Sustainable local communities addressing climate change

Magliano Alpi: a best best practice for energy transition

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October 3rd, 2024

RENEWABLE ENERGY COMMUNITIES

from European 2018/2001 (RED-II) Directive to Italian legislation

Renewable Energy Communities (REC): *definition*

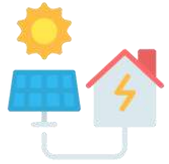
A ***Renewable Energy Community*** (**REC**) is a **legal entity** made up of energy ***users***, ***producers*** and ***prosumers*** (*producers+users*) who are clustered to generate <u>economic</u>, <u>social</u> and <u>environmental</u> benefits deriving primarily from the **sharing of electricity** produced by **renewable** sources.

USER

Draws electricity from the grid and is the owner of the connection point to the grid, identified by a POD (Point Of Delivery) code

PRODUCER

Producer of energy from renewable sources, that is totally fed into the grid (potentially shareable energy)



PROSUMER

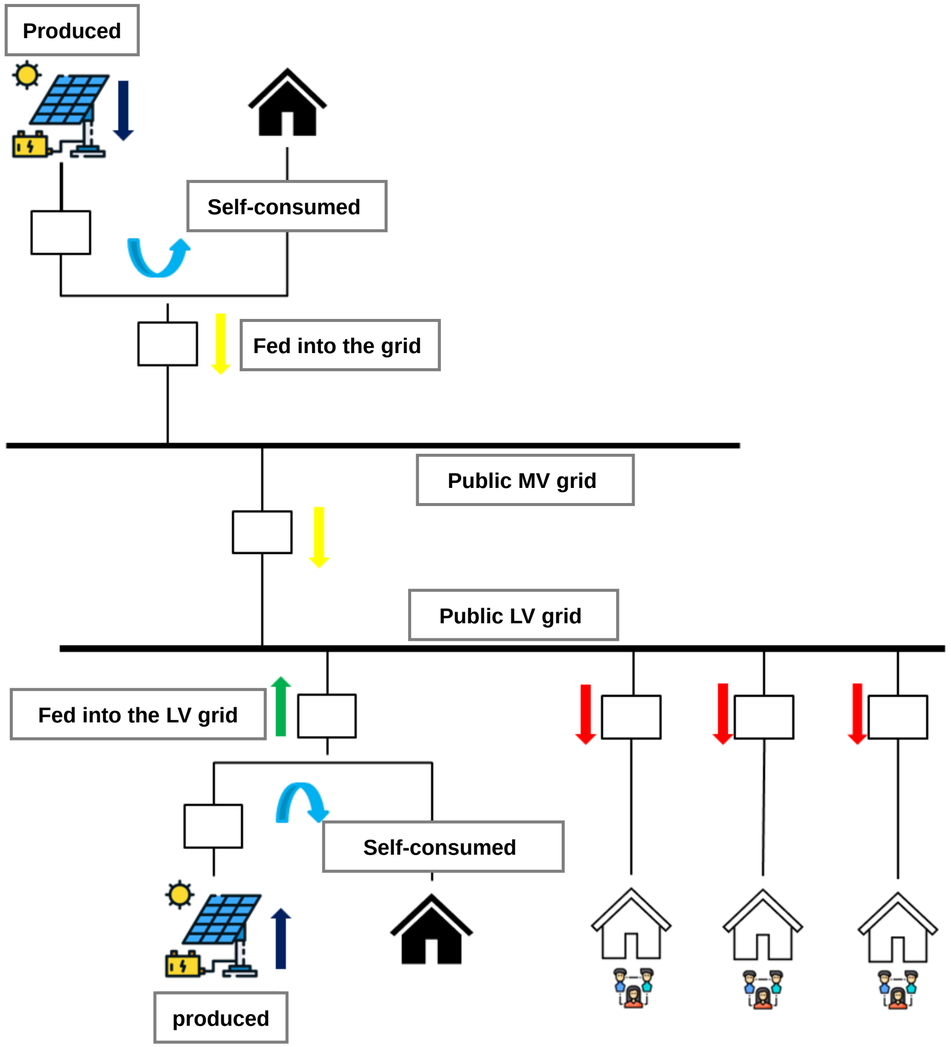
Producer of energy from renewable sources, which is partly consumed on site (physical self-consumption) and partly fed into the grid (potentially shareable energy)

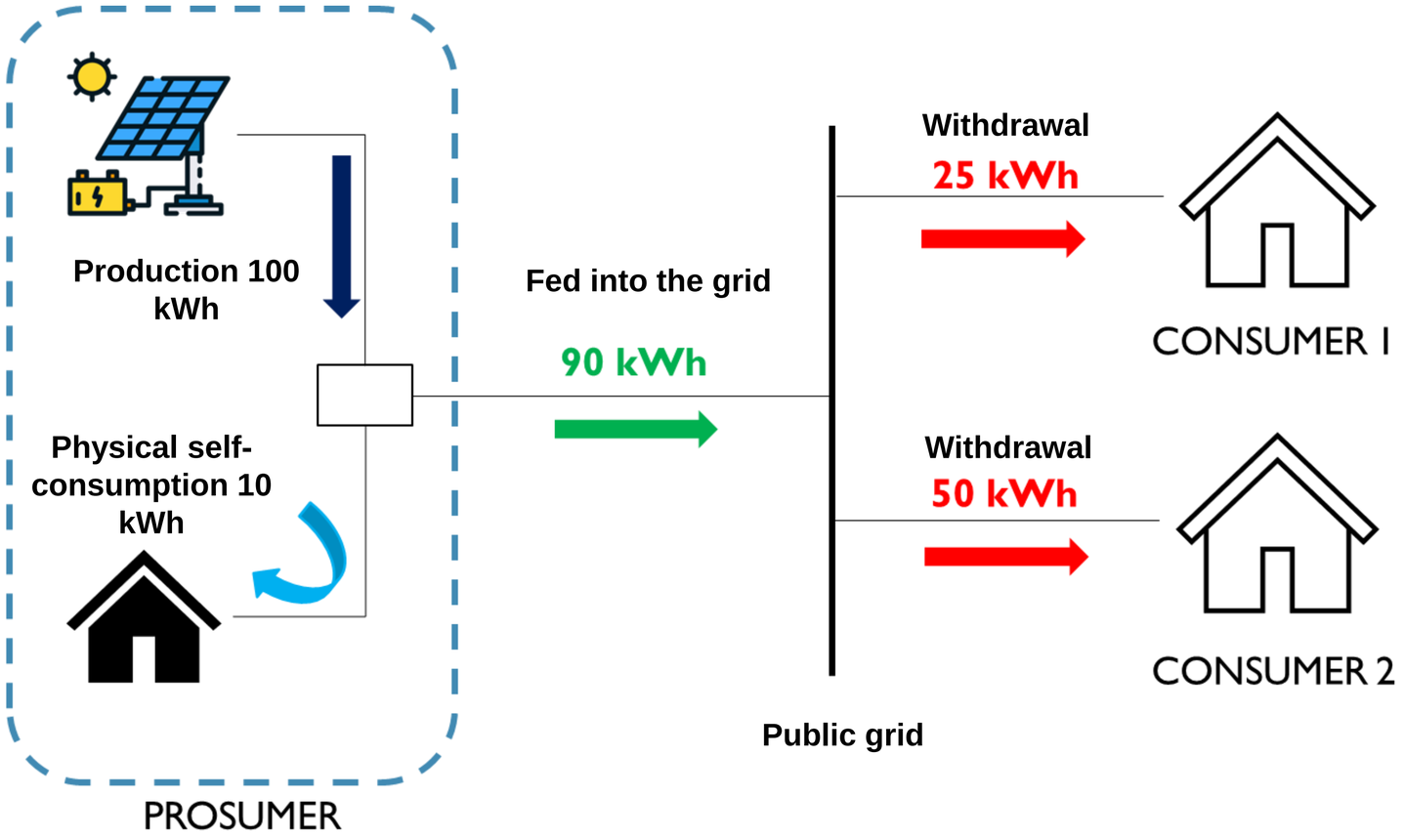
Renewable Energy Communities (REC): *Italian legislation*

European 2018/2001 (RED-II) Directive → *transposition* → Italian Law

	TRANSITIONAL TRANSPOSITION **2020-2023 - Art. 42bis of D.L. 162/2019**	**FINAL TRANSPOSITION** **D.L. 199/2021 - executive law by Dec 2023**
Maximum power size (single plant)	200 kW	**1 MW**
area	Members connected to the same **LV/MV substation**	Members connected to the same **HV substation**
Eligible members	Citizens/Families, Small and Medium Enterprises (SME), Municipalities	All Stakeholders (excluding companies for which energy is the core business activity)

Renewable Energy Communities (REC): *sharing energy, an example*





Virtually **shared energy** = min (**90**, **75**) = **75** kWh

(***incentive*** *about € 100/MWh*)

RECs: PIONEERS AND BEST PRACTICES

Renewable Energy Communities (REC): *Magliano Alpi and follow-ups*

Comunità Energetica Rinnovabile Magliano Alpi

- **December 2020**: the **first** Italian **Renewable Energy Community** (**REC**) was founded in the City of Magliano Alpi **https://cermaglianoalpi.it/** with the scientific support of the Energy Center of the Politecnico di Torino

Magliano & Friends

- **2021-2025**: **Magliano&Friends** initiative, a ***network of Italian Municipalities*** who share expertise and know-how to create new RECs (starting from the end of 2023 the Italian Government will make **€ 2,2 BILLION** available to support RECs in cities with less than 5,000 inhabitants)

RECOCER

- **2022-2023**: € 5,4 million invested by the Autonomous Region of Friuli Venezia Giulia with the scientific support of the **Energy Center** of the Politecnico di Torino and the partnership with the City of **Magliano Alpi** to implement **RECOCER Project www.recocer.eu** where REC are designed for 15 Municipalities with 50,000 inhabitants

ENERGY COMMUNITIES: MEDIUM-TERM OUTLOOK

Energy Communities: *creating value to be locally shared*

incentives on shared energy

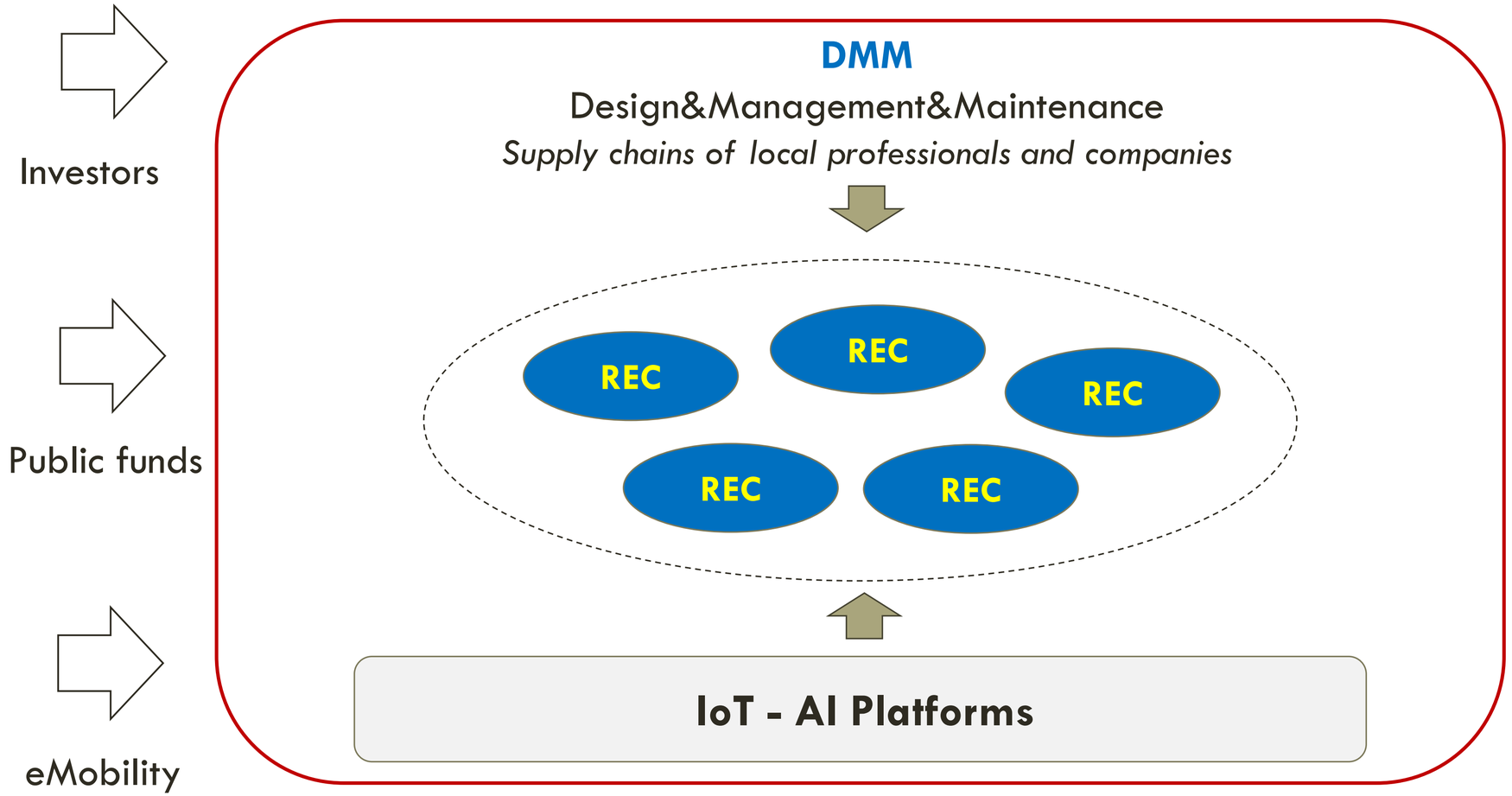
energy governance
fiscal benefits
eMobility (G2V & V2G)
trading
ancillary services
flexibility/storage
demand response
data for ESG

Bankable Business Plans

Value creation

Value sharing

Communities of RECs (RECOM): *clustering RECs for a «one-stop-shop»*



RECOM

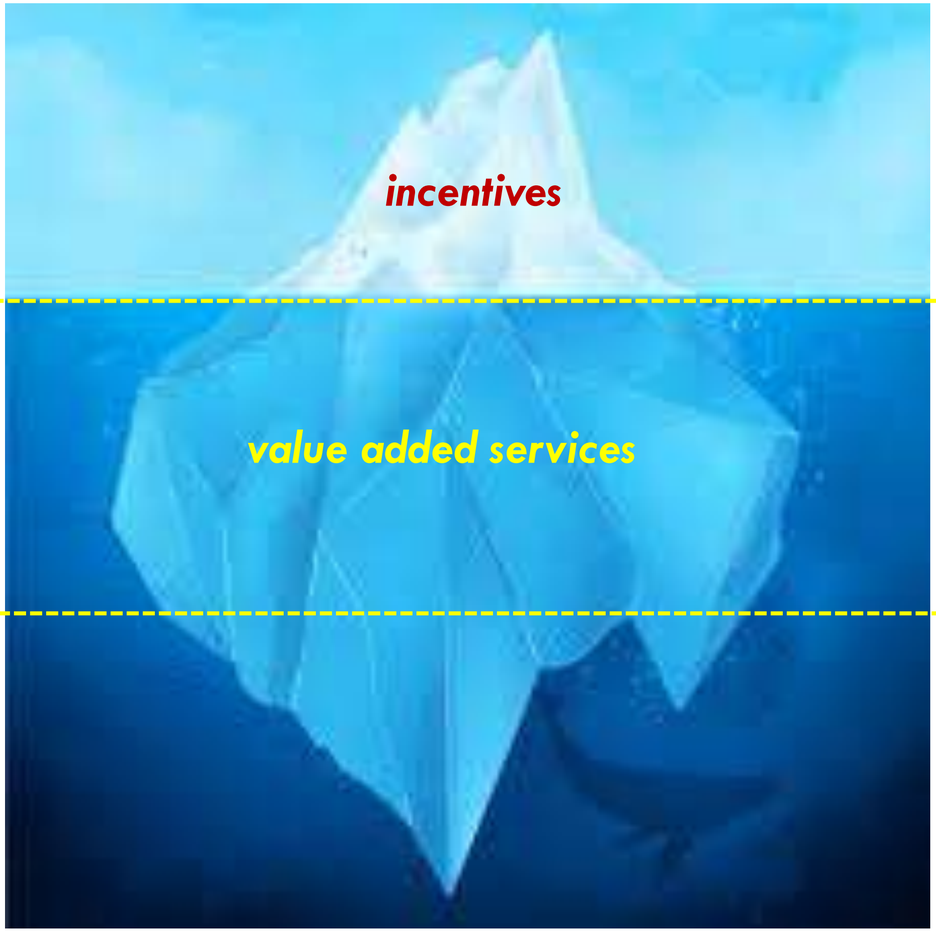
High-level **technical know-how, smart platform** and **operational capacity** are necessary for **REC management**

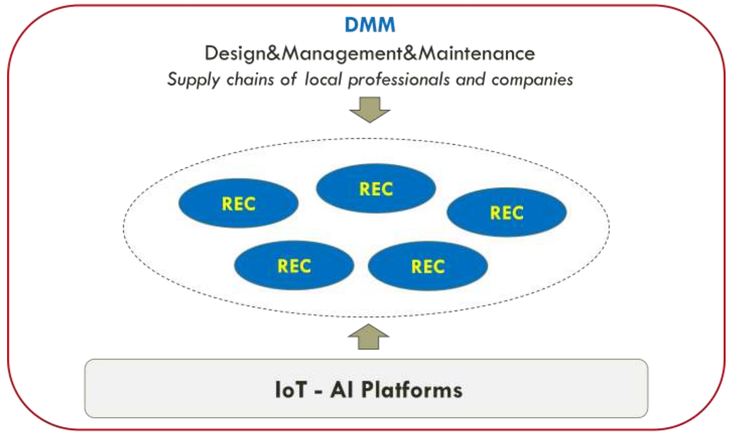
We should not multiply management structures for the sake of efficiency and economy of scale

RECOM is a private company aiming at **clustering** and **managing** REC, providing *one-stop-shop* for investors

A RECOM is a «***Virtual Energy Company***» (VEC)

Communities of RECs (RECOM): *value creators for «energy democracy»*





RECOM

RECOM **leaves locally** the value created by energy transition

This will imply the **redesign of the business models of energy utilities**

Local communities: *REC-driven strategies to address climate change*

Local communities aiming at addressing climate change are successful it they can rely upon **three enabling factors**: **a) legislation**, **b) economic benefits** and **c) awareness** (leading to «*green*» behavioral change).

a) The European Directives **2018/2001** (RED-II, on «*Renewable Energy Communities*» - REC) and **944/2019** (on «*Citizen Energy Communities*») provide a **sound legal basis**, since EU member States MUST transpose them into a law that cannot be changed.

b) In Italy many **fiscal benefits**, **non-repayable funds** and **grants** are today available for energy transition. Some examples are: 50% to 75% tax deduction on building retrofit (electrifying thermal loads, i.e. making heating and cooling electric); 50% tax deduction on PV installation; € 110/MWh for 20 years on shared energy within RECs, also benefiting from the sale of energy to the grid; funds for eMobility charging stations; € 2,2 billion on RECs created in cities with less that 5,000 inhabitants + (starting from 2024-2025) «*a lot of money*» for the «*submerged part of the iceberg*" (see slide #10).

c) The combination of legislation («***you can do it***») with economic benefits («***doing it is a business***») easily leads to **raising awareness** and changing your beahaviour in producing, using and saving energy.

RECs are powered by IoT/AI digital platforms, so they represent a **database** capable of measuring results and giving evidence of virtuous approaches.

In Europe (and notably in **Italy**, who is a forerunner in trasposing RED-II Directive) **RECs are one of the key catalysts** of effective strategies to address climate change.

Possible synergies between Italy and Latvia

The **Italian Regulation on Energy Communities** (Law 199/2021, Law 210/2021, TIAD, TIDE) transpose EU Directives 2018/2001 (RED-II) and 2019/944. All EU Countries (including Latvia) must transpose the Directive.

Magliano Alpi's «**Energy City Hall**» (**ECH**) was the **first Renewable Energy Community (REC) of Italy** (December 18th, **2020**): ECH represent the operational implementation of EU Directive in a real context.

Latvia may benefit from the Italian experience in order to define laws transposing EU Directives 2018/2001 (RED-II) and 2019/944.

The City of Magliano Alpi is cooperating with: **Energy Center of the Politecnico di Torino**, **ENEA**, **GSE**, **RSE**, **ETIP-SNET** (European Commission https://smart-networks-energy-transition.ec.europa.eu/working-groups/wg5, **Smart Cities Marketplace** (European Commission https://smart-cities-marketplace.ec.europa.eu/networked-community/focus-and-discussion-groups/deep-retrofitting-focus-group), **City of Jeonju** (South Korea)

A joint **Italy-Latvia Team** (**ILT**) may be created to help the Latvian energy authorities to develop National regulation to transpose the EU Directives 2018/2001 (RED-II) and 2019/944.

The Cities of Magliano Alpi, Adazi and Preili may be the local pilot sites.

A meeting hosted by the Latvian Government may be organized in late 2024-beginning of 2025.

THANK YOU FOR YOUR ATTENTION

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