PowerLedger – $POWR

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General Background

Powerledger is a software that enables peer-to-peer (P2P) energy trading and Energy Attribute Certificates (EAC) trading, promoting renewable energy adoption and efficiency.

- Originally on ETH → permissioned Solana-based blockchain...ERC20 POWR tokens will still remain on the Ethereum public chain.
- Transaction fee–based system:
  - Layer 1 fees → Gas fees
  - (+) dApp fees → charged by individual apps
- Proof-of-history and proof-of-stake consensus mechanisms

A Note on Energy

Supply must equal demand at all times

Flow tracing used to track energy mixes (Corradi, 2021)
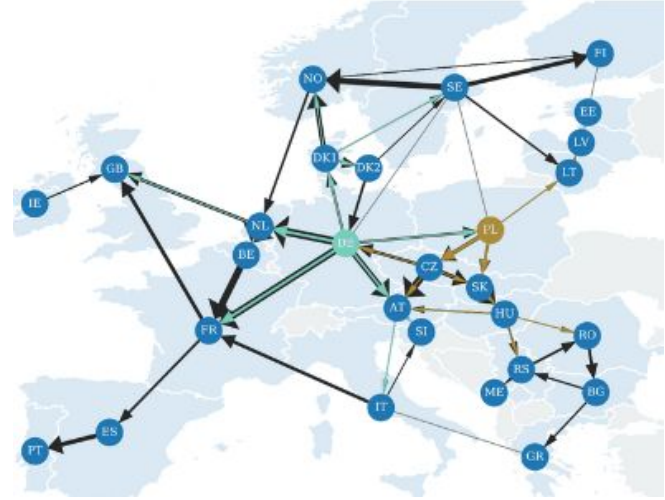
Imbalances in supply and demand damage aging grid infrastructure
- Renewable energy variable vs constant
- Different markets for generating and consuming

Macro Factors & Narrative

Modernization of grid necessary to support clean energy transition

P2P energy trading enhances local grid resiliency and makes renewable energy more accessible

EACs currently needed to help organizations reach energy and greenhouse gas emission goals (net zero, 24/7 renewable use, etc.)

Market Demand

Solar is the fastest-growing source of electricity in the U.S., making up almost half of all new power capacity in the first three quarters of 2023 (Olano, 2023)

Port of San Diego has witnessed substantial energy cost reductions by implementing a P2P microgrid, showcasing the financial viability and environmental benefits of such systems (Deloitte, 2022)

Homeowners looking to participate in P2P energy trading (Hahnel et al.; Wilkenson et al., 2020)

What does Powerledger Do?

Powerledger offers a number of products that benefit both consumers and retailers of clean energy. These can be classified into three broad categories:

1. Energy trading
2. Energy tracing
3. Environmental commodities trading

Typical entities that launch such apps on Powerledger are utilities, energy providers, and transmission system operators (referred to as application hosts).

xGrid

xGrid is an energy trading engine that allows retailers, commercial enterprises, or electricity utilities to configure a marketplace in numerous ways.

- Matches consumption with production at set intervals
- Provides transaction data, including trading volume and price, which can integrate into existing billing systems or settle on the platform

uGrid

uGrid enables energy tracking and trading within embedded networks & microgrids (aka T&D not owned by utility).

- Blockchain facilitates fair and transparent calculation and distribution of energy costs and benefits
- Can be used in shopping centers, apartment complexes, office buildings and retirement villages with individual or co-owned energy assets
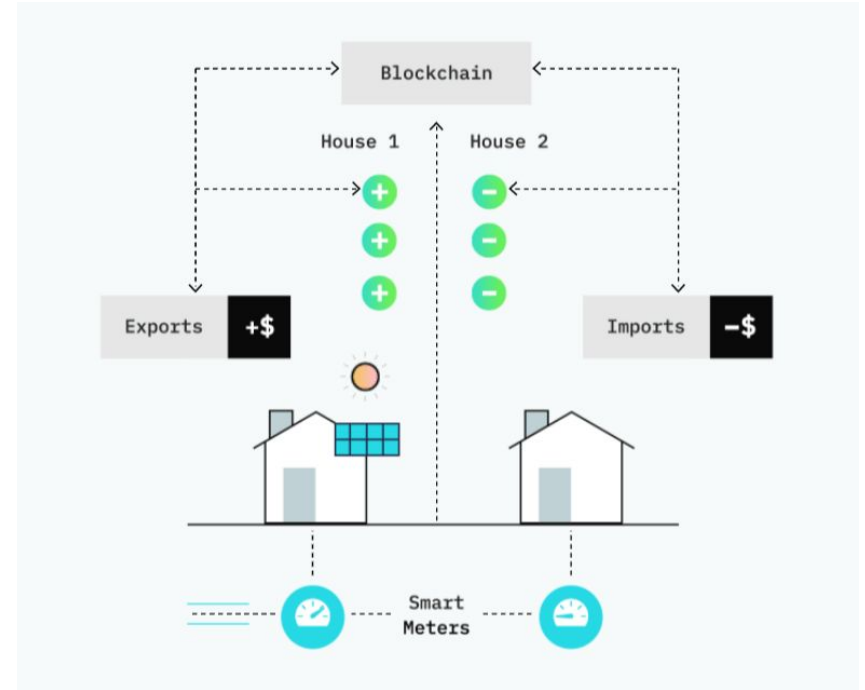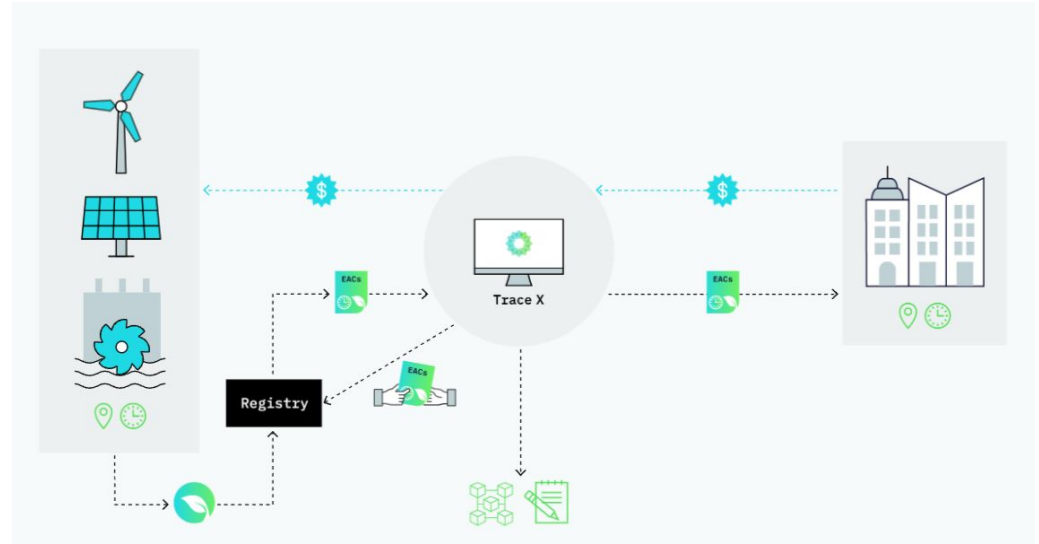
TraceX

TraceX is a marketplace for trading EACs including:

- Renewable Energy Certificates (RECs),
- Guarantees of Origin (GOs)
- Carbon credits

TraceX streamlines the buying and selling of these certificates. It supports marketplaces for hourly electricity certificates and can facilitate over 50,000 transactions per second.

Team

Dr Jemma Green
Executive Chairman & Co-founder

John Bulich
Technical Director & Co-founder

Vinod Tiwari
Global Head of Business
Development & Partnerships

Dr Vivek Bhandari
Chief Technology Officer

30 Clients in 10 Countries

Tata Power-DDL, India

Powerledger, Tata Power-DDL (TPDDL), a leading power distribution utility, and India Smart Grid Forum (ISGF) have partnered on the first live solar energy trading project in Delhi, India.

KEPCO, Japan

Peer to peer energy and REC trading with Kansai Electric Power Co (KEPCO).

M-RETS, United States

A blockchain-enabled REC marketplace in partnership with Midwest Renewable Energy Tracking System.

SEDA, Malaysia

A pilot trial demonstrated the feasibility of solar energy trading in the Malaysian energy market using Powerledger's platform.

Elia, Belgium

A research and development project with Powerledger and Elia, one of Europe's largest Transmission System Operators.

EVN-CPC: Peer-to-Peer Trading, Vietnam

The first peer-to-peer trading project of its kind in Vietnam.

Calcutta Electricity Supply Corporation, ISGF, India

The largest peer-to-peer energy trading project ever conducted in the world.

E-NEXT by Energie Steiermark, Austria

Partnership with a subsidiary of one of Austria's top five largest energy utilities Energie Steiermark, to deploy a peer-to-peer energy trading network in Graz.

Uttar Pradesh Government, India

A peer-to-peer pilot energy trading project in India's largest state between government buildings with rooftop solar in Lucknow.

T77 & O77 - BCPG, Thailand

With 4.2MWh of solar capacity involved across 7 buildings, the T77 project is the largest commercial peer-to-peer trial in the world.

RENeW Nexus, Australian Government, Australia

The RENeW Nexus project was conceived to understand the potential of localised two sided electricity markets and how technology platforms can facilitate more efficient outcomes to the energy system.

Wongan-Ballidu, Australia

Blockchain-enabled P2P technology outside of a metropolitan area, with participants including local shires and farmers.

ekWateur, France

Powerledger and green energy retailer ekWateur have partnered to enable French consumers to customize their energy mix.

Feníe Energía, Spain

Powerledger has announced the launch of an 'Energy Community' project in Almócita, one of the first "collective self-consumption" initiatives of its kind in Spain.

CUB, Australia

Powerledger's technology is powering the VB Solar Exchange program by enabling participants to track and trade their excess solar energy for VB beer.

TDED, Thailand

Powerledger has partnered with TDED, to create a blockchain-based digital energy business developing peer-to-peer energy trading and environmental commodity trading.
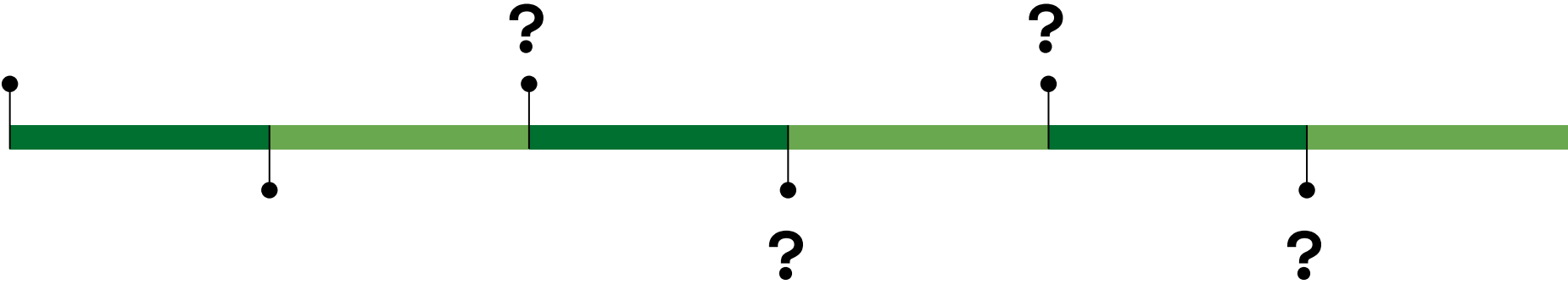
How it Works

POWR tokens allow the application hosts and their consumers to gain access to the P2P trading features and other Powerledger applications.

Sparkz tokens, the "low level" token, are specifically limited to representing the tokenized value of a unit of electricity in varying markets around the world.
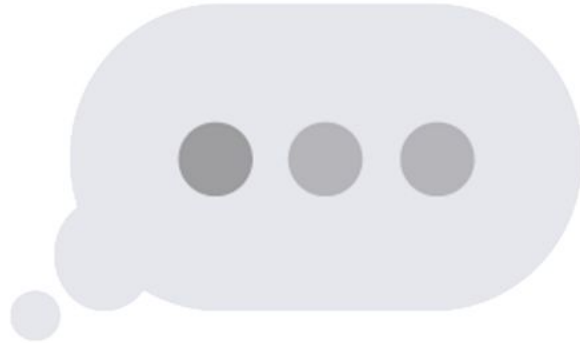

RETAIL – Application Host

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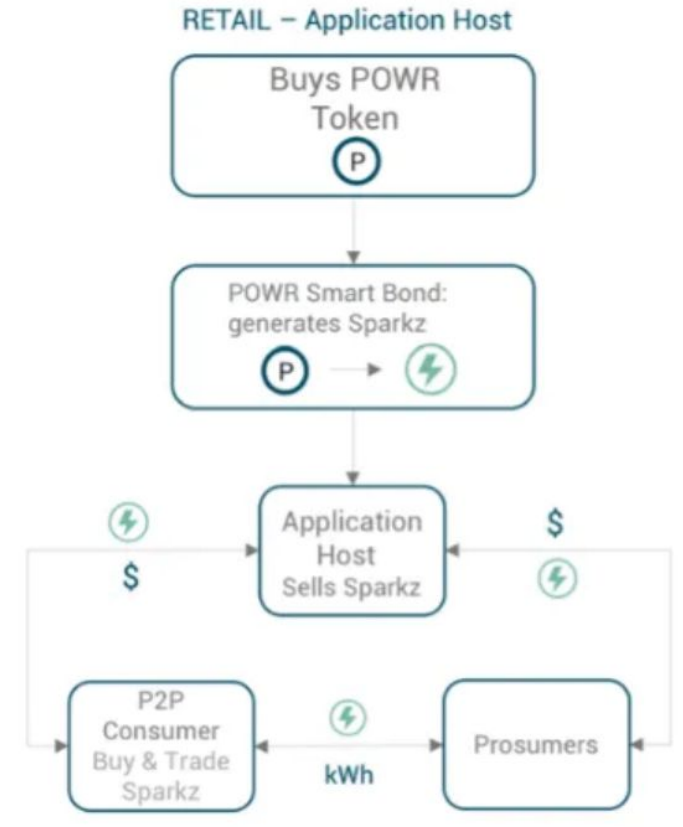
Roadmap

Auditing Background

No public information could be found

Tokenomics & Vesting

963 million Native Tokens

Initial programmed inflation rate of 1.25% per year

Reducing by 15% per year until it reaches the
terminal programmed inflation rate of 0.75%

How the Token Captures Value

- POWR is needed for application hosts to access Powerledger's services, think (license)
  - POWR enables hosts to generate Sparkz based on the amount of electricity they need to facilitate marketplace
- Layer 1 fees, think gas
  - dApp fees
- As more application hosts participate, more POWR is bought and consumed for transactions

Investors

Competition Landscape - Features/Products

Company	Features	Blockchain	P2P	Geographic Scope	Mcap
Powerledger	- Energy tracking and trading platform - TraceX marketplace facilitates hourly trading of EACs	✅	✅	🌍	$244,887,272
Flett Exchange	- Largest environmental exchange for solar RECs - Customers can sell home solar through RECs - customers manually enter meter readings monthly or quarterly	❌	❌	📍	?
Sonnen	- 24/7 access to clean stored energy through battery products - Utilizes Virtual Power Plant concept by linking batteries	❌	✅	🌍	$197,770,000
Suncontract	- buy and sell renewable energy - Monitor your energy activities - only available in Slovenia	✅	✅	📍	$6,451,561

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Competition Landscape - Energy Tokens

Company	Mcap	FDV	TVL	FDV/TVL
Powerledger	$244,887,272	$474,170,723	N/A	N/A
Energy Web Token	$142,232,704	$198,761,781	$401,174	495.45
Suncontract	$6,451,561	$6,451,561	N/A	N/A
Efforce	$3,798,361	$6,099,269	N/A	N/A

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Price Chart

ATH: $1.81 - 2018

ATL: $0.03183 - 2020

Current Price: $0.48

0.05567

2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.39
0.20
0

2018   2019   2020   2021   2022   2023   2024   USD

CoinMarketCap

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Valuation approximately **8.97 billion**

- Total blockchain energy market today **$7.05 billion**
- 2023 to 2030 **78.32% CAGR** to reach 1.285 trillion by 2032 (straits research, 2023)
- Powerledger **market share of 3%** with current mcap
- Assumption that market share of Powerledger remains the same and does not grow

1.285 trillion * 0.03 = 38.55 billion 2032 market cap

The present value (PV) of **38.55 billion** discounted back **8 years** at a **20% discount rate** gives us a

PV of approximately **8.97 billion**

97%
undervalued

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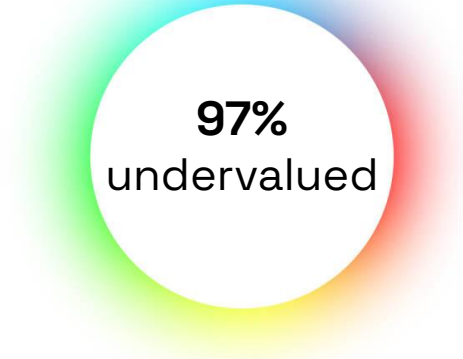
Protocol Go To Market Strategy Versus Competitors

Strategic Partnerships   Market Diversification

Community Engagement and Education

President of BCPG and Chairman of the Board of TDED
Bundit Sapianchai

"Our project is about exploring what's possible. It's a microcosm of how the city will operate with clean distributed energy"

Points of Concern

-   Difficult to scale/automate

-   is "public" but permissioned

-   Unclear vision

-   "free trade" of surplus energy promoted by Powerledger might eventually run into a wall of new regulations

-   No public auditing records we could find

-   Been around since 2018

-   Energy not a very sexy narrative

Investment Thesis

Energy sector transitioning away from fossil fuels due to excessive amount of greenhouse gasses in atmosphere
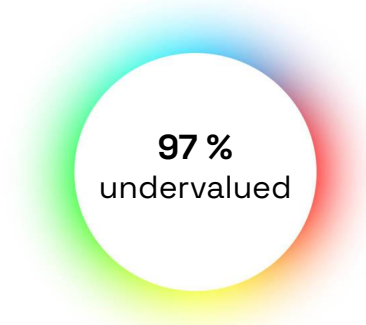
Recent legislation spurring investment into clean energy solutions

Powerledger's offerings facilitate a way for:
- utilities and other entities (companies, etc.) to achieve net-zero
- individuals to sell and access renewable energy

Powerledger has first mover advantage
Blockchain energy industry estimated CAGR of 77%

97 %
undervalued

Fund Recommendation

Current Price:

$0.48

Powerledger

Market Cap:

$245.1 M

Action:

Buy 2 Eth

Fully Diluted Market Cap:

$474.8 M

Sources

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Questions?