

Ruien Energy Storage NV (RES NV) is a joint venture between the Japanese listed company Nippon Koei Co. Limited (NK) and the Belgium company Yuso BVBA (YUSO). RES is currently developing a battery energy storage system (BESS) in Ruien (East Flanders, Belgium). The BESS targets to deliver ancillary services to European grid operators (TSOs) as well as more localized energy service offerings at the site of the former 800MW coal fired power plant currently under post-decommissioning redevelopment.

NIPPON KOEI AND YUSO JOIN FORCES ON BATTERY ENERGY STORAGE IN EUROPE

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INTRODUCTION

RES is a joint venture between the Japanese listed company Nippon Koei and the Belgium company Yuso. RES is currently developing a battery-based energy storage system (BESS) in Ruien (East Flanders, Belgium). The BESS targets to deliver ancillary services to European grid operators (TSOs) as well as more localized energy service offerings at the site of the former 800MW coal fired power plant currently under post-decommissioning redevelopment.

BODY

Nippon Koei and Yuso recently set-up a joint venture company "Ruien Energy Storage NV" (RES NV) to develop and operate a utility scale Battery Energy Storage System (BESS) on the site of a now decommissioned 800MW coal fired power plant in Ruien (East-Flanders, Belgium).

The BESS commissioning is expected for early 2020. The capacity of the energy storage installation will be 25 MW with the option to enlarge its size later. The project leverages on the grid connection infrastructure available at this location, adjacent the HV substation operated by the Belgian TSO Elia. The BESS targets deliveries of ancillary services (Frequency Control Regulation, FCR) to Elia and other ENTSO-E member TSO's as well as more localized energy service offerings at the site, currently under post-decommissioning redevelopment.

Bart Tommelein, vice minister-president in the Flemish government and minister of Budget, Finance and Energy commented; *"Investments in storage and flexibility are necessary to store renewable energy, for the sun does not always shine, nor is there wind at any given time. Storage of energy is therefore of foremost importance for the energy transition to succeed in Flanders. For this reason, the Flemish government intends to introduce a support scheme for storage soon. We are very pleased that Ruien will now see the development of a large energy storage project at the very location where a large thermal power plant once stood! It proves that the energy transition is in full swing!"*

Mr. Hiroyuki Akiyoshi, Director and Senior Managing Executive Officer at Nippon Koei motivates the JV as follows: *"[...] As renewable energy sources are intermittent and increase the difficulties in balancing demand/supply of electricity, battery energy storage systems help to maintain the stability of the grid. It is at this point that Nippon Koei can leverage on its proven experience in the field of battery-based energy storage systems and high voltage engineering".*

Nippon Koei brings its engineering and EPC skills and will be the leading shareholder of RES. It's a new exciting milestone for Nippon Koei's strategy to diversify itself after the acquisition of two battery energy storage assets in UK in 2017. The BESS project in Ruien, can build on the track record in BESS energy management services and market access for flexible assets. *"We regard the energy market services and platform offered by Yuso an ideal addition to our decade long power engineering experience. With the perspectives of the legal unbundling of power generation, transmission and distribution sectors in Japan, this is exciting opportunity for us to develop our experience in European organized markets and leverage this experience in Japan and potentially in other Asian countries, building a strong know-how into related activities such as flexibility markets, demand response, virtual power plant."*

Michel Verschuere, Managing Director of Yuso describes the joint venture with Nippon Koei as *"[...] a landmark industrial cooperation, combining the engineering skills of our Japanese partner with our market knowledge in European power markets and flexibility marketing to the benefit of grid stability"*.

The company envisages further new developments in the field of energy storage in the very near future: *"[...] Grid stability concerns every TSO in the light of increased dependencies on renewable energy sources and energy storage is the best answer available. As we have seen with solar PV and wind generation equipment: mass production of battery cells and power electronics will quickly drive prices downward, while the benefits of flexibility and energy storage for TSO's and energy consumers increase in view of increasing costs of curtailment, balancing and grid fees. This perfect storm for storage really makes the future look bright for energy storage in general. We are thrilled to develop this BESS with Nippon Koei in Ruien and assist them in the development of similar flexibility projects elsewhere, including Japan"*.

The Ruien BESS project and Yuso platform will be presented to the press, interested business partners and other stakeholders during an evening event on Wednesday 5th of September at 18h in Waregem, Belgium. Further information and to register, please go to www.res-nv.be

ABOUT NIPPON KOEI

Founded in 1946, Nippon Koei (NK, 1954 JP) is the oldest independent engineering consulting firm in Japan and has worked on over 5000 multi-disciplinary infrastructure projects in 160 countries all over the world. Nippon Koei's engineering consulting service solutions cover the whole spectrum of energy infrastructure, transportation infrastructure, water and sanitation, environment and agriculture, urban and industry and public sectors.

With regards to its energy business, Nippon Koei has strong relationships with transmission operators and a dominant market share in substation control system equipment especially with TEPCO. Through its extensive research and development, Nippon Koei's successful track record for energy business includes (i) hydropower: supervised constructions of 60 hydropower dams totaling 20,000 MW of installed capacity; (ii) power transmission and distribution networks: delivered over 5,000km of transmission lines in more than 40 countries; (iii) renewable energy:

provided in-depth studies on introducing and promoting renewable energy especially in rural and remote areas; (iv) thermal power: designed and supervised the construction of thermal power plants (gas turbine, diesel power and coal-fired thermal); and (v) energy conservation: audited energy used for more than 200 buildings and factories which help to achieve 20-30% cost savings.

For more than 70 years Nippon Koei provided engineering consulting and EPC services to major energy players in Japan and abroad. The company now supports energy transition focused on new business models such as energy storage, micro grids and VPP.

ABOUT YUSO

Yuso is a Waregem, Belgium based company founded by Bart Pycke and Michel Verschuere in 2012. The company is a platform player, employing state-of-the-art proprietary systems to provide market access to over 500 industrial-sized producers of renewable energy (mainly Solar PV) in Belgium. Yuso has provided market access and energy flexibility services to a BESS based in The Netherlands and owned by the American utility AES since 2016 (www.aes.com). Yuso combines the 35+ year experience of its management in market functioning with deep understanding of cloud-based IT infrastructure, automated portfolio management and meteorology to optimize the energy needs of its customer base.

CONTACT INFORMATION

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