

## AlpEnergy – project status – present situation and expectations

### Contents

|   |   |
|---|---|
| Introduction .....                            | 1 |
| AUEW (Germany): .....                         | 1 |
| Rhônealpennergie-Environnement (France) ..... | 2 |
| Mantova (Italy).....                          | 2 |
| AOSTA (Italy).....                            | 3 |
| BELLUNO (Italy) .....                         | 4 |
| POLIMI (Italy) .....                          | 6 |
| Gorenjska (Slovenia).....                     | 7 |

### Introduction

This document represents a collection of inputs provided by AlpEnergy partners on their current project implementation status and expectations.

#### AUEW (Germany):

1) Discussion about the Implementation Concepts of the PiP's. (Pyramid)

à We have discussed in Grenoble which elements a VPS must have, but there we had too less time.

--> It's integrated as an agenda point for Day 1 in your program proposal

2) We have discussed a lot of technical point of view. We should start at the Summer School also the discussion of business models.

--> (Therefore Prof. Larsen is involved in the program, is that right?)

3) We have submitted two cross-boundary studies with RP5, from which some questions were raised.

How can we continue to work with the outstanding issues? Can the PiP's provide the data, which were requested by AUEW?

--> Agenda point for Day 1 or 3 (I think we can integrate this by reviewing the project status)

4) Visualisation of VPS Allgäu (explain the complex issue with the help of a visualisation)

à We would like to present the result of our Visualisation, which should explain a VPS to the population in the Allgäu region. (in an overview and an analysis mode)

## **Rhônealénergie-Environnement (France)**

1) What are your current achievements in scope of AlpEnergy project (up to half-page)

**Please have a look in our content report to Baum and in the info on pilot activities.**

2) What are your general open questions and issues regarding your role in scope of AlpEnergy project (up to half-page)

**We are still far from a practical experimentation of a complete VPS in the real life !  
We are more oriented on tests of constitutive parts of a VPS (or smart grids), meaning smart meters, energy boxes, commercial VPP...**

3) What are your expectations from the AlpEnergy summer school in Lugano (up to half-page)

**What can be concretely exchanged between partners : hardware, software, models, tools for data logging, energy management, forecasting, vps control... ?**

**Discussions on business models but also on « added value » of smart grids or VPS. Added value can be financial but not only, it could be also looked in environmental and social terms and from different point of view. What is the added value for : DNO, producers, municipalities, customer, prosumers ...**

## **Mantova (Italy)**

**What are your current achievements in scope of AlpEnergy project (up to half-page)  
What are your general open questions and issues regarding your role in scope of AlpEnergy project (up to half-page)  
What are your expectations from the AlpEnergy summer school in Lugano (up to half-page)**

We have focused the pilot area in Province of Mantova: Suzzara municipality, with a single primary electric cabin, three pv plants for about 100 kW power peak and a small biogas plant with nominal power 80 kW. Users will be 2 high schools of the Province of Mantova and some buildings of the Suzzara Municipality (main office, public library, medium level school). Contacts were taken with owners and responsables of the plants and with the Mayor and assessor of Suzzara: all are ok to participate at the project giving technical data, the possibility to install meters and systems, but nothing have to change in the plant production and in the actual incentive/price they receive for this production. Contacts were also taken with technology supplier to implement on this system of plants and users the VPS as a system to have a 15 minutes step energy production/consumption data for each plants, the whole production/consumption and the total balance of the system (to be displayed in a VPS web page) with the possibility to develop every 15 minutes a feed back algorithm. Electrex and CNR/Telecom are the supplier already contacted, others are already individuated, we have to meet them. And we have still to ask them an official price. An unofficial price already obtained by Electrex is absolutely worrying for us because to do only the monitoring system in

the right way, without the web page and the hardware to do the feedback actions should cost 30.000 - 40.000 EUR.

Too much considering that we officially don't have any special budget to buy equipments and we thought to contain it in 10.000 - 15.000 EUR, and also considering that ENEL doesn't answer to our request to support our VPS (also extendable to smart grid) project.

So what we really expect from the Summer School in Lugano is the possibility to find solutions and opinions on this problem by the partners and the experts and also to obtain the answer to this questions:

- 1) Is it enough to connect the VPS with a monitoring system with the possibility to simulate the feedback action without a real hardware installation?
- 2) Who can support us in order to realize the VPS as in point 1) containing the costs in 15.000 EUR? Universities? Suppliers identified by other partners?

### **AOSTA (Italy)**

#### **1) What are your current achievements in scope of AlpEnergy project (up to half-page)**

- First of all the involvement of the major regional electricity distribution company (Deval S.p.A. of the ENEL Group) to support us in the analysis of the energy situation in the village of Saint Denis and also in the study of techniques suitable for interfacing to the final user.
- The possibility, thanks to the above mentioned collaboration, to start the monitoring of Saint-Denis load from 01/06/2010.
- The availability of the municipal council of Saint Denis to promote the AlpEnergy project to local communities and also by providing municipal structures for any studies or analysis .
- The involvement of regional and external industries in the field of energy monitoring and in the analysis of user information methods in the VPS network.
- The creation of a regional working group on Smart Grids with the main task of coordinating regional projects that are springing up on the subject. In particular the involved projects are: of course AlpEnergy, the “Deval Smart Grid Project” and the “Grand –Paradis e-mobility project”.

#### **2) What are your general open questions and issues regarding your role in scope of AlpEnergy project (up to half-page)**

- How we can implement the idea of VPS in the daily reality, which differs a lot from the concept of Smart Grid without changing the current system?

- The study that we are doing must be limited to the only theoretical analysis or even develop, in small part, in a practical example that can prove the authenticity?
- How can we increase collaboration between the various national and international partners, considering that now the only exchange of information occurs sporadically and decisions on each project aren't discussed globally?

**3) What are your expectations from the AlpEnergy summer school in Lugano (up to half-page)**

- We would that guide lines that every partner needs to be followed for the project are defined in a more precise and certain way.
- The definition of common and individual goals that every partner have to achieve to guarantee satisfying results for the project.
- Define precisely which are the activities that will be studied only theoretically and which need to be implemented in a practical way with test bench and prototype production or demo systems on real scale.

**BELLUNO (Italy)**

1) What are your current AlpEnergy Achievements in scope of project (up to half-page)

2) What are your general questions and open issues Regarding your role in AlpEnergy scope of project (up to half-page)

3) What Are Your Expectations AlpEnergy From The Lugano Summer School (up to half-page)

We Would very appreciate if You Could Send as an answer till June 17 ^ th.

1) What are your accomplishments in the current scope of the project AlpEnergy (up to half a page)

We currently have:

1.1. Analyzed the challenges and goals set by the project

1.2. Identified the locations and types of users where to perform the test

1.3. Defined RES power plants to become part of the trial

1.4. Identified the technology partner and technology to achieve the goals of the two main goals that we have set

1.5. Acquired the server for the supervision of VPS

1.6. Installed the first point of telemetry with remote on-off modulation for supervisory and consumption measurement.

1.7. Started test phase of the integrated system.

1.8. Defined testing of VPS technology for lighting applications

1.9. Defined the place to test the VPS applied to public lighting

1.10. At the moment we are acquiring the system to implement the VPS applied to public lighting.

2) What are your general questions and open questions regarding your role in the scope of the project AlpEnergy (up to half a page)

At the moment we have no questions

3) What are your expectations of the school summer AlpEnergy in Lugano (up to half a page)

- 3.1. Acquire information from the experts.
- 3.2 Exchange of information with other partners on changes and expectations of the project.
- 3.3. Feed back with the lead partner on procedures and methodology to be followed, on goals and achievements.
- 3.4. Exchange ideas and compare technologies and our choices with our technology partners.
- 3.5. Exchange of ideas concerning the development of criteria and algorithms to estimate the consumption and load management.

### **POLIMI (Italy)**

#### 1) What are your current achievements in scope of AlpEnergy project

We have just completed both the technical and economical (business model) analysis of the Mantova VPS application.

The technical study concerns the evaluation of the energy flows on the distribution electric network, including both the RES generators (photovoltaics, biogas) and the loads (public lighting, schools, administration offices, ...). The study is based on a Matlab procedure able to elaborate the global VPS power profile attempting to control loads and generators with respect to several goals:

- leveling of the power profile;
- peak shaving;
- identification of the RES that best fit the loads power profile;
- minimization of the energy costs for the users.

The economical study tries to identify and analyse the loads and generators portfolio required to create a business real option for the Mantova VPS application.

The study is based on the identify and quantity a set (with respect to different context assumptions) of tariff incentives enabling the effective VPS sustainability.

Both the technical and economical studies have been developed on Mantova energy system framework (loads, generators, ...), exploiting literature data whenever field information was not available.

We would like to deliver a detailed presentation of the our VPS approach during the Lugano Meeting.

#### 2) What are your general open questions and issues regarding your role in scope of AlpEnergy project

Maybe we don't understand the real meaning of this question ... Can you

please provide us some more explanations? (is it overlapped with question 3?)

3) What are your expectations from the AlpEnergy summer school in Lugano

We expect a clearer definition of the scope/extent of the work to be effectively done (or better, that is expected by others).

Today, especially in the Italian context, it is quite complex to finalize the procedures (or even the general model) because of inherent uncertainty related to the test bed (Mantova, Aosta and Belluno)

We expect a clear definition and full sharing and agreement on the work plan of each subconsortium: the technical and business model has to be developed taking into account the specific characteristics of the different contexts (e.g., liberalized market rules, incentive tariff structures, ...) and the level of detail to cope with.

### **Gorenjska (Slovenia)**

**1) What are your current achievements in scope of AlpEnergy project (up to half-page)**

WE are coordinating project activities within the region and also between interested project partners. We established partnership between some stakeholders, participates in preparation of some studies needed in project activities, documentation and implementation plan, as well as Pilot project determination.

We organized Summer school and we help ELGO and Iscraemeco by development activities.

We also organized some promotion and dissemination activities.

We are involved in awareness raising activities on regional, local and national level, and also in fund raising activities to foster implementation of development projects related with AMI/VPS systems.

**2) What are your general open questions and issues regarding your role in scope of AlpEnergy project (up to half-page)**

As RDA we have no open issues. In this stage of project, we are waiting with implementation of Pilot project..what depends on support software developers.

On that Pilot project – we will test in real environment – how VPS behave and how could be controlled in the most efficient way.

Experience got from Pilot will be transferred to Regional VPS that could be totally in operation in next 5 years.

**3) What are your expectations from the AlpEnergy summer school in Lugano (up to half-page)**

I expect mainly more expert's conversation about implementation of Pilot/other technical activities. And maybe some debates about standards and legal issues.