



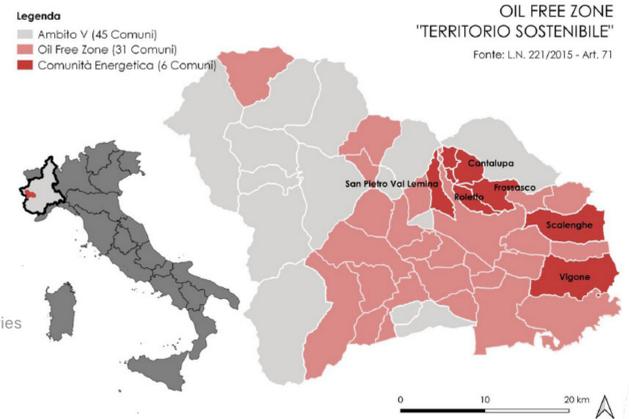
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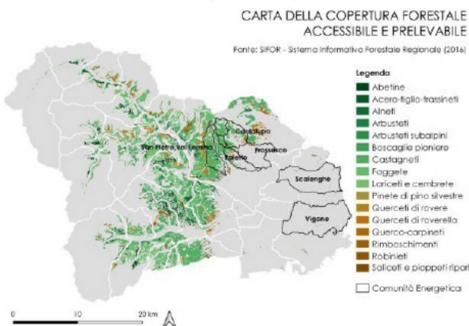
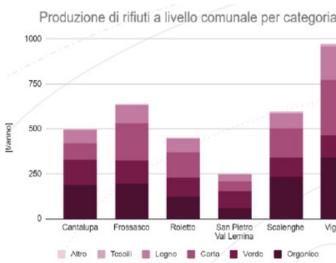
# Energy communities in Piedmont Region A case study in Scalenghe (TO)

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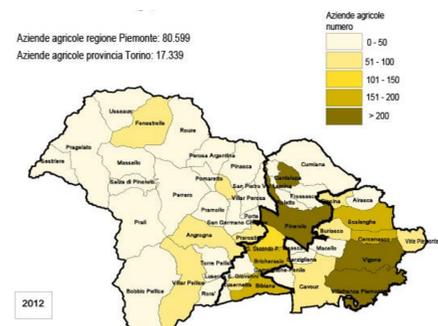
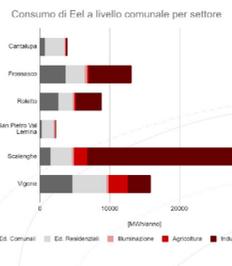
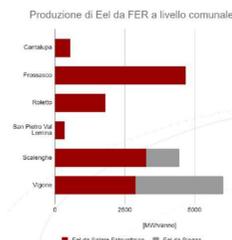
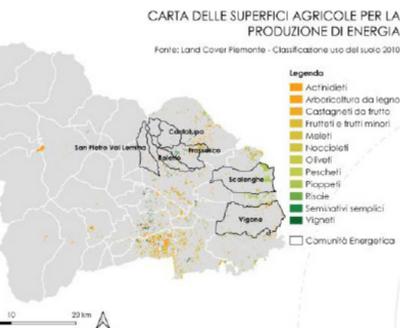
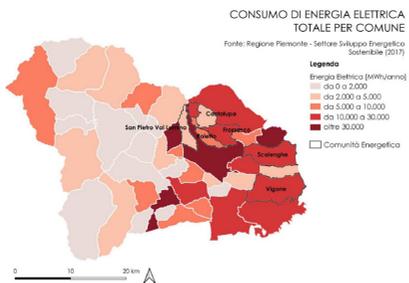
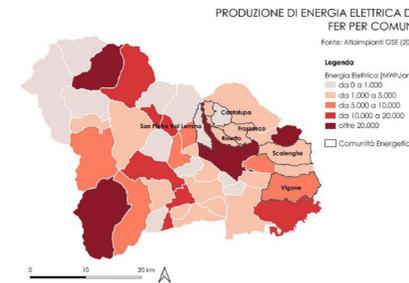


## OBJECTIVE

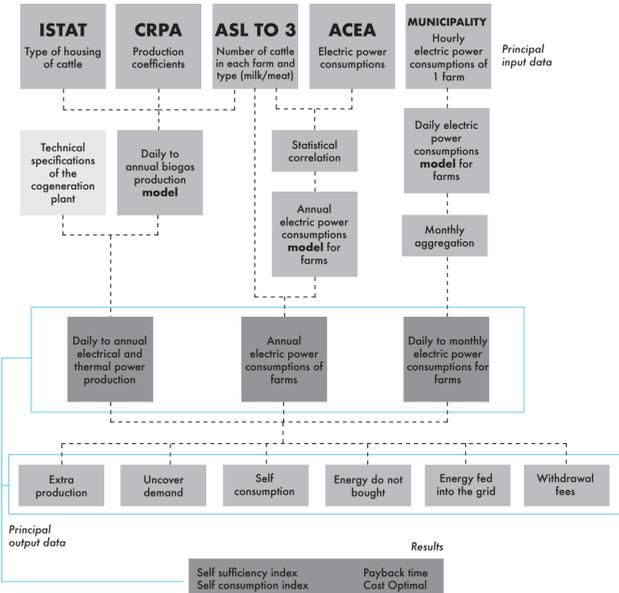
The aim of this research is to present some examples of possible new energy communities in Piedmont region, in particular in the municipality of Scalenghe. The promoters of these energy communities are the local stakeholders. The analysis started from identification of strengths and weaknesses about the territory concerned, also considering ambiental, technical, economic and social constraints within the projects ENER.COM and Energy Citizenship and Energy Communities for a Clean Energy Transition EC<sup>2</sup>. To achieve maximum energy efficiency it is necessary to have energy mix, using resources and potentialities of the territory studied.



## CONTEXT ANALYSIS

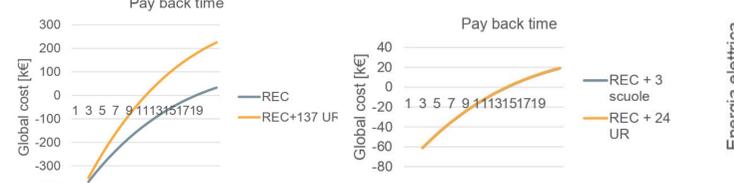
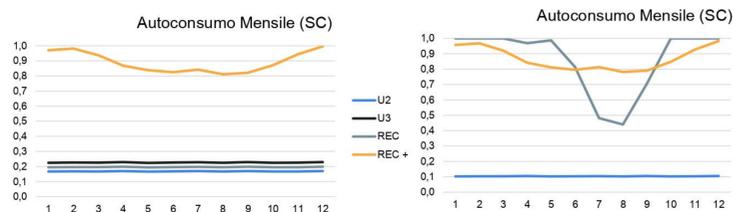


## BIOGAS METHODOLOGY

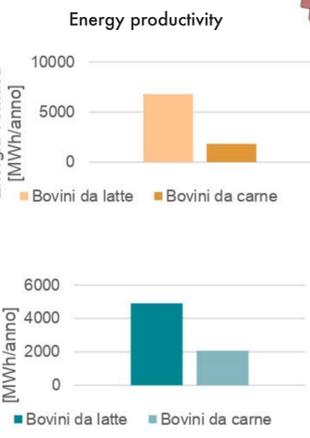


## BIOGAS CASE STUDY AND RESULTS

Some examples of energy communities are presented: U2 and U3; U2, U3 and 137 residences; U26 and 3 schools; U26 and 24 residences.



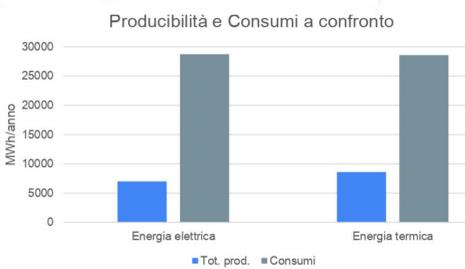
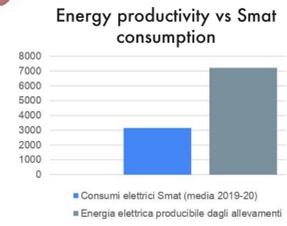
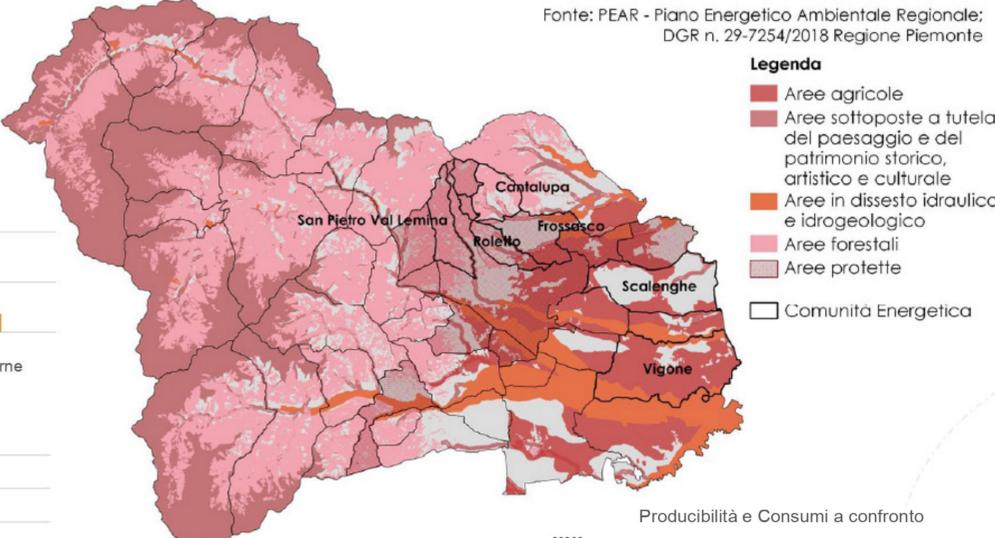
- U2 and U3
- U2, U3 and 137 residences
- U26 and 3 schools
- U2 and 24 residences



- 25% of the electrical request could be guaranteed
- 31% of the thermal energy needs could be satisfied
- 100% Smat's electrical consumption could

## VINCOLI ALL'INSTALLAZIONE DEGLI IMPIANTI A BIOMASSA

Fonte: PEAR - Piano Energetico Ambientale Regionale; DGR n. 29-7254/2018 Regione Piemonte



## CONCLUSIONS

The study, in relation to the ENER.COM and EC2 projects, revealed the main potential and critical issues regarding the development of the Pinerolese Energy Community. Knowing the territory is essential, spatial planning is preliminary to any other planning action. To achieve maximum energy independence with minimal environmental impact it is necessary to identify an optimal energy mix for productions considering the energy demand and exploiting all the energy resources and the potential of the area. The sharing of energy production at a municipal and supra-municipal level makes it possible to balance any cases of overproduction and underproduction, with mutual benefits.