



Invited Speaker

**Karol
Wolański**

**Energy market expert specializing in
renewable integration, system
balancing, and flexibility services**
Respect Energy, Poland

**Balancing services provided by weather-
dependent renewables (G0704)**

Talk Title

Balancing services provided by weather-dependent renewables

Biography

Karol Wolański - energy market expert specializing in renewable integration, system balancing, and flexibility services. Graduate of the Warsaw University of Technology (Power Engineering) and Warsaw School of Economics (Strategic Business Development). Head of Flexibility and Aggregation at Respect Energy, the Polish power trader and optimiser, previously Business Developer at Next Kraftwerke and market coupling expert at the Polish TSO - PSE.

| Abstract

The growing capacity of renewables in European power grid requires new approaches to system balancing. Services traditionally provided by large-scale hydro and thermal units can now be delivered more cost-effectively and sustainably by weather-dependent renewables and battery storage.

This presentation introduces a real-time, estimate-based balancing mechanism implemented for weather-dependent renewables in Poland. It addresses key operational and technical challenges, as well as emerging commercial opportunities, drawing on a case study of the 204 MW PV Zwartowo project qualification process performed by Respect Energy.