

Creating local energy independence based on renewable energy sources – the experience from Europe.

“The Mortirolo municipalities Case history”



RENALDO – Rural development through renewable energy sources

Warsaw, 1st March 2023

Dr. Margherita Brambilla

FIPER, Federazione di Produttori di Energia da Fonti Rinnovabili, represents companies operating in the **biomass-energy** supply chain.

28 Companies and forestry consortiums, 96 operators of biomass district heating plants, together to produce programmable thermal and electrical energy starting from the valorization of local resources in the territory.

From the **use of woody residues from forest sustainable management**, the Federation's goal is to actively promote a **circular economy model** that creates development for the so-called "inland areas" where the plants are located, playing a leading role in reducing climate-changing emissions.

We promote projects that represent "**Renewable Energy Communities**," implemented with the involvement of local people, enterprises and institutions.



An important **alternative to the use of fossil fuels**, an asset for the Country System to be preserved and consolidated in order to facilitate the **ecological transition and the achievement of the goals set by the Green Deal to 2030**.





96 impianti associati



28 consorzi forestali
4000 imprese micro indotto



800.000 t/annuo
Biomassa legnosa impiegata



364.000 t/annuo
CO2 evitata



80 M€/annuo
fatturato di energia termica



1150 MWt
contrattualizzati 30 MWe
1590 km rete



The historical energy cooperative versus italian energy communities

Established in **the late nineteenth and early twentieth centuries** in difficult territories such as those of the Alpine Arc, unattractive to other realities even from an economic point of view, there are **73 historical electric cooperatives**, serving **60 municipalities** and about **300,000 consumer members**, producing about 500,000,000 KWh/year



What about the thermal energy communities?
National incentives/legislation

Reference to legislation – Energy communities

Directive (UE) 2019/944

common rules for the internal electricity market

➔ Citizens Energy Community
“CEC”

Directive (UE) 2018/2001

On promoting the use of energy from renewable sources

➔ Renewable Energy Community
“REC”

Articolo 42-bis, DL n. 162/2019

Energy communities were introduced into the Italian legal system through Decree-Law 162/19 (Article 42bis) and its implementing measures, such as ARERA's Resolution 318/2020/R/eel and Ministerial Decree of September 16, 2020.



Renewable energy community: what legal entity?

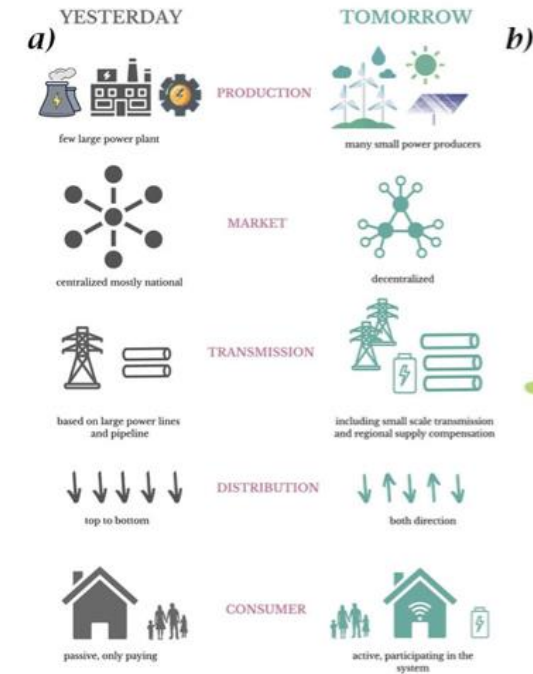
A Renewable Energy Community is a legal entity:

1. which is based on open and **voluntary participation** (provided that, for private enterprises, participation in the renewable energy community is not the main commercial and/or industrial activity) and is autonomous;
2. whose shareholders or members exercising **power of control are individuals, small and medium-sized enterprises (SMEs), territorial entities or local authorities**, including, in accordance with Article 31, paragraph 1, letter b) of Legislative Decree 199/21, **municipal governments**, research and training entities, religious, third sector and environmental protection entities as well as local governments

2 forms of governance:

Association

Cooperative



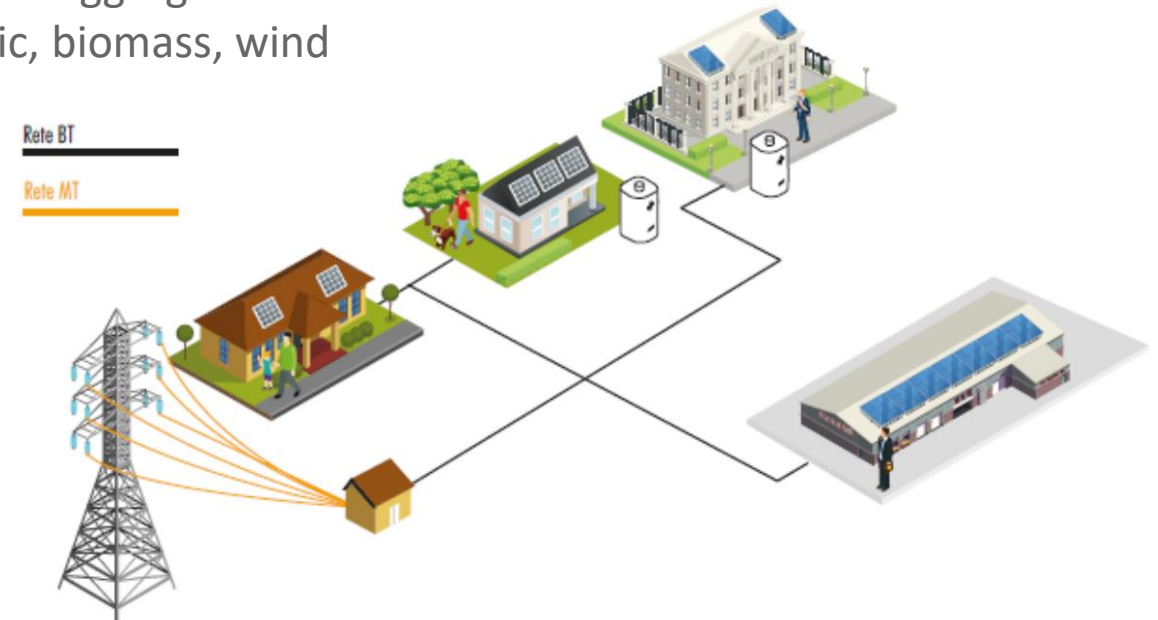
Goals of the renewable energy community

- Enable affordable energy supply
- Combat energy poverty by reducing energy supply costs and consumption by promoting efficiency

INCENTIVATING SYSTEM for collective self-consumption in renewable energy communities.

For individual plants with power less than 100kW electric and in the aggregate not more than 1000 KW employing the different renewable sources, including: photovoltaic, biomass, wind

For each kWh of shared electricity is recognized by the GSE, for a period of 20 years: a premium tariff of 110 €/MWh for energy communities.



The limits of the current regulation

The renewable energy community must meet the following **requirements**: be an autonomous legal entity which, acting in its own name, can exercise rights and be subject to obligations, having as its main corporate purpose that of providing environmental, economic or social benefits at community level to its shareholders or members or to the local areas in which it operates, rather than financial profits, have a statute or an instrument of incorporation providing participation in the open and voluntary community.

We point out two main critical issues in the current legislative framework:

- No reference to heating from renewable sources, only electricity is incentivized in collective self-consumption.
- Only the cooperative or association form is identified in the governance model; the "benefit society" formula is not contemplated



Our proposal: the benefit corporations

On January 1st 2016, **Italy became the first European state and the second country in the world creating a new legal status for companies, called “Società Benefit”** (in the US, Benefit Corporation). A Benefit Corporation is a company which combines the goal of profit with the purpose of creating a positive impact for society and the environment and which operates in a transparent, responsible and sustainable way.

Benefit Societies are hybrid enterprises that, in addition to the purpose of making and dividing profits, pursue one or more **purposes of common benefit**. They are characterized by:

- **One or more common benefit purposes** stated in the corporate purpose of the **Statute**
- An obligation in management to balance **the interest of members with the pursuit of common benefit** purposes and the interests of stakeholders.
- The obligation to transparently communicate the pursuit of the common benefit with an **annual report** that also covers the measurement of the impact generated-according to external evaluation standards-on governance, workers, land stakeholders, and the environment.
- The need to identify a person within the company responsible for the pursuit of the Common Benefit.

EVOLVERE
TI FARÀ BENEFIT

The BeCOOP Project: the Motiolo district heating pre-feasibility project in Valtellina. From the Horizon 2020 to realisation?

Brief description of the context



The **Italian BECoop community operates in a mountain area in northern Italy**, in the province of Sondrio, in Lombardia region. In Valtellina there is a huge potential of forestry biomass and long-lasting expertise on biomass DH (e.g. the town of Tirano and other DH plants in the valley).

The BeCOOP Project: the Motirolo district heating pre-feasibility project in Valtellina. From the Horizon 2020 to realisation?

Brief description of the context

An agreement is in progress for the **realization of a cogenerate DH system fueled by local woody biomass**. Tovo Sant'Agata is the most interested municipality in developing the DH system and has been able to involve two other municipalities: Mazzo di Valtellina and Lovero (the Mortirolo municipalities), counting about 2100 inhabitants altogether. The DH system plant could be settled in Tovo - wich is the central town on the line between Lovero and Mazzo – with a modular project that could start from Tovo and as a second step, could reach the other two municipalities.

The project involves as well “Ambiente Valtellina ETS”, a forestry association which has an important role in promoting sustainable use of forests and woods and “Melavì cooperative”, which represents about 200 apple producers and one of the most important energy and heat user in the valley”.



The BeCOOP Project: the Motirolo district heating pre-feasibility project in Valtellina. From the Horizon 2020 to realisation?

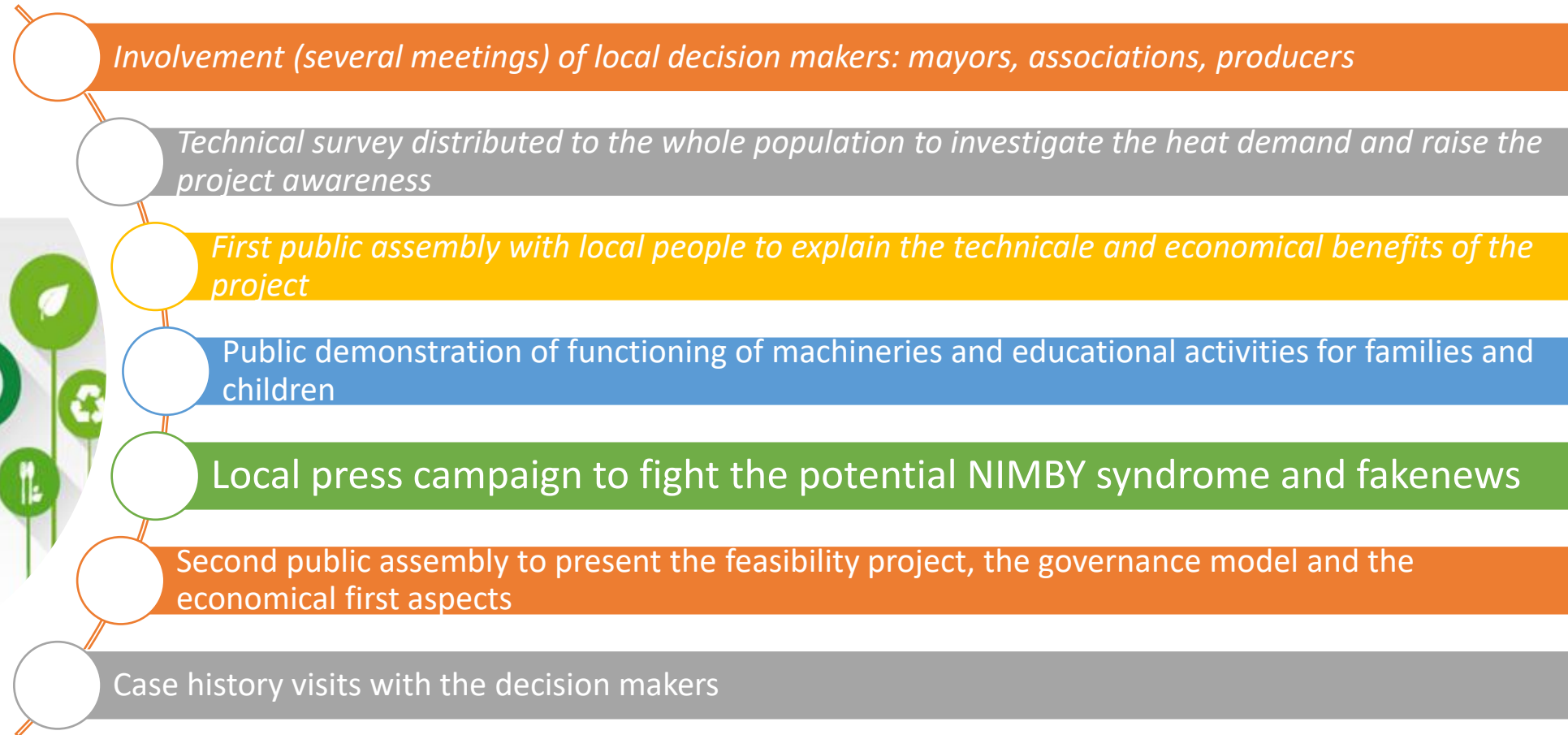
Stakeholders involved



- **General Public:** the DH plant will potentially provides heat and electrical energy for all the citizens (about 2100 people) of the three towns and to the factories of the valley. One of the most important is the agricultural cooperative Melavì, which gathers more than 200 apples producers.
- **Local Authorities and Public institutions:** the majors of the three towns have been participating into the pre-feasibility study process and presented the project to their citizens in some public occasions and with several interviews and press releases. They strongly aim at being the protagonists of the upcoming RESCoop.
- **Investors:** at the moment the majors are working on a governance and financing evaluation process to create a benefit-society for the project start-up.
- **Associations:** the forestry association “Ambiente Valtellina ETS” is cooperating in the project, by organizing awareness raising events and by giving technical support in the forest management field. It will be important, in the future, in order to work with the wood owners to coordinate them and involve them into the project.
- **Universities:** Politecnico di Milano is the scientific partner of the project. It has a central role in the drafting of the pre-feasibility study and for the technical aspects of the whole project.

The BeCOOP Project: the Motirolò district heating pre-feasibility project in Valtellina. From the Horizon 2020 to realisation?

The awareness raising campaign



The BeCOOP Project: the Motirollo district heating pre-feasibility project in Valtellina. From the Horizon 2020 to realisation?

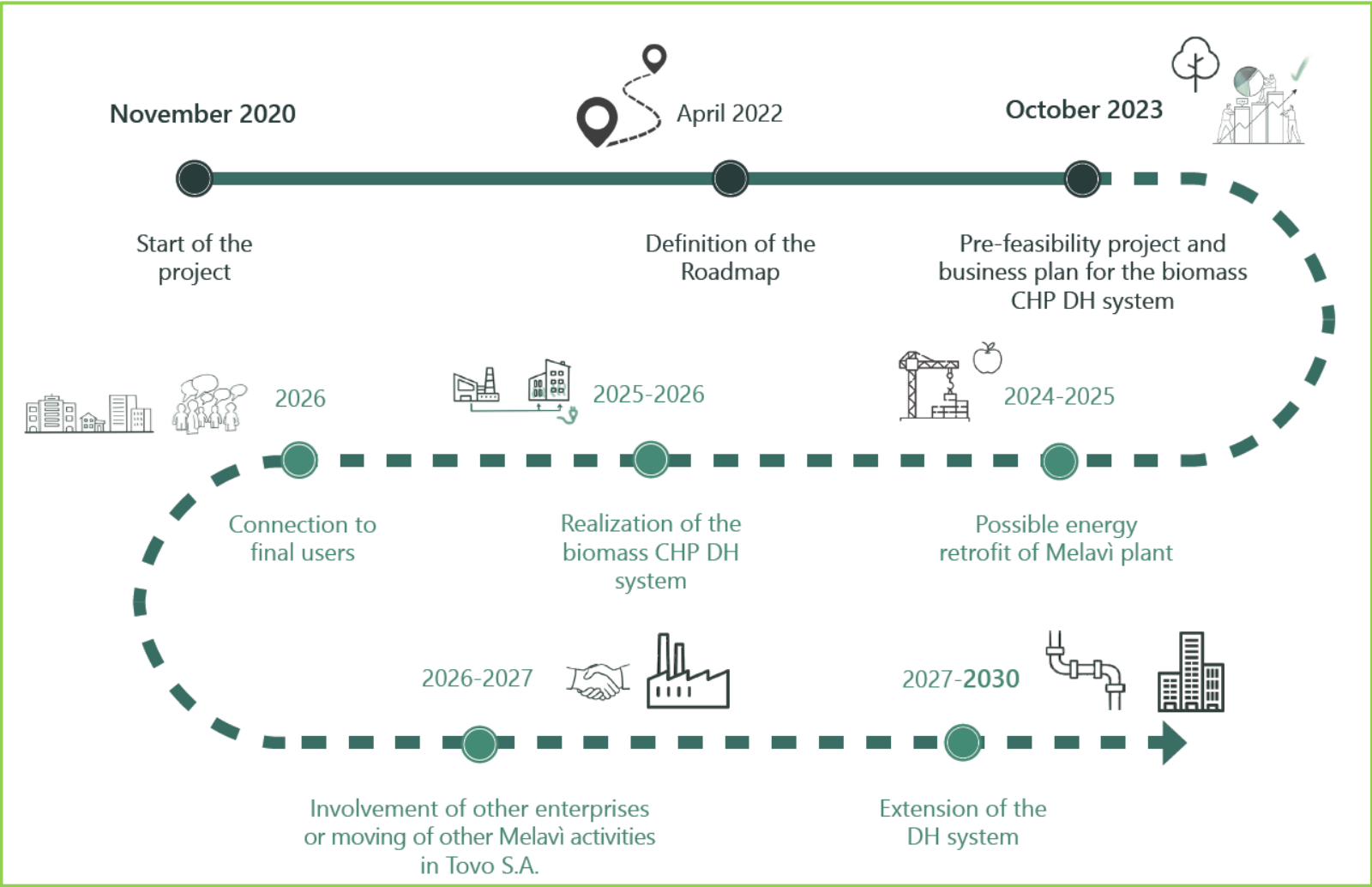
Needs & Challenges to address

- Definition of the legal framework for biomass DH plant
- Accurate analyse of heat demand in building with involvement of citizens
- Participation of local companies to be defined, e.g. roles and electricity and heat demand
- Size and location of the plant to be confirmed
- Modular approach for sizing and development
- Different available and suitable **technologies** to be deeply be investigated
- **Public funding** for the investment and/or incentives during the operation has to be explored



The BeCOOP Project: the Motiolo district heating pre-feasibility project in Valtellina. From the Horizon 2020 to realisation?

The roadmap



FIPER: for a sustainable forest management, towards a fossil-free future

Thank you for your attention

