

Pylon Network Blockchain Platform

Gerard - CEO

PAIN



Domenico
ACTIVE CONSUMER



Martha
PROSUMER



Youssef
SYSTEM OPERATOR



HUGE RES PENETRATION



2030

19% of energy consumed
in Europe will be produced
by citizens

2050 PRICE PERSPECTIVE

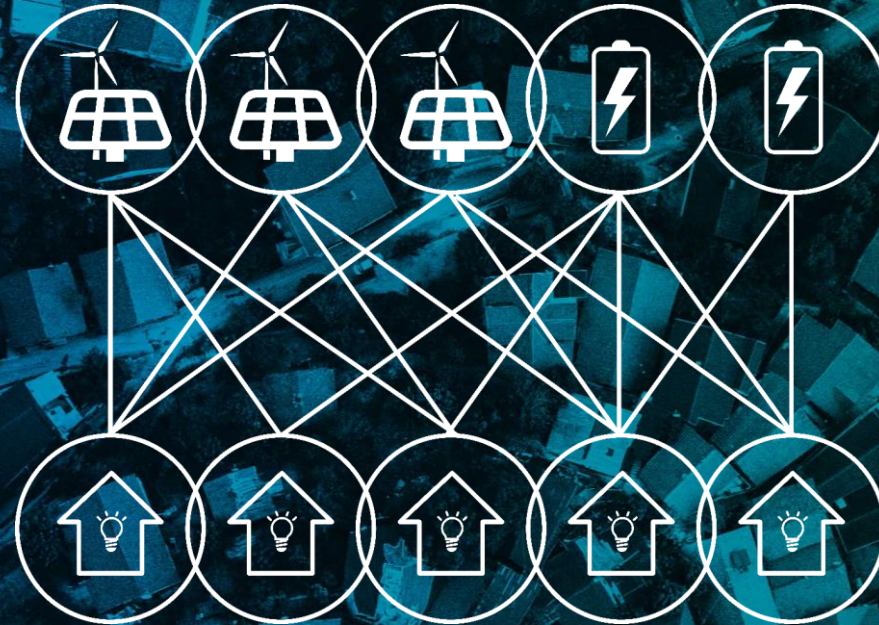


+100%



VISION

Our vision is to accelerate DER implementation and reflect their real value at a local level.



**DIGITALIZATION OF
DISTRIBUTED ENERGY ASSETS**

**LOCAL ECONOMY
BASED ON RENEWABLES**

**AGGREGATION
ASSETS AT LOCAL LEVEL**

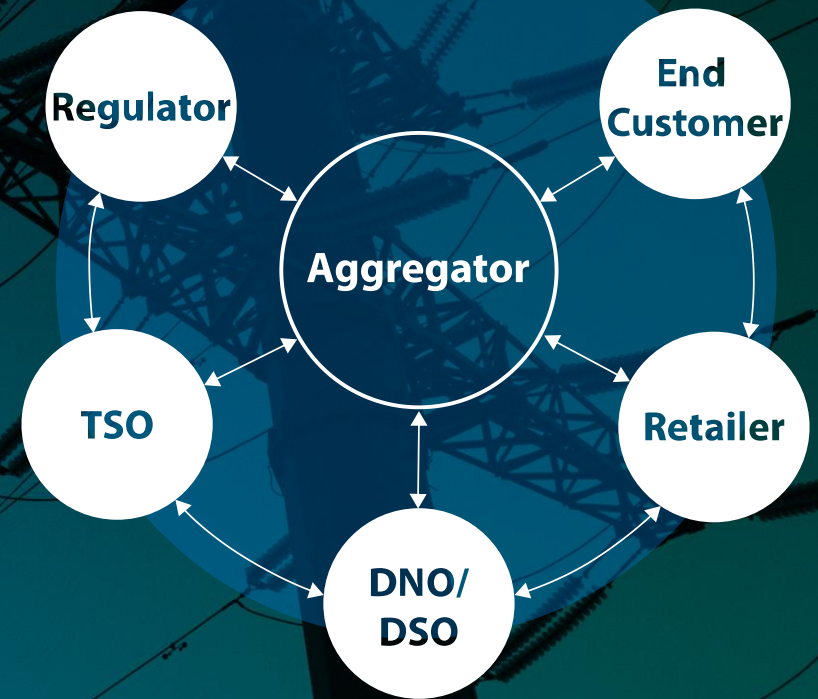
PYLON NETWORK INTRODUCTION



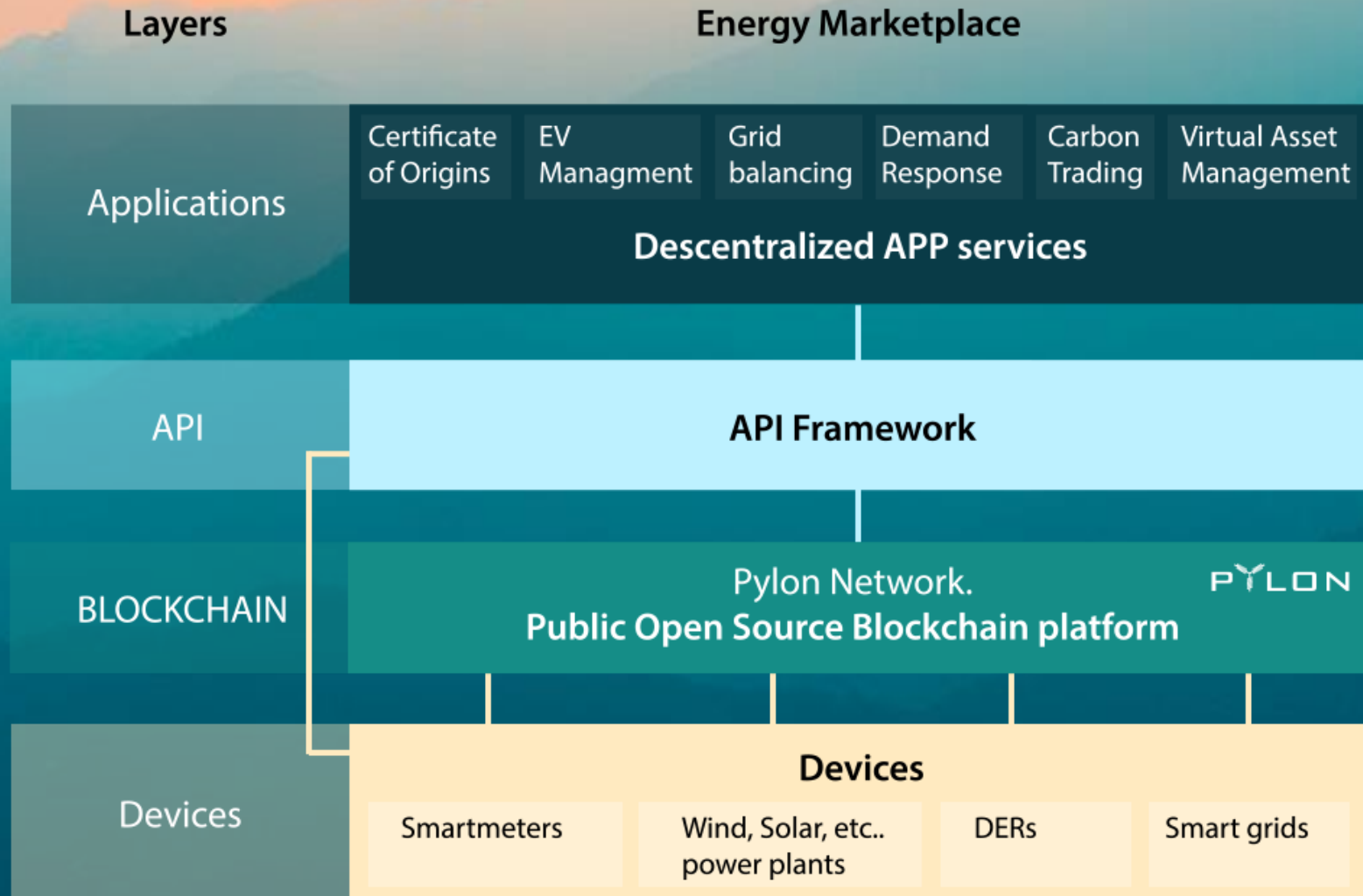
Neutral data hub
to
Bridge the connectivity lack

AMONG ALL ENERGY
STAKEHOLDERS.

Without altering the
current energy market
infrastructure.



PYLON NETWORK PLATFORM



OTHER PLATFORMS

Power Ledger
Energy Web Foundation

Enerchain
LO3 Energy

Current platforms
(under development)

Ethereum
Tendermint
...

Existing blockchain
algorithms

using

with

Common Issues

↓ tx/sec

↑ Wh/tx

⊘ Scalability
Problems

OUR INNOVATION

First Blockchain designed for the specific needs of the energy sector



Up to 7000 tx/sec



Federated Nodes



Non competitive mining



Minimum energy cost



Segwit



Digishield

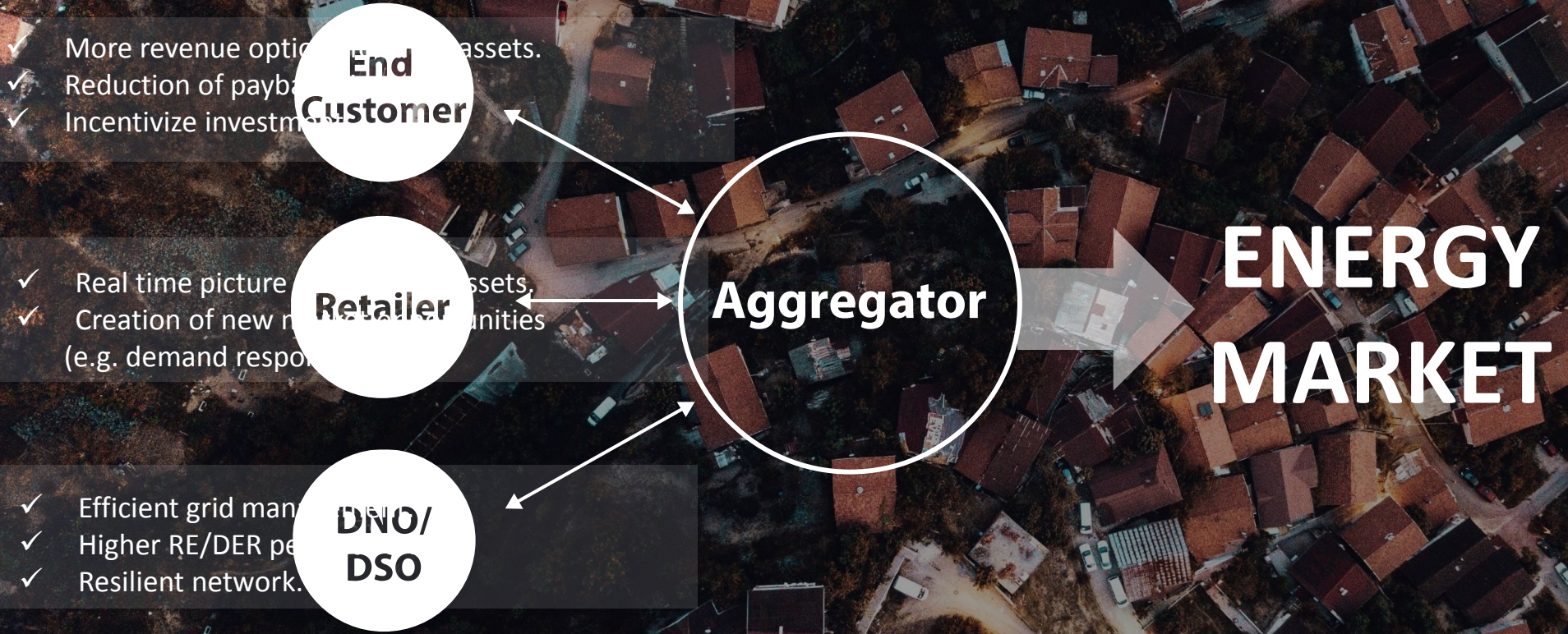


Atomic swaps



Lightning network

UNLOCKING THE AGGREGATOR



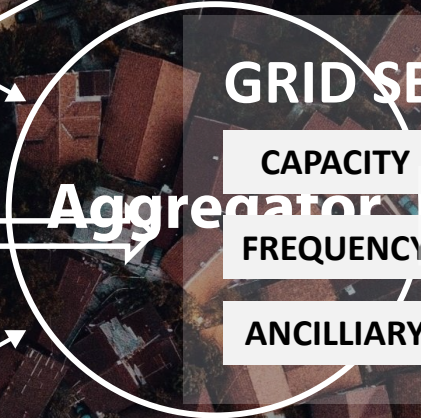
UNLOCKING THE AGGREGATOR

What markets will the Aggregator open?

End Customer

Retailer

DNO/ DSO



GRID LOSES / INCENTIVES

GRID SERVICES

- CAPACITY
- FREQUENCY
- ANCILLIARY
- GRID BALANCING
- VOLTAGE

ENERGY TRADINGS

- REAL TIME ENERGY TRADING
- PPA

MARKET QUANTIFICATION

SPAIN

UK

Grid Losses 150 M/year

Grid Incentives 52 M/year

GRID SERVICES

- Ancillary 177 M/year
- Capacity 687 M/year
- Voltage 517 M/year
- Frequency
- Imbalances 774 M/year

Consumption reduction 5-20 %

P2P energy trading 2%

Grid Losses 350 M/year

Grid Incentives 269 M/year

GRID SERVICES

- Ancillary 287 M/year
- Capacity 1180 M/year
- Voltage 6-7 M/year
- Frequency 12 M/year
- Imbalances 327 M/year

Consumption reduction 5-20 %

P2P energy trading 2%

NICHE MARKET

SPAIN

EU

GoiEner

UNION
RENOVABLES

SOM

20 Co-ops
100k users



Ecoopower

RESCOOP

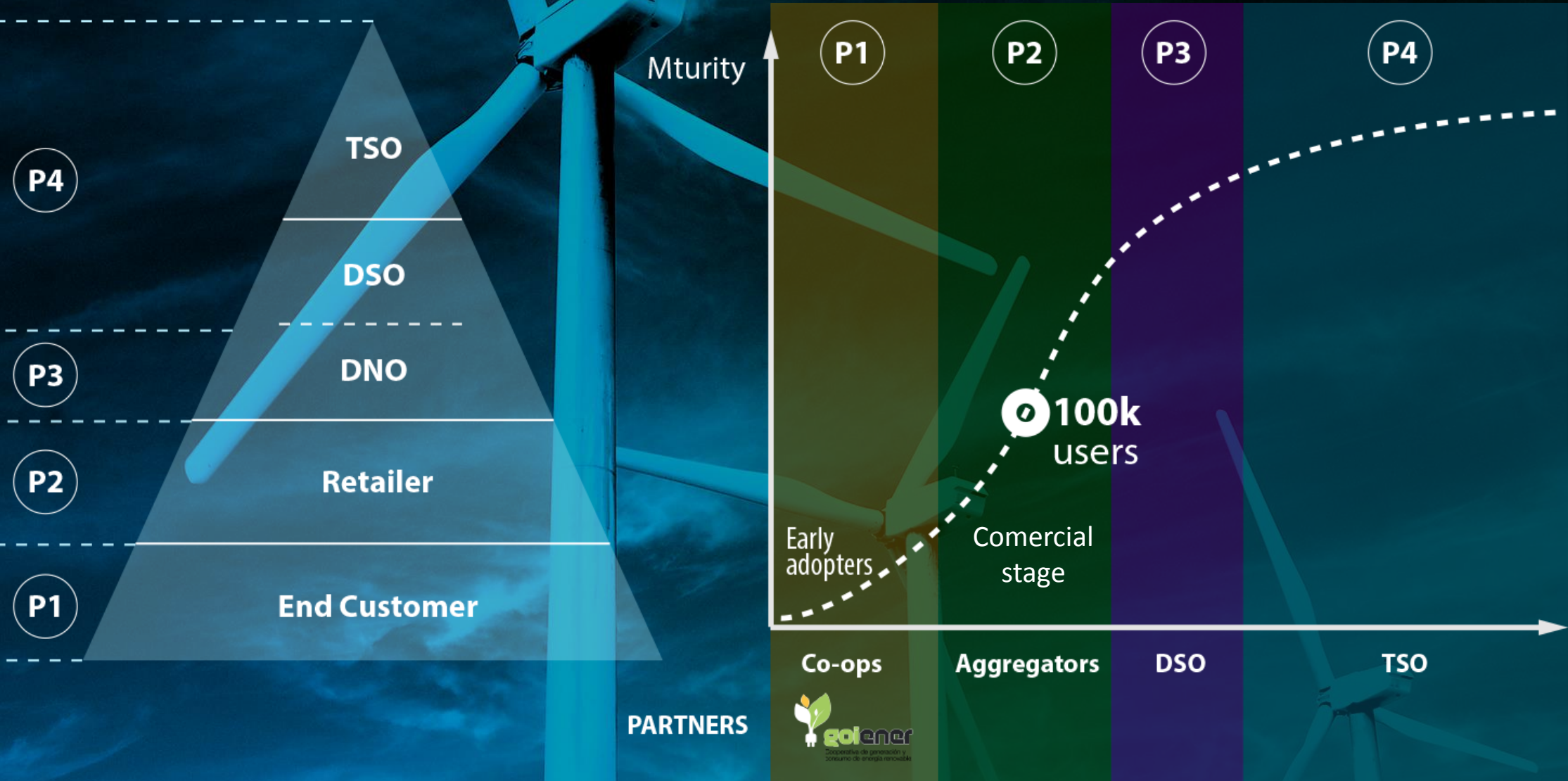
Enercoop

1000 Co-ops
1M users

Alginet

Energycity

PROJECT PHASES

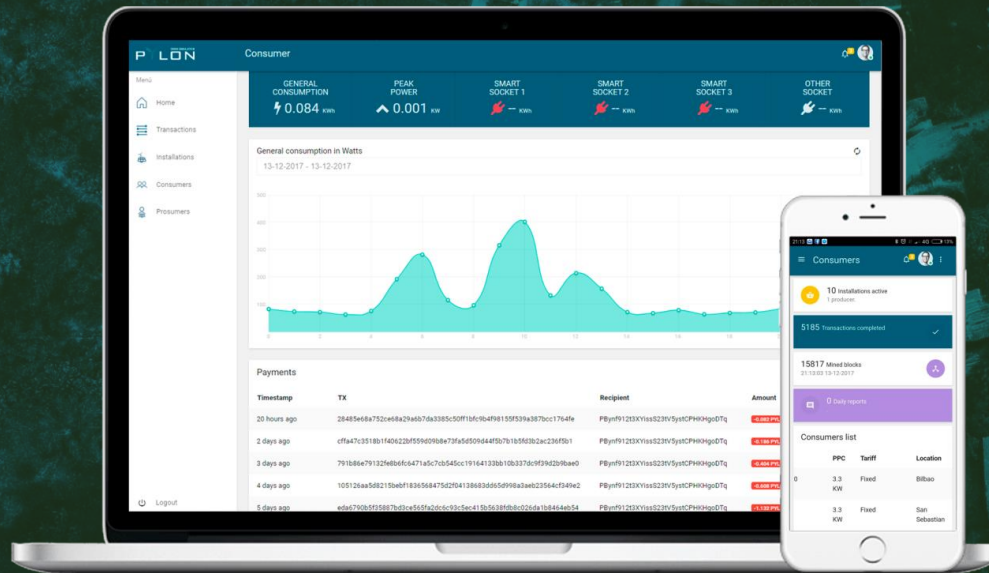


CURRENT STATE: DEMO Phase 1

Demo Phase 1: (Retailer/Co-op)

Validation Points

500
REAL CUSTOMERS



- Analyze the impact of multi-point PPAs programmed on smart contracts.
- Analyze the impact of consumer consumption reduction thanks to smart metering.
- Analyze the possibility of controlling the real-time demand by using remote charge switching.
- Analyze the financial impact of the daily payment option with electronic currency.

CURRENT PHASE

HARDWARE INTEGRATION & PARTNERSHIPS:



POWER PLANT INTEGRATIONS:



Demo Simulation (1/2) – Web Version

PPA

Last update at: 10:52:17 01-06-2018

CONSUMPTION \uparrow 0.9247 kWh
PEAK POWER \wedge 2.8422 kW
PRODUCTION \uparrow 0.8794 kWh
INJECTION \uparrow 0.0000 kWh
S. SOCKET 1 kWh
S. SOCKET 2 kWh

General production in Watts
 Consumption | Production | Injection
 01-06-2018 - 01-06-2018

Revenues Accumulated Today (01-06-2018 UTC +2)
 All the payments for this installation are done each 24h from last payment. But the accumulated consumption is from mid night to mid night (Natural day).

Consumption to pay: 0.4936 PYLNC | 0.1234 €
Injection to receive: 0.4211 PYLNC | 0.1053 €
Day total revenue: -0.0725 PYLNC | -0.0181 €

Revenues Accumulated Today Chart
 Natural day revenues. From midnight to midnight.

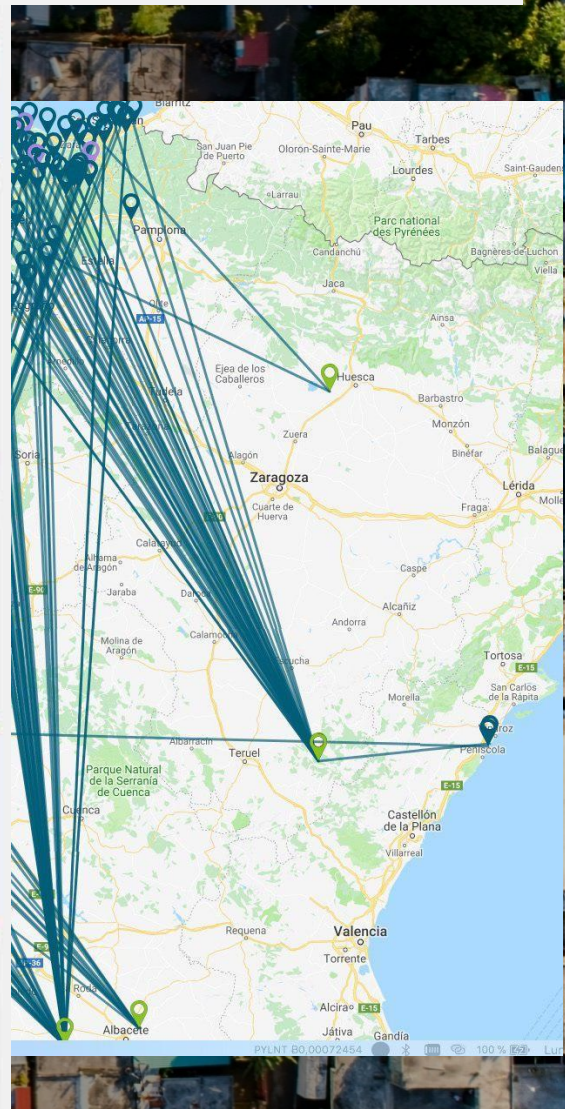
Long term revenues
 Choose your custom dates
 01-06-2018 - 01-06-2018

Consumption to pay: 0.4936 PYLNC | 0.1234 €
Injection to receive: 0.4211 PYLNC | 0.1053 €
Day total revenue: -0.0725 PYLNC | -0.0181 €

Custom dates revenues chart
 Custom date revenues group by days.

All payments

Timestamp	TX	Recipient	Amount	Energy
20 hours ago	26730dfbe485090278613ee87c62581006409e60c503f4f445bc9d6d673124b	PBYntF12i3XXyissS23iV5yrtCPHkgoDfQ	-0.4916 PYLNC	0.6010 kWh
20 hours ago	b6495d5984450a8f822b13caacfc066d300caded39d2131014586d56a5f246	PCYntSjveHMQUCm9e5rH5q4Jd5WYJuLUUL	0.0722 PYLNC	21.7225 kWh
2 days ago	686e2a5f650e46044073f90278f8495b315c6be4e16158830a2787f8ea97f69	PBYntF12i3XXyissS23iV5yrtCPHkgoDfQ	-0.4211 PYLNC	0.4211 kWh



Demo Simulation (2/2) – User dApp



TEAM



CEO

Gerard Bel

Industry
Automation &
Electrical Engineer



CTO

Agustin Roig

Industrial
Engineer &
Product Designer



COO

**Markos
Romanos**

Sustainable
Energy &
Environmental
Engineer



CIO

**Eugenio
Moliner**

Electronics
Engineer
Specialization in
PV



DEV

Marc Feliu

Blockchain and
Fullstack
developer



DEV

Cesar Sanz

Electronics
Engineer

THE REVOLUTION WILL NOT BE CENTRALISED

P L O N

PYLON NETWORK PROJECT

UK MARKET QUANTIFICATION

Residential solar PV capacity in 2015 **2,499.00 MW**

Residential solar PV capacity in 2030 **3,539.90 MW**

Growth rate, 2017-2030 **2.10% pa**

Share of total potential residential solar PV capacity (2030) **13.10%**

Solar PV prosumers as a share of all households (2030) **3.50%**

Grid Losses 350 M/year

Grid Incentives 269 M/year

GRID SERVICES

· Ancillary 287 M/year

· Capacity 1180 M/year

· Voltage 6-7 M/year

· Frequency 12 M/year

· Imbalances 327 M/year

Consumption reduction 5-20 %

P2P energy trading 2%

SPANISH MARKET QUANTIFICATION

Residential solar PV capacity in 2015	- MW
Residential solar PV capacity in 2030	- MW
Growth rate, 2017-2030	-% pa
Share of total potential residential solar PV capacity (2030)	%
Solar PV prosumers as a share of all households (2030)	%

Grid Losses	150 M/year
Grid Incentives	52 M/year
GRID SERVICES	
· Ancillary	177 M/year
· Capacity	687 M/year
· Voltage	517 M/year
· Frequency	774 M/year
· Imbalances	774 M/year
Consumption reduction	5-20 %
P2P energy trading	2%