

How to develop an economic regulatory framework for MOG?

Mid-Term Conference

Pradyumna Bhagwat, EUI-FSR, Amsterdam, June 6, 2018



PRESENTATION STRUCTURE

- MOG Planning
- MOG Investment





PLANNING



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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691714.

Cost benefit analysis for offshore electricity grid infrastructure

Recommendation I

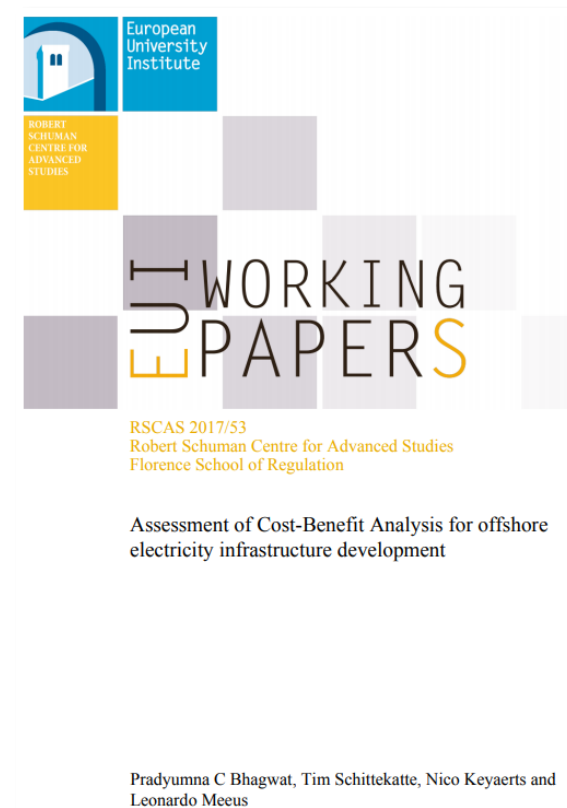
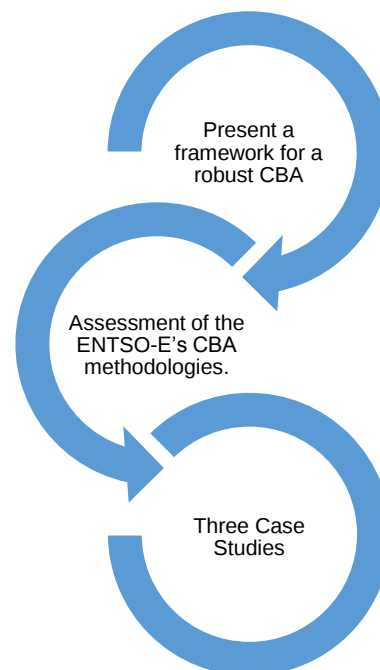
- *Dealing with interactions between (offshore) PCIs*

Recommendation II

- *Gain trust and public acceptance*

Recommendation III

- *Reduce the politics in valuation of (offshore) PCIs*



For more details & download: <http://hdl.handle.net/1814/48524>

ECONOMIC FRAMEWORK FOR OFFSHORE GRID - PLANNING

COORDINATING ONSHORE-OFFSHORE GRID PLANNING

LOCATIONAL REQUIREMENTS FOR RES SUPPORT

Valid for 2017	Germany	Denmark	UK	Sweden
Open-door				✓
Zoned			✓	
Single-site	✓	✓		



Recent policy iteration



Leading example of regulation



Unique regulatory framework



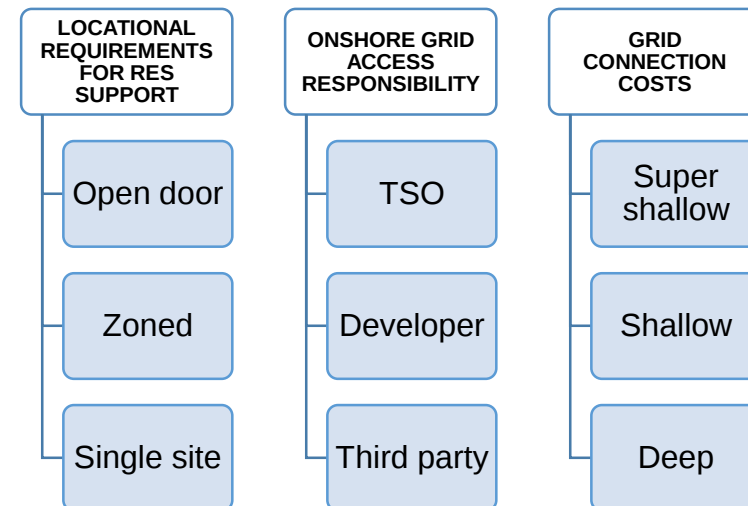
Limited offshore development

ONSHORE GRID ACCESS RESPONSIBILITY

Valid for 2017	Germany	Denmark	UK	Sweden
TSO	✓	✓		
Developer				
Third Party			✓	✓

GRID CONNECTION COSTS

Valid for 2017	Germany	Denmark	UK	Sweden
Super shallow	✓	✓		
Shallow			✓	
Deep				✓



For more details & download: <http://hdl.handle.net/1814/47406>

ECONOMIC FRAMEWORK FOR OFFSHORE GRID PLANNING

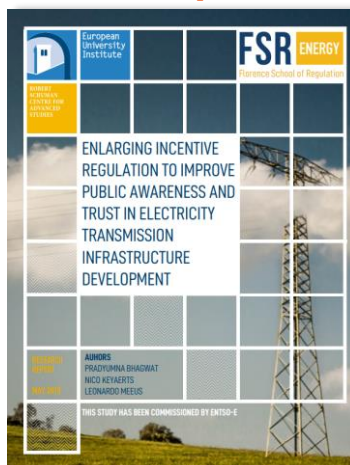
PUBLIC PARTICIPATION IN OFFSHORE WIND INFRASTRUCTURE DEVELOPMENT

Understanding
Public Perception

Understanding
Public Participation

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New FSR
REPORT



For more details & download: <http://hdl.handle.net/1814/54884>

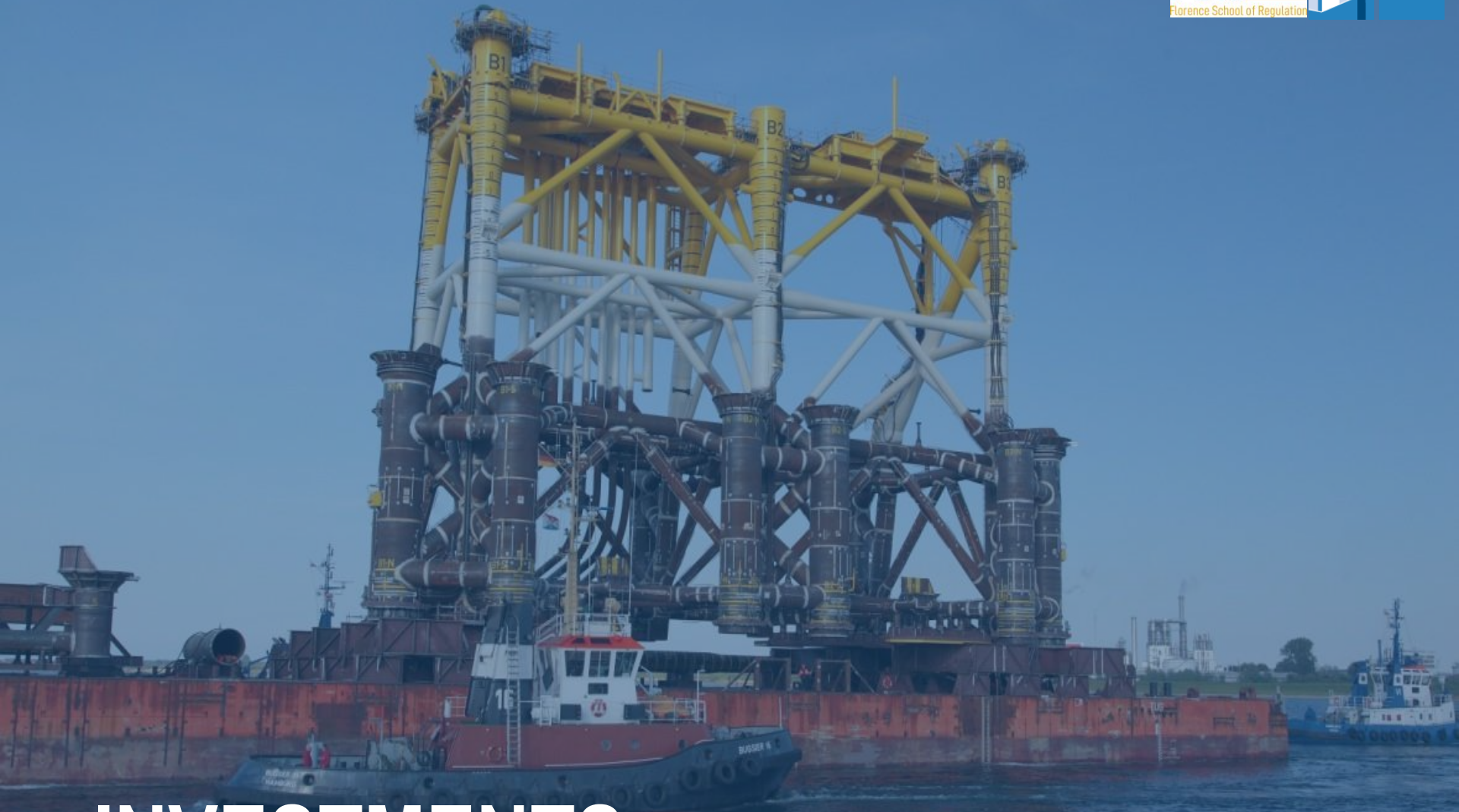


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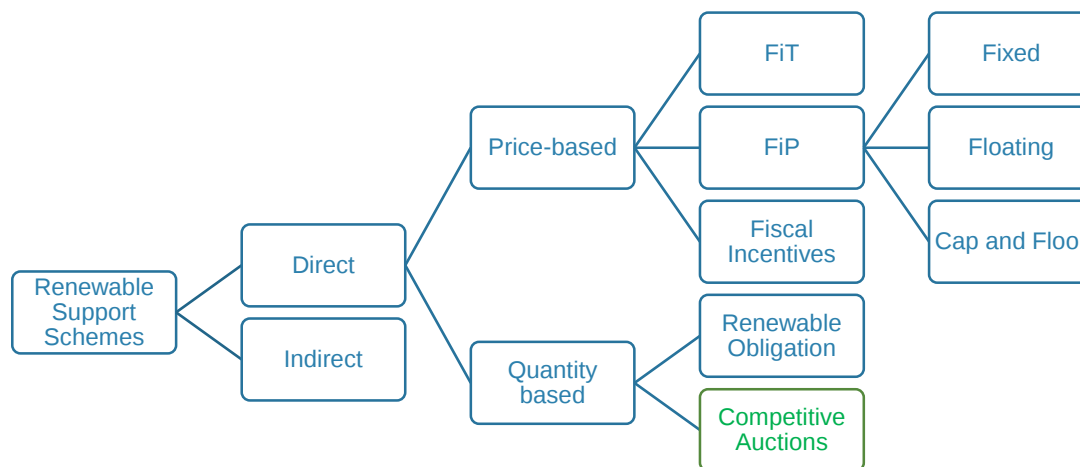
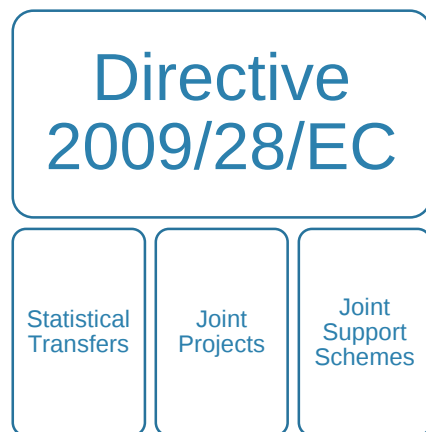


INVESTMENTS



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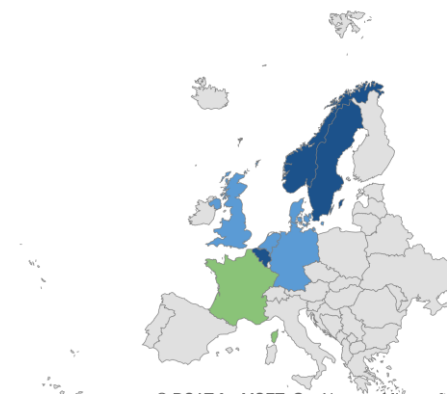
COOPERATION MECHANISMS FOR RENEWABLE SUPPORT



Joint Support Scheme



Joint PV Auctions



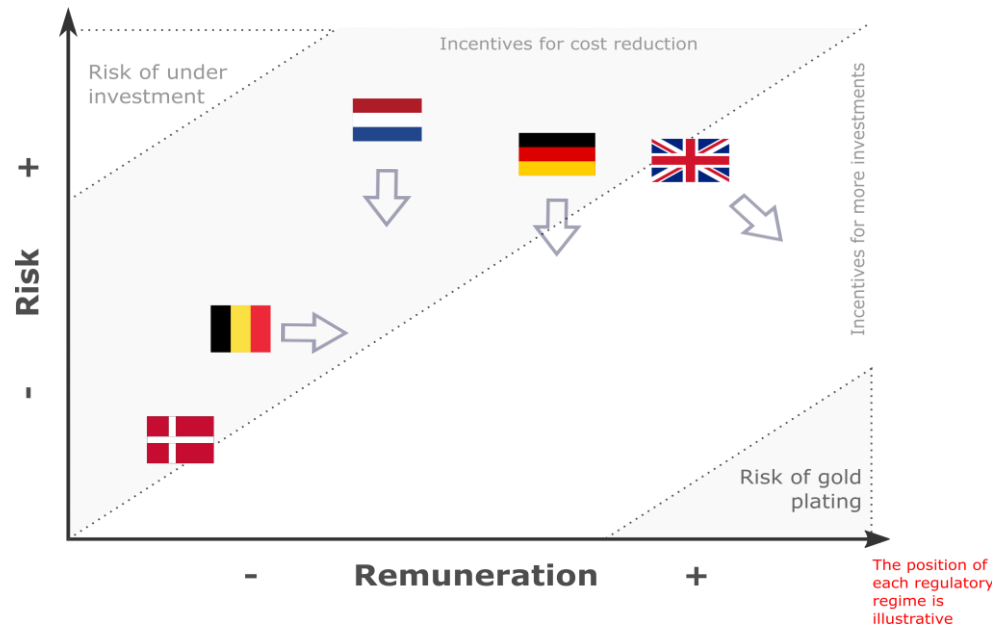
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ECONOMIC FRAMEWORK FOR OFFSHORE GRID - INVESTMENT

Dedicated Incentives



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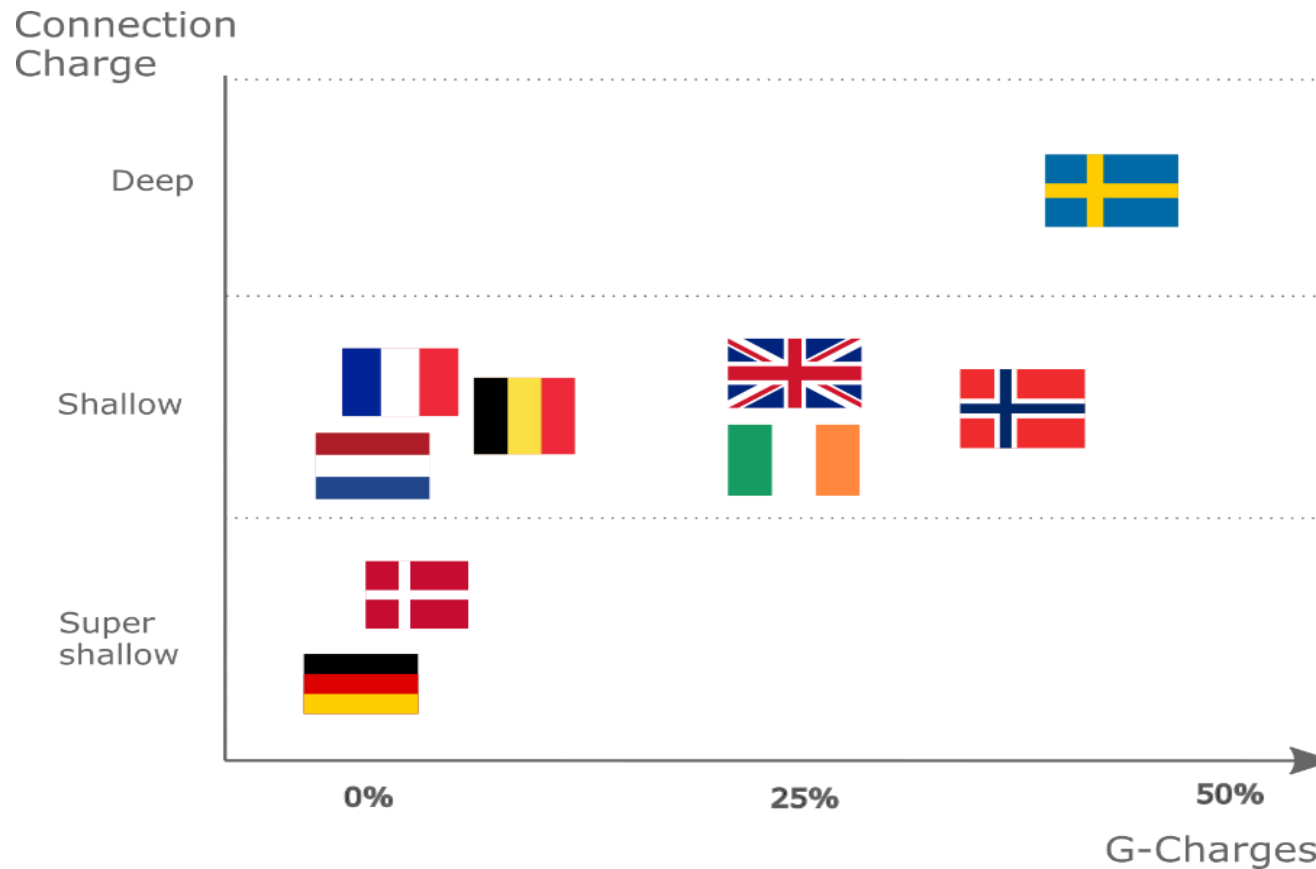
Conclusions

1. Incentives may not be sufficient for investment in a meshed solution
2. Default regulatory frameworks have not moved towards the investment zone
3. The use of dedicated incentives has increased as a way of fostering strategic investments
4. Dedicated incentives can be a solution to ensure sufficient incentives for development of meshed offshore grids

Results of this study will be published in the final report



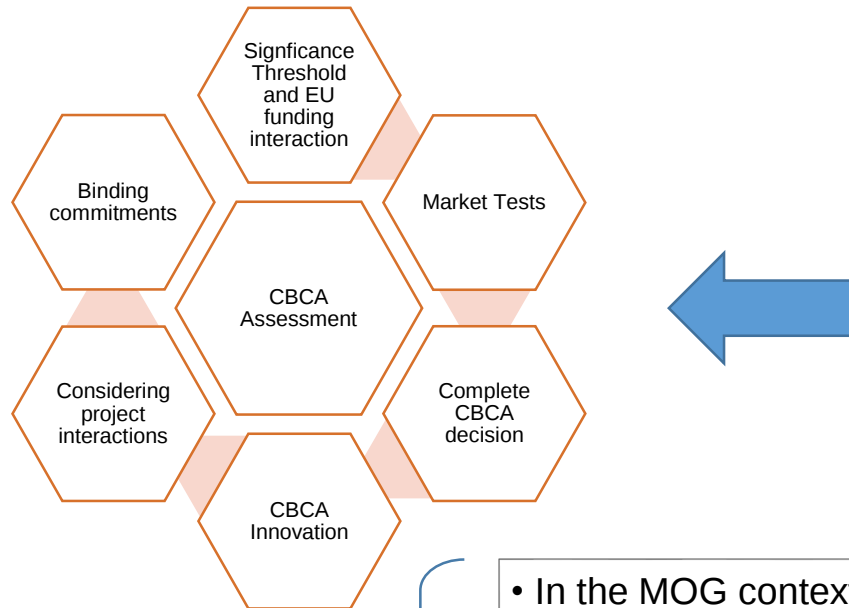
Transmission Tariff Design



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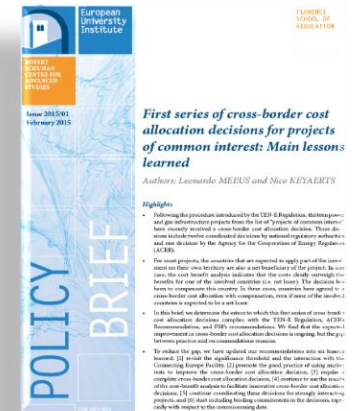
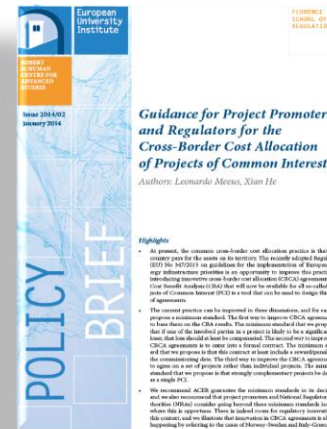
ECONOMIC FRAMEWORK FOR OFFSHORE GRID - INVESTMENT

CBCA in the MOG context



Key insights

- In the MOG context, binding contracts would be extremely relevant to ensure avoiding stranded investments and 'bridges to nowhere'.
- A common CBCA for a group of projects within the MOG could be a key enabler for their development (e.g. considering complementarity of projects).
- In multi-country projects such as the MOG, the significance threshold may become a barrier in allocating costs and reaching a complete CBCA.



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CONTRIBUTING ORGANISATIONS FOR INTERMEDIATE REPORT



Thank You!

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APPENDIX

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