**Distributed Generation Owner/Operator Forum** Bristol – 20 September 2017



Serving the Midlands, South West and Wales

## Agenda

13.30 Arrival, registration and buffet lunch 14.00 Welcome, introduction and objective setting from the chair and WPD 14.15 Generator portal – feedback from forum 14.30 **Contact with WPD around outages/constraints** Progress on early notification of outages ٠ Single point of contact ٠ Implementation of 'just-in-time' process ٠ 15.30 Consortium approach to major outages 16.00 **Outage impact assessment** Joel Venn, senior analyst, Regen 16.30 **Networking and close** 



# Calculating generation and incomes losses arising from network outages



140,000 120.000 Vonthly generation (MWh) 100.000 80,000 60,000 40.000 20,000 0 Jul Oct Jan Jul Oct Apr Jul C an Apr Jul Oct an Apr an Apr lul g an Apr 2012 2013 2014 2015 2016

Gridwatch GB wind energy generation

regen S transforming energy

September 2017



# Model 1 - current and historic weather conditions data

- Use data on the weather conditions (irradiation and wind speed) over the outage period to estimate what the generation could have been
- Evaluate the correlation between historic weather conditions and the historic generation, in order to estimate current generation in current weather conditions
- Suitable for wind and solar projects

# Model 2 - historic generation data

- Use the historic generation of the same or other sites, to calculate lost generation from outages
- Use the historic generation over the same period to estimate current lost generation

# Model 3 - current generation data

- Use the generation of nearby projects over the outage period to estimate lost generation
- Could be based on the generation of the closest project, or multiple nearby projects



## Model 1 - current and historic weather conditions data

- Daily, weekly or monthly irradiance and wind speed data (MET office of WPD?), historic and current
- Historic generation data by project

# Model 2 - historic generation data

• Historic generation data for projects with outages

#### Model 3 - current generation data

• 'Current' generation data of preferably all largescale generation projects in WPD's licence areas

All models will require data on outages, preferably on a project by project basis, including:

- Capacity
- Technology
- Location
- Outage length and dates
- Energisation date

## Future forum dates and key events

Distribution generation owner/operator forum dates

25 January 2018 26 April 2018 19 July 2018

**Electricity Network Innovation** – Focus on getting community groups up to speed and actively engaged in energy network innovation, which can help communities tackle social and environmental challenges.

<u>London – 1 November</u> Newcastle – 7 November

**Renewable Futures and Green Energy Awards** – Industry leading conference featuring a line of experts and key policy makers who will anaylyse the disruptive innovation shaking up the energy market

Bath – 28 November





