



PROMOTiON

PROGRESS ON MESHED HVDC
OFFSHORE TRANSMISSION
NETWORKS



Work Package 7

Regulation and Finance

Pradyumna Bhagwat

European University Institute – Florence School of Regulation

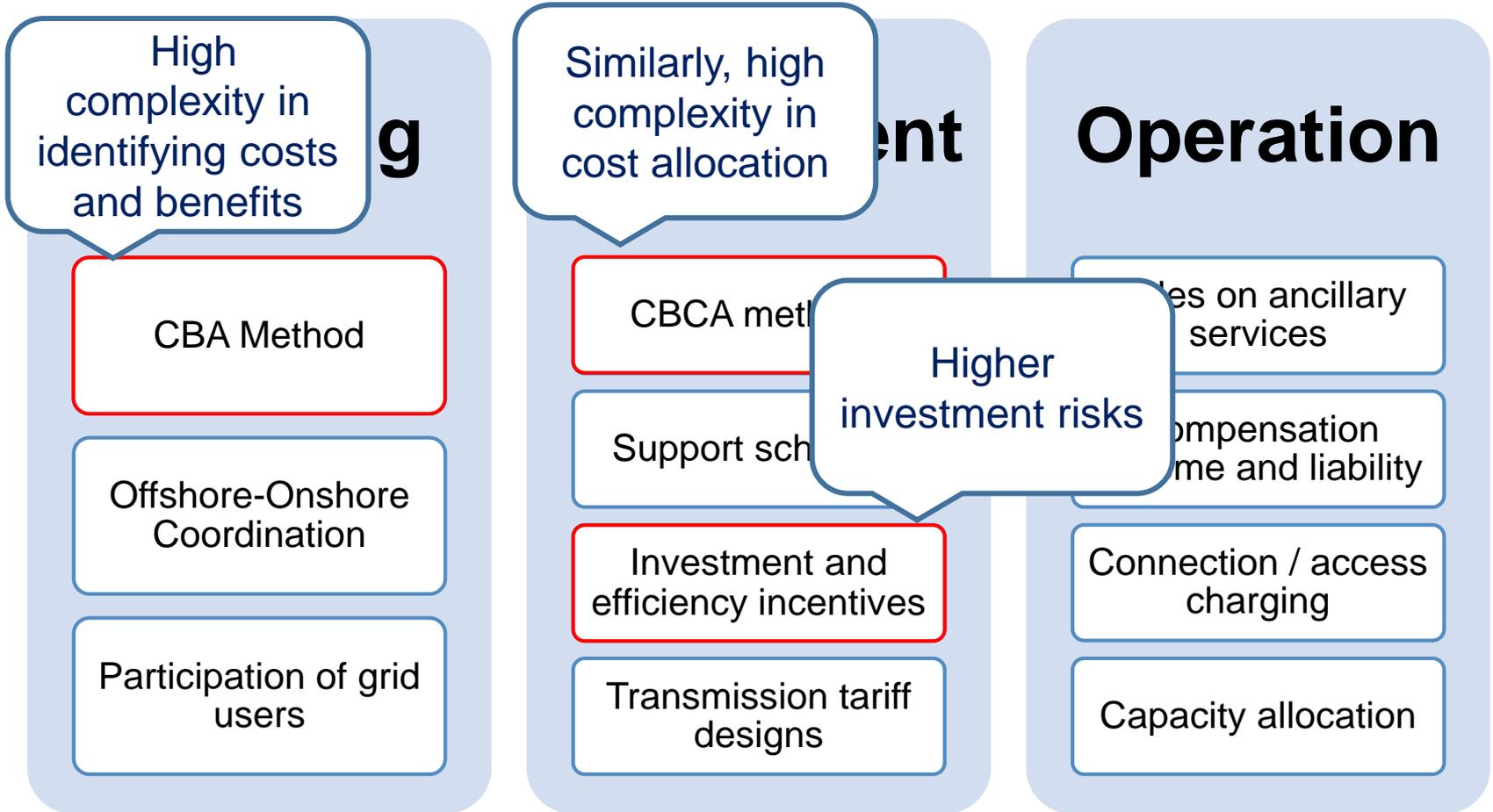
Presented at the North Sea Energy Forum, Brussels, March 23, 2017



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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.

WP 7.2: Economic framework for offshore grids



Cost Benefit Analysis

Status of implementation	ENTSO-E 1.0 (approved by the EC in 2015)	ENTSO-E 2.0 (version for ACER opinion)	ENTSO-E Market design - balancing	Significantly more important in the offshore context?
<ul style="list-style-type: none"> Coordination: <i>Dealing with project interactions</i> CBA method for clustering of projects and the baseline definition 	One baseline (TOOT) - Country clusters only	One baseline (TOOT) - Anglo-Norwegian CBA clustering rule	Harder applicable but clear	More mature development
<ul style="list-style-type: none"> Regional approach 	TYNDP	TYNDP	TYNDP	
<ul style="list-style-type: none"> Transparency: <i>Gaining trust and public acceptance</i> Harmonized and disaggregated cost and benefit reporting Open source CBA model 	Not clear	Not clear	Not clear	Immature technology
<ul style="list-style-type: none"> Monetization: <i>where do the experts stop and the politics start?</i> Maximum possible monetization of the value of PCIs RGs could express their policy priorities at the start of the process via the eligibility criteria 	Reduced list	Reduced list	Reduced list	
<ul style="list-style-type: none"> OUTPUT(9) Benefits should be reported in disaggregated form OUTPUT(10) Ranking should be based on monetisation 	OK	OK	OK	
	Explicit model available	Explicit model available	Explicit model available	
	4 % for all	4 % for all	Uniform; aligned with TYNDP & PCI	
	OK	The need is mentioned, but not specified how to apply	OK	
	Not clear	Not clear	Regional and country effects should be reported	Various winners/losers
	Multi-criteria analysis	Multi-criteria analysis, additional monetization of losses	Monetized ranking is preferred	Various significant externalities

Policy Brief
Standing still is moving backward for the ABC of the CBA
Author: Nico Keyaerts, Tim Schittekatte and Leonardo Meaux
#highlight

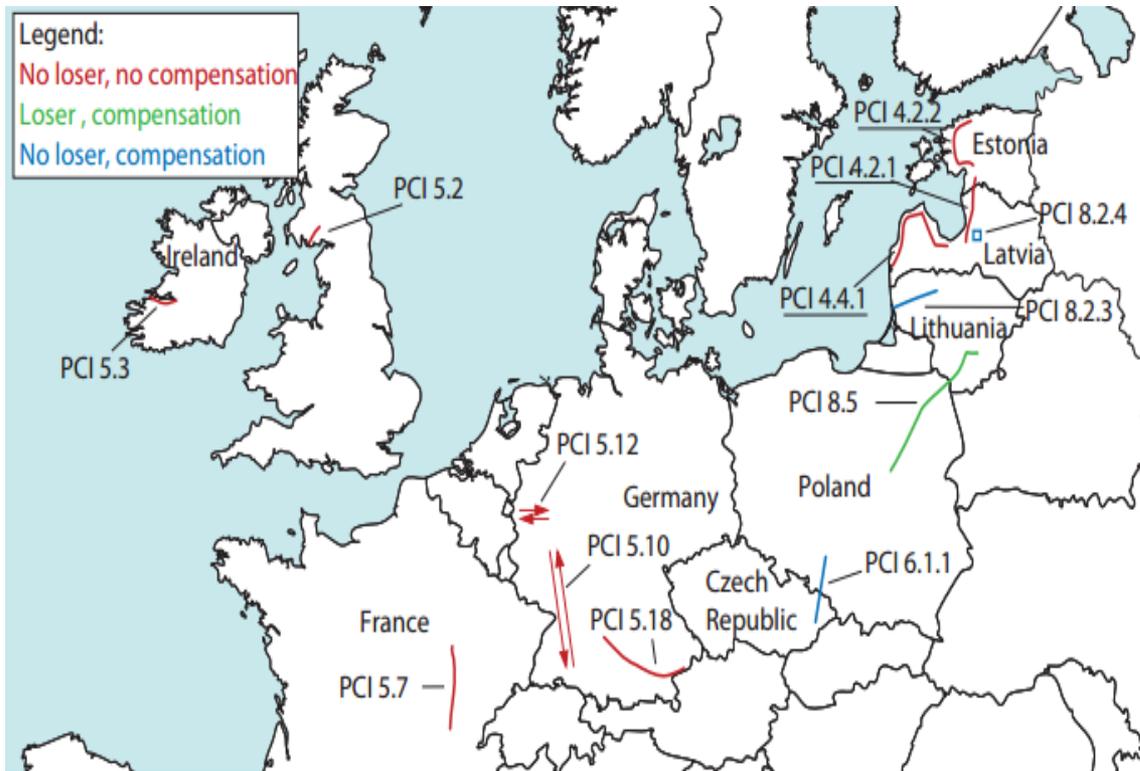
- Developments in both gas and electricity are fast moving with higher risks for stranded assets in Trans-European Networks. This increasingly higher demands on the CBA method that is used to select priority investments. Standing still in the development of that method would be going backward.
- The ABC of the CBA for so-called Projects of Common Interest (PCI) is about: A. dealing with interactions between PCIs (externalities), B.

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Cost benefit analysis for offshore electricity grid infrastructure: theoretical framework, current practice, and case studies

PROJECtION - Progress on Meshed HVDC Offshore Transmission Networks
EUROPEAN UNION
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CONTACT: tw@h2020promoti.eu

Cross-border Cost Allocation



European University Institute
 POLICY BRIEF
 Issue 2014/02
 January 2014
Guidance for Project Promoters and Regulators for the Cross-Border Cost Allocation of Projects of Common Interest
 Authors: Leonardo Meus, Xian He

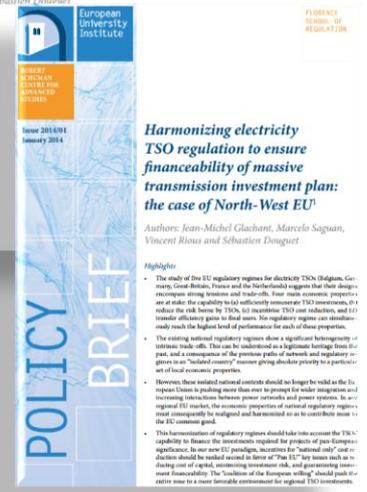
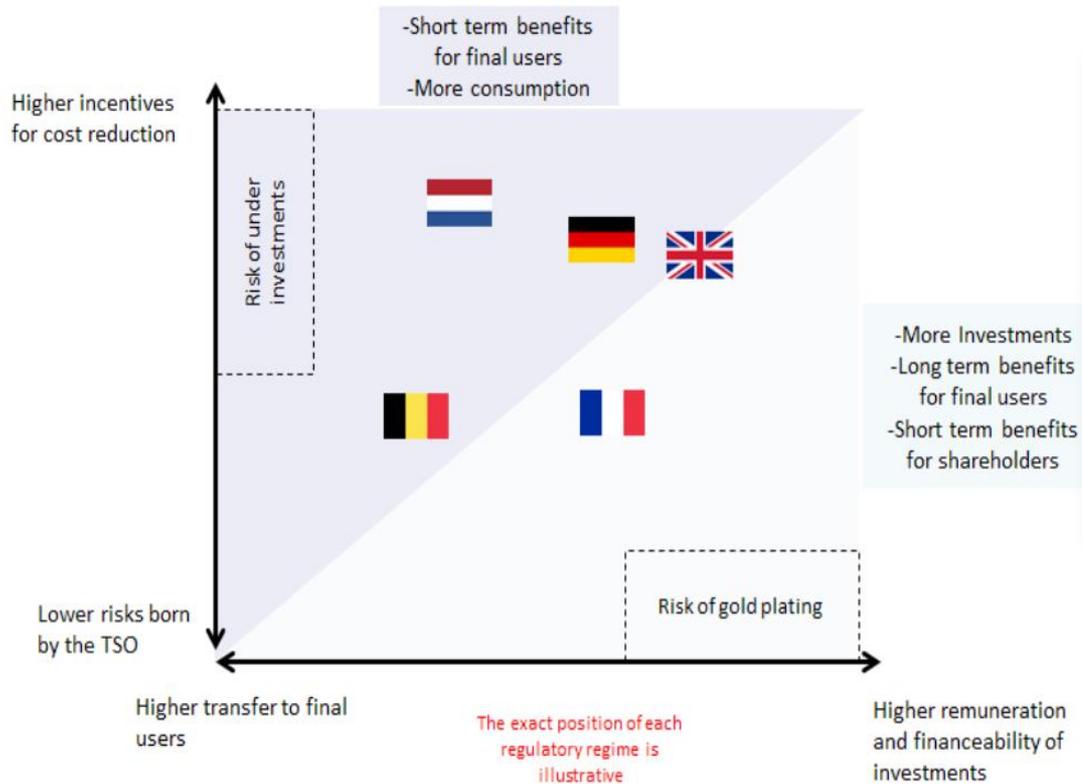
European University Institute
 POLICY BRIEF
 Issue 2015/01
 February 2015
First series of cross-border cost allocation decisions for projects of common interest: Main lessons learned
 Authors: Leonardo MEUS and Nico KEYAERTS

Highlights
 All projects in country press (EN) No. 1471 might introduce a part of Common of agreement. The current programme aims to have done that if one of them, that does not agree to agree on a mutual that is a simple PCI. We recommend and we also we decide ENR when this is in this context, as appropriate for.

Highlights
 Following the procedure introduced by the TSN II Regulation, thirteen power and gas infrastructure projects from the list of 'projects of common interest' have recently received a cross-border cost allocation decision. These decisions include neither coordinated decisions by national regulatory authorities, nor decisions by the Agency for the Cooperation of Energy Regulators (ACER). For most projects, the countries that are expected to apply part of the investment on their own territory are also a net beneficiary of the project. In addition, the cost-benefit analysis indicates that the costs clearly outweigh the benefits for one of the involved countries (i.e. net loser). The decision has been to compensate this country. In three cases, countries have agreed to a cross-border cost allocation with compensation, even if none of the involved countries is expected to be a net loser. In this brief, we determine the extent to which the first series of cross-border cost allocation decisions complies with the TSN II Regulation, ACER's Recommendations, and ENR's recommendations. We find that the expected improvement in cross-border cost allocation decisions is ongoing, but the gap between practice and recommendations remains. To reduce the gap, we have updated our recommendations into six lessons learned: (1) extend the significance threshold and the interaction with the Connecting Europe Facility; (2) promote the good practice of using indicators to improve the cross-border cost allocation decision; (3) require a complete cross-border cost allocation decision; (4) continue to use the results of the cost-benefit analysis to facilitate innovative cross-border cost allocation decisions; (5) continue consulting these decisions for strongly interacting projects; and (6) start including binding commitments in the decisions, especially with respect to the commissioning date.

- Start including binding commitments in the decisions.

Investment and Efficiency Incentives



Highlights

- The study of the EU regulatory regimes for electricity TSOs (Belgium, Germany, Great Britain, France and the Netherlands) regimes that those design encompasses strong tensions and trade-offs. Four main economic properties are at stake: the capability to sufficiently remunerate TSO investments, to reduce the risk borne by TSOs, to incentivize TSO cost reductions, and to maximize efficiency gains to final users. Six regulatory regimes can simultaneously reach the highest level of performance for each of these properties.
- The existing national regulatory regimes show a significant heterogeneity of certain trade-offs. This can be understood as a legitimate heritage from the past, and a consequence of the previous paths of network and regulatory regimes in an "isolated country" manner giving absolute priority to a particular of local economic properties.
- However, these isolated national contexts should no longer be held in the European Union as pushing more than ever to prompt for wider integration and increasing interactions between power networks and power systems. In a regional EU market, the economic properties of national regulatory regimes must consequently be designed and balanced in order to contribute more to the EU common good.
- The harmonization of regulatory regimes should take into account the TSOs' capability to finance the investments required for projects of pan-European significance. In the new EU paradigm, incentives for "national only" and reductions should be ruled out in favor of "Pan EU" key issues such as reducing cost of capital, increasing investment risk, and guaranteeing investment financeability. The "function of the European willing" should push the entire line to a more favorable environment for regional TSO investments.

THANK YOU

pradyumna.bhagwat@eui.eu



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