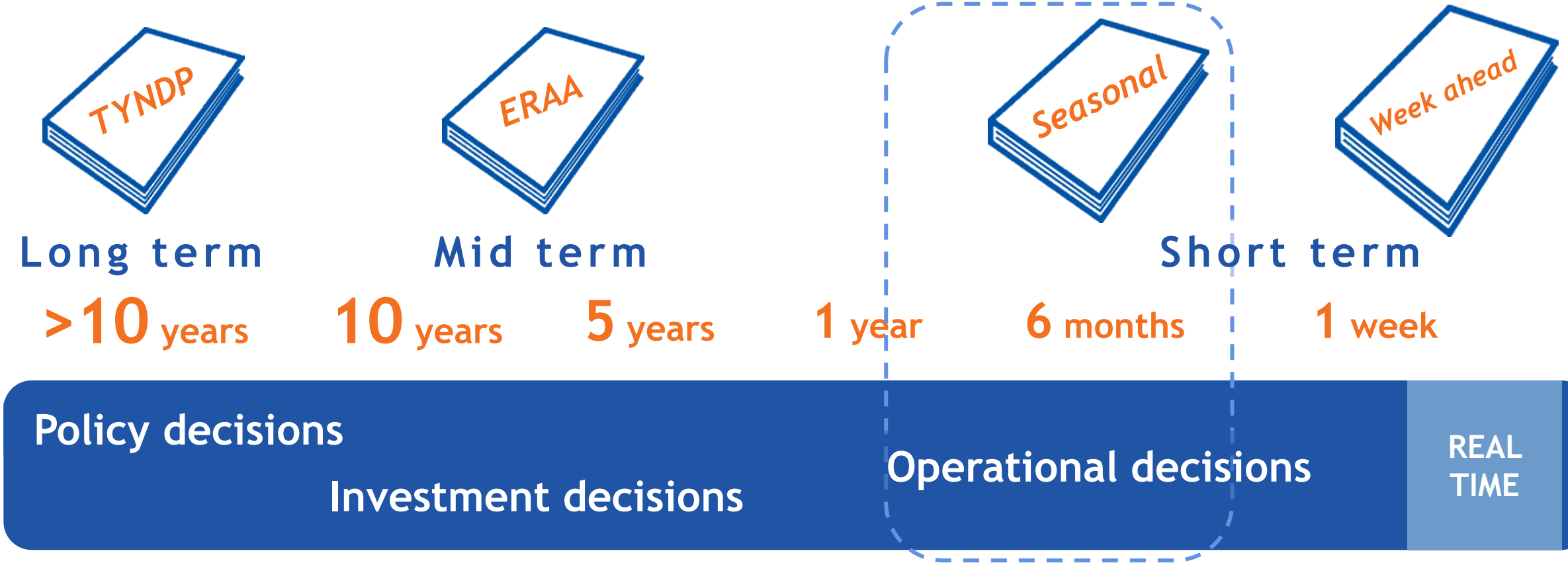
Summer Outlook 2022

Energy Community – Security of Supply Coordination Group meeting - 6 July 2022

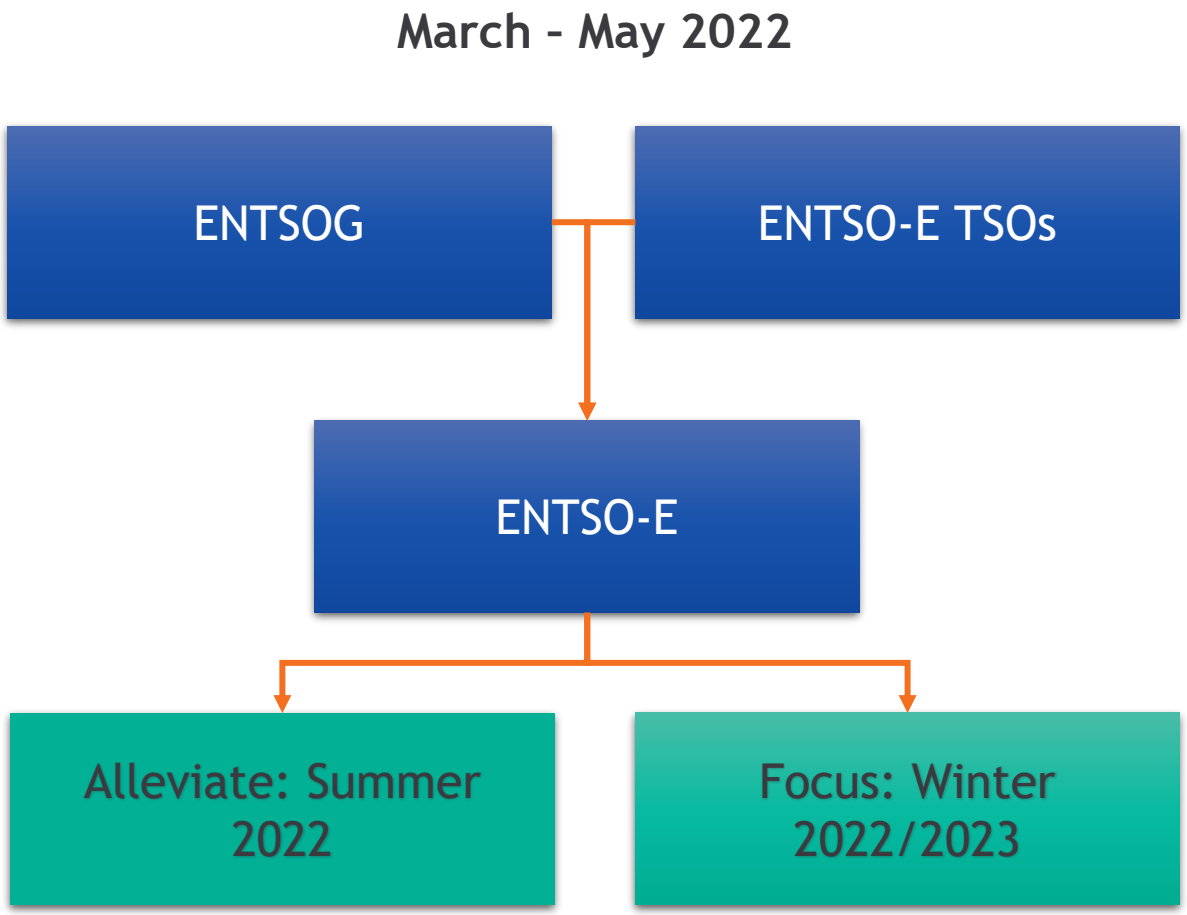
entsoe

Reliable Sustainable Connected

Different risks are addressed within different timeframes



Gas supply for European electricity security of supply



ENTSO-E and ENTSOG remain in close coordination to exchange on gas supply prospects and needs in various timeframes.

Winter 2022-2023:

- Gas fuel availability is key concern
- ENTSO-E identifies preliminary potential gas savings, however gas supply for power generation is essential. Gas needed for power generation will depend on weather conditions and climatic variables.
- Additional aspects for the power system are also relevant, e.g. nuclear power plant availability.

Summer 2022:

- gas supply risks for power generation are considered moderate
- Hydro storage levels by end of summer may influence adequacy in winter period.

ENTSO-E: Winter 2022-2023 anticipation

Common TSO views based on survey for winter

Gas supply is the key concern

- Some local concerns over coal supply

Nuclear low availability is a main concern for several TSOs

Mitigation actions in line with REpowerEU needed

- Gas storage requirements; alternative fuel supply route arrangements; RES development acceleration; fuel switching and delay of coal/nuclear unit retirements.

Higher electricity demand due to lack of gas/increasing energy prices

- Complex to assess

Technology dependence on Russia is low

- Local impact in a few Balkan countries

Extension of next Winter season assessment period, starting from 1 October

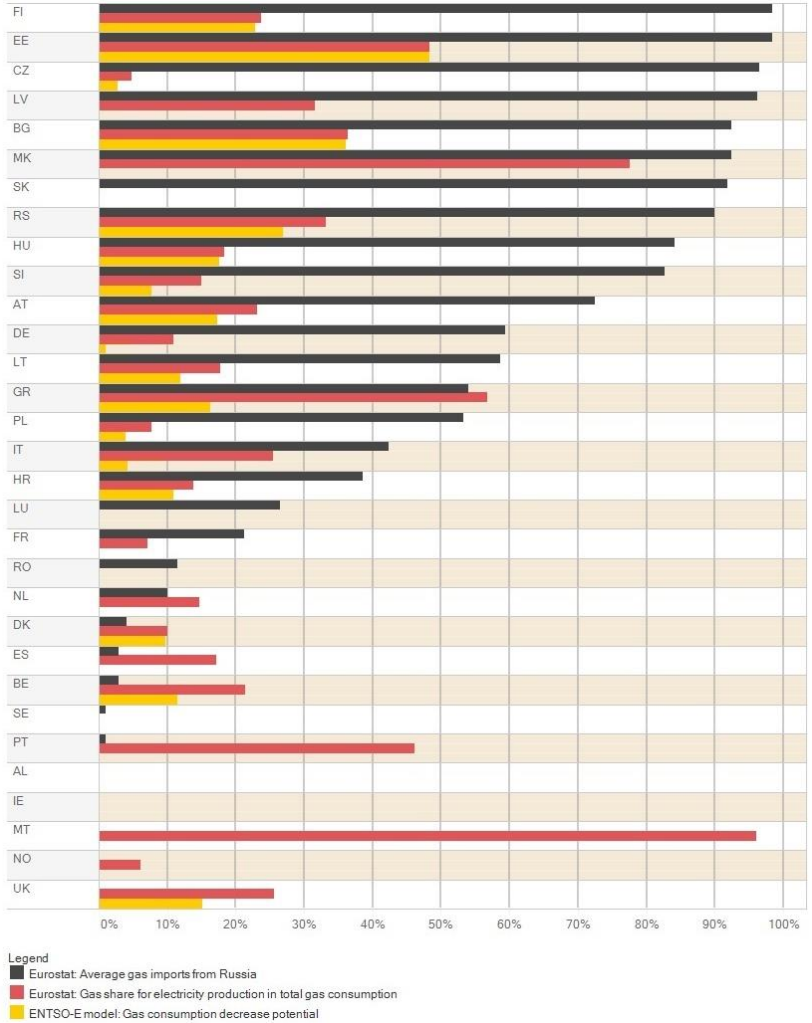
Gas supply for power generation required in Winter 2022/2023. Gas consumption savings are plausible

An early analysis of the impact on electricity generation in case of a gas supply disruption shows:

- **A significant volume of gas is needed for electricity adequacy** in Europe. Electricity supply could be impacted if gas supply becomes scarce in Europe. The impact depends notably on how well Europe is prepared for the winter and how gas supply is prioritized across consumers.

- The minimum critical dependency on gas for power generation varies a lot across European countries and alternative supply fuels are only limited. **In case of gas disruption, solidarity among countries will be key.** In addition to the focus on possible gas disruption, European TSOs give **special attention to possible low nuclear generation availability in France this winter.**

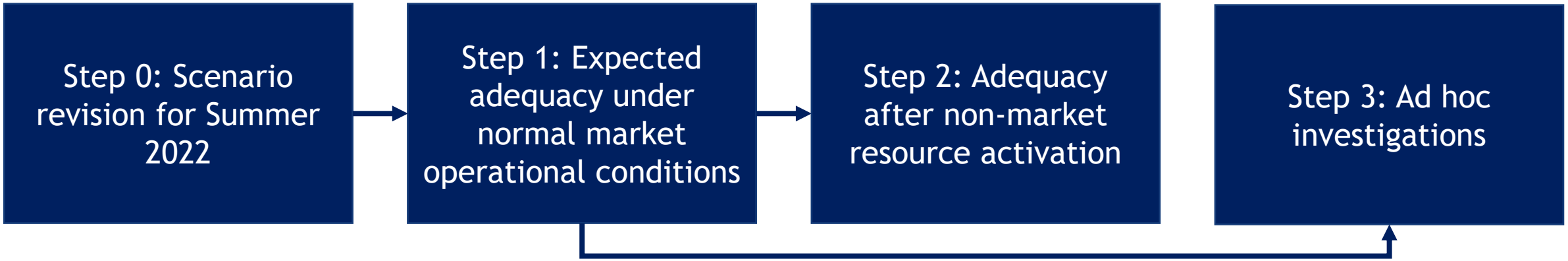
Gas consumption landscape: gas imports from Russia, gas usage in power sector and potential reductions in power sector*



* Improved data collections and reviews ongoing to get a more realistic view for next winter (e.g. use of winter 2022/2023 data, take better into account gas supply for CHPs providing heat and electricity, take better into account gas supply needed for critical infrastructure providing grid services, …)

ENTSO-E: Summer 2022 expectations

Summer outlook 2022 approach



Qualitative assessment on risks related to Russia for summer 2022 and winter 2022-2023

Information on outages available in March

No impact of potential Russian gas supply disruptions

Activation of non-market resources

European cooperation

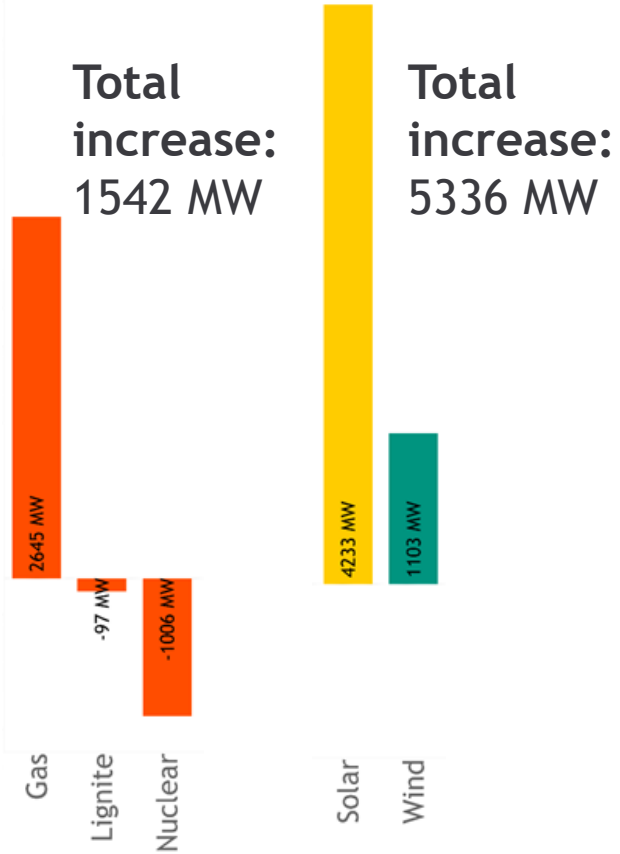
Result investigation

Quantitative assessment on gas needs for winter 2022-2023

Summer projections for available generation

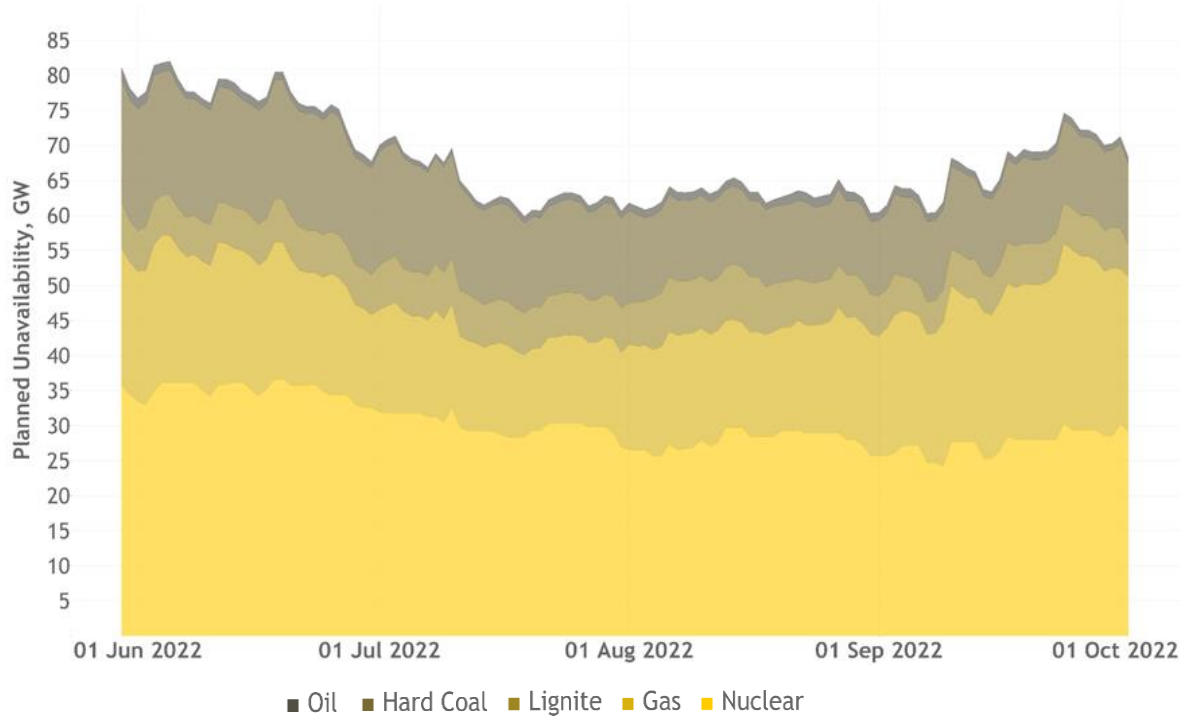
Gas supply risks are minor for electricity generation.

Net generation capacity change



Thermal and RES capacity increases over summer. Thermal capacity increase is driven by new gas power plant commissioning.

Planned unavailability of thermal units



Total planned unavailability of thermal power plants decreases slightly during July and August months.

Adequacy overview in Summer 2022

- Notable adequacy risks are identified in Ireland, Eastern Denmark, Malta and Creta.
- Some adequacy risks are identified in Mainland Greece and Cyprus.
- Adequacy risks are expected to be addressed by out-of-market resources in Malta and Creta.
- All TSOs are closely monitoring adequacy concerns together with RSCs.

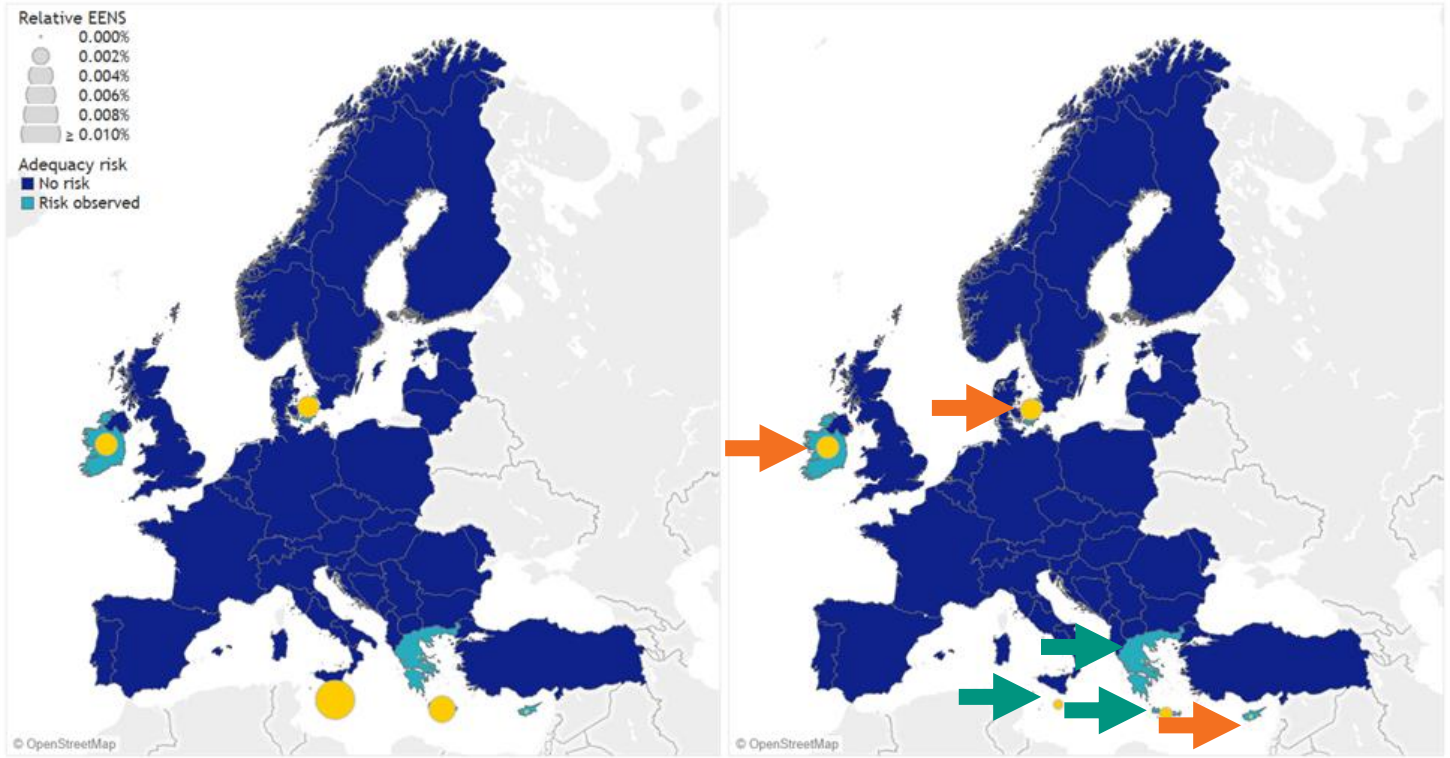
Risks do not change significantly

Risks decrease

Adequacy projections

Normal market operations

Considering non-market resources

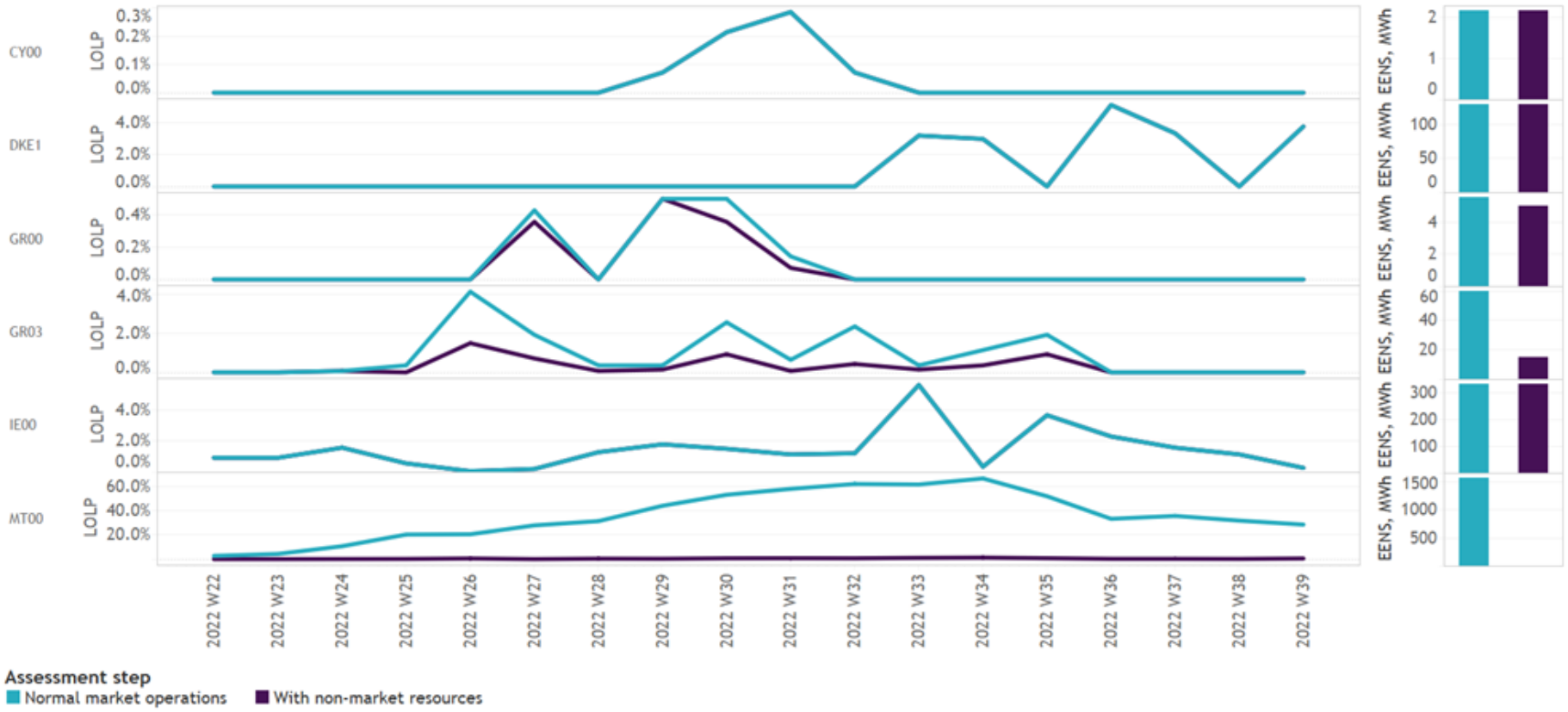


EENS = Expected Energy Not Served, RSC = Regional Security Coordinator
Relative EENS – EENS representation considering power system seasonal consumption (reliability metric designed to compare EENS on pan-European scale)

Adequacy details

The contribution of non-market measures significantly reduces Loss of Load Probability (LOLP) in Malta and Creta. Non-market resources may also help to secure adequacy in mainland Greece.

Detailed adequacy overview - weekly LOLP and EENS



EENS = Expected Energy Not Served
LOLP = Loss of Load Probability (probability that at least one consumer could lose electricity supply)

Thank you for your attention