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

Presentation for SCORE Project

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The City of **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 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/](https://energy4com.eu/)

- Its strategic objective is to use **energy** as the **catalyst of local sustainable development**.

- The web site is [https://cermaglianoalpi.it/](https://cermaglianoalpi.it/)
The RECs 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/)
The REC of Magliano Alpi: some figures (II)

- **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 marging 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

VISION
Manifesto of the Energy Communities

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

Effects of regulation changes on business models

blockchain

Manifesto of the En. Comm. Research

Cooperation on RECs

IoT platform development Cooperative business model

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*
Thank you

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