



The **Renewable Energy Community (REC)** of the City of Magliano Alpi

Presentation for SCORE Project

SCORE
Co-own. Prosume. Renew.
Supporting Consumer Ownership in Renewable Energies

Sergio Olivero
President of the Scientific Committee

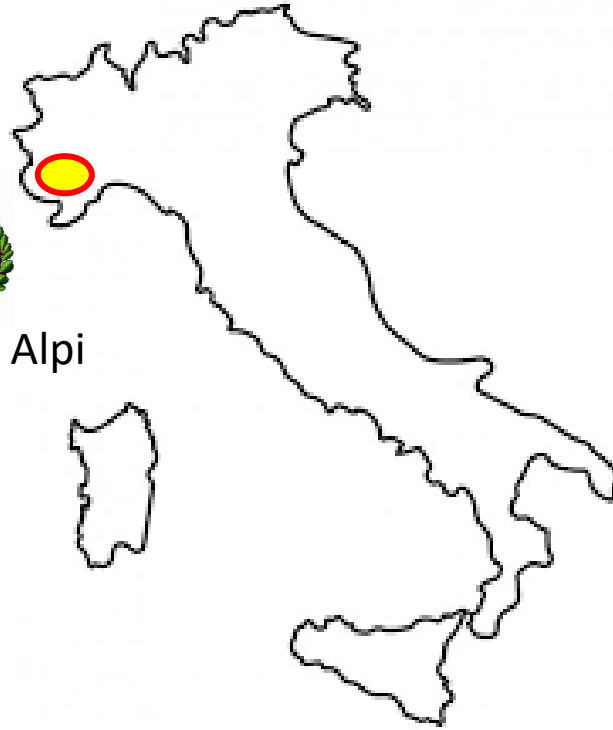
March 25, 2021



The City of **Magliano Alpi**



Magliano Alpi



- 2,184 inhabitants
- Province of Cuneo
- Area: 32,6 Km²
- Eight asl: 403 m to 2.000 m



The «Renewable Energy Community» of **Magliano Alpi**

- The **Renewable Energy Community** «*Energy City Hall*» of the Municipality of Magliano Alpi is a non-profit entity created in December 2020.
- It is compliant with the Italian Law, that early adopted the European 2018/2001 (RED-II) Directive (incentives available **€ 110/MWh** of self-consumed energy).
- It is based upon the open and voluntary participation of **Citizens, Small and Medium Enterprises** (SME) and the **City of Magliano Alpi**.
- It is a **private body** who embeds both public bodies and private entities, and paves the way to **innovative public-private partnership** (PPP).
- It is powered by the digital platform **Energy4Com** <https://energy4com.eu/>
- Its strategic objective is to use **energy** as the **catalyst of local sustainable development**.
- The web site is <https://cermaglianoalpi.it/>



The REC of Magliano Alpi: **some figures** (I)

- The first REC was founded in December 2020: **REC-1** «**Energy City Hall**» promoted and led by the City
- In the first half of 2021 **three RECs** are scheduled (*the number is a result of the MV-LV substation constraint*)
 - **REC-2** «**Energy Sporting Center**», promoted and led by the City
 - **REC-3** and **REC-4**, promoted and led by private companies and citizens
- The following figures are related to the **system REC 1-2-3-4**
 - **Investment by the City:** € 120,000 (2021). € 100,000 support by the National Government, € 20,000 by a local bank foundation
 - **Total investment:** € 200,000 (2021)
 - **Number of PODs:** 150
 - **Allocation of economic benefits** among REC partners:
 - according to contracts, in compliance with the Italian law
 - through specific algorithms (Energy4Com platform <https://energy4com.eu/>)



- **Renewable sources:** Photo Voltaic on roofs, southward, roof slope 15-20%
- **Estimated generation potential:** 200 kW
- **No storage** in the first half of 2021. Scheduled in 2021-2022, including an residential hydrogen generator
- **Smart meters on all PODs**, providing information to **Energy4Com platform** (15-minutes load profiles available)
- No heating or cooling
- **Sinergies with building retrofit** (fiscal bonuses by the National Government)
- **Incentives on self consumption** by the Italian Government (€ 110/MWh)
- **Regulatory issues:** early adoption (2020) of RED-II Directive by Italy
- **Citizen involvement:** voluntary, by campaign organized by the City and by spontaneous application
- **Measures against energy poverty:** profit margin by the City-led RECs will be entirely devoted to reducing bills for poorer people and to services for the citizens

The **five stages** to create a REC

2021 Workprogram

already 8 Cities

asked Magliano Alpi's support



DESIGN

REPLICATION

VISION
Manifesto
of the Energy Communities



POLITECNICO
DI TORINO

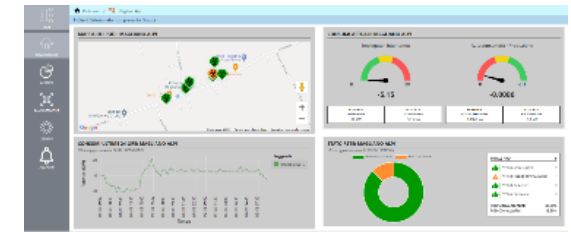


ENERGY
CENTER

GOVERNANCE

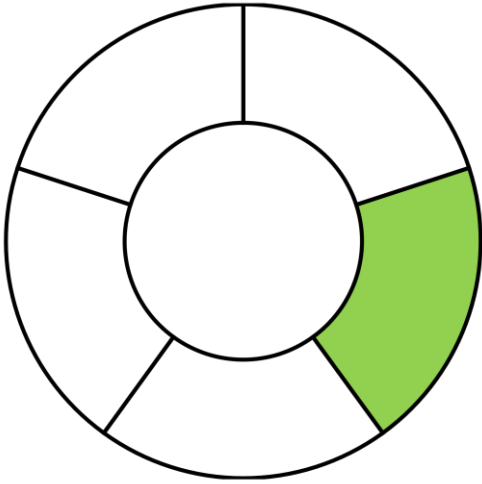


IMPLEMENTATION



MANAGEMENT

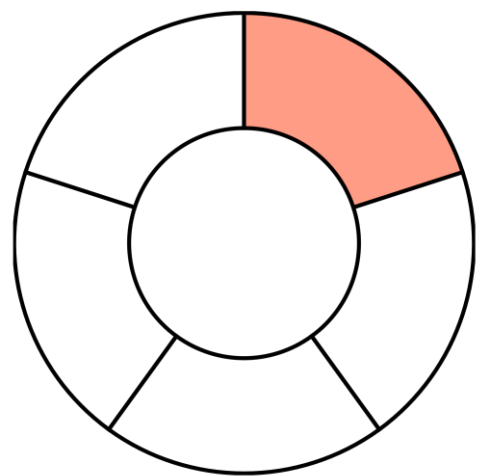




The MANAGEMENT is made by an **IoT Platform**

- maximizing energy **self-consumption**
- managing **bi-directional energy flows**, network and services
- analysis of **consumption profiles**, management of loads and their correlation with **consumption behaviors**
- **allocation of economic benefits** among the REC Partners, according to criteria and algorithms
- **metering** and real-time control of installations
- statistics
- *flexibility and demand response* services, rewarding «**ethic&sustainable**» behaviors
- *smart contracting*, **blockchain**
- **mobile apps** and systems to promote REC-prosumer relations
- synergies with energy utilities (e.g. for *billing*)





REPLICATION

Management: vision «*Virtual National*»
Directive 944/2019 - CEC, adopted by Italy in 2022)

Short Energy Service Supply Chains

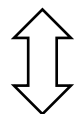
Community
Operational Team
(COT)



Magliano Alpi

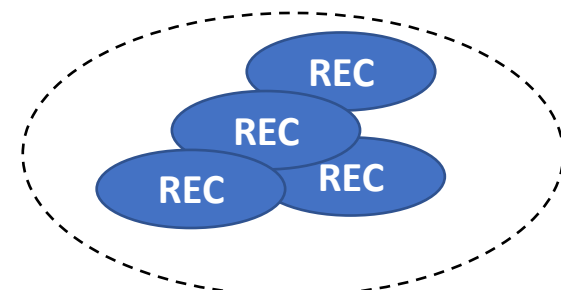
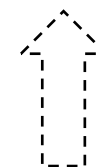
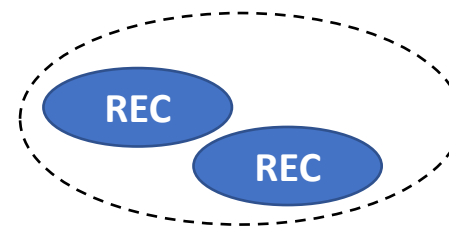
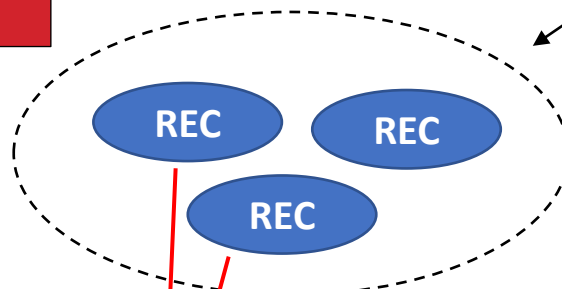
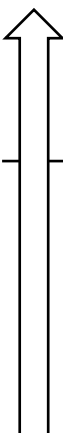
cooperative
model

COT



Installations
Maintenance

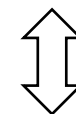
Design
Management



coop

COT

member

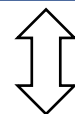


contract

COT

body.

member



contract

Shared IoT platform



*Effects of regulation changes
on business models*



blockchain



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ENERGY
CENTER

*Manifesto of the En. Comm.
Research*



*Cooperation
on RECs*

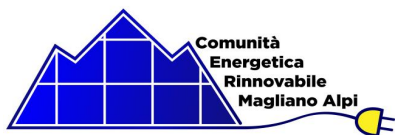


*IoT platform development
Cooperative business model*



FONDAZIONE CRC

*Support for REC-2
(call Smart Green Economy 2020)*



- **Energy Transition** is one of the key enablers of economic recovery in the post-COVID phase
- Through Renewable Energy Communities (RECs), **revenues and profit margins** related to Energy Transition can be **shared with local communities**, to create jobs and promote innovative business models where **local communities are at the centre**.
- The European **Clean Energy Package** (including RED-II and 944/2019 Directives) is prosumer-centric, i.e. oriented to enhancing the **role of Citizens for local sustainable development**



Marco BAILO
President



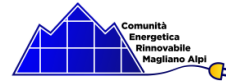
Sergio OLIVERO
President
of the S.C.



Luca BARBERO
Coordinator
of the COT

Thank you

Sergio Olivero



CER Energy City Hall

President of the Scientific Committee



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CENTER

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