

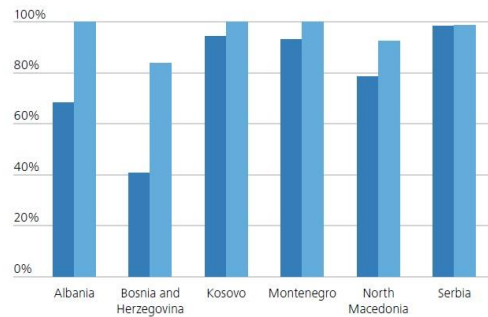
# **Investments, Covid-19 and the Energy Law**

Aleksandar Kovacevic

Belgrade, December 9, 2020

# Cumulation of risks: climate change; emissions; border adjustment tax; barriers to entry; rule of law; exposure to respiratory infections; ...

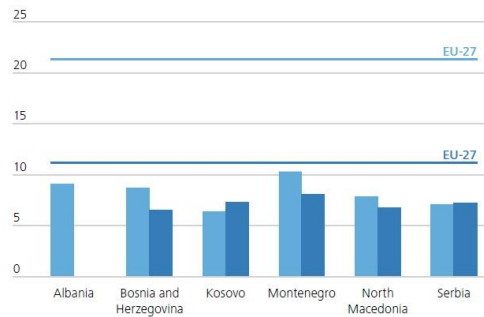
Market share in the wholesale and retail electricity market, 2018



■ Market share of the largest producer  
■ Market share of the three largest retail suppliers

Source: ECRB, NRA and generation companies' reports, compiled and calculated by the Energy Community Secretariat

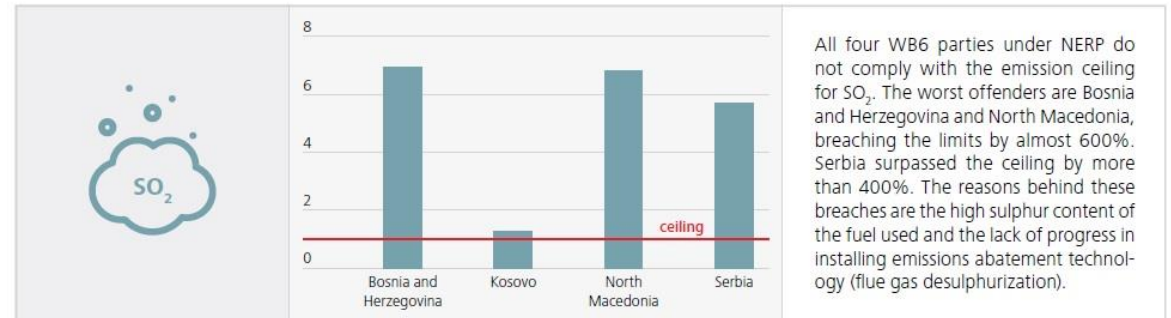
Electricity prices, 2018



■ Households (Band DC: 2 500 kWh < Consumption < 5 000 kWh, all taxes included)  
■ Industry (Band IC: 500 MWh < Consumption < 5 000 kWh, without VAT and recoverable taxes)

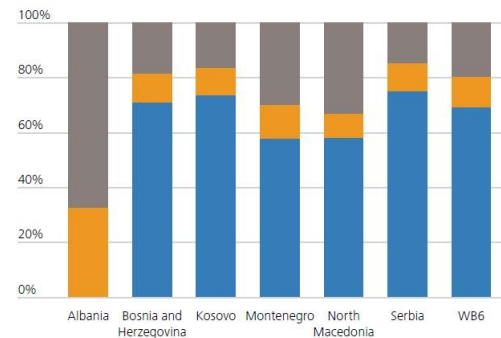
Source: EUROSTAT data

2019 emissions versus NERP ceilings



All four WB6 parties under NERP do not comply with the emission ceiling for SO<sub>2</sub>. The worst offenders are Bosnia and Herzegovina and North Macedonia, breaching the limits by almost 600%. Serbia surpassed the ceiling by more than 400%. The reasons behind these breaches are the high sulphur content of the fuel used and the lack of progress in installing emissions abatement technology (flue gas desulphurization).

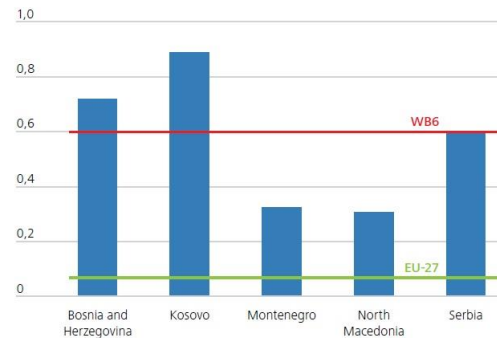
CO<sub>2</sub> emissions per sector, 2018



■ Production of electricity & heat ■ Industrial sector ■ Road transport sector

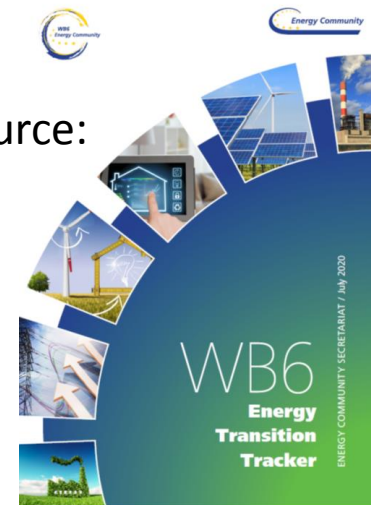
Source: compiled and calculated by the Energy Community Secretariat.

CO<sub>2</sub> emissions from power sector per GDP [kg CO<sub>2</sub>/EUR], 2018



Source: compiled and calculated by the Energy Community Secretariat.

Source:



# Investments?

Apparent (is it?) need for investments to replace:

- about 2/3 of available power generation capacity;
- Nearly entire capacity of heat sources for district heating systems;
- Over half of residential space heating systems;
- Entire portfolio of domestic hot water production;
- Shift and re-direct major transport flows and
- Change nearly all urban transport solutions while
- Doubling density and yields of forest cover
- And providing alternative employment for nearly entire energy sector workforce



EUROPEAN COMMISSION

Brussels, 10.3.2011  
COM(2011) 105 final

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND  
THE COUNCIL**

**under Article 7 of Decision 2006/500/EC  
(Energy Community Treaty)**

“Despite intensive legislative work, the first level of ambition – the existence of open, transparent and competitive national energy markets in all Contracting Parties – has not been completed yet;...”

“The Energy Community faces investment challenges that are well known, such as those resulting from the modernisation of the electricity transmission and distribution networks and interconnectors, from the EU requirements and measures related to energy efficiency or from implementation of the Large Combustion Plants Directive, the Sulphur in Fuels Directive and emissions standards of the European Union, requiring rehabilitation of existing generation plants or decommissioning and possible replacement of a number of them by December 2017.”

# Evolution of the Energy Community Treaty framework and its ability to tackle investment challenge

Year	Landmark	Consequences
2004	South East Europe integrated / synchronized into European Interconnection	Power system security enhanced. Transfer of electricity restored. Improved security of supply
2005	Energy Community Treaty (EnCT) signed	Contracting Parties (CPs) signed up for obligations
2006	New Serbia Constitution voted in	Changed nature of the EnCT within domestic legal system in Serbia. Signal to other CPs
2008	IEA energy policy review for Western Balkan countries published	The only independent and comprehensive overview of energy policy. Intended to facilitate investments. First inclusion of the energy poverty into IEA energy policy review framework.
2008	Formation of the ENTSO-E	UCTE dismantled and its prerogatives transferred to ENTSO E
2009	Russia – Ukraine gas crisis	EnCT security of supply arrangements tested. Energy efficiency response turned inadequate. No further initiatives for investments
2010	The World Bank “Stock taking Report on Energy Efficiency in Western Balkans” published	Document provided comprehensive guideline for sustainable investment opportunities, energy poverty reduction and sustainable development
2011	European Commission Report to the European Parliament on the EnCT	Call for implementation. Emphasize on energy poverty and investment needs
2014	Massive floods across entire region. Lignite mines heavily affected	Climate change and security of supply risks revealed. Demonstration of the quality of Governance. No response in governance structure or investments. BaU re-established.
2015	UNFCCC Paris Agreement signed Annex to OECD Understanding on Export financing for coal signed	Legitimate financing for coal investments from public financial institutions ruled out Technology options to fulfil EnCT obligations with existing coal fired plants without economy-wide restructuring diminished.
2020	EnCT Secretariat published Energy Transition Tracker	Actual investment achievements revealed. Promotion of the rule of law?

# Evolution of the Rule of Law Indicators 2005-2019



Percentile R.. 10-25th 25-50th 50-75th 75-90th 90-100th

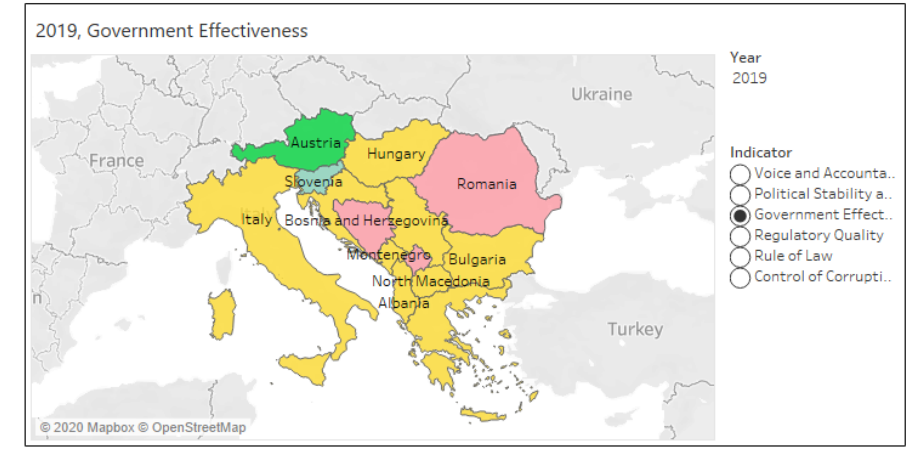
□ No Data for Country

- Inadequate Rule of Law is to be considered as critical barrier to entry for commercial investors
- Inadequate Rule of Law combined with improvement in Government effectiveness , significant government investment activity and strengthen regulators increases obsolescence risks for commercial investors
- Uncertainty about security of contract and property rights add up to barriers,
- Dysfunctional finance and promotion of destructive entrepreneurship provide ground for nominal GDP growth and
- Accumulation of opportunity costs, risks growing probabilities of governance failures

Source: generated by author using on line tool

<http://info.worldbank.org/governance/wgi/Home/Reports>

# Evolution of indicators on Regulatory Quality and Government Effectiveness 2005-2019



Percentile R.. 25-50th 50-75th 75-90th 90-100th No Data

□ No Data for Country

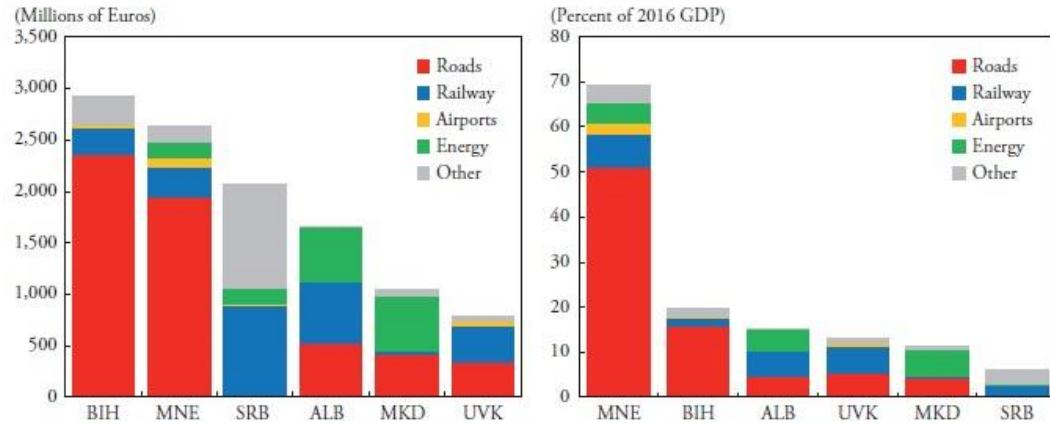
Percentile R.. 25-50th 50-75th 75-90th 90-100th No Data

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Source: generated by author using on line tool <http://info.worldbank.org/governance/wgi/Home/Reports>

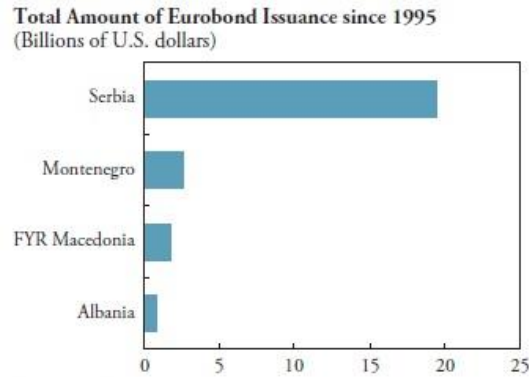
# Outstanding government investment activity with massive leveraging and risks of asset stripping

Figure 3.5. Top 15 Projects in National Single Project Pipelines<sup>1</sup>



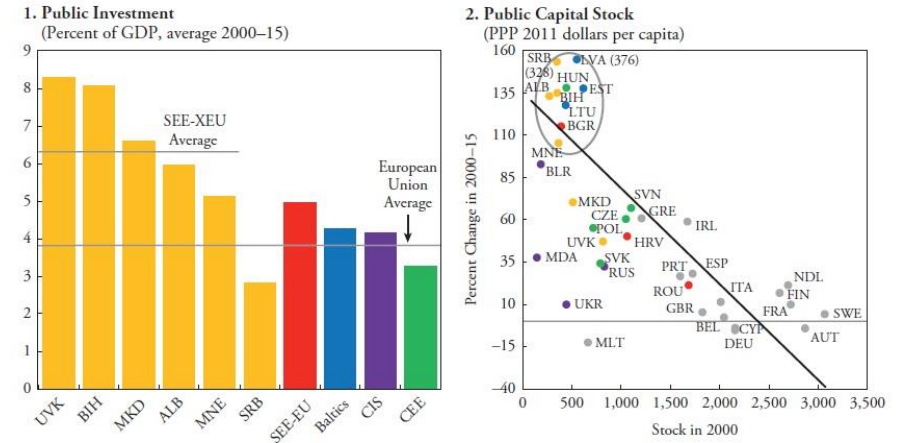
Sources: National authorities; IMF, WEO; and IMF staff calculations.  
<sup>1</sup>Includes top 15 projects for each country.

Figure 5.1. Eurobond Issuance in Western Balkans



Source: Bloomberg.  
<sup>1</sup>Number in parentheses is the year of the bond maturity.

Public Investment Rates and Capital Stocks



Sources: IMF, FAD Database; and IMF staff calculations.  
 Note: CEE = Central Eastern Europe; CIS = Commonwealth of Independent States; SEE-EU = Southeast Europe EU members; SEE-XEU = Southeast Europe non-EU members.

Source: Atoyán, Ruben; Benedek, Dora; Cabezon, Ezequiel; Cipollone, Giuseppe; Miniane, Jacques; Nguyen, Nhu; Petri, Martin; Reinke, Jens; Roaf, James; “Public Infrastructure in the Western Balkans: Shifting Gears—Opportunities and Challenges” Washington, D.C.: International Monetary Fund, 2017



# Is there really a need for new commercial investments?

Source: [https://eepublicdownloads.entsoe.eu/clean-documents/sdc-documents/seasonal/WOR2020/201130\\_Winter%20Outlook%202020-2021\\_Report.pdf](https://eepublicdownloads.entsoe.eu/clean-documents/sdc-documents/seasonal/WOR2020/201130_Winter%20Outlook%202020-2021_Report.pdf)

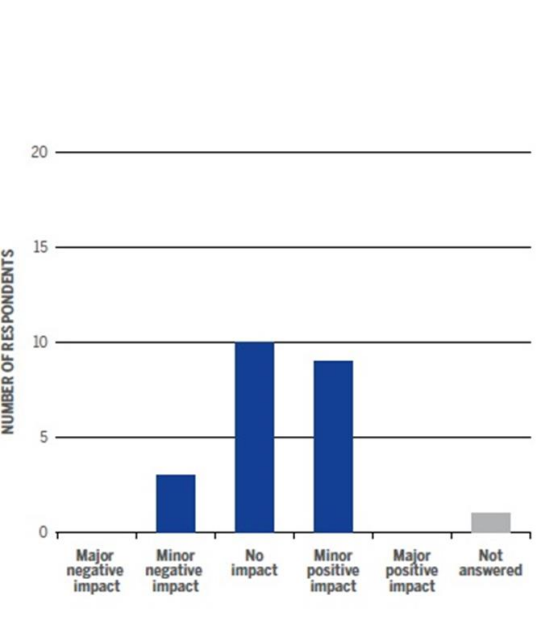


Figure 5: Expected COVID-19 impact on regional adequacy overall

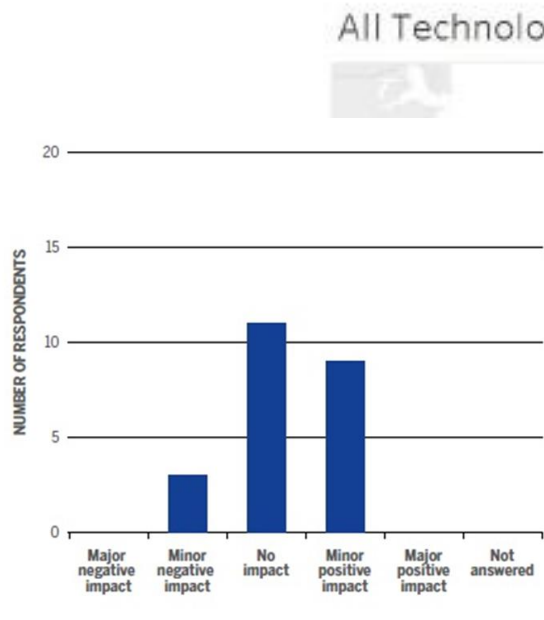
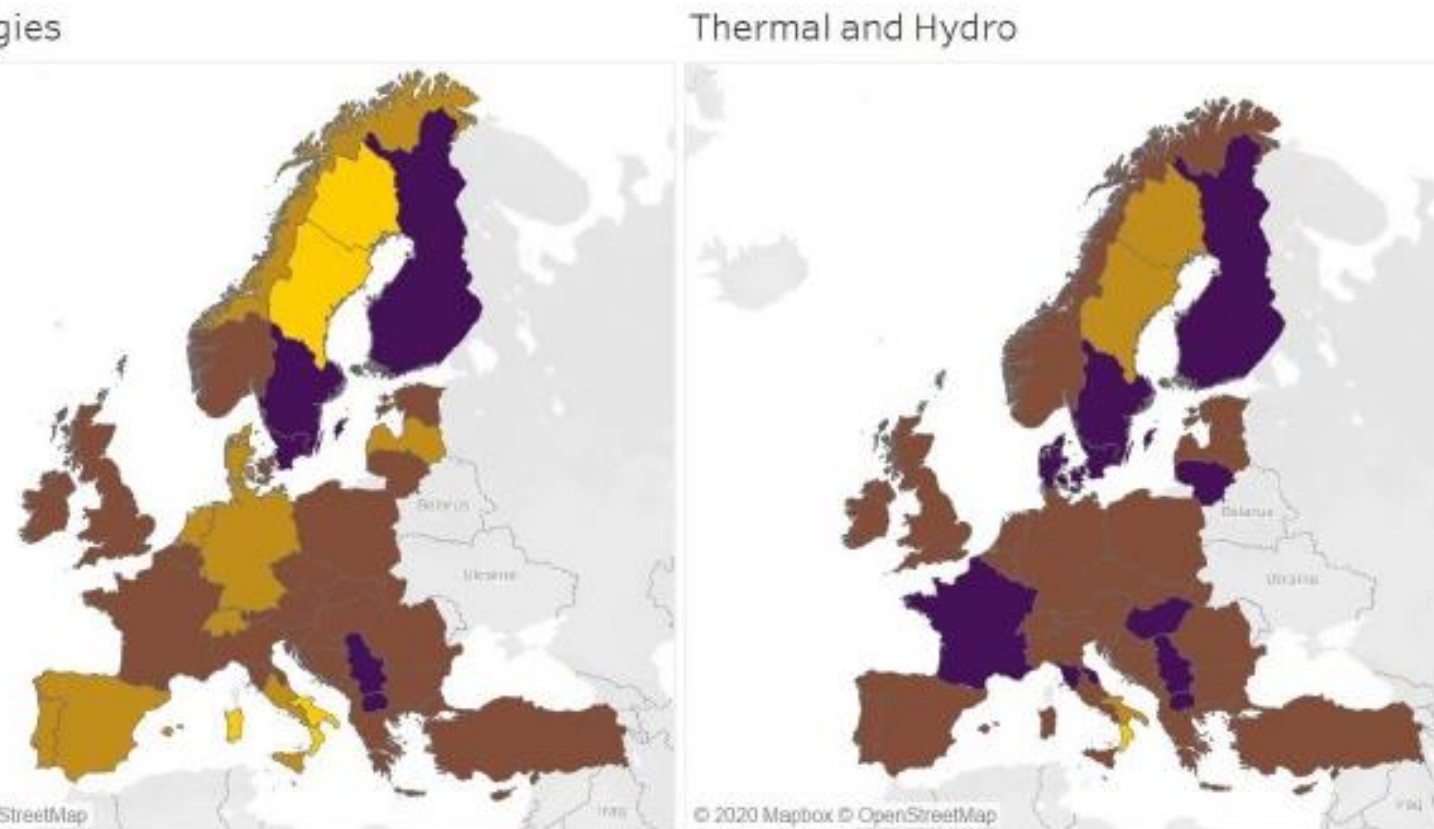


Figure 6: Expected COVID-19 impact of demand on adequacy



Net generating capacities compared to highest expected demand in Winter 2020-2021

- less than 100%
- 100-200%
- 200%-300%
- more than 300%

Source: [https://eepublicdownloads.entsoe.eu/clean-documents/sdc-documents/MAF/2020/MAF\\_2020\\_Executive\\_Summary.pdf](https://eepublicdownloads.entsoe.eu/clean-documents/sdc-documents/MAF/2020/MAF_2020_Executive_Summary.pdf)

# ENTSO-E: Loss of Load Expectation for 2030 and Expected investments into resource capacity from 2025-2030

LOLE TY 2030

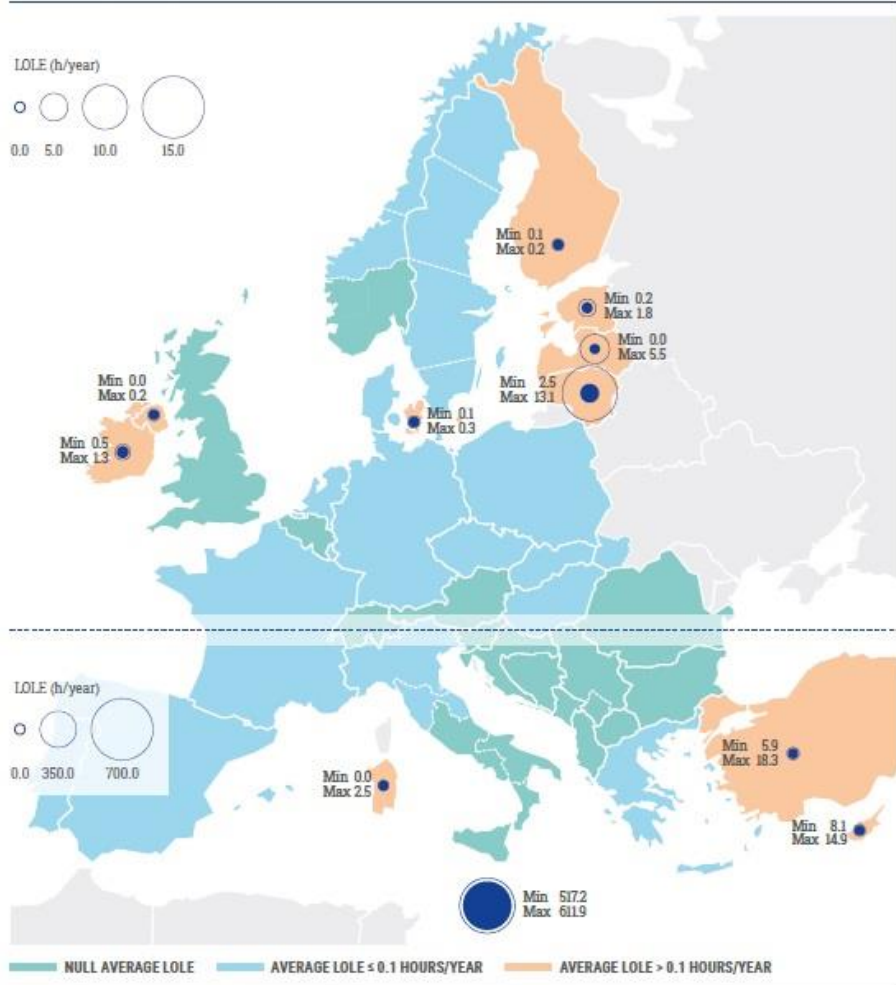


Figure 4: LOLE values for TY 2030. Min/Max circles for bidding zones with an average LOLE over the 5 tools equal or smaller than 0.1 hours/year are not represented. (Even though the same input data is used for all modelling tools, differences in LOLE results can occur due to different geographical or temporal distributions of unserved energy in the case of multiple optimisation solutions, as well as the different approaches to optimising hydro plants.)

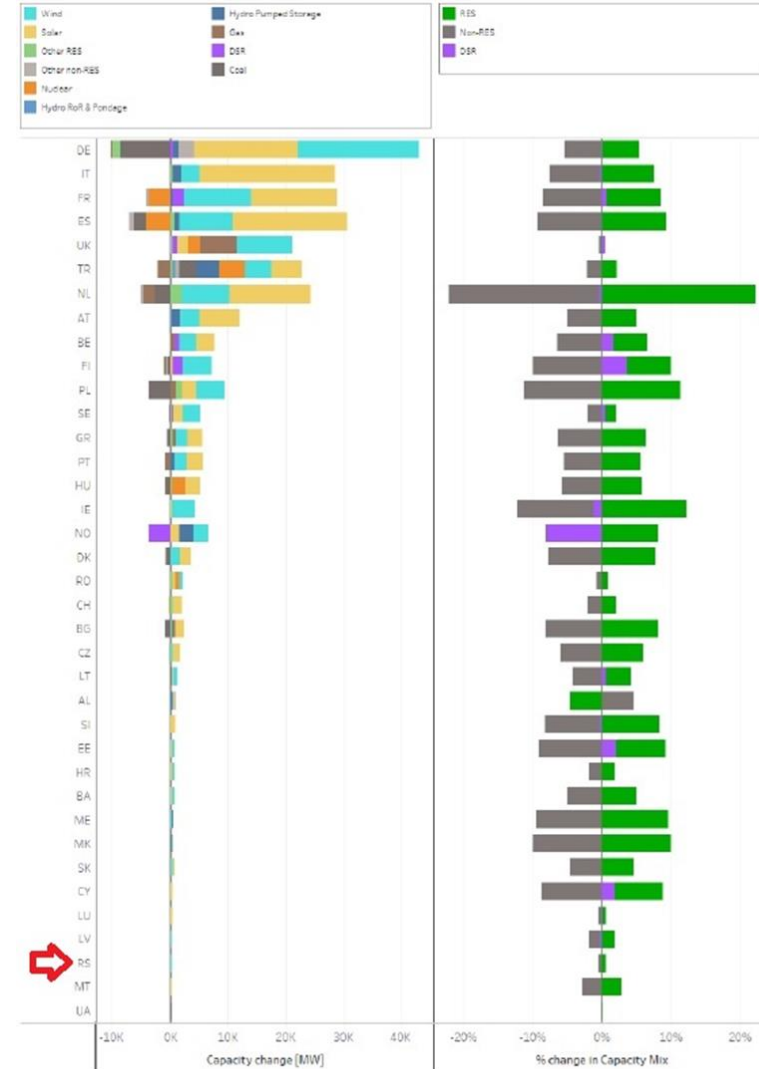
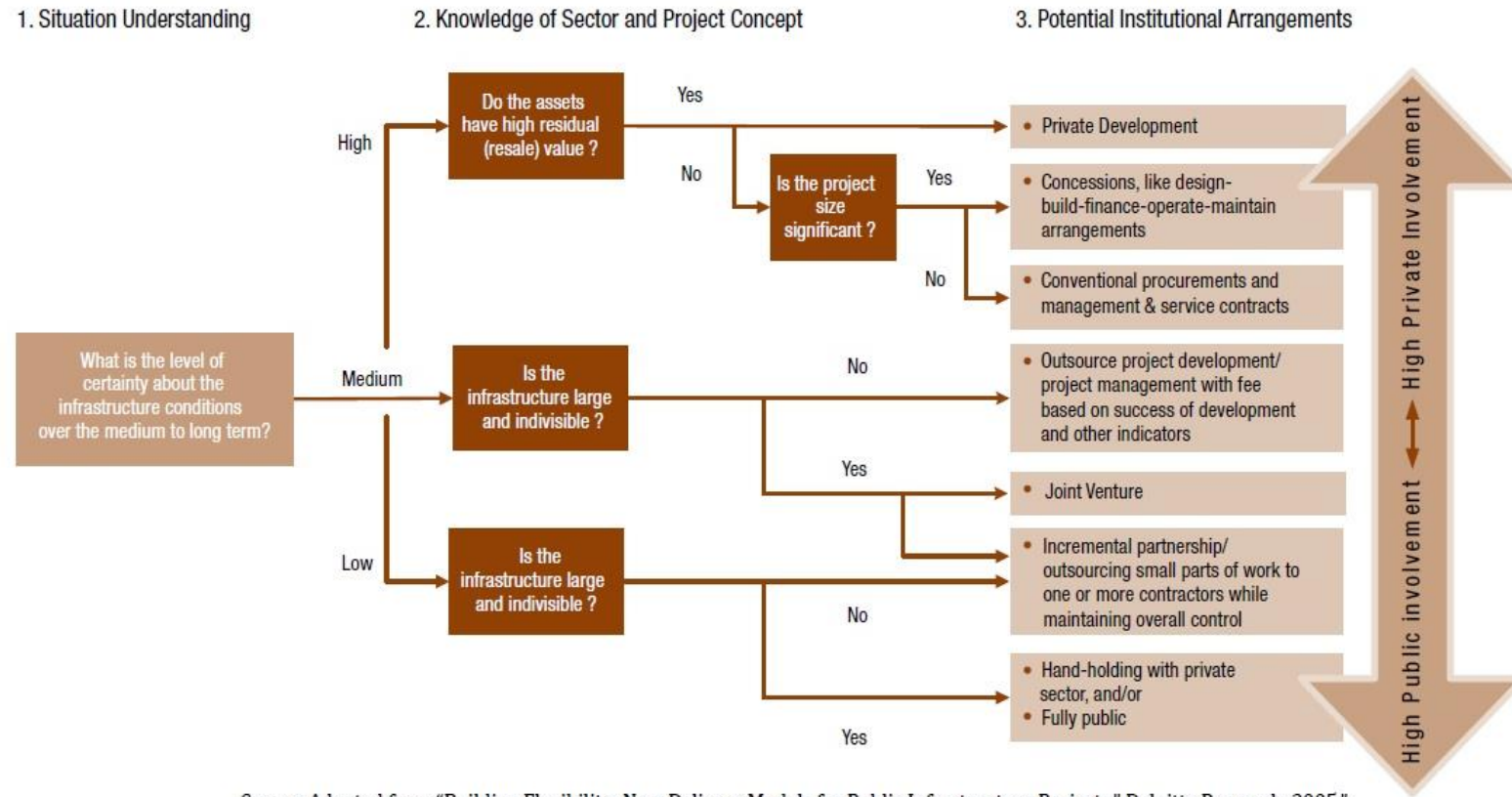


Figure 3: Changes in resource capacity [MW] and capacity mix [%] by country and technology from TY 2025 to TY 2030

Back Up

# Public versus private involvement in Infrastructure



Source: Adapted from "Building Flexibility: New Delivery Models for Public Infrastructure Projects," Deloitte Research, 2005."

Source: <https://www.globalwaters.org/sites/default/files/5-Chapter%205.pdf> page 164