

POLITECNICO DI MILANO

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## Strategic Sustainability Plan 2023-2025

#### **Objective**

Increase renewable generation and self-consumption

#### **Target**

- + 5 MW of PV installed capacity
- At least 3 established energy communities

#### **Actions**

- Renewable generation → Installation of 1.7 MW/year of PV capacity across campuses
- Energy communities → Development of at least 3 energy communities through the engagement of local and public actors





## What is a Renewable Energy Community?

Renewable Energy Community (REC): an independent legal entity in which members can share selfproduced renewable electricity (EU Directive 2018/2001).

#### Allowed benefits:

**ENVIRONMENTAL** 





**ECONOMIC** 



SOCIAL





Energy communities have a **local nature**: renewable plants must be installed close to the members.

**But how close?** That depends on the country. In Italy, the boundary for energy sharing is the **primary** substation

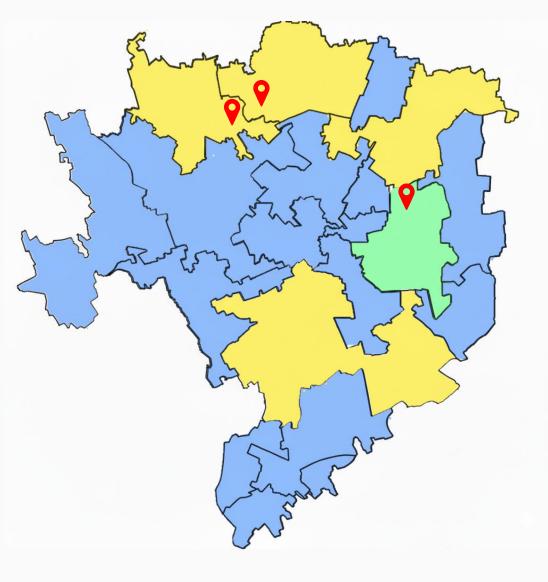
## **CER.ca.MI: Areas for Energy Sharing**

The energy community covers the whole city of Milan

#### There are **19 configurations** in total:

- Already ACTIVE: 1
- Under ACTIVATION: 4
- **PLANNED**: 14





Map of Milan city

## **CER.ca.MI: A virtuous example**



CER.ca.MI stems from the **joint effort** of public and local actors

#### Public actors

- Politecnico of Milan
- Municipality of Milan

#### **Community actors**

- Abitare Società Cooperativa
- Cooperativa Diapason
- Terzo Paesaggio ETS
- Fondazione Aquilone







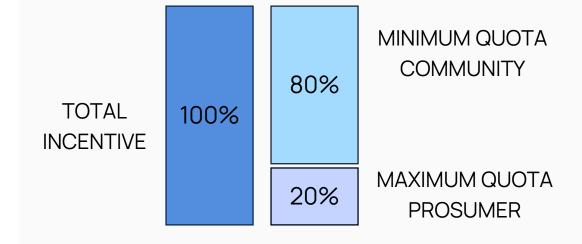


## **CER.ca.MI: Energy Sharing Incentivisation**

The energy shared within each configuration is financially rewarded

CER.ca.MI is an energy community with a **social mission**:

- The incentive majority remains with the community to finance social projects
- Only up to 20% of the incentive is allocated to prosumers.



## Our journey so far

#### April 2022 Start of work at Polimi

#### October 2022

Establishment of working group with Municipality of Milan et al.







#### Several discussion in between...

A single or more associations? Which legal form? How to manage the incentive?



#### October 2024

Establishment of CER.Ca.MI association



Scan me!

#### And what's next?

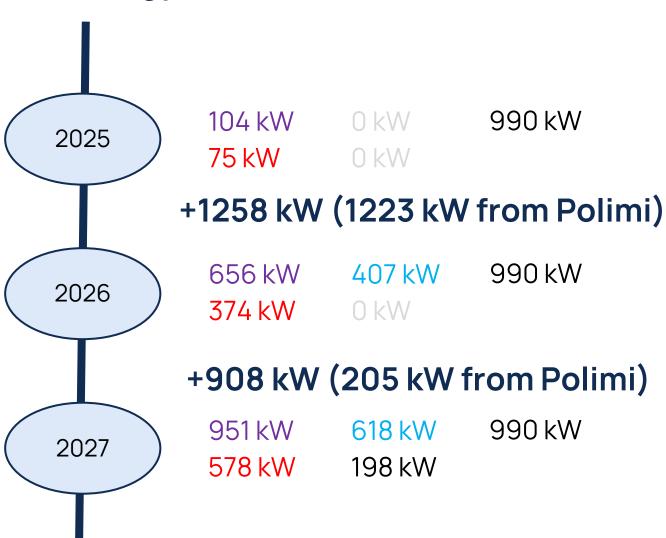
Additional configurations on the way:

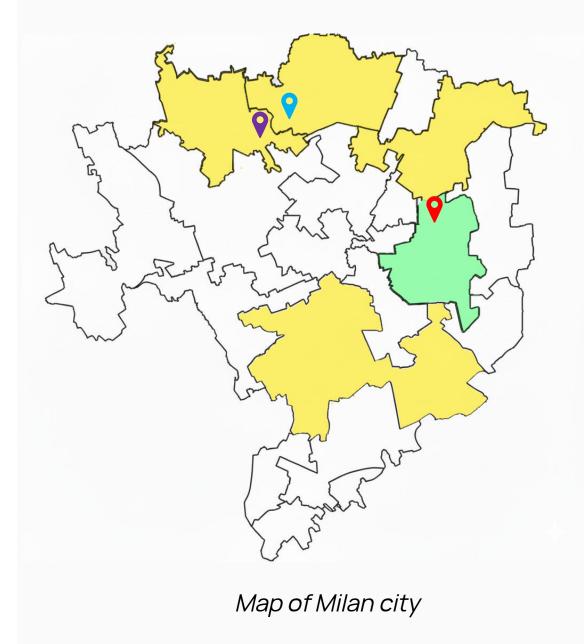
- 2 by the end of 2025
- 2 between 2026 and 2027

**April 2025** Lauch of first configuration: Città Studi



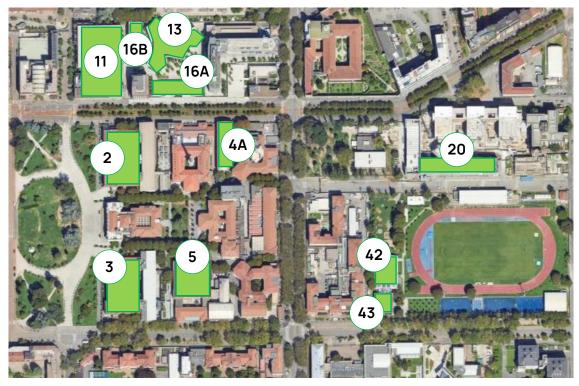
## Our energy





## Our energy: Campus of Città Studi (1/2)

# The majority of consumption (15 GWh/y) is already covered by cogeneration!



Map of Città Studi Campus – Main campus

#### **CURRENT SITUATION**

Annual electricity withdrawal: 3 600 MWh

Installed capacity: 1069 kW

#### Capacity under development

None

Production	Self-consumption	Injection	Withdrawal
[MWh/y]	[MWh/y]	[MWh/y]	[MWh/y]
1175	1 175	0	2 425

- Self-consumption rate: 100 %
- Withdrawal reduction: 30 %

## Our energy: Campus of Città Studi (2/2)



Map of Città Studi Campus – Via Golgi

#### **CURRENT SITUATION**

Annual electricity withdrawal: 3 553 MWh

**Installed capacity**: 75 kW

#### Capacity under development

2026: 290 kW

Production [MWh/y]	Self-consumption	Injection	Withdrawal
	[MWh/y]	[MWh/y]	[MWh/y]
424	350	74	3 202

Self-consumption rate: 83 %

• Withdrawal reduction: 10 %

## Our energy: Campus of Bovisa La Masa



Map of Bovisa La Masa Campus

#### **CURRENT SITUATION**

Annual electricity withdrawal: 16 478 MWh

**Installed capacity**: 145 kW

#### Capacity under development

2026: 552 kW2027: 295 kW

Production	Self-consumption	,	
[MWh/y]	[MWh/y]	[MWh/y]	[MWh/y]
918	904	14	14 296

• Self-consumption rate: 98.5 %

Withdrawal reduction: 13 %

## Our energy: Campus of Bovisa Candiani



Map of Bovisa Candiani Campus

#### **CURRENT SITUATION**

Annual electricity withdrawal: 4 468 MWh

Installed capacity: 0 kW

#### Capacity under development

• 2026: 372 kW

Production	Self-consumption	Injection	Withdrawal
[MWh/y]	[MWh/y]	[MWh/y]	[MWh/y]
399	398	1	4 070

Self-consumption rate: 99.8 %

Withdrawal reduction: 10 %



## Contacts

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