Project No. 608930

FP7-SMARTCITIES-2013

OPtimising Hybrid Energy grids

for smart citieS

WP8 Communication and Dissemination of Project Results

Deliverable 8.2.2

List of events at local, regional and European level

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Version:	1.0
Due Date:	31 Dec 2016
Submission Date:	25 Jan 2017
Lead Coordinator:	WIP

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Consisting of

Coordinator	WIP – Renewable Energies (WIP)	Germany
Participants	Hochschule Ulm (HSU)	Germany
	Stadtwerke Ulm GmbH (SWU)	Germany
	Technische Universität Wien (TUW-EEG)	Austria
	Austrian Institute of Technology (AIT)	Austria
	Deutsches Zentrum für Luft- und Raumfahrt EV (DLR)	Germany
	NEC Europe Ltd. (NEC)	UK
	Lulea Tekniska Universitet (LTU)	Sweden
	Skelleftea Kraft (SKR)	Sweden

Deliverable Description

Abstract: Deliverable 8.2.2 presents the dissemination and discussion of final OrPHEuS results which took place at two separate interactive workshops in November and December 2016. The report describes the motivation for the organization of these events, the involved stakeholders as well as the summary of the discussions which took place.

Key Words: ICT, smart cities, hybrid energy grid, energy saving, demonstrations, smart grid, energy control, monitoring

Document History

Version	Date	Authors	Description
0.5	2016-12-20	WIP	Draft including summary of Skellefteå event
0.9	2017-01-19	WIP, SWU	Final draft for review by partners involved in events
0.95	2017-01-20	WIP, HSU, TUW	Additional inputs to the summary of discussions at the Stuttgart workshop
1.0	2017-01-25	WIP	Final Version

Dissemination Level

Dissemination Level		
PU	Public	**X**
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the Consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Executive Summary

The OrPHEuS project elaborates a Hybrid Energy Network Control System for Smart Cities implementing novel cooperative local grid and inter-grid control strategies for the optimal interactions between multiple energy grids by enabling simultaneous optimization for individual response requirements, energy efficiencies and energy savings as well as coupled operational, economic and social impacts. Starting from existing system setups in two cities, enhanced operational scenarios are demonstrated for today's market setup, as well as for future market visions.

The main scope of the Deliverable D8.2.2 (T8.2) is to report on two interactive workshops organized at the end of 2016 to disseminate the results of the OrPHEuS project relative to the demonstration sites of Ulm in Germany and Skellefteå in Sweden. The original purpose of the report as defined in the Grant Agreement was to report on events at local, regional and European levels. The workshops which took place at the European level have however already been addressed in D8.2.1.

The first regional workshop took place on 17th November as a side-event of a meeting of the German Association of Local Utilities (VKU) in Stuttgart. The second meeting was organized on 14th December as a stand-alone event in Skellefteå. Both workshops were conceived to address the most relevant stakeholders able to further disseminate the OrPHEuS findings at the decision-making level. The presentations of the project concept and results were therefore focused on operational and economic benefits rather than on the fine technicalities of the work carried out in the past three and a half years.

The workshops were also thought as a way to collect feedback from the participants to identify remaining barriers to the implementation of the hybrid energy grids. This report includes the summary of the discussions which took place, including those related to remaining regulatory and economic barriers in the German and Swedish contexts.

Administrative Overview

Task Description

Task 8.2 of the OrPHEuS project is related to the organization of events for the project dissemination. It is overseen by WIP, with the collaboration of all other project partners. The organization of events includes exploitation events at the local and regional level, in which municipal authorities and distribution system operators (DSOs) are invited and receive a technical benefit analysis from the results of the energy control systems. The partners organize a regional/local event to meet with representatives of the DSOs, municipal authorities and industry to disseminate the results of the project.

Relation to the Scientific and Technological Objectives

This Task is related to the following Performance Indicator:

No.	Objective/expected result	Indicator name	STO	Deliverable	MS	Expected Progress		
						Year 1	Year 2	Year 3
27	Organization of workshops	Number of workshops/ participants	-	D8.2.2	-		2/20	2/20 ✓

The achieved Performance Indicator is in line with the expected progress as two workshops attracting a total of 31 participants were organized in the final year of the project.

Relations to activities in the Project

This deliverable is linked to all activities and tasks previously carried out during the project's course as it consists in presenting the project final results to external stakeholders. As a final task, its outputs are now used as such for further project activities but are useful for project partners and interested stakeholders to map the required next steps to bring the hybrid energy grid approach to a larger deployment.

Terminologies

Abbreviations

DSO	Distribution System Operator
ETIP	European Technology and Innovation Platform
PtG	Power-to-gas
PtH	Power-to-heat
STO	Scientific & Technological Objective
VKU	Verband Kommunaler Unternehmen (Union of Urban Companies)

Table of Contents

1. Introduction 8
2 VKU workshop in Stuttgart 9
2.1 Context 9
2.2 Participants 9
2.3 Summary of discussions 10
3 Skellefteå workshop 12
3.1 Context 12
3.2 Participants 12
3.3 Summary of discussions 13
4 Conclusions 15
5 Appendices 16
5.1 Agenda of VKU workshop in Stuttgart 16
5.2 Survey results collected from participants of the workshop in Stuttgart 17
5.3 Agenda of Skellefteå workshop 18
Disclaimer 20
Contacts 21

1. Introduction

This deliverable presents how the main findings of the OrPHEuS project were communicated at the end of the project to relevant stakeholders at two regional events respectively centered on the demonstration sites of Ulm, Germany, and Skellefteå, Sweden. The main aim of these events being to ensure that the approaches defined in the project and implemented at the demonstration sites can be replicated in similar contexts in other locations, it was decided to organize these events as interactive workshops involving decision-makers in the most relevant stakeholder categories. The stakeholders identified as the most relevant to take the proposed hybrid grid approaches to a greater implementation phase are:

- Distribution System Operators (DSOs)
- Municipal utilities and district heating providers
- Municipalities
- Electricity- and/or heat-intensive industries
- Regional and national smart grid platforms

With the purpose of the organized workshops being to convey the relevance of the hybrid grid concept rather than to go into the technical details of the complex simulations set up to produce the project results, the presentations given to the audience were mostly focused on the operational and economic implications of the project results in the local contexts. A large importance was given to not only disseminate the OrPHEuS findings but also obtain feedback from the participants, in order to identify remaining barriers and challenges to the implementation of the hybrid energy approach in the German and Swedish contexts.

Section 2 of this report details the event which took place as a side event of a VKU meeting in Stuttgart on 17th November 2016, where the Ulm findings and the Skellefteå approach were presented and discussed. Section 3 presents the workshop organized in Skellefteå on 14th December 2016, focused on the Skellefteå findings. Both sections include a summary of the main points discussed between OrPHEuS partners and workshop participants. Section 4 concludes on the effectiveness and main outputs of these events, while the event agendas and the results of a survey circulated to the participants of the workshop in Stuttgart are provided in Appendix.

2 VKU workshop in Stuttgart

2.1 Context

In order to effectively disseminate lessons learnt from project activities focused on the Ulm use cases, project partner SWU organized a workshop as a side event of a Verband Kommunaler Unternehmen (VKU) meeting in Stuttgart on 17th November 2016. The VKU is the German Association of Local Utilities, which includes public companies supplying electricity and district heating to the population. SWU is a member of the VKU in its capacity as both electricity and district heating provider. The VKU meeting targeted by the workshop was a regional assembly for utilities in the Baden-Württemberg region, in which Ulm is located. Hence all workshop participants were familiar with the local context and disposed to best benefit from the Ulm demonstration site findings.

The particular use case investigated by OrPHEuS in Ulm is whether the need for grid reinforcement in rural areas with high PV penetration can be mitigated by the hybrid energy approach, a question which is very relevant for a large number of Distribution System Operators (DSOs) in Southern Germany. The main focus of the presentations and discussions was therefore on the Ulm demonstration site, with some additional information about the concepts and results related to Skellefteå. The workshop was held in German to facilitate good communication between participants.

While SWU led the workshop and discussions with the participating utilities, project partners from HSU, TUW and NEC were also present and supported SWU with the presentation of the main project results and the following interactions.

2.2 Participants

Chairmen:

Tobias Bringmann (VKU)

Jochen Schuster (VKU)

Present OrPHEuS partners:

Tobias Jacobs (NEC)

Daniel Schwabeneder (TUW)

David Stakic (HSU)

Konstantin Ditz (HSU)

Florian Meier (SWU)

Workshop participants:

Arvid Blume (SW Stuttgart)

Oliver Daun (SW Freudenstadt)

Theo Sörger (Stadtwerke Ulm/Neu-Ulm Netze GmbH)

Falko Ebe (HSU)

2.3 Summary of discussions

After an introduction from David Stakic (HSU) to the OrPHEuS project, including the co-simulation approach and the test sites in Ulm and Sweden, Tobias Jacobs (NEC) presented in detail the control strategies that were developed during OrPHEuS and pointed out how the energy could be shifted between the electricity and heat domains. The workshop participants acknowledged that controlling decentralized power-to-heat (PtH) devices such as electric boilers will become a major question to handle, for prosumers and grid operators alike.

Tobias Jacobs presented the example of Skellefteå for different boundary conditions. A short overview of general approaches of controller designs lead him to the test site in Ulm were the boundary conditions are very close to the challenges encountered by the workshop participants in other localities in the vicinity. Tobias Jacobs pointed out what are the parameters used for the controllers, why they are important and how the various investigated control strategies in Ulm differ from each other. For each control strategy the needs of the prosumers were first accounted for, followed by the grid operator requirements.

After this presentation Mr. Stakic went on with results from the co-simulations and presented different graphs to highlight the effects of PtH on the electrical grid. The parameters shown in the graphs were the key values for the grid operators to handle the grid, and were even more detailed than the data they commonly handle.

After this presentation a discussion came up on the topic of the potential of PtH and how it can be implemented in the grid in practical terms. Participants came to the consensus that it will be a long way to clear all obstacles. To start with, not all heating systems in houses of prosumers are suitable for PtH and it could be a lot of work to acquire all necessary data of the variating heating systems. The regulations currently in effect in Germany make it difficult to handle the additional costs and taxes which would be introduced in business cases between the DSO and prosumers. This would make the concept challenging from the economic point of view. The overarching challenge is that all prosumers in a given area would have to concur in order for PtH to become a viable alternative to grid reinforcement by the local DSO. It would require some work to convince all prosumers of the advantages of PtH, as not all would be interested in such a scheme.

Daniel Schwabeneder (TUW) then presented the economic aspects of PtH in Ulm, the consequences for different customer groups (‘prosumers’ with PV systems and standard passive customers) as well as related impacts for the traditional heating sources such as oil and gas at the test site. The workshop participants agreed on the one hand that the cooperative hybrid concept seems like a promising approach to foster the transition of the energy system and to reach renewable integration targets. On the other hand, however, there has also been a consensus among the attendants that there are obstacles for distribution system operators to implement such a business model. The regulatory incentives to rather invest in grid reinforcement and the need of a significant share of

customers or prosumers participating and cooperating voluntarily have been identified as major barriers.

The workshop was concluded with a survey circulated to the workshop participants. The questions focused on the major points remaining to be cleared to implement PtH as a common tool in grid operation. These questions and the received associated answers are provided in Appendix 5.2. The results show that the participants of the survey are very well informed about PtH, power-to-gas (PtG) and the associated benefits for the electrical grid operation. However, they also have doubts regarding the gas grid operation and see some challenges. They have no practical experience yet of how to handle such approaches and have not done a lot to reach hybrid grids as a common planning alternative. Therefore, SWU and HSU see the need to pilot projects and develop results that are very closely oriented toward practical conditions. With such results, decision-makers can be more easily persuaded to use company resources for hybrid grid approaches in their common workflow.

3 Skellefteå workshop

3.1 Context

An interactive workshop was organized by Swedish partners SKR and LTU in Skellefteå on 14th December 2016. The aim was to present the OrPHEuS investigations and results related to the Skellefteå use case to relevant local stakeholders, and to benefit from their feedback so as to identify interests and challenges for future developments of the hybrid energy approach. The half-day workshop took place at the LTU campus in Skellefteå and attracted relevant members of SKR not yet involved in the project, academics from LTU, a representative from the Skelleftea municipality as well as a representative from the Swedish Smart Grid platform. All had an interest in learning how the hybrid approach applied to the local electricity and district heating grids can benefit the city in terms of increased penetration of renewables and overall cost effectiveness.

Beyond local benefits, two participants were interested in the applicability of the OrPHEuS results at the broader national level. Firstly, the Swedish Smart Grid platform aims at facilitating the national transition towards smart grids (including hybrid energy approaches) and its representative was therefore interested in lessons learned from the Skellefteå use case. Secondly, a representative from SKR Elnät is tasked with how to optimize investments in electricity transmission capabilities over long distances in Sweden (national scale), in a generalized trend showing an increase in the number of large datacenters. Datacenters are an increasingly electricity-intensive industry and pose specific challenges to their integration in the grid, especially if they are to be supplied with renewable energy sources. The OrPHEuS results partially addressed this challenge by investigating how the electricity and district heating grids in Skellefteå could benefit from the implementation of a datacenter at the location of the CHP plant in the outskirts of the city.

Besides the local partners SKR and LTU, members from NEC, TUW and WIP also took part in the workshop to present and discuss the project findings related to Skellefteå. The event took place in English, which posed no problem to the participants. In addition to the OrPHEuS presentations, the Swedish Smart Grid representative was invited to give a presentation introducing the platform's goals and methods in the coordination of national efforts as part of the global energy transition.

3.2 Participants

Chairman:

Leif Häggmark (LTU)

Present OrPHEuS partners:

Ingrid Weiss (WIP)

Tobias Jacobs (NEC)

Daniel Schwabeneder (TUW)

Saguna (LTU)

Gustav Sterbrant (LTU)

Susanne Nyberg (SKR)

Per Vennström (SKR)

Simon Challet (WIP)

Workshop participants:

Anna Nordling (Swedish Smart grid)

Anders Johansson (SKR Elnät)

Ann-Christine Schmidt (SKR)

Fredrik Nilsson (SKR)

Magnus Brodin (SKR)

Ulf Hedqvist (SKR)

Gustaf Ulander (Skellefteå Municipality)

Mikael Byström (LTU)

Michael Nilsson (CDT – LTU)

Sarah Rönnberg (LTU)

Anders Larsson (LTU)

3.3 Summary of discussions

After presentations from the OrPHEuS partners and Anna Nordling (Swedish Smart Grids), the workshop participants discussed the project results and their relevance in the local and national Swedish context.

One of the main issues for Skellefteå Kraft as the local Distribution System Operator (DSO) is the balancing of the grid. In that sense the solutions investigated by the OrPHEuS project can be helpful as the hybrid approach emphasizes energy storage and conversion, which can assist in stabilizing the grid and making use of more locally produced electricity. Participants agreed that Transmission System Operators (TSOs) could also benefit from local hybrid grids at the national level since the scheme would reduce the needs for long-distance power transmission and centralized energy storage capacities, especially with high penetration of intermittent renewable energy (eg. wind, solar). It was suggested that a future business model could be devised in order to be beneficial to both DSOs and TSOs with a long-term perspective. This effort could be fostered by a relevant national platform such as the Swedish Smart Grid forum, represented at the workshop by Anna Nordling.

The next discussion point focused on the future use case investigated in the project for Skellefteå, in which a large 20 MW data center is built close the Combined Heat and Power (CHP) plant. The waste heat generated by the data center is utilized for the district heating network via a large heat pump, and a large battery is also used for additional system flexibility. Anders Johansson from SKR Elnät

remarked that the inclusion of the data center in the scenario is very relevant as there is a heavy trend for digitalization, with more and more datacenters in Sweden. He emphasized the significant energy consumption of these data centers and of online content in general, citing the example of the most viewed video on Youtube (over 2,7 billion views) having required an estimated 400 GWh of electricity for servers (datacenters), data transmission and viewing devices. One of the advantages of data is that it is much more efficient and cheaper to transfer over long distances than electricity, which advocates placing the datacenters close to their power sources (renewables in particular) rather than to the large cities where most data consumption occurs. In the context of Skellefteå and northern Sweden, this could mean placing datacenters close to remote wind farms and hydropower plants. To the contrary the OrPHEuS use case proposes placing the data center within the city to make use of the waste heat for district heating, and to mutualize battery storage for both the data center and the local grid. Participants agreed that the benefits and drawbacks from both approaches could be further investigated to come to the best compromises.

Representatives from Skellefteå Kraft pointed out that one of the major obstacles they see to the implementation of hybrid grids in Skellefteå is the current energy tax of 193 SEK/MWh (20€/MWh) for power-to-heat conversion, be it for electric boilers or heat pumps. This energy tax makes energy conversion economically unviable and limits the present efforts of Skellefteå Kraft towards energy flexibility to an optimization of the CHP production with the hot water storage. Skellefteå Kraft expressed their preference for a regulatory change reducing or removing the energy tax if it serves to improve overall energy efficiency, or for other financial incentives serving a similar purpose.

Participants to the workshop also raised the question of the plans for exploitation of the project results and created software (simulation models and online visualization tool). Project partners indicated that the simulation models used were adaptations from already existing models and were not the focus of the project. They will therefore not be published as such, but responsible partners (NEC and AIT: technical simulations; TUW: economic simulations) can be contacted to conduct further simulation work on hybrid grids in other contexts. The visualization tool is however intended as one of the main project outputs to demonstrate the project results and the replicability of the hybrid energy solution. It will be made available to the public and will be modifiable, so that it can be adapted by users for other locations and contexts with hybrid grid approaches. Besides the Skellefteå present and future use cases, the visualization tool also features results for the other demonstration site of the OrPHEuS project. The investigative focus of that demonstration site is power-to-heat combined with high PV penetration in the town of Ulm, in southern Germany.

It was additionally suggested that the OrPHEuS results should be compiled with results from other related projects at the European level in order to provide an easily accessible resource for all DSOs, TSOs, municipalities and policy makers. Project partners answered that such initiatives are already in place, for example with the work of the ETIP Smart Networks for Energy Transition (formerly Smart Grids European Technology Platform). The final OrPHEuS results will be communicated to the ETIP as well as to other European project aggregators in the energy and ICT sectors.

Finally, as an outlook to possible extensions of the project work, it was suggested to consider increasing the optimization range from two to four different grids: the electrical grid, district heating grid, district cooling grid and gas grid. This would be especially relevant for larger cities such as Stockholm, in the Swedish context.

4 Conclusions

Thanks to careful targeting of participants by the project partners who organized the two workshops, the most relevant stakeholders for the further dissemination and implementation of the proposed hybrid energy grids concept have been addressed. While the number of external participants (18) can be considered modest, their high relevance and engagement has to be considered to assess the overall impact of the events.

In the case of the workshop which took place in Stuttgart to disseminate the results from the Ulm use case, members of the German Association of Local Utilities (VKU) as well as of utilities from the cities of Stuttgart and Freudenstadt were involved. These participants showed considerable interest as the issue at the heart of the Ulm use case is already of direct interest to German utilities. It is therefore expected that the OrPHEuS findings will be further exploited via the channel of the workshop participants and of the VKU.

The workshop organized in Skellefteå brought together a larger number and diversity of stakeholders, which included DSO, district heating utility, municipality, academic and smart grid representatives. These mostly local actors have close ties with their counterparts in neighboring Swedish and Scandinavian regions, which will also facilitate the communication of the concepts explored by the OrPHEuS project beyond the Skellefteå area. The variety of representatives from Skellefteå (SKR, Skellefteå municipality, LTU) informed about the benefits derivable from the hybrid energy grid approach will increase the chances to see some implementation of the proposed solutions in the near future. The presence of the representative from the Swedish Smart Grid platform furthermore ensures that the OrPHEuS findings can be taken into account at the national and European levels. While no industry representatives were present, the SKR representative active on the integration of large datacenters in the grid can act as a bridge to further relevant stakeholders.

In addition to the communication of the project results, the workshops served to collect direct feedback from the participants regarding the applicability and replicability of the proposed approaches. This showed that while the operational benefits of hybrid energy grids is evident in both Germany and Sweden in terms of flexibility and increased penetration of renewables, in practice more developments are required on the regulatory side to clearly define how responsibilities would have to be shared between the different cooperating energy actors, as well as to offer more economic visibility with clear benefits for all involved parties. More applied pilot projects are also deemed necessary to clearly highlight the feasibility and benefits of the hybrid grid approach for utilities. These important considerations are likely to be taken to the national level by participating organizations (VKU in Germany and SKR/Swedish Smart Grid in Sweden) to be further debated.

5 Appendices

5.1 Agenda of VKU workshop in Stuttgart

Agenda Workshop Projekt Orpheus

Beim VKU, AG Netzwirtschaft am 17.11.2016 in Stuttgart

Vorstellung Projekt Orpheus

- Sektorkopplung: Strom-Wärme-Gas im Netzbetrieb – Ergebnisse des Projekts Orpheus
- Stadtwerke Ulm/Neu-Ulm – Alternative zu klassischem Netzausbau bei hoher PV-Durchdringung
- Skelleftea Kraft (Schweden) – Substitution fossiler Spitzenlastkessel durch regenerative Energiequellen

Diskussion

- Welche Rolle sehen Sie für Netzbetreiber bei Power to Heat?
- Sehen Sie für ihre Netzgebiete Möglichkeiten bei Power to Heat?
- Ist Power to Heat eine Chance für Neubau- oder Sanierungsgebiete?
- Was sind weitere relevante Themen bei der Hybridisierung von Energienetzen?

5.2 Survey results collected from participants of the workshop in Stuttgart

Unternehmen: 3 Fragebögen

Datum: 17. November 2016

Fragebogen zum Thema Sektorkopplung (Auswertung)
Gesamtanzahl ausgfüllter Fragebögen: 3

Lfd. Nr.	Frage	ja	nein
1	Mussten Sie bereits Netzausbaumaßnahmen auf Grund von PV Einspeisung durchführen?	0	3
2	Wissen Sie bereits welche Auswirkungen eine deutliche Steigerung (z. B. Verdoppelung) der PV-Leistung in Ihrem Netz haben wird?	3	0
3	Halten Sie es für ein plausibles Szenario das PV Überschüsse in der Zukunft in den Wärme- und Gasnetze signifikant Lasten decken werden?	3	0
4	Sehen Sie hier negative Auswirkungen auf Ihre Wärme oder Gasnetze?	2	1
5	Sehen Sie hier Chancen für hybride Produkte?	2	1
6	Gibt es bei Ihnen bereits heute Ansätze für Sektorkopplung?	1	2
7	Sehen Sie bei sich in der Zukunft Einsatzmöglichkeiten für Sektorkopplung?	3	0
8	Ist Power to Heat eine Chance für Neubau- oder Sanierungsgebiete?	3	0
9	Finden bei Ihnen bereits Untesuchungen zu Einsatzgebieten für Sektorkopplung in Ihrem Netz statt?	2	1
10	Oder sind Sie bereits an Demonstrationsprojekten beteiligt?	1	2

Herzlichen Dank für Ihre Mitarbeit! Das Orpheus-Projektteam

5.3 Agenda of Skellefteå workshop

Organisers:

Skellefteå Kraft

Luleå University of Technology

Other project partners:

AIT Austrian Institute of Technology – Tomorrow Today

DLR

Hochschule Ulm

NEC

SWU

TU Wien – Energy Economics Group

WIP

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OrPHEuS

The added value of Hybrid Energy grids for utilities

Conclusions from the OrPHEuS project and future steps

Skellefteå, Sweden, 14 December 2016

• Luleå University of technology, Campus Skellefteå

Conference room: Roten

09:30 – 12:15

Chair: Leif Häggmark, (LTU) Luleå University of Technology

09:30 REGISTRATION & Welcome Coffee

PRESENTATIONS OF THE PROJECT AND RESULTS

10:00 Welcome and introduction
Ingrid Weiss, WIP Renewable Energies

10:10 Towards Hybrid Energy grids: goals and method of the OrPHEuS project
Anett Schuelke, NEC

10:35 Project results: technical and economic benefits for different use cases
Daniel Schwabeneder (TUW)

Saguna Saguna, Luleå (LTU) University of Technology

BENEFITS AND CHALLENGES OF THE HYBRID ENERGY APPROACH FOR UTILITIES

11:00 Swedish smart grids
Anna Nordling, Swedish Smart Grids

11:20 Open discussions.
Discussion leaders: Leif Häggmark and Saguna Saguna (LTU)

By developing and investigating co-operative hybrid grid control strategy, we hope to answer various questions including:

- What would be a "standard (golden) model" for grid hybridization, that we can recommend for typical cities in Europe?
- What level of ICT infra-structures are required for enabling those Hybrid Energy Grid models?
- What new business models are possible on those Hybridization?
- And what new regulation and/or market conditions are required?

12:00 Summary of the day. *Leif Häggmark and Saguna Saguna (LTU)*

12:15-13:30 Lunch/ After discussions and networking

Location?

Adress: Bockholmsvägen 23,
931 62 Skellefteå

https://www.google.se/maps/place/Campus+Skellefte%C3%A5/@64.7453919,20.954797,17z/data=!4m8!1m2!2m1!1sadress+ltu+campus+skellefte%C3%A5!3m4!1s0x467e953a9e1de3d7:0xb6c1ee8e85eaaf28!8m2!3d64.7445567!4d20.9569966

Parking?
For parking see map below

Room?
Map (below). Conference room Roten; Near south entrance, building A

Disclaimer

The OrPHEuS project is co-funded by the European Commission under the 7th Framework Programme “Smart Cities” 2013.

Contacts

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