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Barriers to market-based deployment of renewables in the WB6 | Results of online questionnaire and interviews



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THE WORLD BANK HAS COMMISSIONED FRAUNHOFER ISI AND PARTNERS TO ASSESS BARRIERS TO AND STATUS OF MARKET-BASED DEPLOYMENT OF RE IN THE WB6

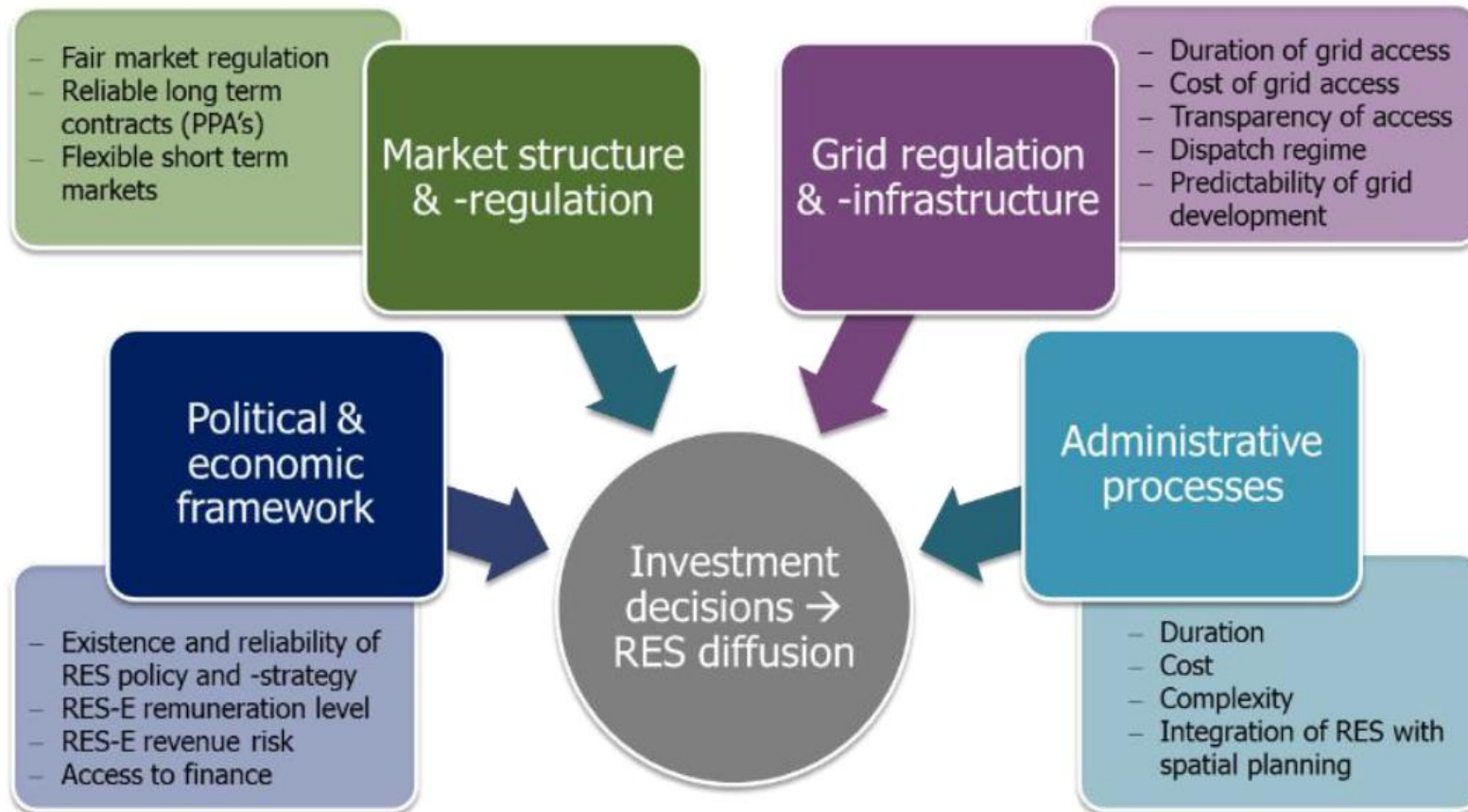
■ Consortium:

- Fraunhofer Institute for System and Innovation Research (ISI)
- TU Wien Energy Economics Group
- Regional Center for Energy Policy Research (REKK)
- Three country experts

■ Countries included:

- Albania
- Bosnia and Herzegovina
- Kosovo
- Montenegro
- North Macedonia
- Serbia

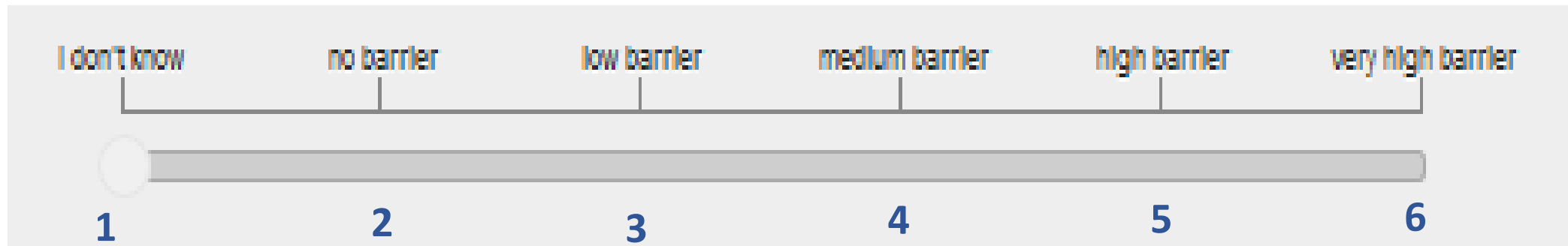
DIFFERENT FRAMEWORK FACTORS ARE RELEVANT PREREQUISITES FOR RE EXPANSION



Framework factors for the deployment of RE technologies assessed in the project DIA-CORE (own compilation)

STATUS OF FRAMEWORK FACTORS IN THE WB6 WERE ASSESSED BASED ON ONLINE QUESTIONNAIRE AND INTERVIEWS

- Online questionnaire and interviews on barriers clustered in the following 5 categories:
 - Political and economic framework
 - Financing conditions for renewable energy projects
 - Administrative procedures for renewable energy projects
 - Access to and regulation of the electricity grid
 - Electricity market structure and market regulation

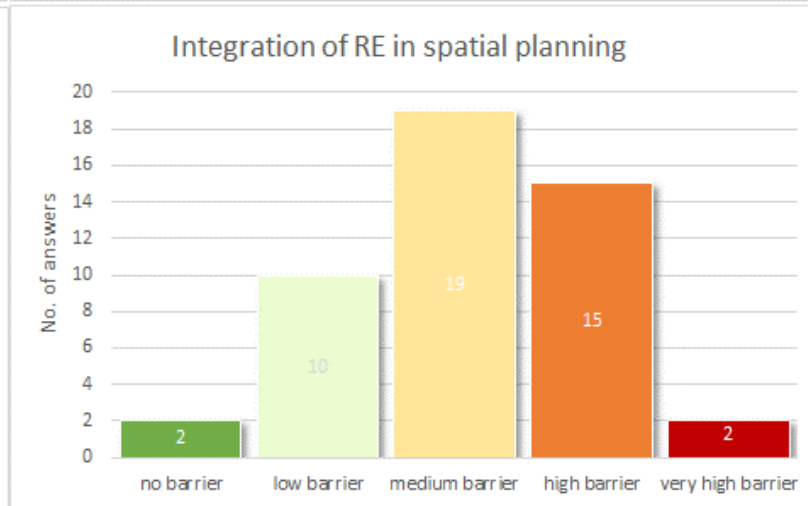
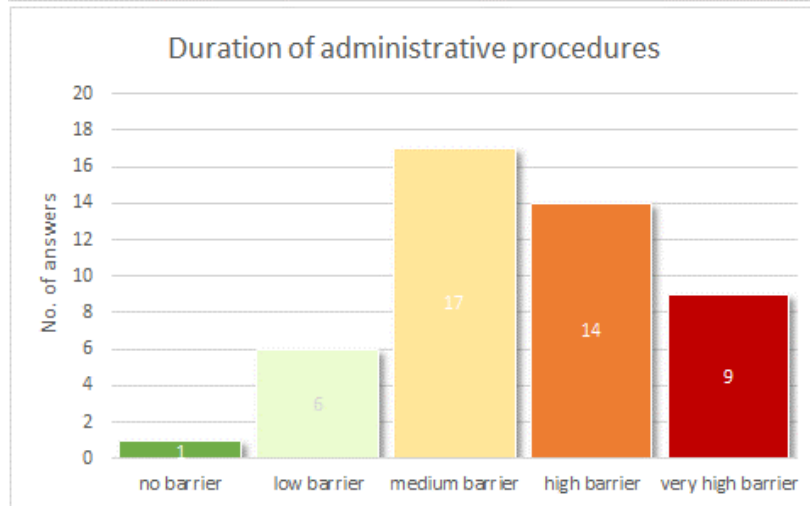
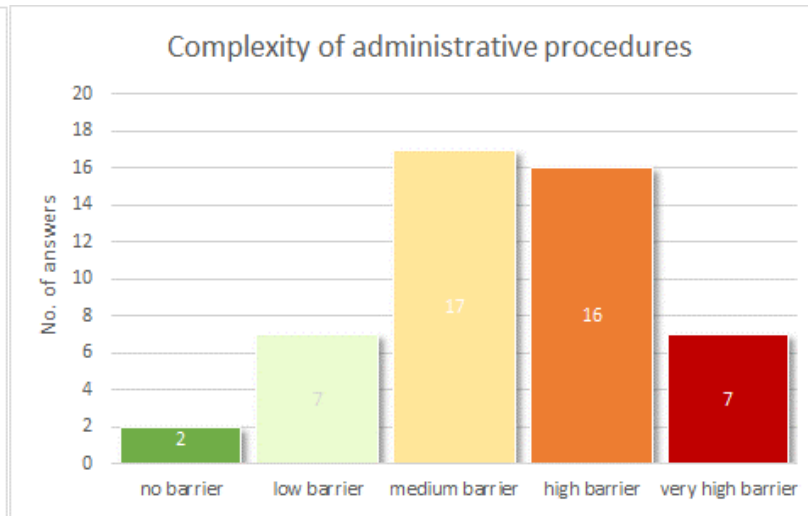
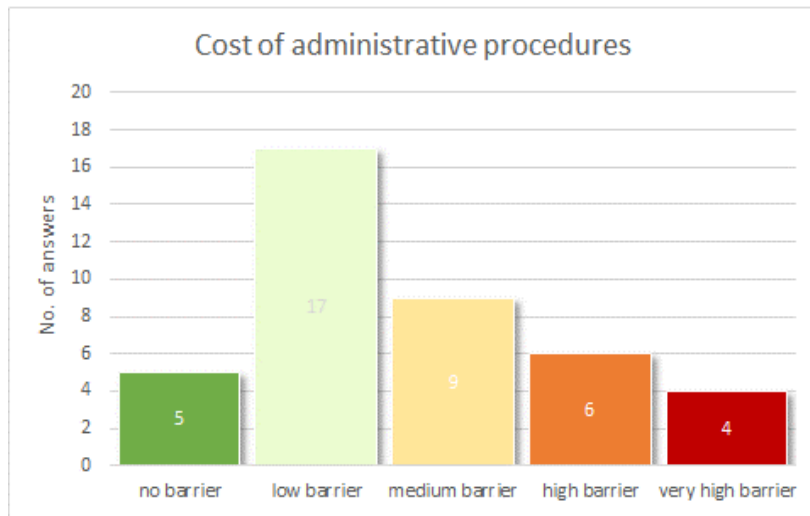


ON A REGIONAL LEVEL, BARRIERS RELATED TO ADMINISTRATIVE PROCEDURES ARE MOST RELEVANT ON AVERAGE

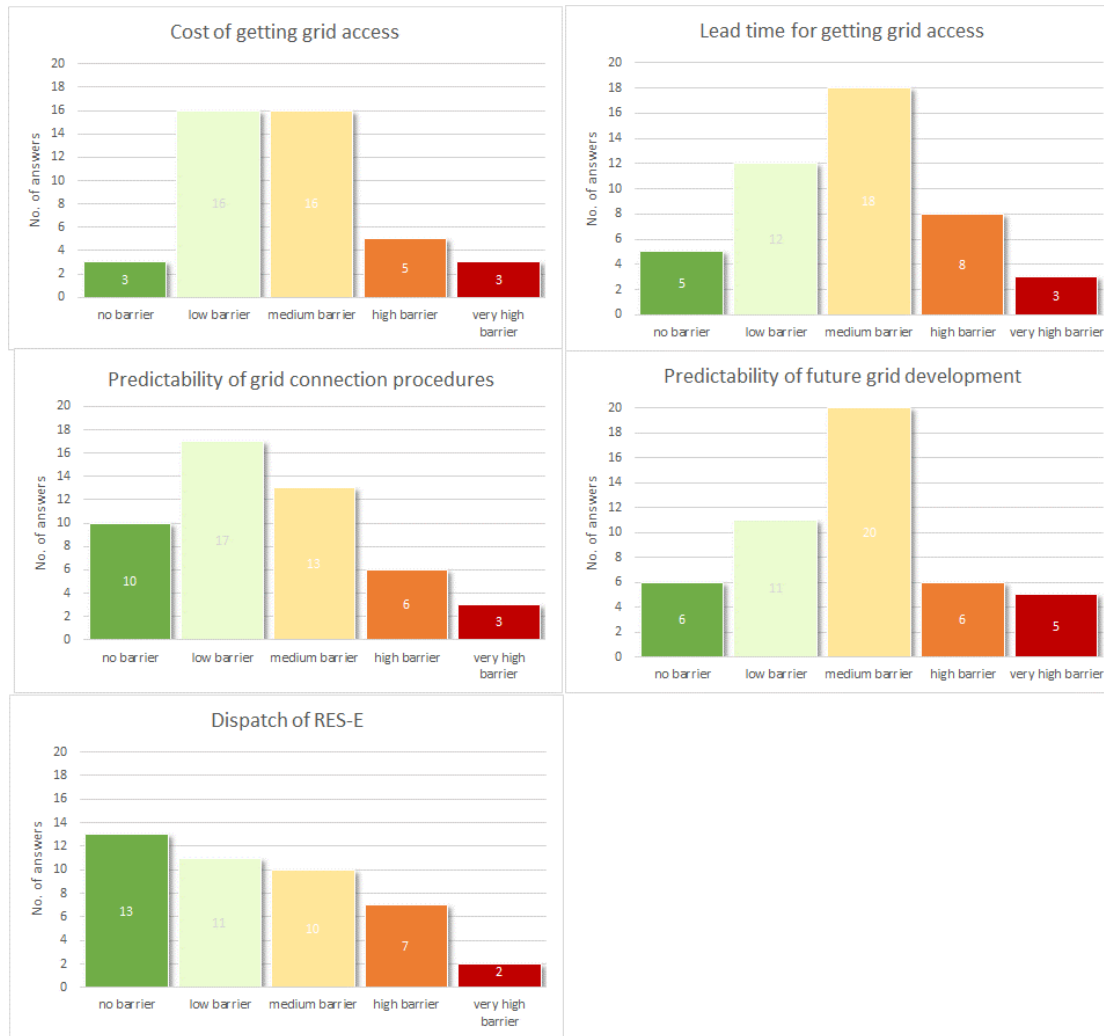
- Additional important barriers in other categories include
 - the general national policy stability, and
 - the predictability of future grid developments
- Detailed assessment on regional and country level
 - except for Montenegro due to very low response rate (one person)

DETAILED ASSESSMENT AT REGIONAL LEVEL

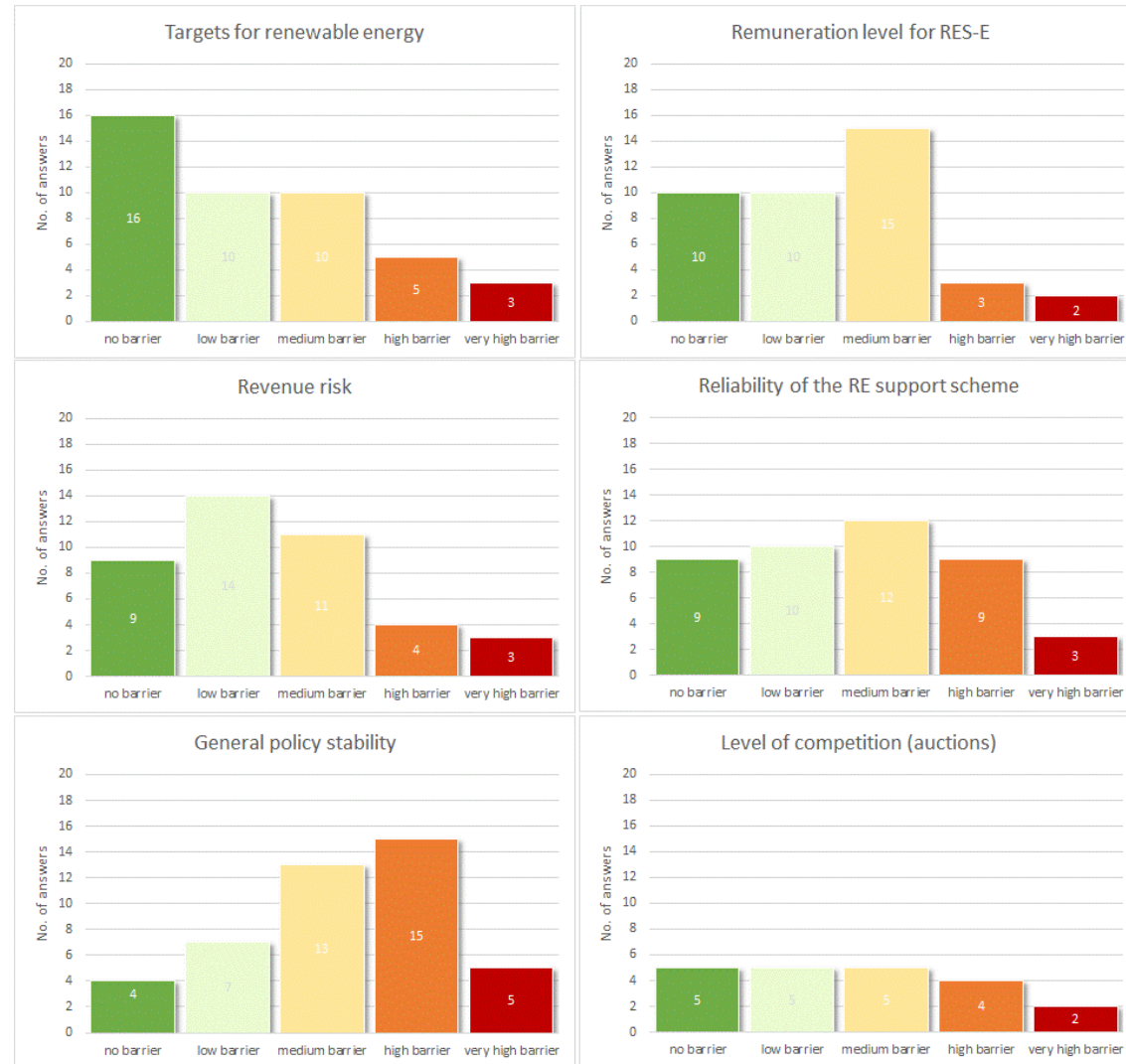
AMONG THE ADMINISTRATIVE BARRIERS, COMPLEXITY, SPATIAL PLANNING AND DURATION MOST RELEVANT



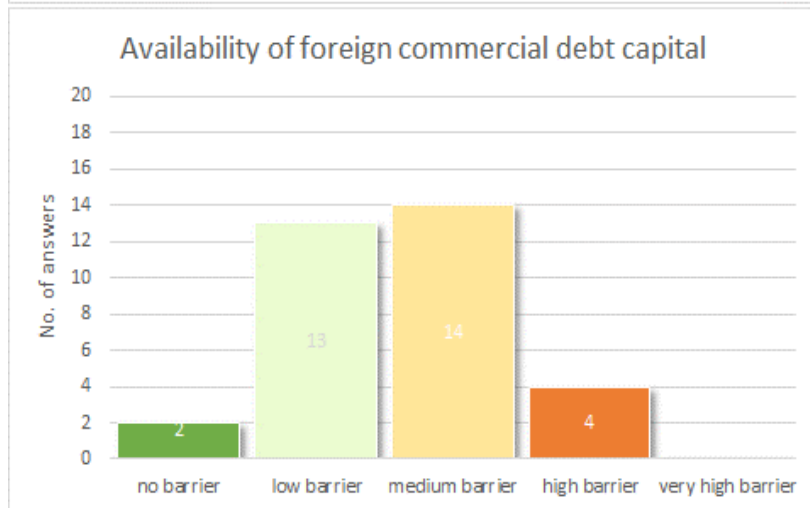
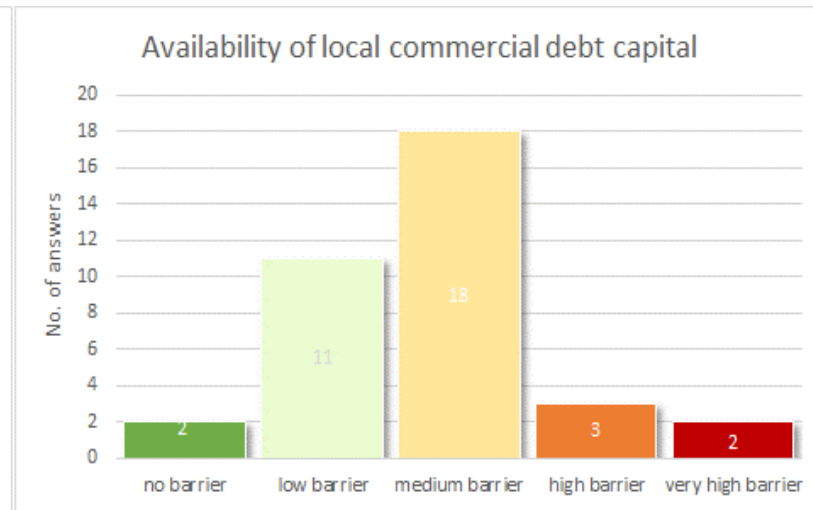
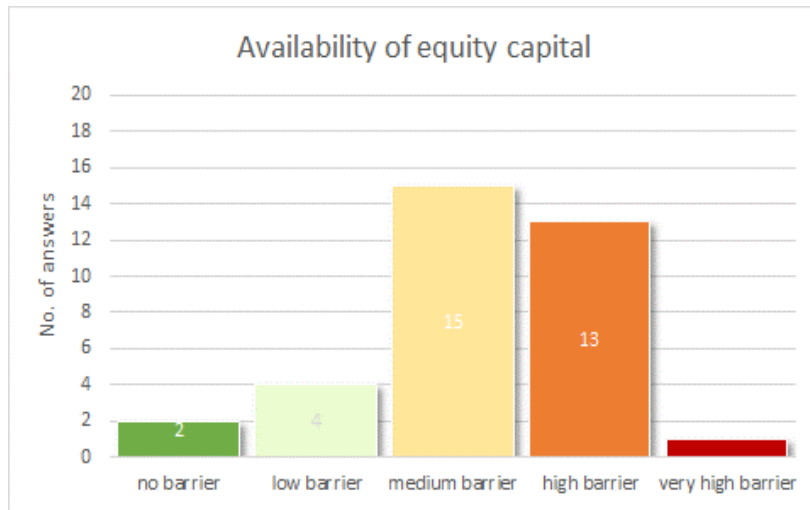
PREDICTABILITY OF GRID DEVELOPMENT AND LEAD TIME FOR GRID ACCESS ARE MEDIUM BARRIERS



MAIN BARRIER IN GENERAL POLICY FRAMEWORK IS GENERAL POLICY STABILITY



FINANCING CONDITIONS: EQUITY CAPITAL IS MOST DIFFICULT TO GET



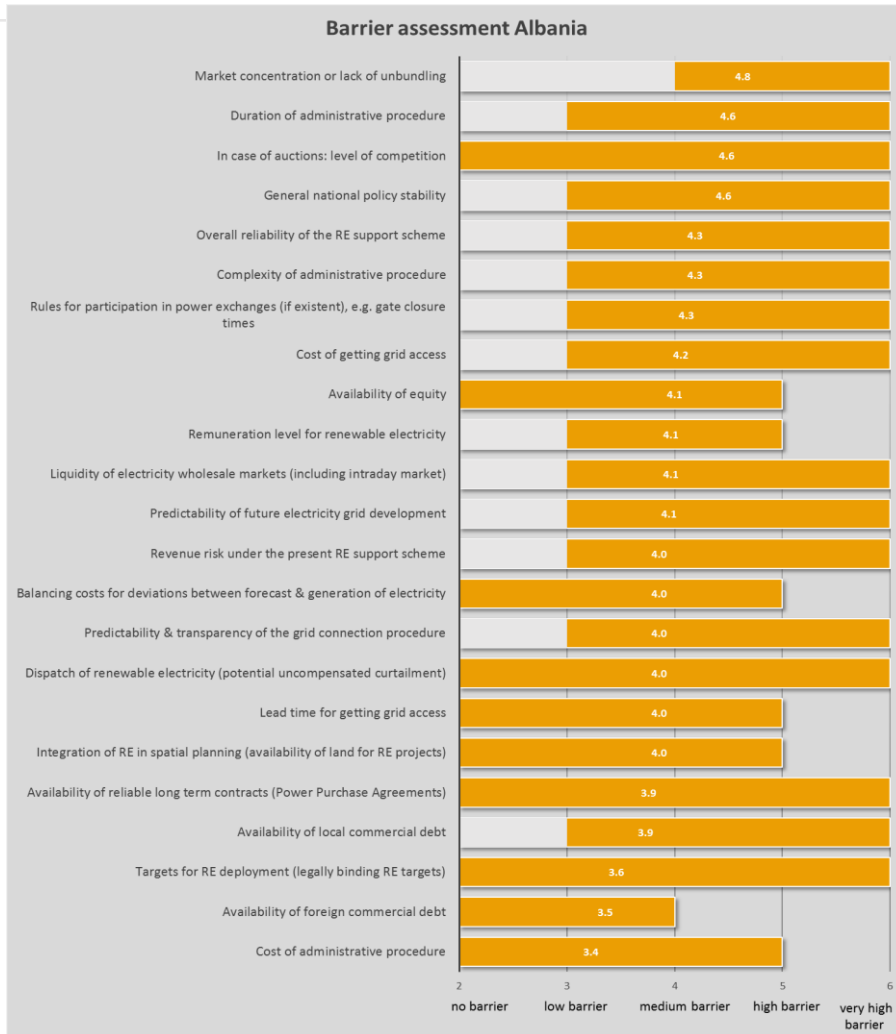
MARKET BARRIERS NOT PERCEIVED AS VERY RELEVANT



DETAILED ASSESSMENT AT COUNTRY LEVEL

Disclaimer: Fewer issues for a country do not correspond to fewer barriers but only to fewer individual answers.

ALBANIA - OVERVIEW



- 12 survey respondents

- Most important barriers:

- Market concentration or lack of unbundling
- Duration of administrative procedures
- Level of competition in auctions

ALBANIA – INDIVIDUAL STATEMENTS AND PERCEPTIONS

■ **Barriers related to administrative procedures**

- Some respondents state that procedures do not follow law
- Complex and non-transparent
- Lack of coordination between authorities
- Insufficient capacities in the administrative units
- Lack of clear regulatory framework for small RE to participate in electricity markets
- Lack of inclusion in spatial planning, unsure land status

■ **Grid-related barriers**

- Obsolete grid infrastructures and high transmission and distribution losses
- Unclear future grid development
- Undefined regulation for access of RES plants < 2 MW to the grid

ALBANIA – INDIVIDUAL STATEMENTS AND PERCEPTIONS

■ **Market barriers**

- Difficulties for small-scale plants to access the market and missing regulation
- Limited liquidity of the power market

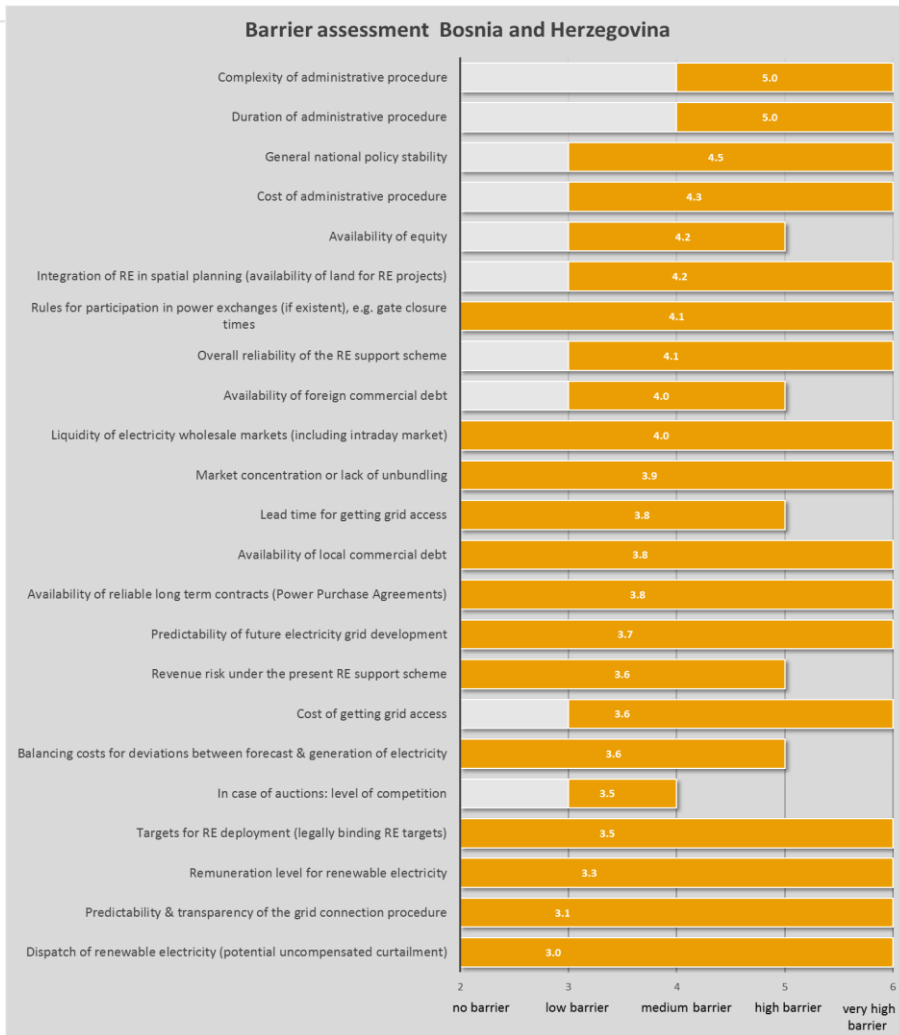
■ **Barriers related to the political and financial framework for RES**

- General lack of a clear and reliable legal framework for RES, especially small-scale RES
- Lack of ambitious RES targets and reliable support options, especially for small-scale RES/prosumers
- Overall political instability and corruption
- Unfavourable financing conditions for RES projects

■ **Barriers to foreign investments**

- Gaps in the political framework and support scheme for RES (e.g. lack of long-term PPAs and reliable financial support)
- Lack of a functioning electricity market and incomplete market deregulation

BOSNIA AND HERZEGOVINA - OVERVIEW



- 12 survey respondents
- Most important barriers:
 - Complexity of administrative procedures
 - Duration of administrative procedures
 - General national policy stability
 - Cost of administrative procedures

BIH – INDIVIDUAL STATEMENTS AND PERCEPTIONS

■ **Barriers related to administrative procedures**

- Availability of land and the lack of spatial planning for RE
- Unclear land rights
- Some also mentioned costs and duration of administrative procedures

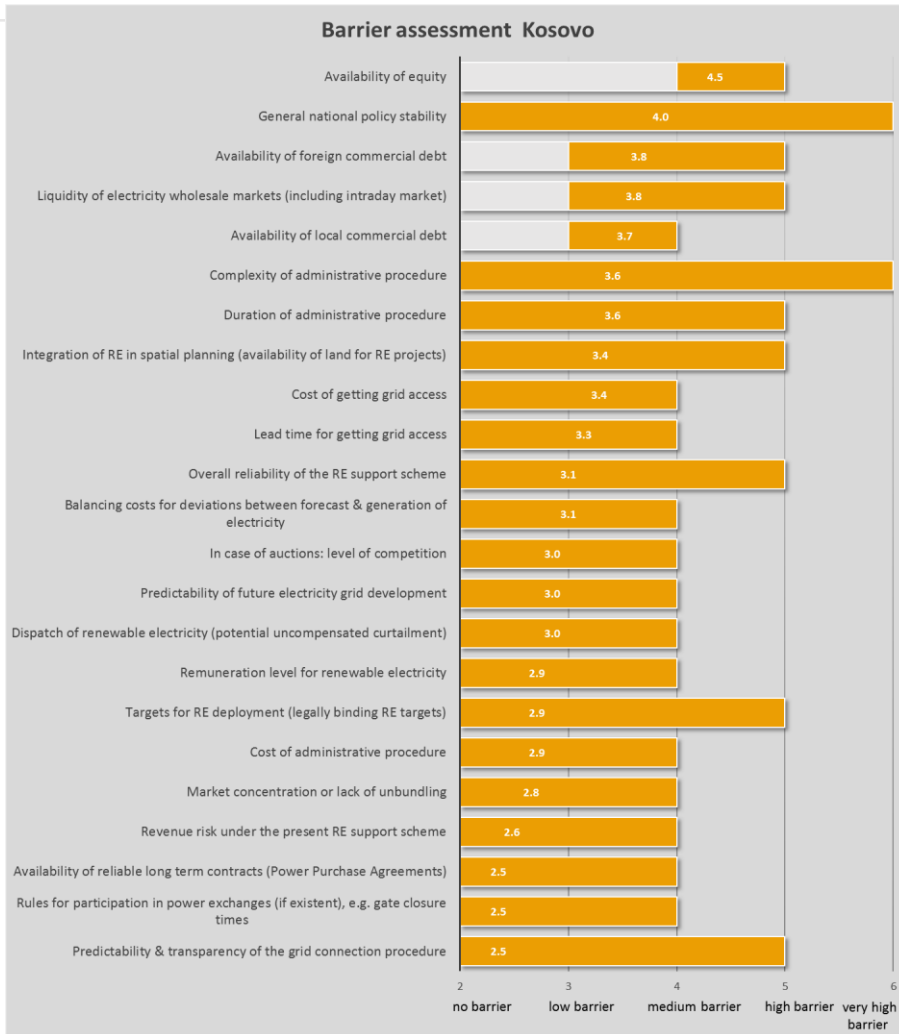
■ **Grid-related barriers**

- Some criticism by individual stakeholders regarding the future grid development in remote areas
- No strategy or activities regarding the increased use of the smart grid technologies
- Insufficient regional network integration

■ **Barriers related to the political and financial framework for RES and barriers to foreign investment**

- Limited availability of financing for RES projects
- Legal uncertainty and the complex legal procedures
- Lack of options for balancing the electricity system

KOSOVO - OVERVIEW



- 9 survey respondents
- Most important barriers:
 - Availability of equity
 - General national policy stability
 - Availability of foreign commercial debt
 - Liquidity of electricity markets

KOSOVO – INDIVIDUAL STATEMENTS AND PERCEPTIONS

■ **Barriers related to administrative procedures**

- Availability of land and the lack of spatial planning for RE
- Unclear land rights
- Some also mentioned costs and duration of administrative procedures

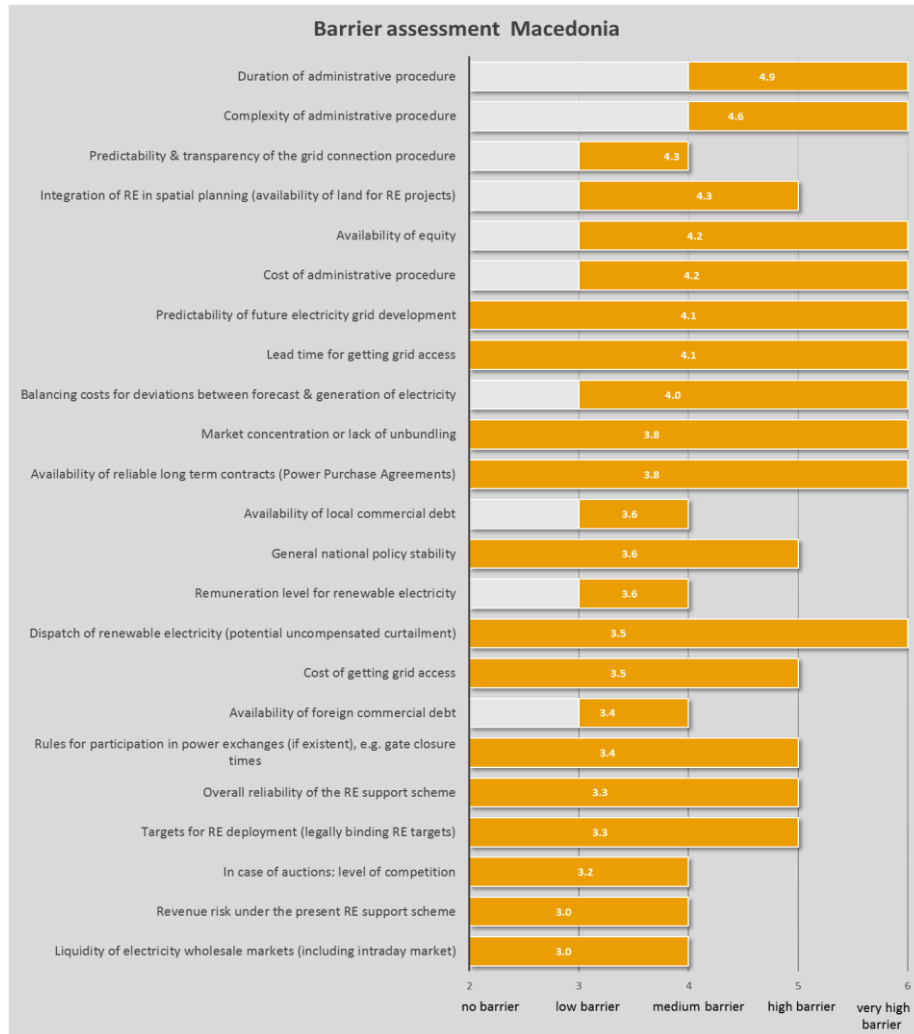
■ **Grid-related barriers**

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■ **Barriers related to the political and financial framework for RES and barriers to foreign investment**

- Limited availability of financing for RES projects
- Legal uncertainty and the complex legal procedures
- Lack of options for balancing the electricity system

NORTH MACEDONIA - OVERVIEW



- 7 survey respondents
- Most important barriers:
 - Duration of the administrative procedures
 - Complexity of the administrative procedures
 - Predictability and transparency of the grid connection procedures

NORTH MACEDONIA – INDIVIDUAL STATEMENTS AND PERCEPTIONS

■ **Barriers related to administrative procedures**

- very long permitting procedure which can take up to 3-4 years
- lack of coordination and communication between involved authorities
- overlapping jurisdictions and competences
- lack of qualified administrative officials, in particular at the municipal level

■ **Grid-related barriers**

- strong uncertainty about the future expansion and improvement of the grid was partly attributed to property laws and legal disputes
- Lead time for getting grid is divided in several time consuming administrative sub-steps
- several authorities involved in the process and lack of coordination and communication amongst them
- lack of clear and comprehensible guidelines for the grid connection
- lack of widespread coverage of net meters and voltage conversion stations

NORTH MACEDONIA – INDIVIDUAL STATEMENTS AND PERCEPTIONS

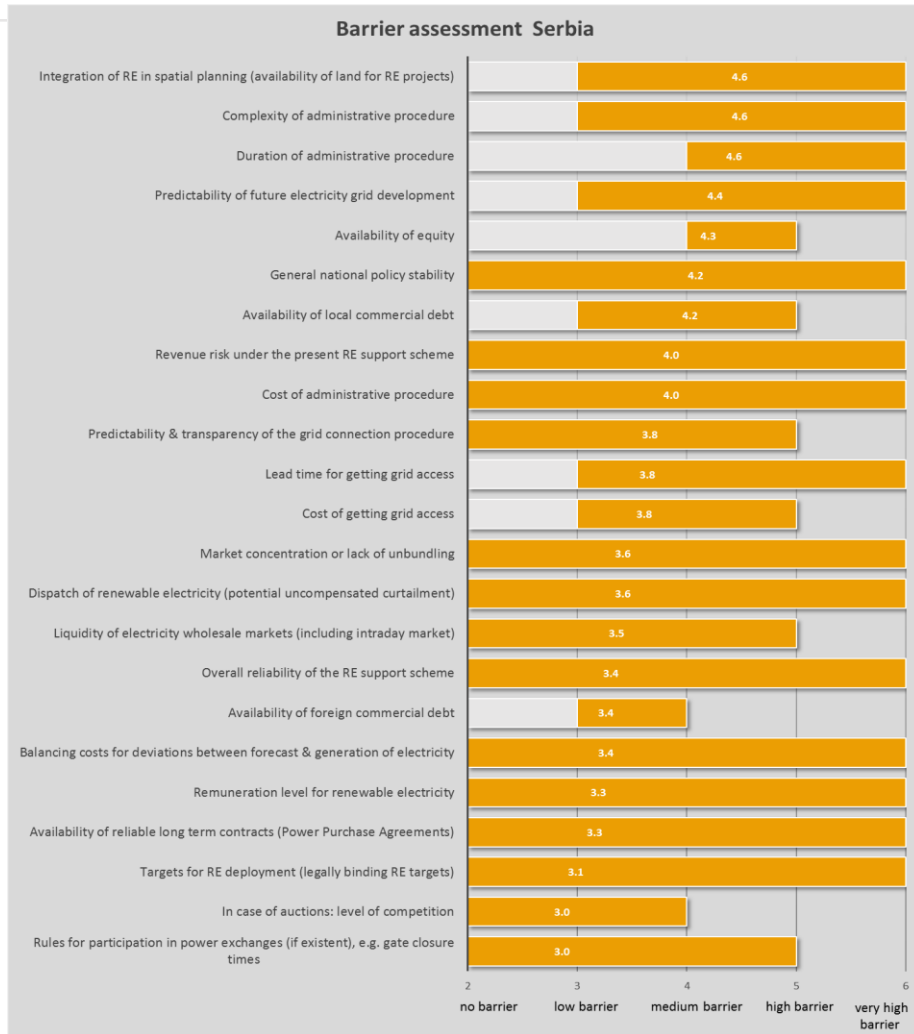
■ **Market barriers**

- Absence of a liquid power market and power exchange and the high level of market concentration
- Lack of strategic plans for bid development and electricity supply/ doubts about transparency of planned auctions
- Limitations relating to the balance of the grid system and a lack of interconnections with neighboring countries

■ **Barriers related to the political and financial framework for RES**

- Lack of stability in the political framework for RES
- Lack of expertise and deficits in the capacities in the ministries and administrations
- Legal framework for the development of small-scale RE systems
- Present remuneration level for RES is considered as too high
- Limited availability of suitable sites for RE project development
- Unfavorable equity to debt capital ratio offered by local banks

SERBIA - OVERVIEW



- 9 survey respondents
- Most important barriers:
 - Integration of RES in spatial planning
 - Complexity of administrative procedures
 - Duration of administrative procedures

SERBIA – INDIVIDUAL STATEMENTS AND PERCEPTIONS

■ **Barriers related to administrative procedures**

- High number of involved authorities at the local and national levels and the lack of coordination among them
- Limited capacity and insufficient expertise especially in the local authorities
- Integration of RE in spatial planning leading to a limited availability of land for RE projects
- inefficient processes related to the exchange of cadaster information

■ **Grid-related barriers**

- Lack of regulation for the access of small-scale / distributed generation units
- Long lead times for obtaining grid access (some stakeholders)
- High costs of grid access
- Doubts about reliability of grid plans

SERBIA – INDIVIDUAL STATEMENTS AND PERCEPTIONS

■ **Market barriers**

- Absence of a competitive and transparent market platform (i.e. intraday market)
- Non-transparent and unfair mechanisms for the definition of balancing costs

■ **Barriers related to the political and financial framework for RES and barriers to investment**

- Non-ambitious RE strategy of the Serbian government
- Lack of a regulatory framework for the deployment of distributed generation and Net Metering
- Discontinuity in the regulation and unclear development of RES support in the future
- High cost of capital in the local capital market

SUMMARY AND OTHER ASPECTS OF THE PROJECT

- Survey and interviews on individual opinions of respondents
- Generally relatively low response rates, especially for Montenegro
- Administrative procedures and spatial planning perceived as important barriers in many countries

- Further aspects of the project for the World Bank
 - Gap analysis (based on survey and assessment of legal situation)
 - Status of RE expansion
 - Status of market-based support schemes and respective recommendations
 - Assessment of system flexibility and financing conditions

THANK YOU FOR YOUR ATTENTION!

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