

STORY

Newsletter 6: October 2018



For more information visit
www.h2020-bridge.eu and follow
[@BRIDGE_H2020](https://twitter.com/BRIDGE_H2020) on Twitter!

In the Slovenian village of Suha pri Kranju, the project **STORY** is demonstrating the management of a medium-sized battery, with which the Slovenian DSO **Elektro Gorenjska (EG)** provides a high level of customer self-sufficiency in Suha with locally produced solar power. Elektro Gorenjska, the Belgian supplier **ABB**, the Finnish **VTT** and the Slovenian **University of Ljubljana (UL)** implemented the first community battery in Slovenia, connected to the SN / NN transformer station (**Liljon technology**, 170 kW, 450 kWh) at the end of August 2018.

We intend to demonstrate its integration into the existing infrastructure, the battery management system and its cooperation with the devices in the distribution system.

The aim is to unburden the DSO and to provide services to the market. The battery system successfully passed all the tests and is now ready to demonstrate a set of operational scenarios, targeting local energy supply. The demonstration is set to run until summer 2019.



For more information, please visit horizon2020-story.eu/blog

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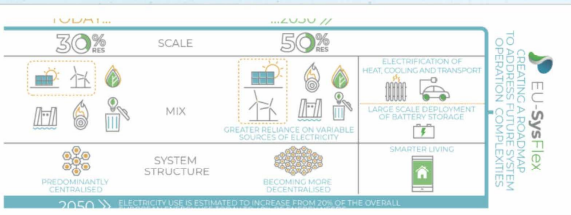
NETfficient
Storage for Life

Webinar, 31 October

NETfficient will conclude end of 2018. What's left to do: to tell the energy community what we have learned regarding **Lithium-ion batteries, UltraCaps, hydrogen storage, 2LEV-batteries, and low temperature thermal storage applied to homes, businesses, streetlighting**, the Aquarium and the medium Voltage Grid - and of course how we aggregated all of that, using the **NETfficient Energy Management Platform**. If you missed our study visit to Borkum this summer you have the opportunity of a virtual visit, by attending our webinar on **31st October 2018**, covering business models, environmental impacts and replication. Please [register now!](#)

EU-SysFlex stands for "Pan-European system with an efficient coordinated use of flexibilities for the integration of a large share of RES". EU-SysFlex will come up with new types of services that will meet the needs of the system with more than 50% of renewable energy sources. It will find the right blend of flexibility and system services to support secure and resilient transmission system operation.

EU-SysFlex, which is developing system and flexibility services for a grid with a high penetration of renewables, has a new [website](#), [flyer](#) and [newsletter](#). Launched in November 2017 in **Dublin**, EU-SysFlex has been presented in the **European Parliament**, at **SET Plan 2017**, **Eole Industrie 2018** and the **Horizon2020 Energy info day**. The cross-border data exchange platform **launched** in June 2018 by the Estonian energy company Elering and Lithuania's ESO is a demo within EU-SysFlex. The specific parameters of its seven demonstration projects will be finalised by the end of the year. In November 2018, the project will hold its next General Assembly and Advisory Board meetings.



As part of the **PROMOTiON** project, DNV GL has completed the installation of the **320kV high-voltage direct current gas insulated switchgear (GIS) prototype** at its **KEMA High Voltage DC Laboratory** in Arnhem, Netherlands. Long-term testing will begin later this year with the aim of independently verifying and demonstrating that the technology is ready for real-world application and can achieve cost savings in future offshore HVDC converter stations and switchyards. According to DNV GL, the coordinator of the **PROMOTiON** project, this is the first time that such equipment will be tested in an independent commercial laboratory.



InterFlex is a **DSO-coordinated demonstration project** which aims to **optimize the distribution grid** and to **evaluate emerging business models** based on the use of local flexibilities. The project's **6 real-scale demonstrations are today up and running** testing a wide range of distributed solutions: storage management, demand response, electric vehicle charging, grid automation, cross-energy interactions (gas/electricity/heat), etc. Click [here](#) to watch InterFlex video.



By the end of 2019, the **20 partners** will assess the viability of the demonstrated solutions and local flexibility mechanisms, especially by focusing on replicability and the identification of relevant business models. **Be part of the InterFlex community by subscribing to our Newsletter [here](#)**



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The **FLEXITRANSTORE** project analysed flexibility opportunities and barriers and presented a webinar - hosted by **Leonardo Energy** - which was attended by more than 150 people.

The presentation explained that TSOs are encouraging smaller participants in wholesale markets; there are joint initiatives taking place between TSO's and DSO's; and there are examples of market-based changes. **However, commercial, regulatory and market barriers still exist, changes are not uniform across the EU, and a different mix of outcomes are likely in each member state.**

The project will report on commercial opportunities in 2019.

<http://www.leonardo-energy.org/resources/1453/towards-a-flexible-european-electricity-system-business-mode-5b21300ecba0d>



The **H2020 project PEAKapp** has developed a smart phone app for enabling households to purchase green and low-priced electricity directly from the spot market in times of high production from sun and wind generators. The PEAKapp also provides household energy efficiency and customer-service focused functionalities that improve engagement. A field test of the app was performed over the past year with over 2,500 participating households from Austria, Estonia, Latvia and Sweden. **The project will present the app, and the results of the field tests during the European Utility Week in Vienna, Austria, on 8th November.**

Please register under:

www.peakapp.eu/event/peakapp-accelerating-green-ict-innovation-to-european-utility-markets

Vienna, 8 November

The **BestRES Consortium** is happy to announce the workshop **"Aggregators as enablers of prosumers participation in the energy market"** to be held in Vienna, Austria, on **6th November 2018**, on the occasion of the **European Utility Week**.

The results of the implementation, under **real-life conditions**, of the BestRES business models for RES aggregation will be made, for the first time, public available during the workshop in Vienna. We would be happy if you could take part to this workshop and share this information to your network of contacts.

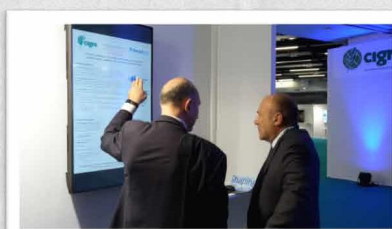
The registration is free of charge but mandatory. Once registered to the workshop you will receive a pass, free of charge, to enter to the European Utility Week.

The draft agenda and registration form are available at the link:

bestres.eu/events/bestres-workshop-eu-utility-week

Vienna, 6 November

Draft Agenda		
Moderator: Hubert Eichler, IEA PVPS, Vice-Chair Strategy and ECo Austria		
13:00 - 14:00	Workshop Launch & Registration	
14:00 - 14:10	Introduction to the workshop (Silvia Cernus, MGR)	
14:10 - 14:40	The BestRES methodology (Daniel Schaubmader, TUM-EEG & Simon De Clercq, IE)	
Session I: Aggregators as enablers of consumers participation in the energy market		
14:40	Households energy management in the United Kingdom	Daniela Veldeman, Genol Energy
15:00	Demand side Reallocation of small customers in Austria	Maximilian Eberle, Oekostrom
15:20	Activation and marketing of RES customers' flexibility in Portugal	Gracia Mendes, EDP
15:40 - 16:00	Coffee break	
Session II: Aggregation as enablers of RES producers' participation in the energy market		
16:00	Enabling the marketing of RES producers in Italy	Julian Evers, Next Kraftwerke Germany
16:20	Providing ancillary services with and for more renewables in Belgium	Elias De Keyser, Next Kraftwerke Belgium
16:40	Local aggregation services for providing flexibility to grid operation including congestion management	Venencio Ethenious, FOS
17:00 - 17:20	Recommendations for the further uptake of business models for aggregation (Monika Wimmer, S&PS)	
17:20 - 17:40	Representation from Austrian Institution	
17:40 - 18:00	Workshop & conclusion	



The **SmartNet project** is now in its third year. Despite the challenges, the project team succeeded in setting up the complex simulation environment and in creating three detailed national T&D scenarios at 2030 for Italy, Denmark and Spain. **The three technological pilots are now operative.** We started the regulatory analysis and are in the process of comparing our project results with the present regulatory trends.

Recently, SmartNet participated in the CIGRE Session 2018 in Paris with three papers.

Project results will be debated with the European stakeholders in a three-days workshop in **Florence on 24-26 October** (smartnet-project.eu/news/smartnet-workshop-series-in-florence). Registration is open!

Florence, 24-26 October



STORY



Newsletter 6: October 2018

INVADe aims to demonstrate how stationary batteries and “batteries on wheels” can be used to optimize energy and power related operations **for the benefit of grid owners, private households and buildings, as well as the market.** At the core is a cloud-based flexibility management system integrated with EVs and batteries.

Exploitation of the project results has been at the core of the project since its launch. In time for the project's mid-term, **two big events were organised in Bulgaria and Norway with a total of 190 participants.** In the second half of the project, INVADe's focus is on verification at the pilot sites and dissemination and exploitation of its results.



The novel Hybrid Power Station of **TILOS** was set in trial operation in **September 2018**, delivering guaranteed energy to the local grid of Tilos island by combining wind and PV power generation together with battery storage. This signals beginning of the **demonstration stage** for the TILOS system as producer, offering the opportunity for testing different modes of operation for the **Tilos island microgrid.**



TILOS was represented in EUSEW 2018-Brussels with an invited presentation under the **“Batteries’ role in energy transition”** session, on the 6th of June 2018. Dr Jens Merten from CEA presented the project to an audience of more than 400 experts.



Brussels, 6 June

The 2nd TILOS Summer School was organized from the University of West Attica for the second consecutive year in Tilos, between the 22nd and the 28th of June 2018. During the same period, a novel PV-based EV-charger was installed at the project info-kiosk, introducing clean electromobility aspects.



Tilos island, 22-28 June



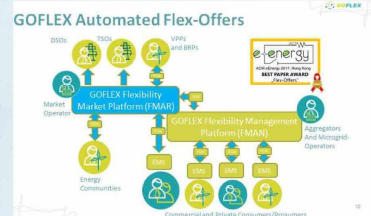
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Newsletter 6: October 2018

GOFLEX successfully tested its award-winning Flex-Offer procedure. Flex-Offers will revolutionize the flexibility market. They provide a simple procedure for all customers, generators and storage owners to offer their flexibility to the market depending on their individual preferences and needs. Smaller Flex-Offers can be combined by aggregators and disaggregated when they are needed in specific grid areas.

The **Flex-Offer Agent (FOA)** connects the internal Energy Management System or individual devices directly with the flexibility markets. **GOFLEX** has successfully tested the Flex-Offer Agent (FOA) procedure and will now demonstrate it in its 3 trial sites in Cyprus, Switzerland and Germany. The concept was presented by the University of Aalborg at the 8th ACM e-energy conference in Hong Kong and won the **BEST PAPER AWARD**. For more information go to www.goflex-project.eu



The **SOGNO** consortium met at the end of September in Kilkenny to coordinate and advance the joint work. Being one of the youngest members of the H2020 projects family, SOGNO is using ICT based on the upcoming 5G mobile communication standard to implement next generation **data-driven monitoring and control systems for electrical grid management**. The project will provide turnkey cloud services for DSO's including **state estimation, power control, load & generation forecasting, power quality evaluation and FLISR (Fault Location, Isolation & Service Restoration)**. The consortium comprises 13 partners from 7 European countries and is testing the services in 5 trial sites in Estonia, Germany, Ireland and Romania. For more information go to www.sogno-energy.eu



SOGNO project meeting in Kilkenny, Ireland



One of the goals of **RESERVE** is to pave the way for new ancillary services with harmonised network codes which are needed to safely operate **RES-based energy systems**. As a result of preliminary consultations with relevant stakeholders, a short list of the most important Network Codes to be revised and adapted has been drafted. The proposal for a new NC dedicated to the storage has been made, collecting very positive feedback from the groups of interest. Higher priority has been assigned to the following five NCs: 1) New generation of RES inverters; 2,3) New Frequency and Voltage control concepts; 4) System swing dynamics and 5) Requirements of minimum system inertia.

RESERVE technical proposals &

- Key principles when drafting NCs**
- Efficiency of the investments and costs
- Harmonization among the power sector members
- Transparency and predictability
- Priority
- Continuity



TOP 5 priorities

- New generation of RES inverters
- New frequency control concept
- System swing dynamics
- Requirements of minimum system inertia
- New voltage control concept



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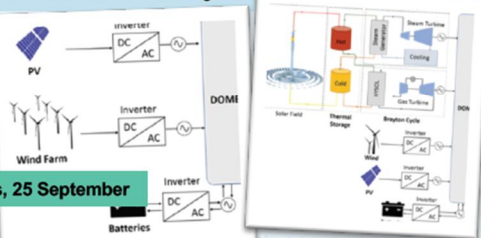
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GRIDSOL & WISEGRID WORKSHOP ABOUT RES INTEGRATION & CUSTOMER ENGAGEMENT IN ATHENS

On 25th September 2018, **GRIDSOL Project** and **WiseGrid Project** co-organised a joint workshop hosted at the premises of HEDNO, in Athens, Greece entitled "RES Integration and Customer engagement".

Project partners presented the results and discuss with the audience about the next steps of the project. GRIDSOL showed its fundamental role in the decarbonisation process of the world economy to achieve the long-term objectives of the EU. The workshop was a great opportunity to present CSP Multi-tower results and to show the key role of Smart Renewable Hubs in Europe for interconnected and non-interconnected grids.



Athens, 25 September



InteGrid had its first Review Meeting, and everyone was pleased with the results achieved so far. During the first 18 months, the consortium was actively working and participating in [several events](#) such as the [InteGrid Energy Day](#), under [EC Energy Days](#). This event was organized by the consortium and gathered in Portugal stakeholders from 10 nationalities.

Use Cases are now completed and the 3 Demos are taking off. In Portugal, customer engagement workshops are happening in October, supporting InteGrid's goal of making [Smart Grids Human](#), by increasing people participation in the energy system.

Follow InteGrid on [Twitter](#), [LinkedIn](#) and [YouTube](#).

BRIDGE cooperation with ETIP-SNET

The [European Technology and Innovation Platform for Smart Networks in Energy Transition](#) (ETIP SNET) is a unique cooperation between key energy sector players. Its role is to **guide research, development and innovation to support Europe's energy transition**. This covers areas such as power system management, storage and interface to heating, gas or transport networks, flexible generation, digitalisation of the power system, and customer involvement. On 27 June 2018 the platform released a special report - [Vision 2050](#), for a:

"A low-carbon, secure, reliable, resilient, accessible, cost-efficient, and market-based pan-European integrated energy system supplying the entire society and paving the way for a fully carbon-neutral circular economy by the year 2050, while maintaining and extending global industrial leadership in energy systems during the energy transition."

You can read more about it at: www.etip-snet.eu/etip-snet-vision-2050/ and follow on Twitter [@etipsnet](#) for the latest updates.

Brussels, 27 June



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

