R&D
NESTER

RENEWABLES & STORAGE OPTIMIZATION TOOL FOR MULTI-SERVICE MARKET PARTICIPATION

The challenge: As supporting mechanisms for wind and solar electricity generation reduce, the transition of renewables into a market only based revenues is challenging the way they capture revenue streams. Simultaneously, the combination of renewables with energy storage solutions is seen as a valuable help in the transition into a market only environment.

HOW WE ADDRESS THE CHALLENGE

R&D Nester developed a tool that simulates and analyses the participation of wind and solar power generation in electricity markets without subsidies or priority dispatch. The tool also quantifies the impact of the forecast error on the revenues due to market penalties. Additionally, there is a module dedicated to the impact of deploying multi-service energy storage systems to mitigate the investment risk on PV power plants, accounting for the participation of these hybrid units in secondary and tertiary regulation services, thus providing additional revenue streams. With this tool, renewable energy producers/investors can analyse their market exposure as well as consider the effect of available energy storage solutions to minimize the risk and capture additional revenues.

Relevant Publications

- "Siting and sizing dispersed energy storage in power transmission networks", IEEE IGESC 2015, CA, USA
- "Market integration of renewables and multi-service storage applications", IEEE PES ISGT EUROPE 2017, ITALY

Contact Us
Rua Cidade de Goa, 4-B,
2685-038 Sacavém, Portugal
Tel.: +351 210 011 300
Fax.: +351 210 011 710
Email: info@rdnester.com
Web: www.rdnester.com
www.linkedin.com/company/r&d-nester

R&D
NESTER
CREATING A SMART
ENERGY FUTURE