



HOLONI

ALPHA VENTURI ENERGINET

AI4CITIES

Midterm Presentation Extract, Paris 14 06 2022



Exploring new tech solutions & business models to massively scale city solar energy by making it a better deal - for ALL

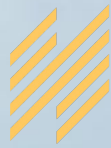
Agenda

AMBITION | PROBLEM | SOLUTION

CO2 REDUCTION VERIFICATION

HOW THE AI IS BRINGING ADDED VALUE

PHASE 3: GOALS, DELIVERABLES, STATUS, NEXT STEPS AND BLOCKING POINTS



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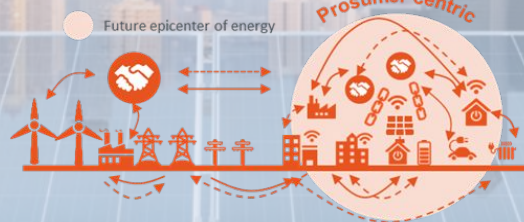
Massively scale city solar energy by making it a better deal - for all

BEFORE



Centralised Energy System

NOW



Solar Cities

ASAP

**European
Missions**

100 Climate-Neutral
and Smart Cities
by 2030

Climate Neutral Cities

Vision

Net Zero Energy Districts

It all starts
with massively
scaling city solar
and rewarding
the sharing of
Solar Surplus



A man in a light blue shirt and jeans is standing on a roof, holding a large black solar panel. The roof is covered with several other solar panels. The sky is clear blue.

TODAY

**SIZED FOR
MY OWN
CONSUMPTION**

TOMORROW

**SCALED FOR
COLLECTIVE
SHARING**

"Today, there is lack of incentives for prosumers to invest in surplus, that needs to change"

AI4cities Municipality

Problem: How to incentivize prosumers to invest more and automatically reward them for sharing their solar surplus?

Solar Prosumers



Return of Investment

How can rooftop owners invest in more solar beyond their individual use?

How can prosumer investors reduce cost and risk while increasing revenues and benefits

City Local Authorities



Climate Neutrality

How can the municipality best incentivise solar prosumers?

What role for the municipality in shaping urban net zero communities?

Large energy consumers

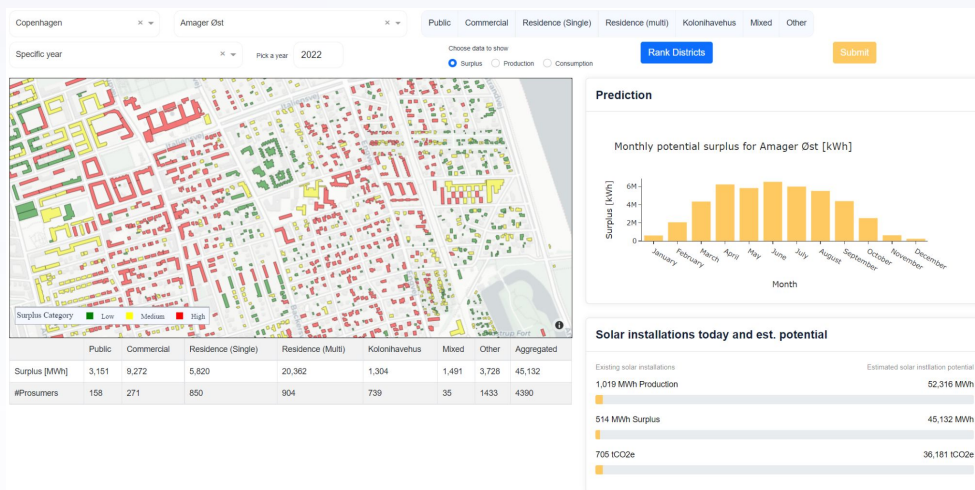


Net Zero 24 / 7

How to source our energy from many local solar prosumers, by the hour?

How to transform this cost into a "sustainable" competitive advantage

Solution: We predict the potential of solar surplus, assess its true value and channel it to prosumers investing in solar PVs



**PREDICT LOCAL
SOLAR SURPLUS**



**ARTIFICIAL
INTELLIGENCE**

**TRACK GREEN
ORIGIN 24/7**

ENERGINET

**ENERGY
TRACK & TRACE**

**AUTOMATED
REWARDS TO
PROSUMERS**



**GREEN
BLOCKCHAIN**

ENABLING NEW PROSUMER-CENTRIC BUSINESS MODELS



Co-ownership of
solar PVs & batteries



Energy Sharing &
Collective self
consumption



Sustainability-
linked financing of
shared energy
assets



CO2 emission reduction potential and verification



IMPACTS SOLAR UPTAKE

Greater returns for prosumers investing in city solar

Increased net energy savings for solar buildings

Solar Surplus available for local consumption in the district

REDUCES CO2 EMISSIONS

Replaces energy inflow in the city with local green generation

Enables net energy savings from collective self consumption

Stimulates expenditure in local low-carbon economy

BOOSTS COLLECTIVE ACTION

Positive Energy Districts (PED) & green self-sufficient cities

Renewable Energy Communities (REC)

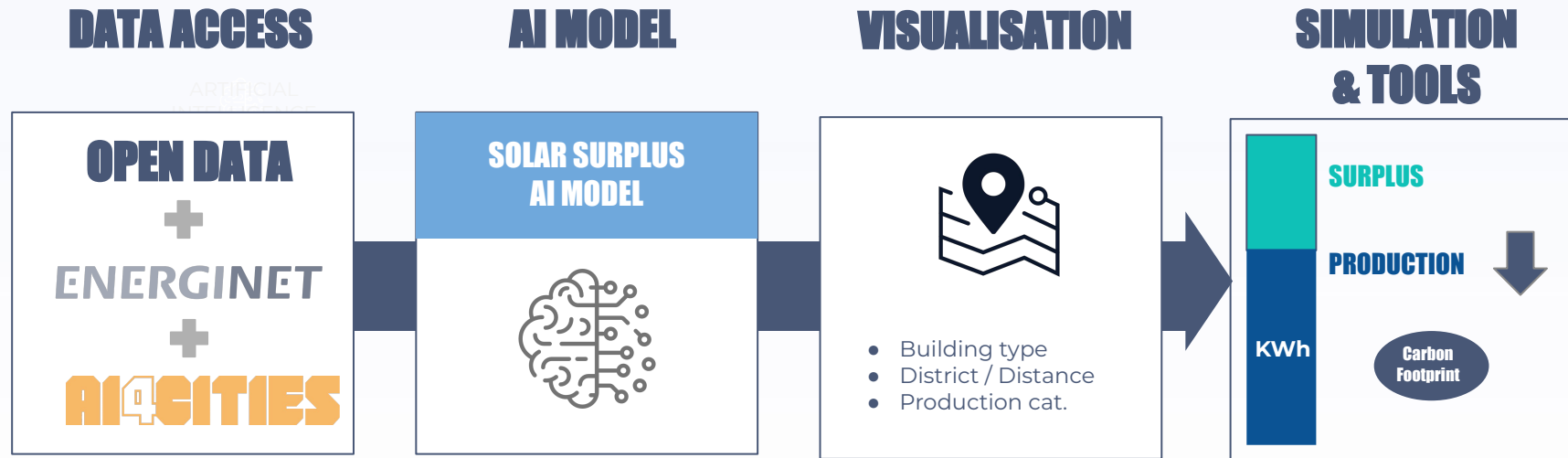
Urban Peer-to-Peer Local Energy Markets

**TRACK GREEN
ORIGIN 24/7**

ENERGINET

**ENERGY
TRACK & TRACE**

How does AI bring value?



Phase 3 Pilot - Goals, Expected Results

Goals

1. Demonstrate the technical feasibility and market-solution fit of the Solar Surplus prediction tool
2. Demonstrate the technical feasibility of an automated result-based reward scheme for prosumers
3. Build a new startup for the commercialisation of the solutions

Expected results

1. Development, testing and pilot of a first Solar Surplus Prediction prototype in CPH
2. Development, testing of a reward scheme proof of concept using real world data in CPH
3. Establishment of the startup and new business opportunities beyond AI4cities geographies / scope



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Context

**The EC accelerates
the rollout of
renewables**

Proposal to increase the EU 2030 target for renewables

- EU Solar Strategy: Solar PV x 2 by 2025, + 600 GW by 2030
- A phased-in legal obligation to install solar panels on new public and commercial buildings and new residential buildings

**The EC catalyses a
citizen driven
energy transition**

- Collective self consumption / energy communities
- 100 Climate Neutral City Mission
- Positive Energy Districts