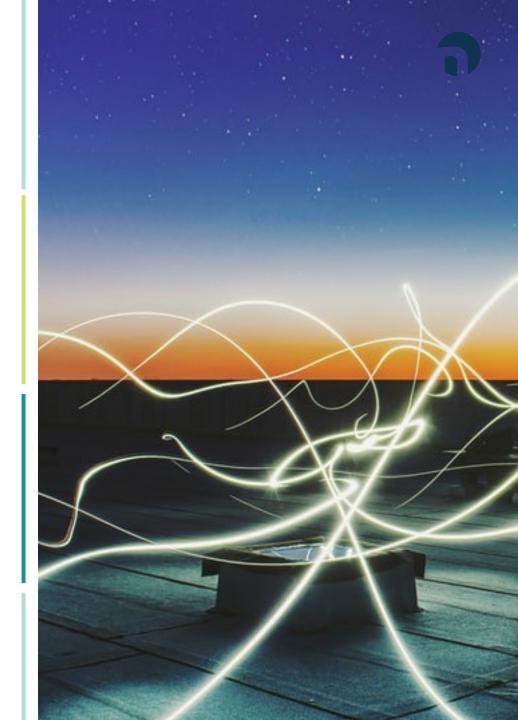
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### RENEWABLE ENERGY COMMUNITIES

The Future of Energy Supply

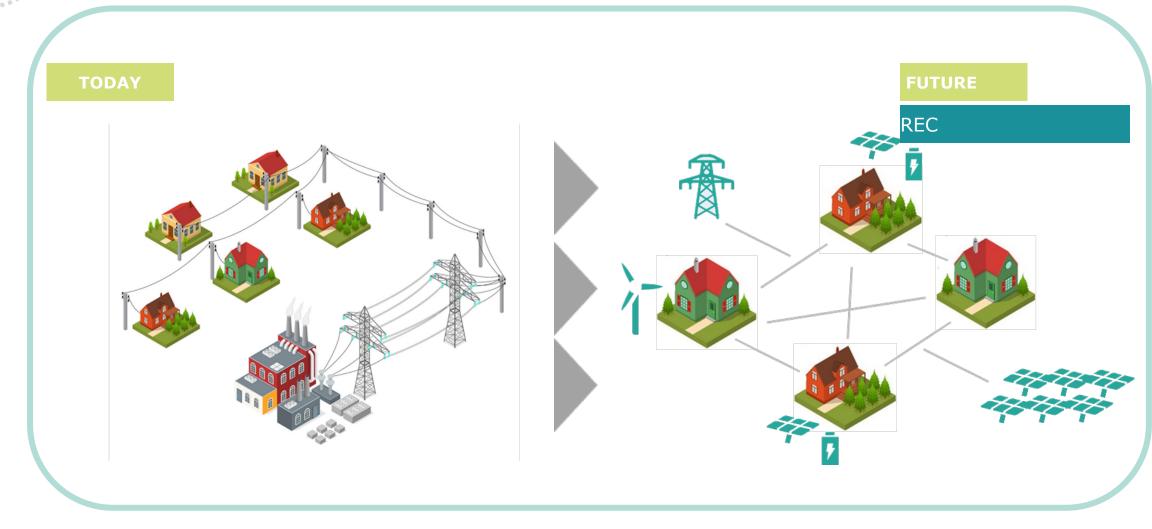






### **RENEWABLE ENERGY COMMUNITIES (REC)**

Future of Energy Supply



Solutions

### **REC DIGITAL PORTAL** One-stop-shop for Energy Communities

Assisting communities, municipalities and companies

	Elene Digital Portal Complementary platforms built on simulations of potential Energy Communities						
	Simulation Platform	Elene Platform "Digital Twin"	Sonnenbank Platform Crowdfunding & Green Finance	Greening The Communities Platform			
Solutions	<ul> <li>Simulating multiple scenarios for each Energy Community</li> <li>Consideration of different conditions and frameworks</li> <li>Adaptation until the targeted rate of self-supply, self-sufficiency degree and more efficiency are reached</li> <li>Set up of the financial planning and the tariff structure</li> <li>Visual and easy-to-read assessment</li> </ul>	<ul> <li>Monitoring, processing and visualization of the Energy Community in real time</li> <li>Presentation of the assets, members, the energy flow and efficiency</li> <li>Functionalities: Communication, Information, Operation tools</li> <li>Improvement of large-scale awareness and successful management of Energy Communities</li> </ul>	<ul> <li>Connection of private funding, digital infrastructure, project development and know-how</li> <li>Crowd financing as a tool for local participation and for increased awareness</li> <li>Support of local businesses and local projects</li> <li>Low entrance barriers and diverse forms of participatory financing</li> </ul>	<ul> <li>Facilitation of the dissemination and replication of RECs in all EU Municipalities through supporting the establishment</li> <li>Building a strong stakeholder network and buyers groups</li> <li>Embedding training and best practice learning on the topic</li> <li>Capacity building for communities, local and regional authorities</li> </ul>			
	Basis for the technical & commercial implementation	Support system & community exchange	Financing options for renewable energy	Capacity building and networking			







#### Example calculation: urban district

"ARRES"

Reduction

BHB

Savings

OLUE

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Price

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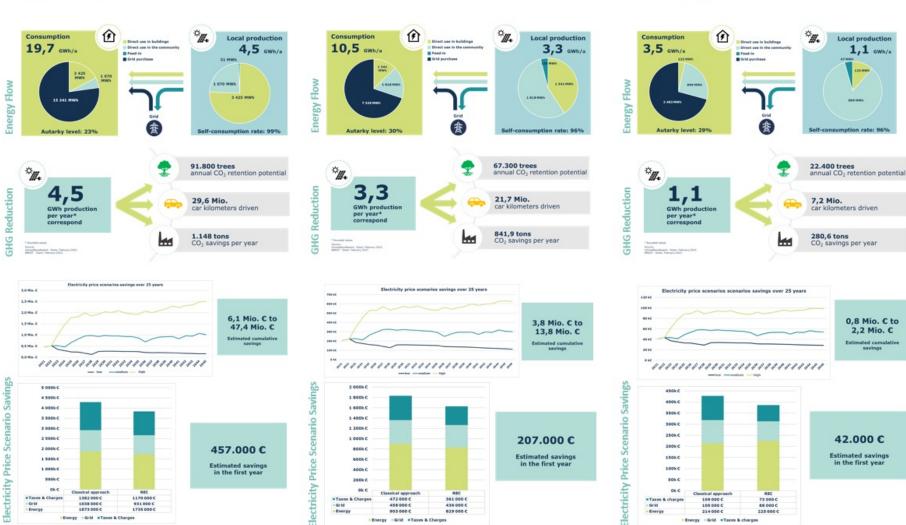
This example shows the possible configuration of a REC in an urban district based on an anonymized practice example. There are many private properties, public institutions and commercial enterprises with an annual electricity consumption of 19.7 gigawatt hours. By using large-scale development on existing land - primarily residential rooftops - the existing generation capacity is roughly doubled, resulting in a total generation of 4.5 gigawatt hours (GWh) per year.

#### Example calculation: large municipality

The calculation presented shows the development of an energy community of a large municipality based on anonymized real data. Using existing land, a PV expansion is carried out, through which the consumption plants with a cumulative annual consumption of 10,5 gigawatt hours are offset by an annual vield of 3,3 gigawatt hours.

#### Example calculation: small municipality

In this example, too, a real example was anonymised. The municipality comprises about 3,000 inhabitants. In the process of establishing the energy community, various private and communal consumers with a cumulative annual electricity demand of 3.5 gigawatt hours are integrated into the EEG. Since there are still few generation plants in the community, 870,000 euros will be invested in order to have a total regional generation of 1.1 gigawatt hours per year.





### **Energy Community**



**Municipalites** – act as pioneers of the energy transition. Local population and businesses become a stronger community. Value creation stays within the region.

**Households** – act as an integral part of the bottom up energy system. By becoming prosumer and part of energy community, they profit on different levels: next to the

savings they are contributing to a more sustainable region.





**Local businesses** – distributed energy systems and energy communities lead to independency, efficiency re energy demand and optimized prodution of RE. Greening the business is also a great argument, especially in tourism and agricurtural island regions.

**Public institutions** – dispose over rooftops also needed for the RE production. Produced energy can only be partialy used by the institution. By integration in energy community, efficient use of roof tops and other areas by supplying households and business within the community can be easily reached.

STABLE PRICES	CLIMATE GOALS	SAVINGS	VALUE CREATION
Independence from energy markets	100% green energy	Savings within the community	Regional value creation within the island community

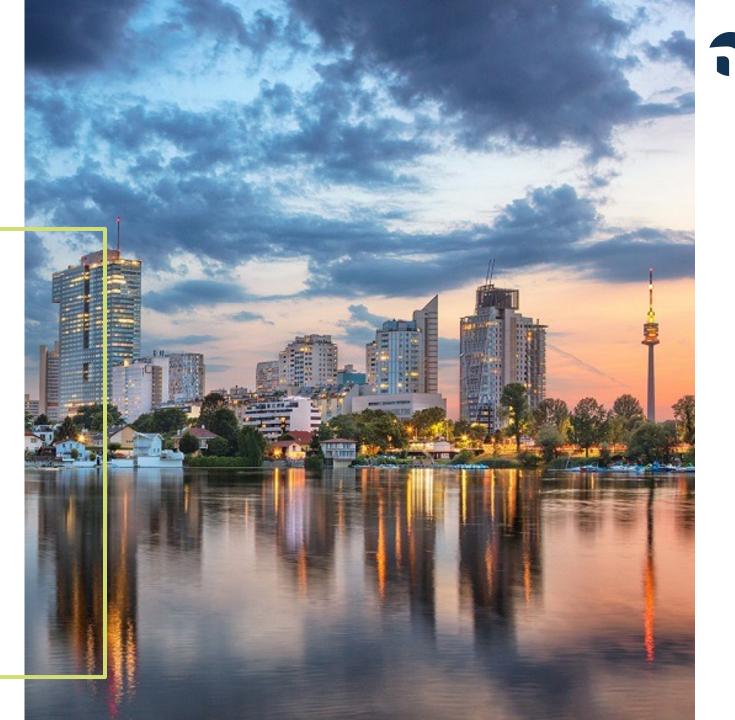
## **nobile** group

#### Lorena Skiljan

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Founder and Managing Partner

lorena.skiljan@nobile-group.com +43 650 9205416



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