

## Neoenergia Group Implements Energy Storage System in Fernando de Noronha Using NEC Technology

The NEC system was chosen by Neoenergia Group and Lactec, responsible for project management, to serve as the basis for an R&D program in the archipelago off the coast of Brazil

**July 5, 2018 – Westborough, Massachusetts, USA** – NEC Energy Solutions (NEC ES) announced today that it is supplying the Neoenergia Group with NEC's DSS<sup>®</sup> distributed storage solution. Once completed in August of 2018, the lithium-ion technology based system, along with NEC's proprietary software and energy storage control system AEROS<sup>®</sup>, will be used in an R&D project to assist in demand charge management and firming of the island's solar power generation. It will also assist in diesel fuel reduction to help preserve the natural environment of Fernando de Noronha.

The proposal was presented by Celpe, of the Neoenergia Group, in response to a request from ANEEL (National Electric Energy Agency) in 2017. The installation of the energy storage system, under the project management of the Lactec Institutes and partners - IATI, UFMG, USP and TECSYS - has already begun and aims to find efficient and effective solutions for the storage and management of the energy generated throughout the day from two solar systems. The project also aims to find a sustainable and ecological way to replace energy generated by diesel, currently used in the archipelago at times when there is no sun. To date, there is no energy storage system in Fernando de Noronha that allows for the accumulation of energy generated throughout the day.

"The system includes NEC's DSS<sup>®</sup> energy storage platform with lithium-ion battery technology in addition to a set of integrated power converters, all managed by NEC's proprietary software and energy storage control system (AEROS). The project draws on the company's experience gained from more than 250MW of projects installed around the world," said Roberto Murakami, NEC's director of energy solutions for Brazil. "The product is unique in the market because of its high capacity, in addition to being small and safe, which are very important characteristics considering it is an archipelago with reduced space and extensive preservation area. The development and commercialization of this type of solution is in line with the company's value proposition whose principle is to contribute to the evolution of society through innovative technology."

"The research and development project in Fernando de Noronha is expected to be completed in August of 2018, when the performance evaluation will commence for the next four years. The project aims to reduce the intermittent generation of energy from the island's solar farms in addition to helping reduce the consumption of diesel fuel to help preserve the local natural environment," said José Antonio de Souza Brito, corporate manager of R&D for the Neoenergia Group. "Our

proposal was evaluated thoroughly by the sector's regulatory body, ANEEL, and we are quite optimistic that it will be a success. In fact, we are conducting studies for a potential extension of the current project scope to be put into practice at a later date.”

According to Carlos Eduardo Ribas, commercial manager of the Lactec Institutes who will act as project manager, NEC was not only chosen for the product attributes of its DSS<sup>®</sup> solution but because of the company’s consultative approach in all aspects of the process which ultimately led to the identification of the best solution, specifically relevant to the unique needs of Fernando de Noronha. Additionally, NEC's DSS<sup>®</sup> distributed storage solution works in small-sized enclosures - adding more safety, without affecting its energy characteristics, which proved to be one of the most efficient products on the market. Because of this it fully met the needs of the Fernando de Noronha archipelago project.

“This project is significant because it represents our first project in Brazil and is testament to our ever-expanding global installed base. It also speaks volumes to the increasing acceptance of our DSS<sup>®</sup> distributed storage solution,” said Steve Fludder CEO of NEC Energy Solutions. “I’m particularly pleased a key reason we won this project was because of our consultative approach in helping the Neoenergia Group find the best solution for this project.”

The DSS<sup>®</sup> energy storage platform is optimized to support advanced service creation at the grid edge for C&I enterprises and distribution utilities. It simplifies the deployment of emerging storage-based services for C&I enterprises that optimize energy costs and increase energy resiliency, while distribution utilities benefit from smoother intermittent distributed renewable generation and shaved peak demand profiles.

The DSS<sup>®</sup> platform is scalable from 85kWh to 510kWh of energy storage capacity and offers from 100kW up to 710kW of power capability. As a standardized, UL safety-certified, AC-ready system including power conversion system, the DSS<sup>®</sup> product is preconfigured in outdoor-rated enclosures, compliant with all relevant regulatory and environmental requirements and is backed by up to a 10 year product warranty.

### **About NEC Corporation**

NEC Corporation is a leader in the integration of IT and network technologies that benefit businesses and people around the world. The NEC Group globally provides "Solutions for Society" that promote the security, safety, efficiency and fairness of society. Under the company’s corporate message of “Orchestrating a brighter world,” NEC aims to help solve a wide range of challenging issues and to create new social value for the changing world of tomorrow. For more information, visit NEC at <http://www.nec.com>.

### **About NEC Energy Solutions**

NEC Energy Solutions designs, manufactures, and integrates smart energy storage solutions for the electric grid, behind the meter, and critical power applications. Its scalable distributed energy storage and control systems provide greater grid stability and flexibility to the benefit of both providers and users of electricity. In telecom, datacenter, and other industrial applications, its high performance lithium-ion battery systems provide better value than traditional lead-acid batteries in tough, critical power applications. Learn more at [www.neces.com](http://www.neces.com).

### **About Neoenergia Group**

The Neoenergia Group is one of the largest Brazilian energy distribution company and one of the largest in Latin America in number of customers, and the second largest by volume of energy distributed in Brazil, according to the Energy Research Company (Empresa de Pesquisa Energética – EPE). Operating from an integrated platform, the company is present in every segment of the electricity sector: distribution, transmission (conventional and renewable), generation and sales of energy, with business in 15 Brazilian states. They provide sustainable energy to almost one-fifth of the population of Brazil, with a strong presence in the Northeast, one of the country's fastest-growing regions in terms of GDP and population.

Press contact(s):

For all inquiries regarding NEC Energy Solutions, please contact: Roger Lin, [rlin@neces.com](mailto:rlin@neces.com), +1-508-497-7261

NEC is a registered trademark of NEC Corporation. All Rights Reserved. Other product or service marks mentioned herein are the trademarks of their respective owners.

©2018 NEC Corporation

###