

TYNDP 2013-2022

Demand and Supply Scenarios

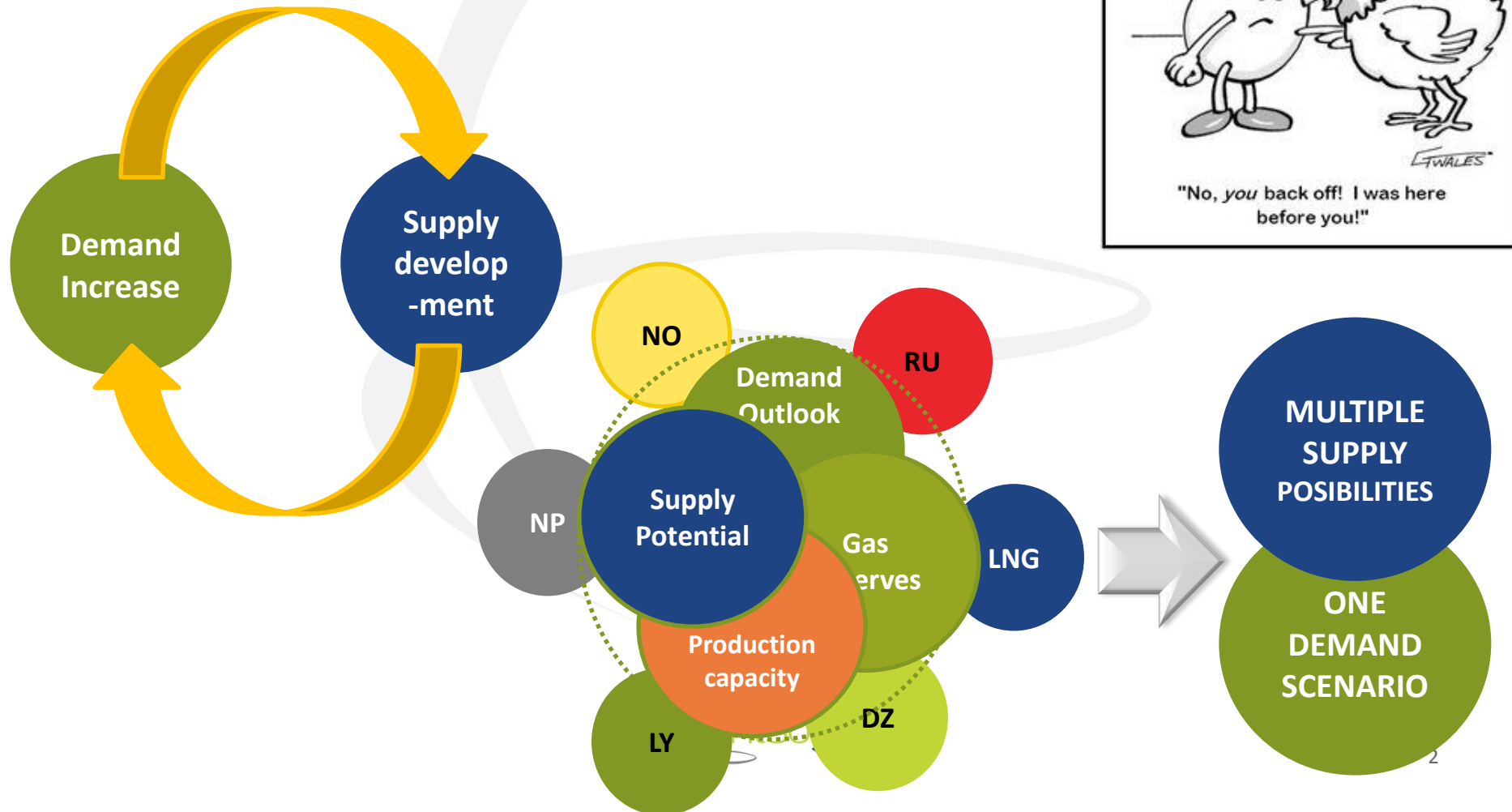
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Adviser

Riga -- 21 March 2013

Demand and Supply scenarios

What for?

- > The Supply Adequacy Outlook
- > Input for the modelling: Network assessment





Demand Scenarios

Demand scenarios (1)

Enhanced analysis

- > Underlying assumptions
- > Demand disaggregation: DOM & COM & IND vs. Power generation

One single (ENTSOG) demand scenario for modelling

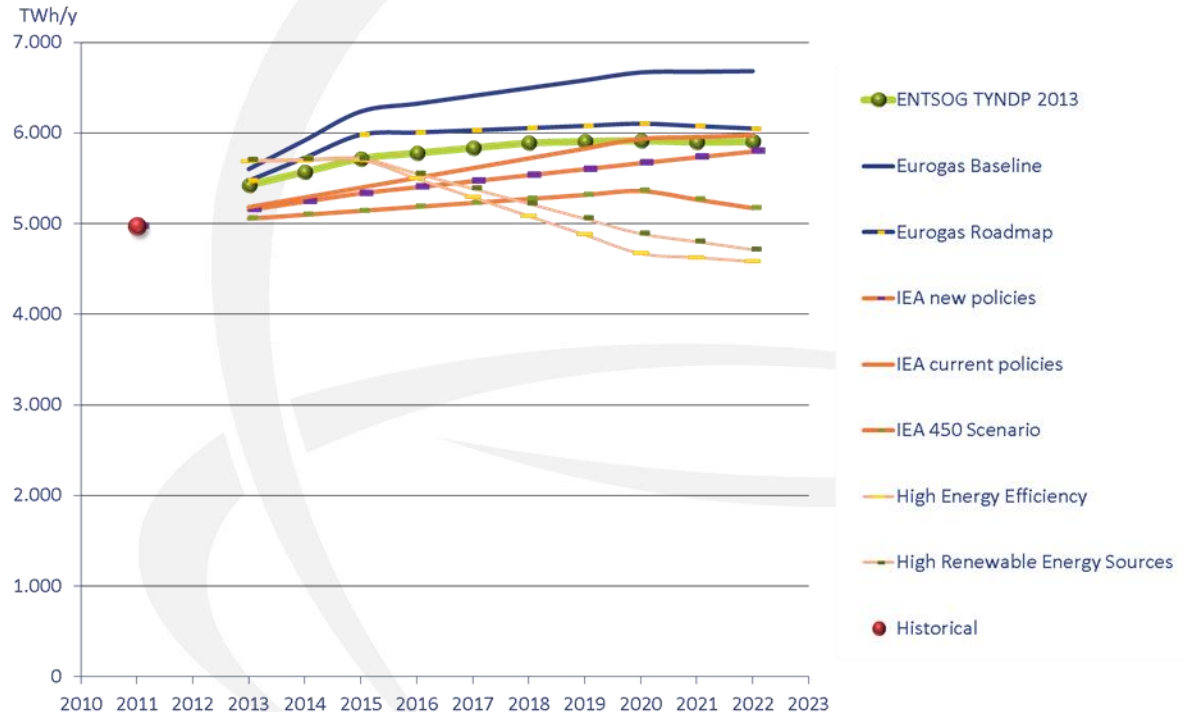
- > Following situations covered
 - Yearly demand (Average daily demand)
 - High daily demand
 - 1-day Design Conditions -- strictly bottom-up (national plans)
 - 1-day Uniform Risk
 - 14-day Uniform Risk

Cooperation with ENTSO-E

- > Comparison of the scenarios in Electricity and Gas TYNDPs – gas in the electricity mix
- > Ongoing cooperation

Demand scenarios (2)

Comparison with demand scenarios from other institutions possible only at the European level and on yearly basis due to the data available

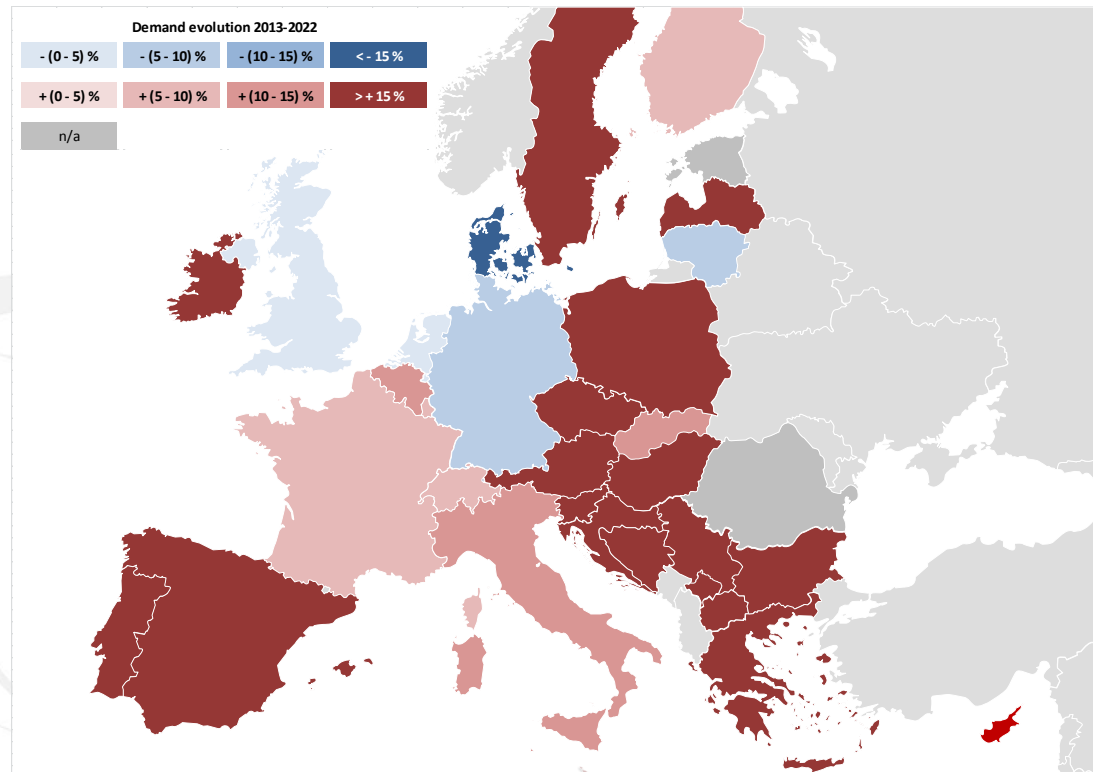
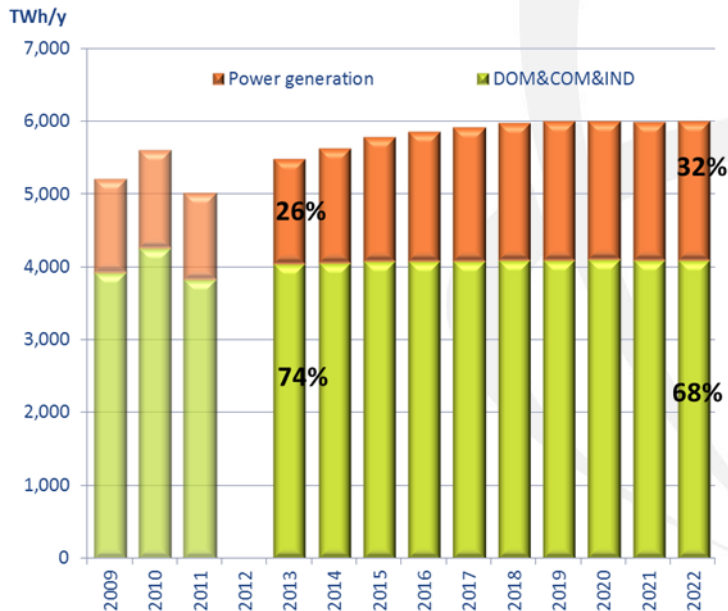


The ENTSOG scenario is towards the middle part of the range. Significant differences appear between scenarios driven by environmental targets (Eurogas Roadmap, IEA 450 Scenario, Roadmap 2050) towards the end of the period. The Eurogas Roadmap shows a demand scenario that achieves the environmental targets while also converging with ENTSOG's scenario for the last years of the horizon.

Average demand situation

Yearly demand

- > Average yearly growth 1% - coming from power generation sector
- > Total growth (2013-2022): 9%
 - Power generation: +33%
 - DOM&COM&IND: +1%



High daily demand situations (1)

High daily demand

> Design-Case

- Average yearly growth 0.6% - coming from the power generation sector
- Slight yearly decrease -0.2% in the peak demand for DOM & COM & IND

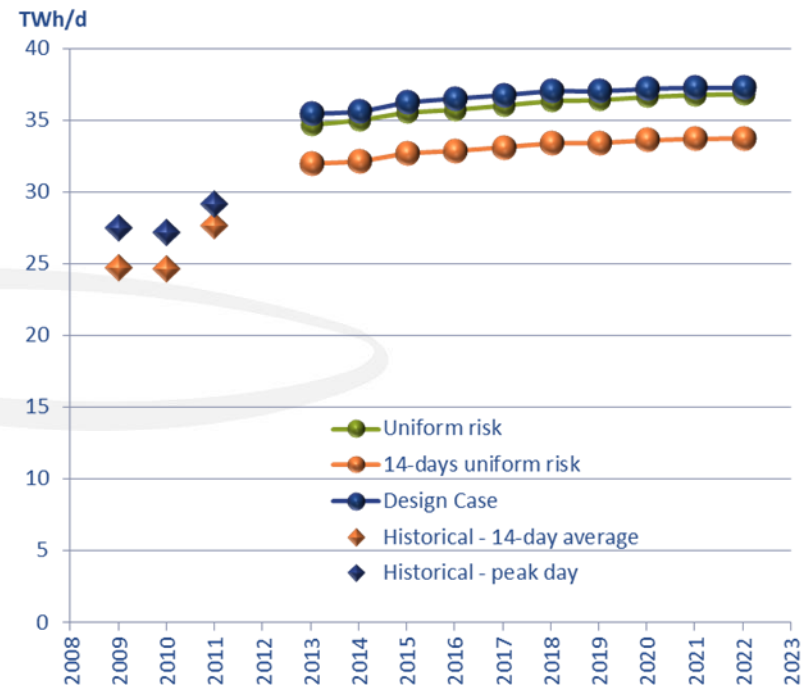
> 1-day Uniform Risk

- demand is only slightly lower than the *Design-Case* (-3%)

> 14-day Uniform Risk

- demand significantly lower (-10%) than the *Design-Case*

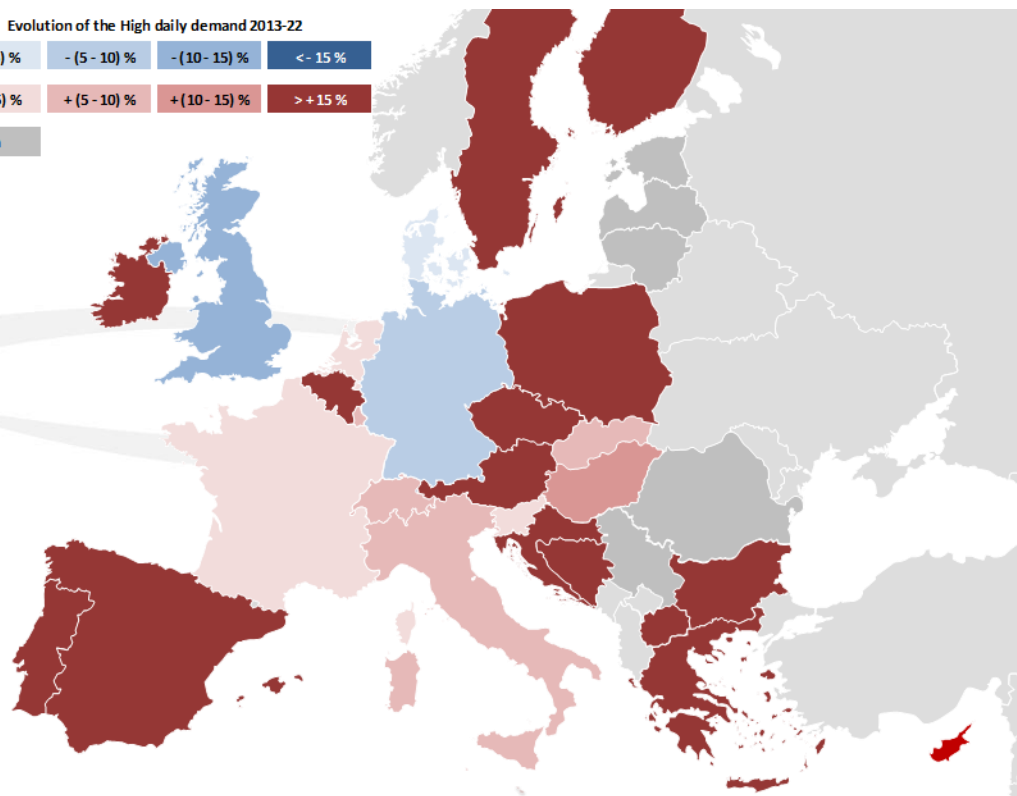
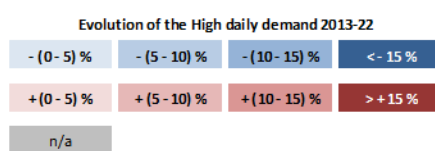
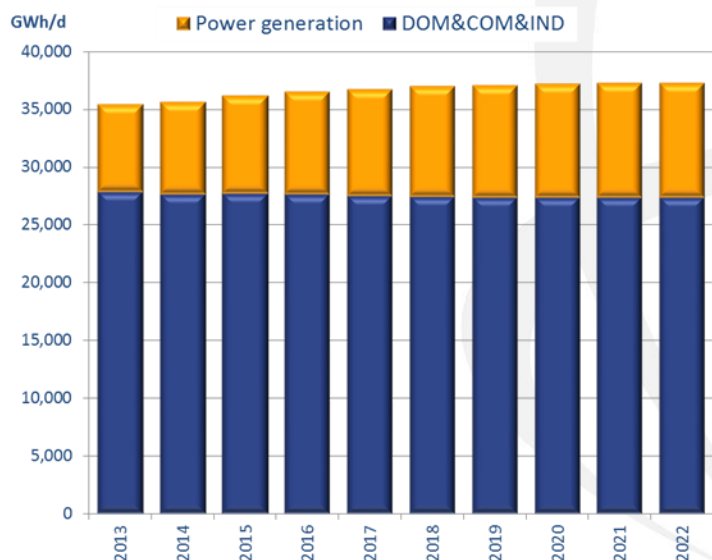
Evolution of High daily demand



High daily demand situations (2)

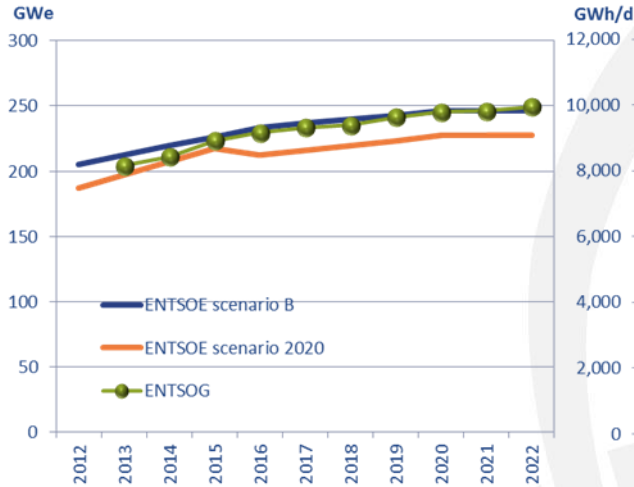
Design Case

- > Total growth (2013-2022): 5%
- Power generation: +31%
- DOM&COM&IND: -2%

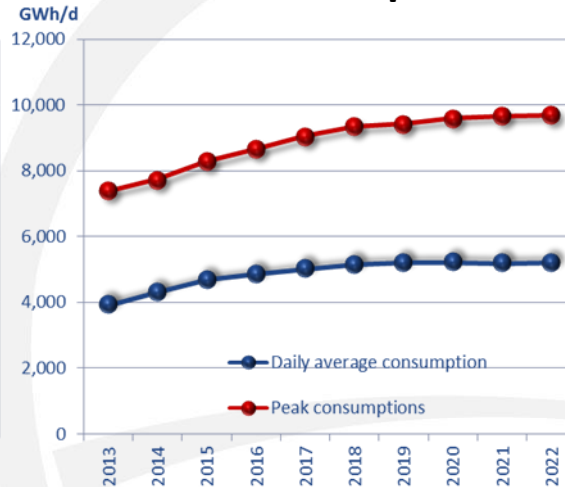


Power generation (1)

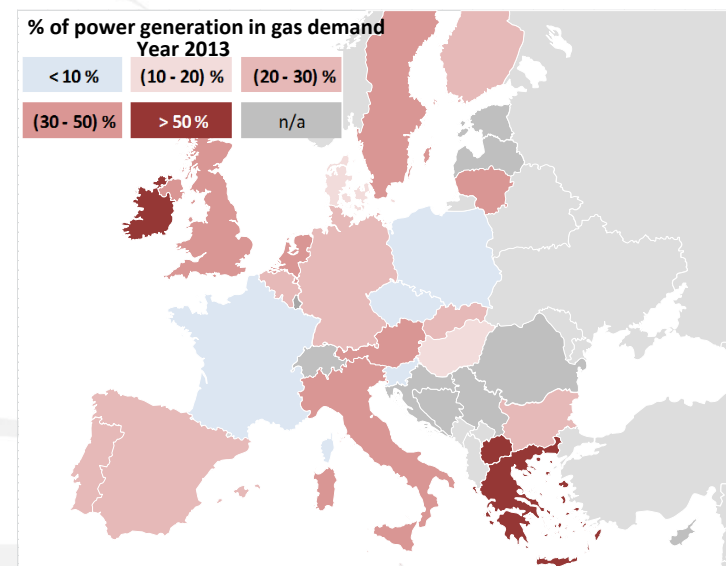
Installed capacity



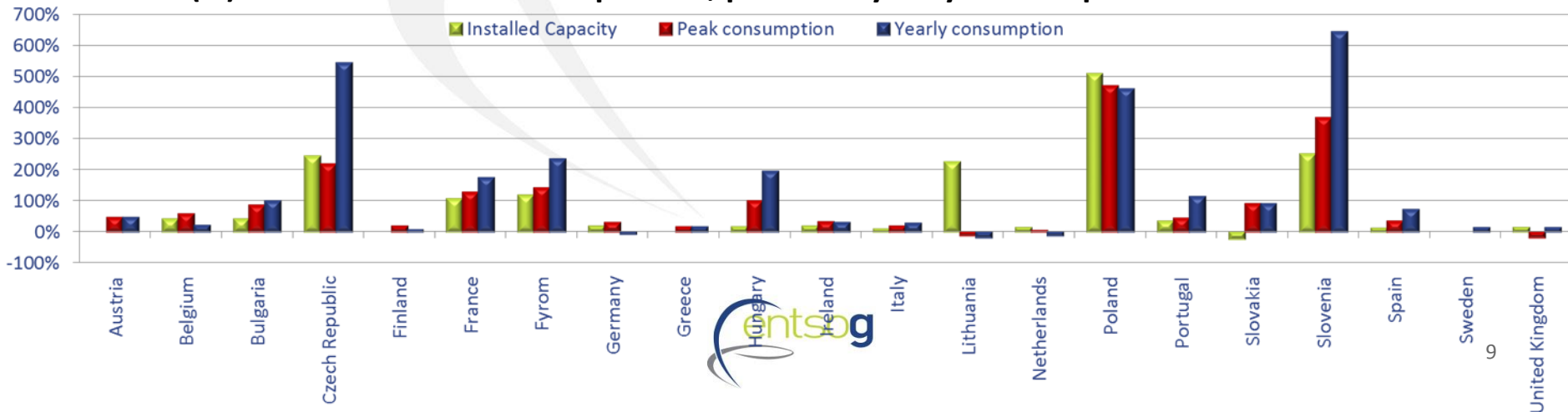
Gas consumption



Power generation in gas consumption (2013)



Relative (%) Evolution in Installed capacities, peak and yearly consumptions between 2013 and 2022

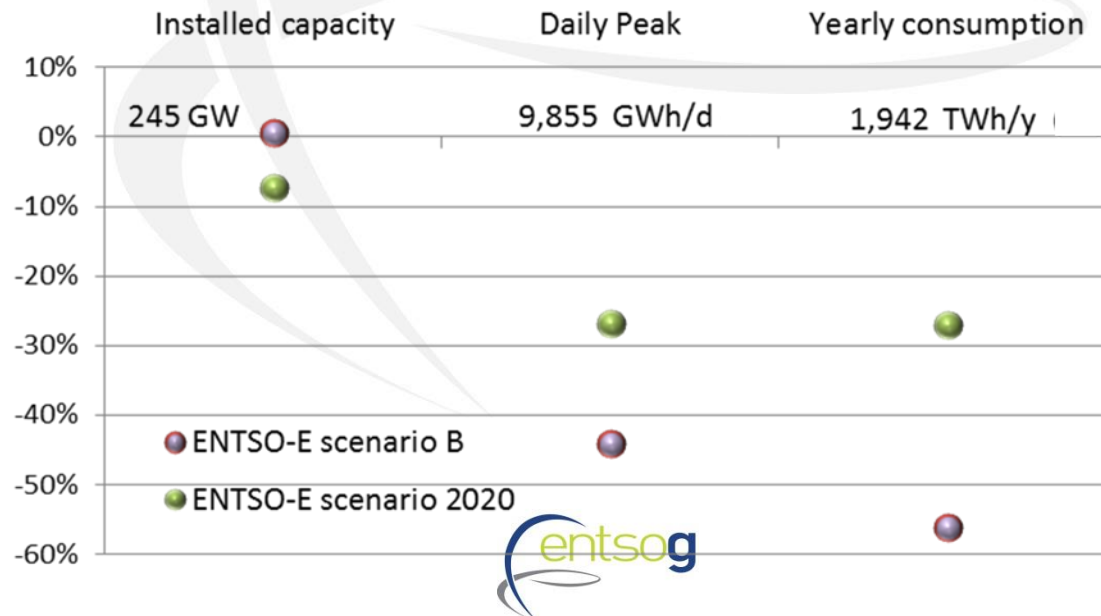


Power generation (2)

Cooperation with *ENTSO-E*

- > Comparison of the TYNDP scenarios between ENTSG and ENTSO-E
 - ENTSO-E Scenario 20-20 (top-down, based on the European 20-20-20 objectives and the NREAPs)
 - ENTSO-E Scenario B (bottom-up, extrapolates information from market players' present investments perspectives)
- > Consistency in the installed capacities, significant differences in the demand scenarios

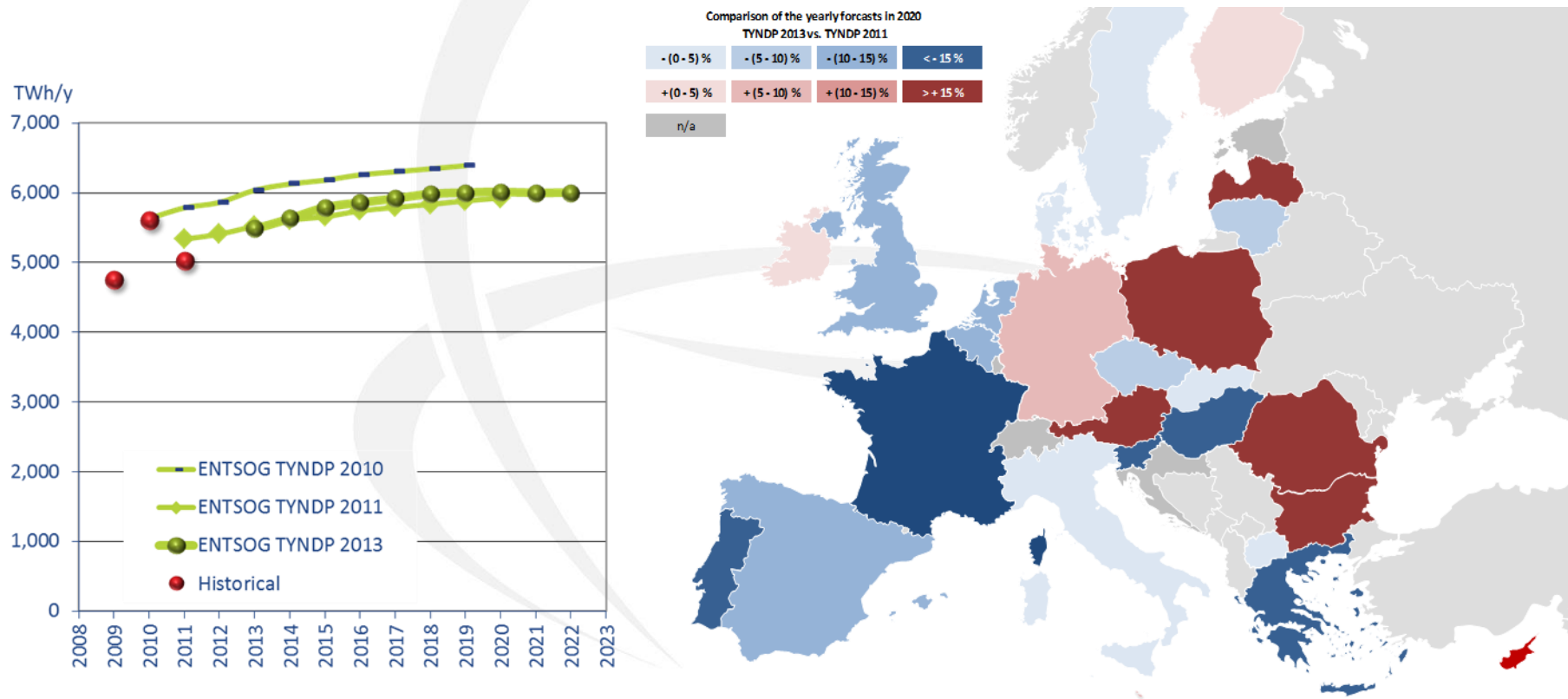
Relative dispersion of ENTSO-E scenarios from ENTSG scenario



TYNDP 2013 vs. TYNDP 2011

Yearly demand

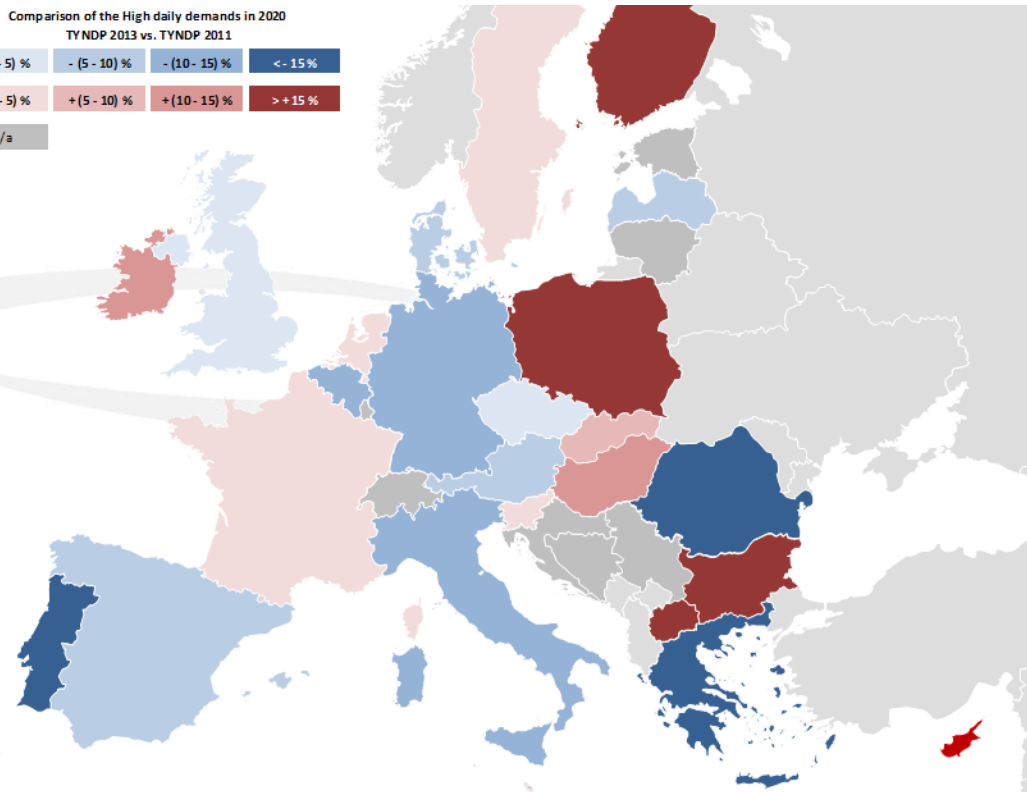
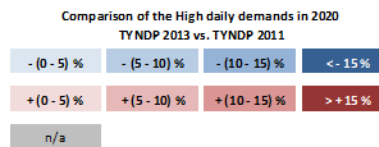
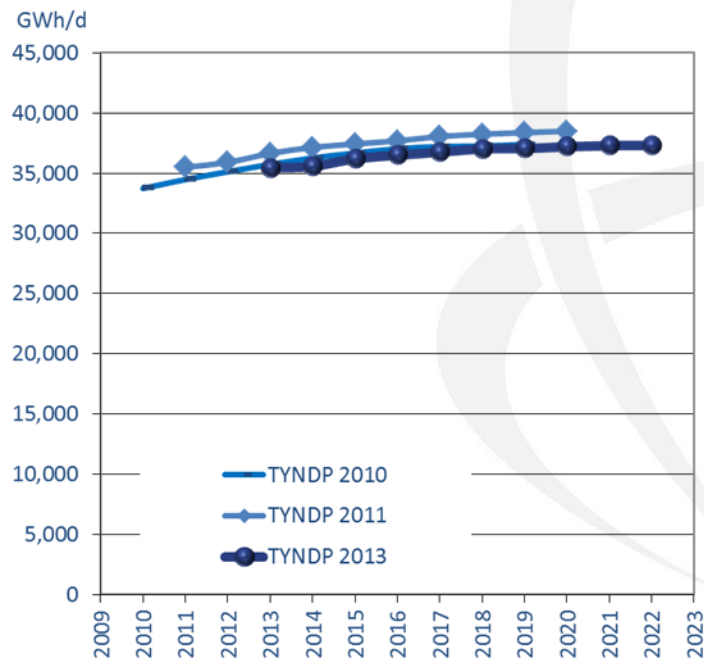
- > The aggregated is the reiteration of the outlook in 2011
- > Significant differences at country level



TYNDP 2013 vs. TYNDP 2011

High daily demand

- > Minor decrease in the High daily demand (1-day Design conditions)
- > Differences at country level





Supply Scenarios

Supply scenarios

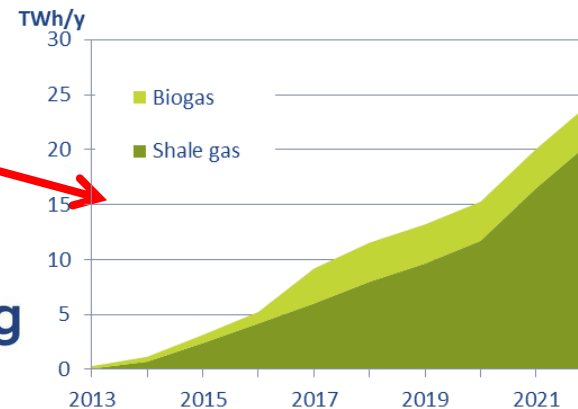
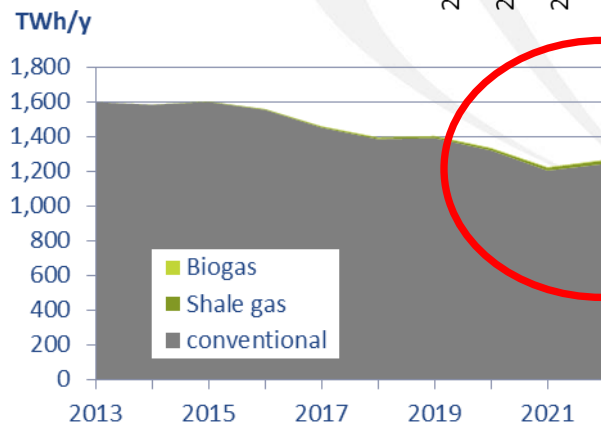
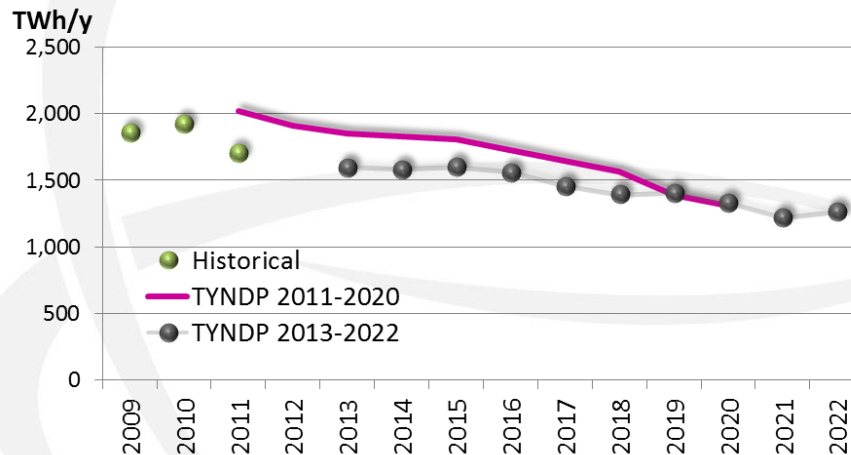
Development of supply scenarios

- > The uncertainty in the future supply mix has been addressed through a multi-scenario approach
- > A robust range of supply scenarios has been defined for each of the import sources by the combination of:
 - Minimum potential supply
 - Intermediate potential supply
 - Maximum potential supply
- > These ranges have been carefully defined on the basis of public information targeting reasonable extremes

Supply Scenarios

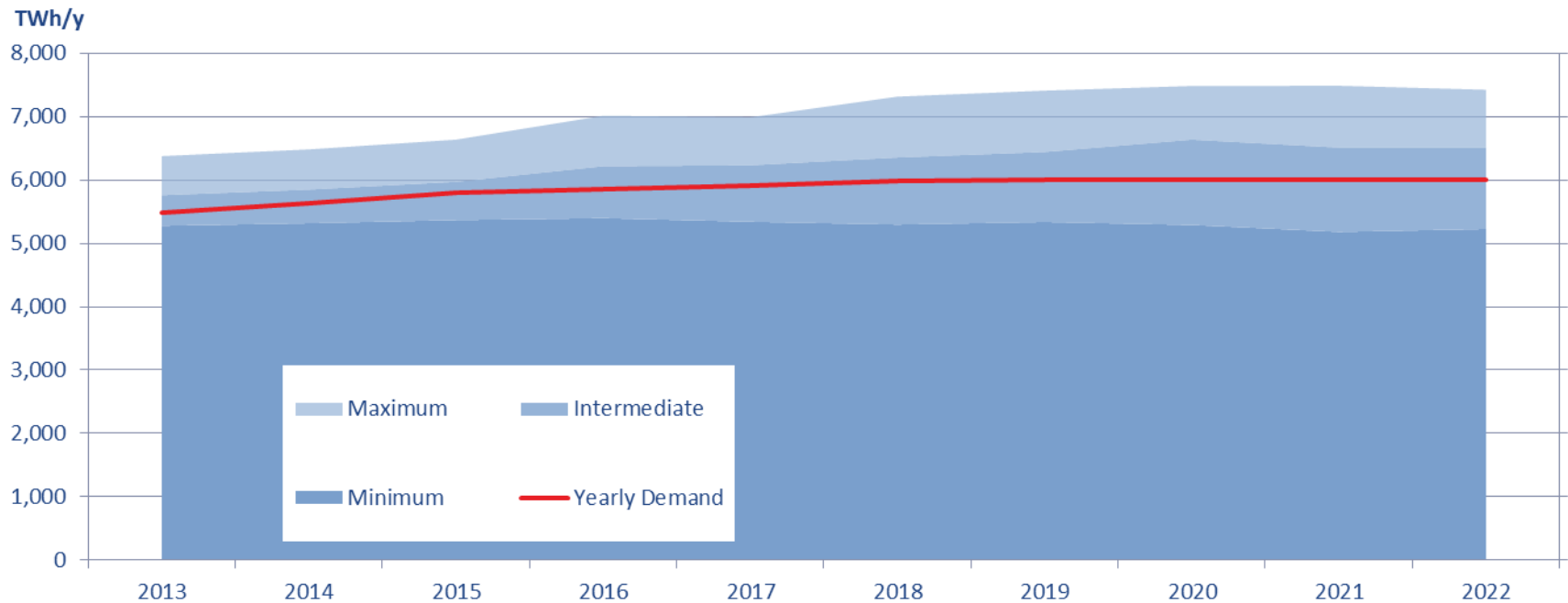
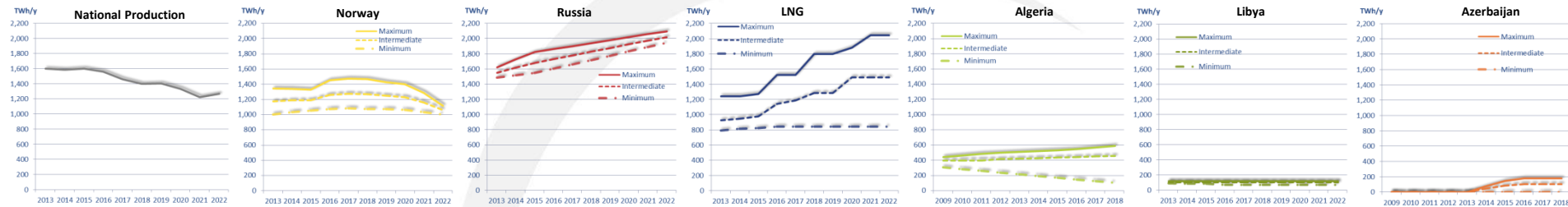
Indigenous Production

- > A single TSO's best-estimate scenario has been considered for the National Production covering both:
 - Biogas
 - Shale gas
- > The early stage of exploration brings a high uncertainty for the shale gas production capacity



Supply Adequacy Outlook

Supply potential scenarios





Thank You for Your Attention

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