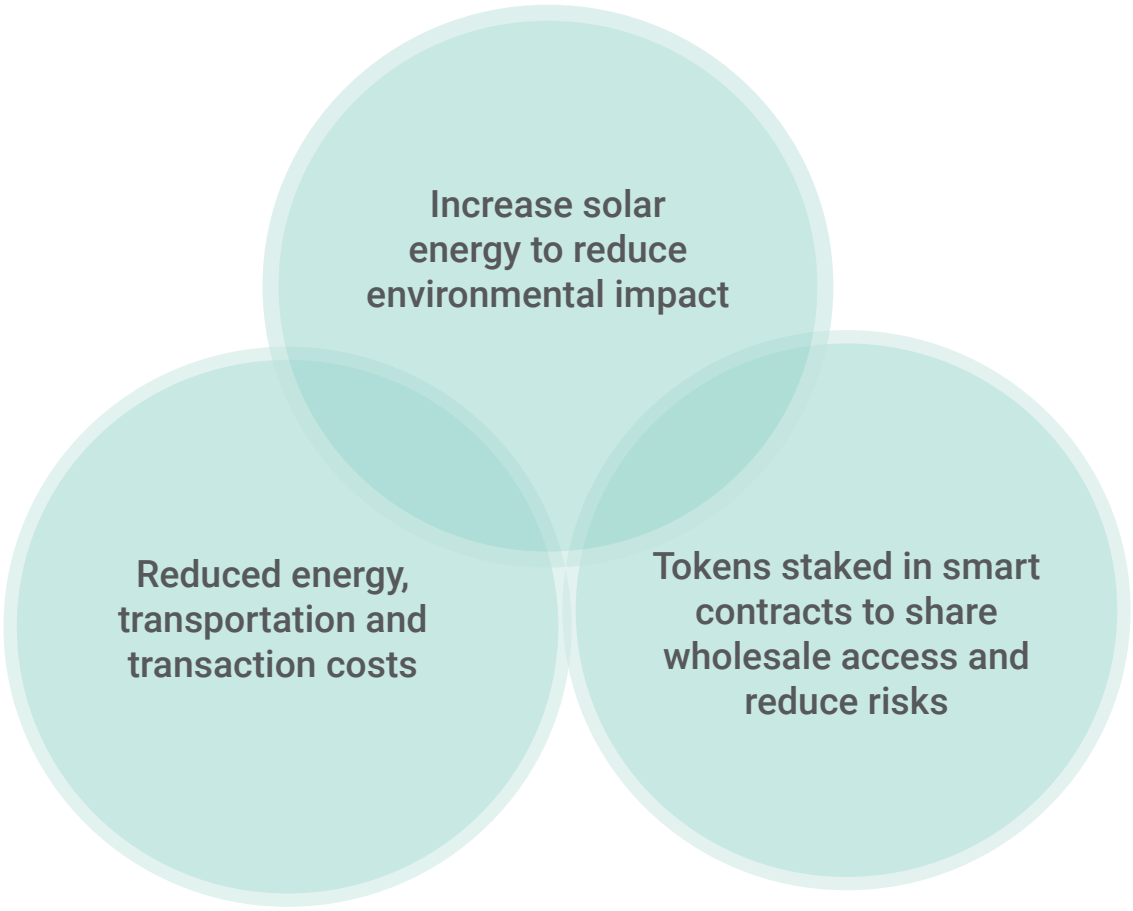
- Supporting neo-retailers to enter the market without needing an energy licence

- Enabling wholesale (licensed) energy providers to aggregate energy community loads and reduce their risks

- Enabling neo-retailers to switch their wholesale (licensed) energy provider

- Providing protocols for, among other things, peer to peer energy trading, community-based energy schemes, and provable provenance of electricity.

Key Benefits



Key benefits are reduced costs through shared wholesale access and reduced risks.

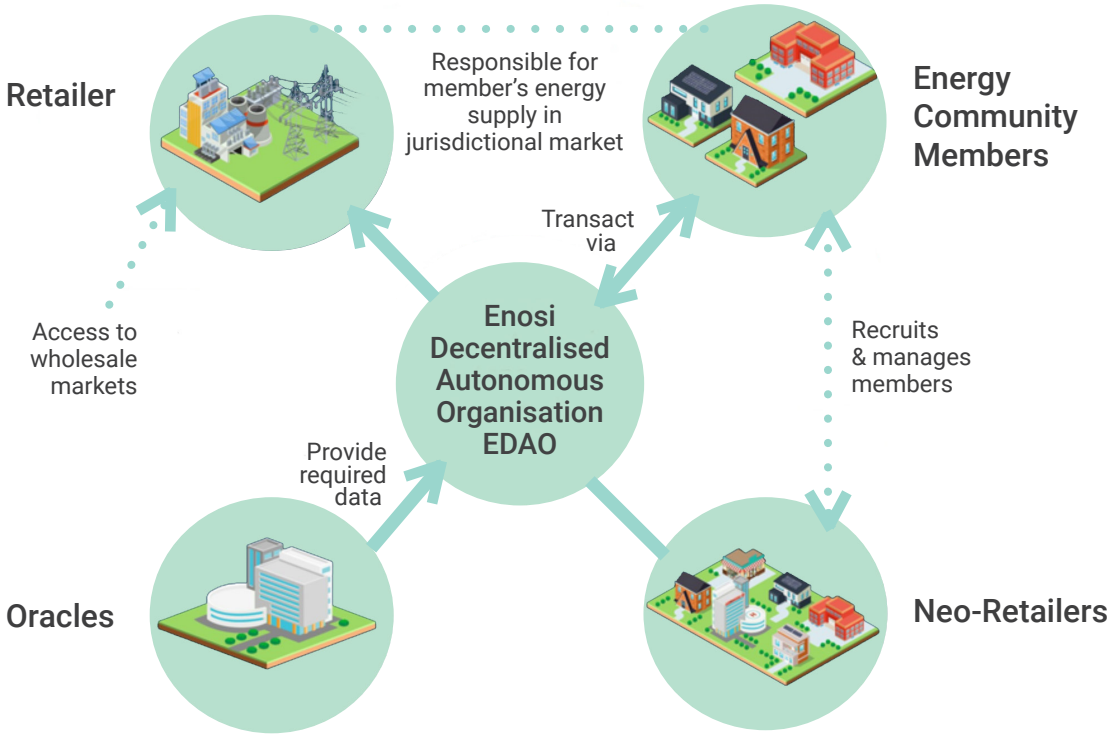
THE SOLUTION

The Enosi Platform will consist of a set of open source smart contracts deployable by an Enosi Decentralised Autonomous Organisation (EDAO), each EDAO being underpinned by the requisite energy retail license (or similar regulatory requirement). The EDAO will provide a set of Enosi dApps for electricity customers.

These components will perform much of the transactional activity traditionally performed by large energy retailers, such as receiving metering data, billing, buying and selling distributed energy, at a fraction of the current cost. Enosi's platform will interface with the existing regulated grid and market participants so that the solution can be deployed immediately and grow organically, allowing widespread global adoption.

ENOSI ECOSYSTEM

Below is a graphic representation of the new energy environment or ‘ecosystem’ that will result following completion of the Enosi Platform:



The JOUL token

To facilitate access to the Enosi Platform and its functions, such as electricity trading, a new ERC20 token will be created, called the JOUL

The JOUL will be required to access the Enosi platform functions and the value network within an electricity DAO.

JOULs will be staked by small retailers in relation to their community membership (businesses and/or households).

How is the Enosi Platform different?

Enosi will deploy a completely open-source platform without needing microgrids or incumbent grid partners.

Neo-retailers can compete with large utilities through shared wholesale access and lower working capital needs.

Open-source platform encourages development of solutions tailored for each specific market need.
Global accessibility will foster innovation and competition

SOFTWARE ARCHITECTURE

The Enosi software architecture has two components.

Permissioned Component (the Enosi Platform):

Energy metering data is sensitive. In order to properly engage the benefits of Distributed Ledger Technology (shared data and shared computation), we must preserve the privacy of this data. Hence, our solution only shares private information with the parties to a given transaction, such as between a consumer and their retailer. Hence, the platform is not a public blockchain, but is a set of DLT-powered protocols establishing a network of cooperating energy participants.

Public Component (Enosi Ethereum Gateway):

The software for the permissioned system is to be made open source. However, the value of such a platform only comes from a set of market actors cooperating in a network. Enosi will therefore maintain the permissioning to the Enosi “mainnet” via public smart contracts (e.g. Ethereum). This public gateway will require participants to stake a number of JOUL tokens in order to gain access to the value network. This ensures that the value of the Enosi network is represented in a public token. The JOUL token can therefore be used for both funding the creation of each network as well as incentive schemes to support the benefits outlined above.

THE TEAM

The Enosi team is made up of professionals from across the energy and blockchain industries in Australia and overseas, with expertise in power engineering, blockchain development, strategy, R&D and banking and finance. Following are the team members:

Steve Hoy
CEO

Dr John Laird
Energy Expert

Michael Kong
Blockchain Technology

Dr Renate Egan
Solar, Energy Markets

Valantis Vais
Strategy

Stefan Jarnason
Energy Expert

Bill Barden
Finance & Compliance

Block 8
Development Team
Tim Bass, Samuel Brooks, Matthew Hale

PARTNERS

Enosi has already engaged its first retail energy partners planning to establish an EDAO for the benefit of their solar energy community customers.

Currently these partners are assisting in the design of the Platform and associated applications.

An advisory board has also been formed, made up of a strong community of individuals from the energy industry, blockchain and platform technology, and crypto-finance sectors.

A group of experts and academics from around the world are being selected to form the Enosi Institute, whose mission is to help the Foundation find the optimal technical and economic method for providing electricity to its members in each jurisdiction.
Two members have already joined and the team is continuing to add members to this group.

BLOCK

UNSW SYDNEY

EnergyLocals
COMMUNITY POWER

wattwatchers
DIGITAL ENERGY

solar analytics

NRG
National Renewable Group Australia

AUSTRALIAN PV INSTITUTE

California Clean Energy Fund

ROADMAP & PROJECT STATUS

The project roadmap consists of three core activities:

- Q1-Q2 2018
  Team formation and Token Generation Event;
- 2018-Ongoing
  Grow the Ecosystem (small retailers);
  and
- 2018-2021
  Development of the Enosi Platform