



STORY

Newsletter #7: April 2019



For more information visit www.h2020-bridge.eu and follow @BRIDGE_H2020 on Twitter!

STORY

Complementing ORC generation with thermal storage

At the project [STORY](#) Belgian demonstration site in Olen, Beneens in cooperation with VITO has installed a new wood fired boiler (1.6 MW) that uses local waste wood from the neighbourhood with a planned heat delivery of 145°C. The boiler feeds a ORC (Organic Rankine Cycle) electricity generator of 90 kW_e and a heat exchanger to a 80°C thermal network to feed the heat demand of Beneens. A low temperature heating network (45°C) fed by ORC waste heat is used for office heating. To increase system flexibility, hot water storage tanks thermal energy storage (50 m³ and 20 m³) as well as batteries were added. Innovation involves efficiency enhancement and active control of ORC with thermal storage state of charge estimation with limited sensors and peak shaving with thermal energy storage in the low and high temperature heat circuit.

For more information please visit <http://horizon2020-story.eu/>



Compile

COMPILE

Crowdfunding Campaign for "Sunny roofs"

The [COMPILE](#) project (started on 1. November 2018) aims to show the opportunities of energy islands for decarbonisation of energy supply, community building and creating environmental and socioeconomic benefits. The project partner from Croatia, [Zelena Energetska Zadruga \(ZEZ\)](#), presented a new campaign addressing crowd-lending investment in sustainable projects. Designed as a continuation of the action "Sunny Roofs", the citizens were invited to invest in a PV powerplant on the roof of city library in Križevci, Croatia, which will have a positive impact on the society and environment. The event drew more than 100 participants, where in an excellent atmosphere ZEZ was able to reach the funding goal in just 48 hours after start of the campaign. The success of the event testifies of the public interest in green development.

More information about the project and the campaign can be found [here](#).



PowerTech Milano, 23-27 June



SmartNet



CIRED Madrid, 3-6 June



The SmartNet project was awarded a 6 months extension and will conclude its activities on 30th June 2019.

In the morning of 16th May 2019, the project will feature its final external workshop aimed at debating project results and discussing the way forward. The meeting will take place in Arona, on the banks of the Lago Maggiore, in north Italy.

For full information and event agenda, visit:

smartnet-project.eu/news/smartnet-final-meeting-on-lake-maggiore-may-2019

The SmartNet project is also going to take part to some important events:

- CIRED Madrid (3-6 June) – several SmartNet papers;
- PowerTech Milano (23-27 June) – full session dedicated to SmartNet.



"The European Technology and Innovation Platform Smart Networks for Energy Transition has launched a new report entitled: *"Synergies and complementarities of European and International Initiatives towards Energy Transition"*. The report seeks to help achieve a fully-coordinated participation of all ETIP SNET stakeholders in all energy systems areas, avoiding silo visions, missions, roadmaps and implementation plans to help foster the [ETIP SNET Vision2050](#). It proposes an analysis of the key organisations that act on a daily basis to research priorities that allow a deep transformation of our energy system, informing public authorities who can make the transformation happen on where to prioritise funding and putting such recommendations into practice with research and development programmes.

Download the report [here](#)"





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INVADE

Rents out electric cars to inhabitants and tourists

Assisted by smart charging tools developed in the EU Horizon 2020 project INVADE, Halden Municipality in Norway aims to reduce CO2 emissions, lower their costs – and even out social differences.

The newly implemented solution entails that the municipality rents 20 electric vehicles of different types during regular office hours used by their employees to and from all work-related activities. After 4 p.m. and in the weekends, employees, inhabitants and tourists all have access to rent the EVs for €8 per hour.

“With the help of a smartphone and an app, anyone can book and rent our new electric vehicles. In this way we wish to motivate and encourage everyone to make use of more climate-friendly mobility solutions,” says Martin Vik, Head of Communication and Digitalization at Halden Municipality.

Read more:

<https://h2020invade.eu/news/rents-out-electric-cars-to-inhabitants/>



E-LAND

Novel solutions for decarbonized energy islands

The new Horizon 2020 project, E-LAND, aims to provide a synergistic solution between the technological, societal and business challenges that the energy sector faces.

The continued decarbonization of the energy sector using renewable energy sources provides both interesting opportunities for local energy systems and challenges for existing electricity networks. Mainland regions such as isolated villages, small cities, urban districts or rural areas oftentimes have issues with weak or non-existing grid connections. These areas are known as energy islands.

The main concept of the EU funded project is the E-LAND toolbox – a modular set of methodologies and ICT tools to optimize and control multi-energy islands and isolated communities.

Read more: <https://elandh2020.eu/>



EU-SYSFLEX

EU-SysFlex continues to develop a roadmap for Europe in meeting the challenge of integrating 50% renewables by 2030. Last November, EU-SysFlex held its second [General Assembly](#) and [Advisory Board](#) meetings where [video](#) and [first technical deliverables](#) were presented. The project identifies the challenges, long-term needs and technical scarcities of the future electrical power system arising from the integration of high levels of RES. EU-SysFlex will chair a mini-symposia at [WESC 2019](#), and will lead a workshop on [TSO-DSO coordination in flexibility and data exchange](#) prior to the launch of InnoGrid 2019. Read [first blog](#) and find out more on our [website \(eu-sysflex.com\)](#).





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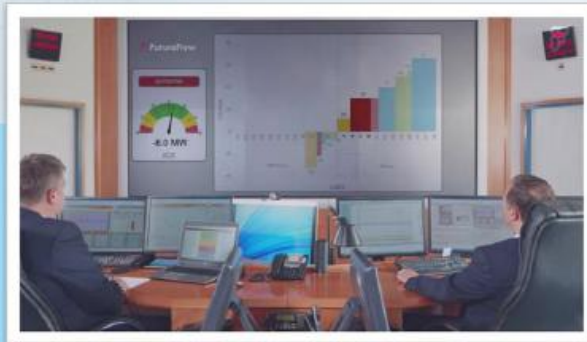
FutureFlow

FutureFlow

An ambitious goal of the [FutureFlow](#) project is proving that in 10 to 15 years future prosumers and renewable energy sources, including distributed generation and eventual supplementary technologies, could replace the fossil-fuel based power plants on the segment of system flexibility and security provision when and only when proper cross border regional market integration mechanisms will be developed and put in place.

Over 100 real prosumers from Austria, Hungary, Romania and Slovenia took part in our real-time cross-border pilot tests. With their 48 MW of flexible power, they demonstrated that prosumers can deliver high quality and flexibility services to the TSOs. FutureFlow simulations showed the potential to save 23 % of regulating energy by the integration of flexibility markets in these 4 countries. By developing adequate business models, prosumers will get an opportunity to sell their flexibility to the most valuable market, reducing their electricity bills. A further shift of the fossil-fuel technology to DR&DG represents a significant step towards our independence from fossil fuels and the achievement of challenging CO₂ goals.

Follow FutureFlow at [LinkedIn](#) and [YouTube](#).



Brussels, 16-17 January

INTERFFACE

The INTERFFACE project initiated its activities by hosting a very successful Kick-off Meeting in Brussels on January 16th-17th. The whole consortium, consisting of 42 partners, came together and laid the foundations for the work that follows in the coming months. Interesting presentations, engaging discussions, as well as speeches by EC officials took place during the two-day meeting, at the ENTSO-E premises. All activities of the project were analysed and relevant sub-tasks were allocated to partners, whereas the large-scale demonstrations that will be deployed in the near future were discussed in detail. The consortium is now ready for the big challenge that lies ahead.

FLEXITRANSTORE

FLEXITRANSTORE is progressing with the design of its reference architecture. A questionnaire was disseminated, to identify the real needs of the TSOs/ DSOs as the main target audience, in terms of flexibility services. Moreover, an extensive review of existing flexibility platforms took place, identifying current gaps. The analysis showcased that the needs match the gaps, enabling the FLEXITRANSTORE consortium to proceed with the development of concrete use-cases on (a) the design of optimization tools for the efficient management of stored energy, (b) design of advanced forecasting tools determining future needs towards strategic planning, and (c) the procurement of services of TSOs/ DSOs in a coordinated manner.



flexitranstore





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EEM19: CROSSBOW, COMPILE and STORY are presenting!

The 16th International Conference on the European Energy Market (EEM19) will be held between 18th - 20th September 2019 in Ljubljana, Slovenia. At the conference, several Horizon 2020 projects under the BRIDGE initiative will present their progress and results under their respective special sessions. [CROSSBOW](#), [COMPILE](#) [STORY](#) and others. The conference, organized by University of Ljubljana, will bring together experts from the fields of science, industry and politics, to present and discuss a wide range of themes related to energy markets. These include approaches and solutions for issues related to modelling, market design, regulatory policies, climate change.

For more information please visit <https://www.eem19.eu/>



Ljubljana, 18-20 September

SOGNO



SOGNO model attracted visitors at E-world 2019

The newly developed SOGNO model was inaugurated at E-world in Essen, Germany, in early February. It was designed to explain the project at a glance and draw attention to the stand at exhibitions, workshops and trade fairs, a purpose it served very well. Members of the SOGNO consortium used the model to demonstrate the turnkey cloud services the project offers for Distribution System Operators: state estimation, power control, load and generation forecasting, power quality evaluation and fault location, isolation and service restoration (FLISR). It was also particularly valuable for showing components and use cases of the project.

For more information go to www.sogno-energy.eu



RESERVE

11-15 March 2019: RESERVE Course at the RWTH Aachen University: „Challenges and Solutions in Future Power Networks“

RESERVE Consortia has organised the RESERVE course "Challenges and Solutions in Future Power Networks" on the 11-15 March 2019 at the RWTH University in Aachen, as part of the Creating Impact with RESERVE activities.

The Course addressed the main challenges related to building Future Power Networks with a high share of RES, and presented the solutions developed within RESERVE. The topics covered during the 5-days of lessons and workshops included key issues such as Network Codes, frequency and voltage control, cyber security and ICT aspects as well as the need for a set of New Network Codes and ancillary services for up to 100% RES.

20 participants including energy professionals, power system engineers and doctoral students attended the course, which will be also made available for free on an online platform.

For more information please visit <https://www.re-serve.eu/>





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MARKET DESIGN RECOMMENDATIONS FOR A LOCAL FLEXIBILITY MARKET

Participants and roles:

- Christian DUMBS - Project Coordinator
- Grégoire LABRY - Disseminator
- Marcel WILLEMS - Dutch Demo
- Thorsten GROSS - German Demo
- Guillaume LHÉC - French Demo
- James GALLAGHER - Special Advisor, New York State Smart Grid Consortium

INTERFLEX



Webinar, 23 May

InterFlex experiments the use of local flexibility for DSO needs within 6 real-scale demonstrators. The project has entered its third and last year, which will be dedicated to ongoing tests and the evaluation of the tested solutions.

On May 23rd, 2019, InterFlex will share its experience in a one-hour webinar on business models for the activation of local flexibilities. Both DSO-integrated and market approaches will be discussed with a focus on limits and business opportunities. The webinar will also provide thoughts on the value of the flexibility and its distribution among stakeholders. [Register now!](#)

For more information, visit our [website](#) and subscribe to our [newsletter](#).



PROMOTION

Within PROMOTION, the TRL in HVDC protection is being increased by the development and testing of HVDC protection IEDs – devices that will detect and discriminate faults on future power systems. An open source protection IED has been developed at KTH to enable research and education on HVDC protection. Mitsubishi Electric have developed an industrial HVDC protection IED which will be tested in the project using novel procedures developed at KU Leuven/EnergyVille – the first time such testing has been done in an independent test laboratory. This type of development is critical to enable effective and reliable operation of future HVDC networks, and independent pre-standardisation testing is a step towards future multivendor systems.



GOFLEX



GOFLEX announced a collaboration with the INTERFLEX project to promote the concept of utilisation of local flexibilities for DSOs and other local actors. GOFLEX and INTERFLEX will exchange Flex-Offers (Buy and Sell offers) between the several platforms of both projects.

The ambition of GOFLEX is to generate a standardised local flexibility trading by refining its awarded Flex-Offer concept to enable markets for regional flexibilities all over Europe. GOFLEX aims to collaborate with other flexibility projects and commercial market platform providers like NODES and EPEX SPOT.

For more information please visit www.goflex-project.eu

If there is anything you feel should be included in the next newsletter or if you have any queries, please [get in touch!](#)

