

Increasing RES uptake through Microgrids in the Alps

IN THIS EDITION

Dear Reader,

Welcome to the fourth edition of the ALPGRIDS Newsletter. The proposed 'Fit for 55' EU legislative framework sets higher objectives for renewable energy deployment: 40 % of the energy consumed by 2030 vs 32 %. Implementing people-centred energy systems and supporting Renewable Energy Communities or Citizen Energy Communities will be crucial for achieving the new targets. These new legal entities will enable local stakeholders to group together and develop collective energy actions, not only with respect to energy generation but also with active roles in energy storage, selling, aggregating, sharing and providing services. These collective actions will benefit from innovative energy systems such as microgrids implemented at local levels.

In these pages, we would like to highlight some achievements of our project partners despite the impact of the COVID-19 crisis and share our activities undertaken over the last six months.

Follow us on the website

<https://www.alpine-space.org/projects/alpgrids/en/home>

We hope you enjoy learning more about ALPGRIDS!



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ALPGRIDS AT A GLANCE

The general objective is to create a transnational enabling environment to foster microgrid solutions supporting in particular the creation of local energy communities.

DURATION:

01/10/2019–30/6/2022

ERDF: €1,599,511



LOW CARBON

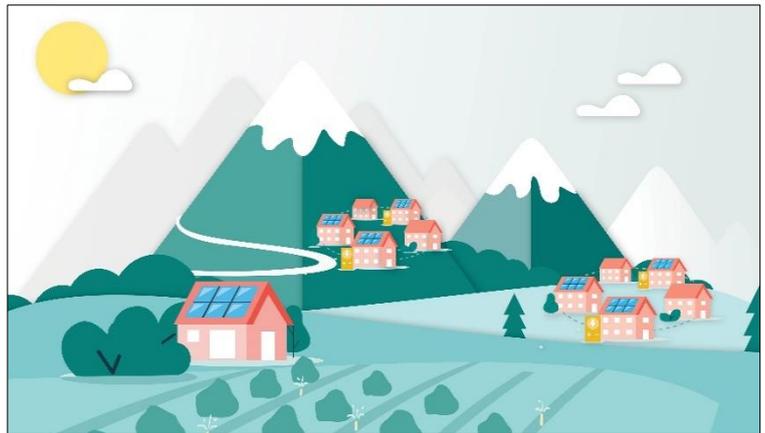
Read more about ALPGRIDS at:

www.alpine-space.org/projects/alpgrids

Announcement of the ALPGRIDS promotion video

ALPGRIDS partners have released their first promotional video. Take a look and learn more about our project.

You can access it on the ALPGRIDS website <https://www.alpine-space.org/projects/alpgrids/en/home>



We continue with the activities in pilot areas

The project is still building on seven/eight microgrid pilots in five countries. Updates on our pilots and recent activities can be found below:

Municipality of Udine (Italy)

The monitoring of electric and thermal consumption of the pilot carried out for a whole year ended in September. The technical and economic assessment of the two energy communities considered within the pilot was subsequently completed. According to the current national legislation, the four social house buildings are addressed to become 'self-consumers collectively acting' while the primary school, the kindergarten and museum meet the requirements to be a 'renewable energy community'. Based on the results achieved within the project ALPGRIDS, the City Council of Udine at the session on 30 September 2021 decided to include in the Action Plan for Sustainable Energy and Climate six short-term actions regarding the energy communities. These actions will be implemented, promoted, and monitored every two years.

Municipality of Selnica ob Dravi (Slovenia)

The recent activity on the microgrid pilot project has been focused mainly on how the microgrid can function when the new rules for energy communities are implemented. They have been analysing some of the new measurements on the buildings which give us further insight into the performance profiles of the microgrid. One of the buildings is currently being refurbished and measures for a better future microgrid are being developed during renovation.

St Julien and Val de Quint (France)

Two key steps have been completed during the last months: the validation of the simulation numerical tool on test cases and the completion of the estimation of all input data, both realized and forecasted (consumption, production, prices, flexible load...). The numerical simulations could therefore start, beginning with the simulations concerning the flexibility issues, considering first the Saint Julien scale and then the Val de Quint scale. The outputs of the simulations are now in the process of being analysed. The report presenting all the pilot site results will soon be available: stay in touch!

Drôme (France)

The technical studies of the 6 pilot sites in the Drome department are achieved. For each of them, PV production was sized to cover part of the electrical needs of neighbouring public buildings through a collective self-consumption scheme. The financial balance of the projects was analysed according to various scenarios and assessed both the reduction of the bills and the pay-back time for the producer. AURA-EE is now starting a legal study to clarify the contracting solutions.

City of Savona (Italy)

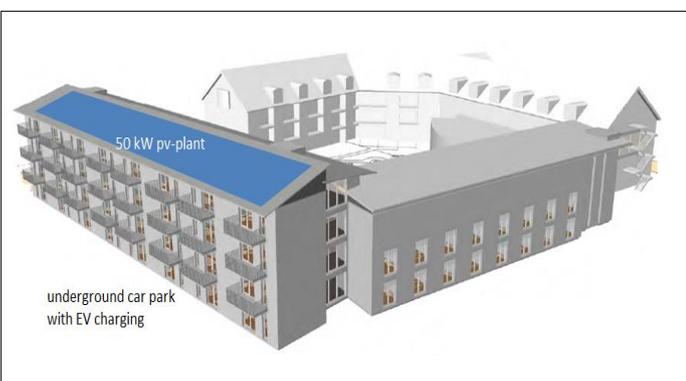
The activity on the Savona Pilot in the last four months has been focused on the optimal design of the new SPEED2030 district. Considering the current legislation, three different energy communities and two physical microgrids have been modelled within the new District. The hourly load profiles necessary for the analysis have been established from existing user data or typical profiles available within the software tools. The planning of renewable sources was conducted using various optimization tools. The search for the optimal size of RES plants was carried out considering the opportunities offered by the new incentive schemes already adopted in Italy (Renewable Energy Community or Collective Self Consumption). The results were compared with those obtained by applying existing incentive schemes to verify potential conflicts between the new and the existing framework. The analysis will also provide a measure of the impact of the new incentives on RES growth and potential results with reference to the 2030 EU objectives. Future work will be oriented to the development of an EMS for the optimized management of the microgrids and related energy communities within the district. In this phase, the optimal planning of the BESS storage systems will be completed.

WEIZ Campus (Austria)

For the first pilot, the WEIZ Campus, the goal is to implement an intelligent Energy management system for the direct connection between WEIZ 1 and WEIZ 2 as well to implement energy storage with a capacity of about 200 kWh additionally a Redox Flow with 30 kWh. The W.E.I.Z. II electricity is generated by the installed PV system and is primarily used for general electricity in the W.E.I.Z. II. The excess electricity is either used to charge the battery storage in the building or, as soon as it is fully charged, transferred via a direct electrical connection to the neighbouring building W.E.I.Z. I. A new PV plant is currently installed with a power of 20 kWp on the roof of WEIZ 1.

The Rothmoser Pilot (Germany)

The Rothmoser Pilot discovers the possibilities of Energy-sharing via Mieterstrom (tenant electricity) in combination with EV charging in a retirement apartment home in Grafing. Simulations have shown that the use of electric storage is not feasible at current storage prices. While storage increases self-consumption and helps avoid buying electric energy from the grid, the costs of the storage outweigh this effect. Electric vehicle charging on the other hand also easily increases the self-consumption rate up to 90-100% depending on the number of EV without significant costs. The legal aspects of combining Mieterstrom and EV charging are part of the ongoing activities.



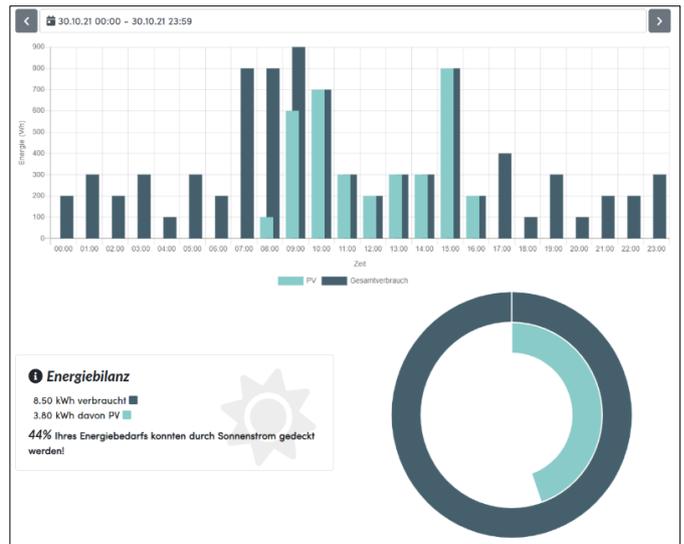
Visualisation of a planned retirement apartment home with a PV-plant on the roof and underground car park with EV charging in Grafing



The WEIZ pilot

Municipality of Thannhausen (Austria)

They had the official pilot opening on September the 10th and since then the pilot is running, and they are carrying out the monitoring measures. By launching the pilot project “SoWeiT-connected” Thannhausen breaks new ground in electricity usage - in Austria there is no community with a comparable system. It directly provides eight households with electricity from photovoltaic power. All eight users have been provided with measurement and control components. They allow them to obtain electricity from the PV panels when the weather is fair and switch to electricity from the grid during rainfall. The system is designed to maximise the users share of their own produced electricity and maximise the economic advantage for the producer as well as consumers.



ALPGRIDS Promoting Organizations were selected

The call for the identification of the ALPGRIDS Promoting Organizations closed on the 31st of May. Partners examined the 13 proposals received for the bilateral exchanges envisaged by the project. The selected Promoting Organizations will have the opportunity to deepen the themes of microgrids and energy communities through joint exchanges with a partner of the ALPGRIDS project. Below is the list of pairs for Alprgrids exchange activities.

ALPGRIDS PARTNER	ALPGRIDS PROMOTING ORGANIZATION
DEMEPA	Lombardy Region (Italy)
B.A.U.M.	Association des Centrales Villegeoises (France)
UNIGE	Piemonte Region – Sustainable Energy Sector (Italy)
IRE	APE FVG (Italy)
SELNICA	Autonomous Province of Trento (Italy)
4WARD ENERGY	Municipality Thannhausen (Austria)
ENERGAP	Energy Agency South Tyrol – CasaClima (Italy)
AURA EE	Territoire Energie 38 (France)
CNR	Centrales Villageoises Gervanne-Raye (France)
UDINE	FEDERCONSUMATORI UDINE APS (Italy)
ROTH	Business organisation Weiz- St. Ruprecht (Austria)
WEIZ	Varicon solutions (Austria)
4WARD ENERGY	EOS Powersolutions (Austria)

The replication activities are intended to support the development of additional local energy communities and micro-grid projects in Alpine structures out of the Consortium territories. Key learnings from the replication activities will be reflected in the Microgrid Replication Guide.

ALPGRIDS Alpine Policy Roundtable

The European Round Table of the ALPGRIDS project, called “**Local Energy Communities**”: “A Win for All in the Energy Transition” was held on 17th November 2021 as a hybrid event: online and in Lyon (10 am - 12 pm). The event was organized within the 5th EUSALP Energy Conference, during which, for the first time, have taken place as three separate seminars on some of the burning topics in energy and sustainability on the regional and transnational level: Hydrogen as an energy vector in transport, Local Energy Communities and the perspectives of the New European Bauhaus for a carbon-neutral future.

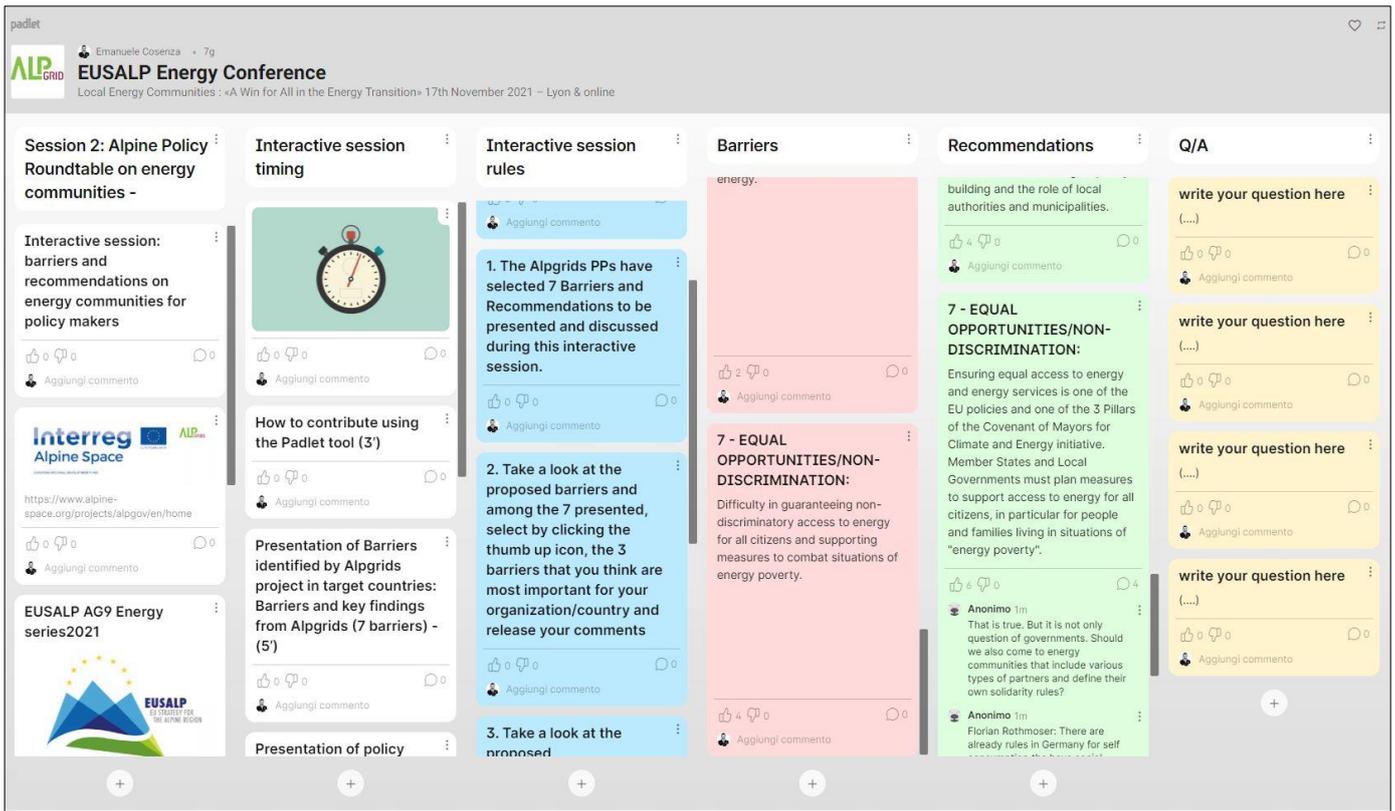


The conference showcased concrete initiatives in Alpine territories and discussed key opportunities and challenges. Based on the findings of the ALPGRIDS Alpine Space project, a roundtable discussion addressed policy gaps and reflected on supportive policy measures and instruments. The European Round Table took place at a crucial stage for the development of Local Energy Communities (LECs). Member States are in fact in the process of transposing the RESII directive into national legislation and at the same time, various initiatives are already active to support the creation of local energy communities that provide various types of energy services. Some of these important initiatives were presented during the European Round Table, giving space to the experiences gained by some European projects on the subject (SHREC Interreg Europe and DECIDE H2020) and the results they have achieved. Stakeholders’ involvement, the role of local and regional public bodies (regions, provinces), enabling policies and innovative technologies seen from the perspective of DSOs to support the development of LECs, are the themes that guided the first part of the discussion.

The second part of the European Round Table focused on the theme of policy gaps and policy instruments, presenting the key results of the ALPGRIDS project. This second session was conducted in interactive mode. After focusing on the Policy gaps at the National level, identified by the project partners AURA-EE and 4WANDER, the part dedicated to barriers and recommendations for policymakers was launched. During the interactive session, the ALPGRIDS project consortium shared with the participants the set of barriers and policy recommendations for the development of LECs at the European level. The project partners UNIGE, IRE Liguria and ENERGAP framed the situation at the national level in Italy and Slovenia by providing practical examples.

In the final part of the event, the participants were able to express their preferences and comments on the barriers and recommendations identified by the project consortium via the [PADLET platform](#).

The European Round Table of the ALPGRIDS project saw a large number of participants. In total, 78 registered persons of different backgrounds and nature demonstrated their interest in the event. The variety of subjects who participated in the table demonstrates that the development of Local Energy Communities is a complex process that involves a large number of different stakeholders. Representatives from the research world, energy infrastructure providers, NGOs, local, regional and national authorities, agencies and representatives of SMEs all took part in the discussion by providing their point of view and contributing to the identification of the most crucial barriers and recommendations.



Padlet session: votes and comments on key barriers and recommendations for Policy-makers

From the interactive session conducted using the PADLET tool, the following outputs emerged:

The stakeholders who took part in the European Round Table considered crucial, among the identified barriers, those relating to **administrative aspects** (9 votes), those relating to **financial aspects** (10 votes) and those relating to **accounting / contractual issues** (6 votes). To these is added the attention shown also concerning the barriers relating to the **aspects of equal opportunities and non-discrimination** (4 votes).

If we look at the results that emerged with regard to the recommendations, it is clear that the stakeholders show particular interest in the simplification of **administrative procedures** and the creation of technical-information desks (One-stop-shops) to support citizens and stakeholders (10 votes). As regards the **legislative aspect**, it is clear that the need of stakeholders is focused on the fact that lawmakers should adopt the legislative framework on renewable energy communities as quickly as possible (7 votes). Guaranteed prices for exported electricity, tax incentives on renewable hardware, fair remuneration of excess energy and the introduction of incentives that reward on a dynamic basis are aspects that have garnered particular interest in the **financial recommendation** (5 votes). Last but not least, the issue of **equal access to energy and energy services** as EU policies and the third pillar of the Covenant of Mayors in support of access to energy for all citizens (7 votes), in particular for people and families living in situations of "energy poverty".

The final output of the European Round Table will be represented by the finalization of the document containing the barriers and recommendations for policymakers as a product of the activity of the ALPGRIDS Consortium. All contributions and opinions that emerged from the discussion of the Round Table will be duly reported and integrated into what will be the official position paper for European policymakers. More conclusions [here](#).

ALPGRIDS News & Events

Hybrid Project Meeting in Lyon, in France

On the 17th and 18th of November, project partners met in person and online to attend the European Round Table “Local Energy Communities” of the ALPGRIDS project and to review the progress of the project activities. All project partners were present.



Promotion of the Kick-off conference Let's change our altitude

The ALPGRIDS project was presented on the Interreg Alpine Space programme - Kick-off conference held online on 22nd of November under the session “Carbon neutral and resource-sensitive Alpine region”. A conference was organized to reflect on what Alpine Space accomplished over the last seven years and to learn more about the funding priorities for 2021-2027.

Stories of cooperation for a greener Europe

The promotion of the ALPGRIDS project on the Interreg Europe blog with its contribution to the article published on the Interreg blog on How can small communities in remote and rural areas of Europe put their abundant RES into use and become self-sufficient with green energy in the near future? [Click and read.](#)



Project partners from Austria launched their first video on their pilots

The ALPGRIDS project in Austria is to implement energy communities at two pilot sites, the Weiz Innovation Centre Campus, and the Thannhausen Community Centre. [Click and watch.](#)



An online seminar about the Energy Communities was organized in Italy

On the 13th of October UNIGE and IRE have organized an online seminar about the Energy Communities, the positive energy districts and the ALPGRIDS pilot project in Italy. It was in the Italian language. This event was approved as one of the 771 events of The Italian Sustainable Development Festival 2021.



Partners & Contacts

- Auvergne-Rhône-Alpes Energy Environment Agency (AURA EE)
- Regional Agency for Infrastructure, Building Renovation and Energy of Liguria (IRE spa)
- Energy and Innovation Centre of Weiz (W.E.I.Z.)
- Energy Agency of Podravje – Institution for Sustainable Energy Use (ENERGAP)
- 4ward Energy Research Ltd. (4ER)
- Design and Management of Electrical Power Assets (DeMEPA)
- B.A.U.M. Consult GmbH München (BAUM)
- Rothmoser GmbH & Co. KG (ROTH)
- Compagnie Nationale du Rhône (CNR)
- Municipality of Udine (UDINE)
- Municipality of Selnica ob Dravi (SELNICA)
- University of Genoa (UNIGE)



LET'S STAY IN CONTACT!



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This Newsletter provides information about the Interreg Alpine Space project ALPGRIDS as well as other information about news, events and initiatives in thematic areas covered by or connected with the project and the Alpine Space programme.