Winter Outlooks 2019/2020

European Network of Transmission System Operators for Electricity (ENTSO-E)

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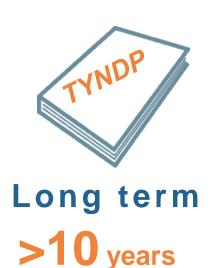


Programme

- 1 Introduction
 - Winter Outlook Methodology and Results
 - Conclusions and next steps

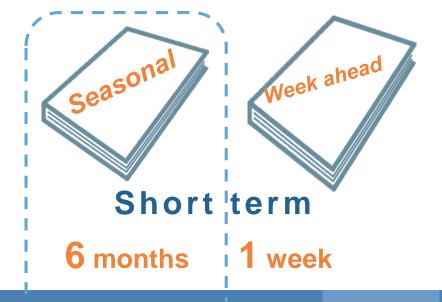
Different risks addressed with different timeframes

5 years





1 year



Policy decisions

Investment decisions

10 years

Operational decisions

REAL TIME

UNCERTAINTY INCREASES

What do the outlooks tell us?



Role of interconnections and exchanges at European level



Influence of external factors: weather, unplanned outages...



Stress test analysis: look for very severe case scenario (1 out of 20 years) & see how system reacts



Review of the previous season for a deeper understanding and improvements

Seasonal Outlooks—Stepwise approach

Inputs from TSOs and Pan-European databases

European constraining scenarios

synchronous peak (upward) → Wednesdays 7 PM low demand with high RES (downward) → Sundays 5 AM and 11 AM

Focused analysis on weeks flagged at risk

Probabilistic approach using numerous situations (temperature, wind...)

Aim is to estimate the probability that an issue could occur

Main drivers are identified

Stress test—Adequacy under Severe Conditions (weeks 2-3)



Cold spell









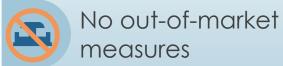
Extra outages

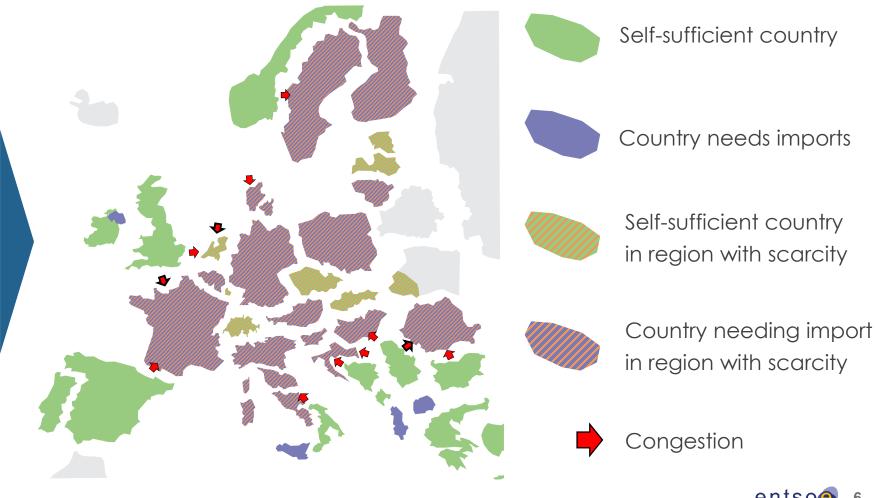




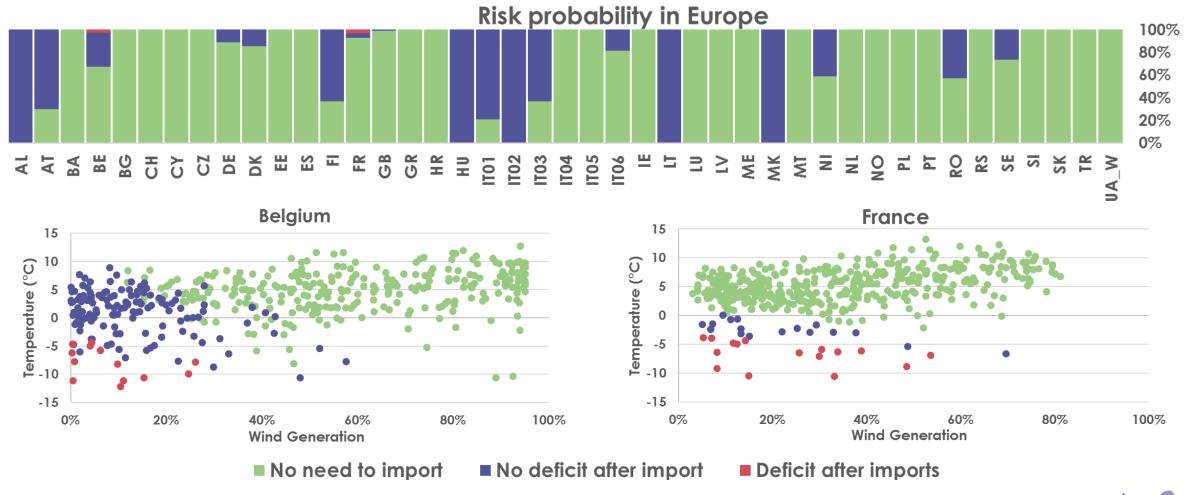
European peak



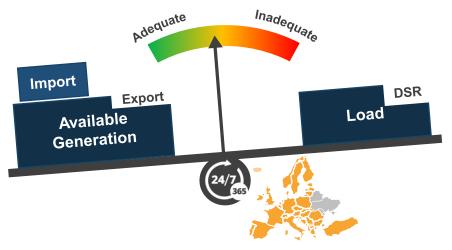




Winter Outlook—week 3, 2020



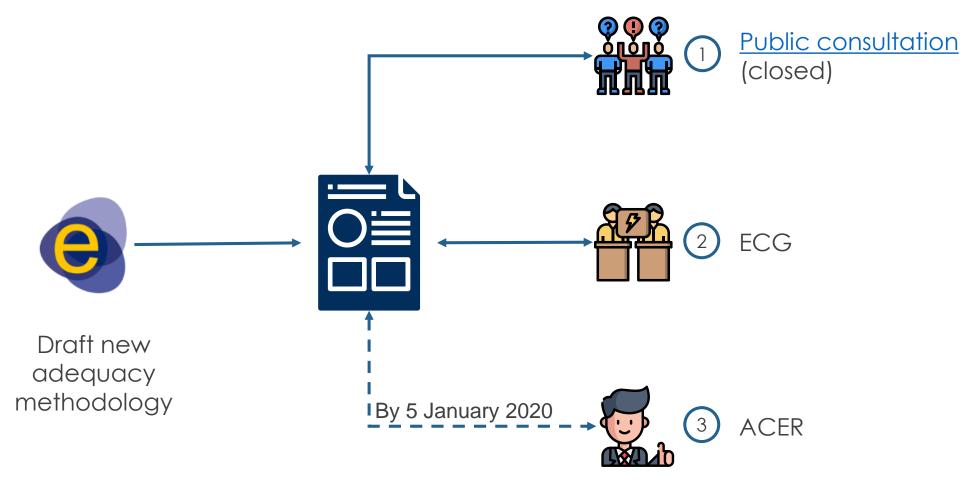
Seasonal Adequacy – Going probabilistic (parallel runs)



Network Infrastructure Supply **Demand Deterministic Information: Deterministic Information: Deterministic Information:** Capacities Network topology Demand profiles Planned outages Planned outages • Demand-side response Storage NTCs / FB domains **Uncertainties: Uncertainty: Uncertainty:** Wind generation Forced outages • Weather conditions (e.g. Solar generation temperature-dependency Forced outages of demand)

Hydro

Methodology Revision and Submission





ENTSOs seasonal outlooks are unique pan-European, system wide, security of supply analysis

Methodologies are continuously improving and cooperation is enhancing

Adequacy assessed in:

Electricity system under severe conditions

Adequacy situation: close monitoring needed in case of cold spell in January–February

Take-aways



Thank you for your attention

