

International Experience in Transmission Planning and Delivery

Imperial College London, 11-12th January 2013

The aim of this two day Conference is to (1) share experience of actual performance of alternative transmission planning and delivery approaches practiced in various jurisdictions and (2) based on the lessons learned, discuss the options for the development of the future GB integrated transmission system onshore, offshore and cross-border. The programme of the two parts is presented below.

Part I: International experience: strengths and weaknesses of alternative transmission planning and delivery regimes

The aim of the first day of the conference is to establish the fact base from international experience on transmission planning and delivery arrangements and evaluate their performance through expert presentations on the particular arrangements in different jurisdictions. Each speaker will speak for 30 minutes followed by 30 minute discussion. Possible topics to be covered include:

- Alternative approaches to planning of transmission network including the obligations and incentives on the multiple parties involved to ensure that the core network assets develop in line with the overall needs.
- Role of competition in planning delivery and experiences of managing and reconciling the competitive interests of companies with the interests of regulated entities (especially where the regulated company also has competitive interests)
- Coexistence and interface of different regimes (e.g. regulated and merchant)
- Transmission delivery that may include auction or competitive tender design while considering timeliness of delivery, output definition (including consideration of competition for delivery of radial or meshed assets), engineering detail, consenting, and incumbent participation.
- Evidence of the benefits of innovation in planning and delivery (through competition) in lowering construction and financing costs, approaches to managing costs of tenders, transaction costs, coordination costs between network owner and new entrants
- The relationship between short-term and long-term investment signals (e.g. how nodal/zonal prices signal the value of transmission capacity in the long term).
- Approaches to dealing with uncertainty, handling of complexity, role of the political process, regulatory incentives, required market structures and the degree of risk sharing.
- Experience of separation of design and delivery of transmission assets including examples of where this has worked well or not so well and approaches to dealing with potential

conservatism in design and the lack of balance sheet risk in approaches to planning that involve ISOs.

- Approaches to managing the risk/reward balance under different models for system planning (centralised/decentralised, independent/non-independent)
- The relationship between the system planner and the regulator under the different models (in terms of signing off investment plans and CBAs etc)
- Setting the boundaries between identifying need, consenting, pre-construction and ultimate asset build under the different models and setting the level of detail in asset design that the system planner mandates/directs.

Part II: Assessment of the suitability of various options for Great Britain

Based on the experiences and evidence of the performance of alternative regimes practiced in different jurisdictions, on the second day we will discuss key topics which will be relevant for the future development of Great Britain transmission arrangements. The aim is to establish the key criteria for evaluating the applicability of the different transmission planning and delivery approaches and set out the policy options appropriate for Great Britain. The discussion sessions will consist of a 15-minute introduction followed by a 5-minute initial response and 40-minute discussion.

Key topics to be addressed include:

- Criteria for adopting alternative regimes for planning and delivery
- Dealing with potential conflicts of interest for parties undertaking transmission planning, delivery and operation
- Dealing with uncertainty: incremental versus strategic transmission investment, centralised and decentralised approach
- The regime interface for transmission related multi-purpose projects and co-existence of merchant and regulated assets.

Programme:

11th of January	
9.15-9.45	Welcome, introduction and overview of the ITPR Project Objectives
Part I: International experience: strengths and weaknesses of alternative transmission planning and delivery regimes	
US Experience	
9.45-10.45	William Hogan The theory behind and the experience with transmission planning and delivery under the FERC Standard Model
10.345-11.45	Dick O'Neill A Regulator's perspective on merchant transmission and ISO regime performance on planning, delivering and operating an efficient

	transmission system
11.45-12.45	Paul Sotkiewicz The PJM Experience with Transmission Planning and the Regulation of Investment
12.45 – 13.45 Lunch	
13.45-14.45	Julia Frayer The CAISO Experience with Transmission Planning US experience with merchant transmission planning and investment
14.45-15.45	Dan Woodfin The ERCOT Experience – Planning and delivery of transmission projects, lessons from connecting wind generation
South American Experience	
16.00-17.15	Hugh Rudnick Experience in South America– role of competition in planning and delivery of transmission projects and interconnection Juan Carlos Araneda Example of competitive planning and delivery projects in Chile
Great Britain Experience	
17.15-18.15	Robert Hull Experiences with GB Offshore Transmission regime

18:30 Dinner

12th of January	
Part II: Assessment of the suitability of various options for Great Britain	
9.30-10.15	Goran Strbac Challenges for future GB transmission arrangements
10.15-11.15	Introduction by David Newbery Dealing with potential conflicts of interest for parties undertaking transmission planning, delivery and operation. Dick O'Neill and Juan Carlos Araneda Initial response
11.15-12.15	Introduction by Lewis Dale The regime interface for transmission related multi-purpose projects and co-existence of merchant and regulated assets Julia Fryer and Dan Woodfin Initial response
12.30 – 13.30 Lunch	
13.30-14.30	Introduction by Michael Pollitt Criteria for adopting alternative regimes for transmission planning and delivery

	William Hogan Initial Response
14.30-15.30	Introduction by Christos Vasilakos and Rodrigo Moreno Options for future GB transmission regimes Hugh Rudnick and Paul Sotkiewicz Initial Response
15:30 – 16:00	Open discussion

Participants List

Chair	
Fiona Woolf	CMS Cameron McKenna
Presenters	
William Hogan	Harvard University
Richard O'Neill	FERC
Paul Sotkiewicz	PJM
Julia Frayer	London Economics International
Dan Woodfin	ERCOT
Hugh Rudnick	The Pontifical Catholic University of Chile
Juan Carlos Araneda	Transelec
Robert Hull	Ofgem
Lewis Dale	National Grid
ITPR Academic Team	
Goran Strbac	Imperial College
Michael Pollitt	Cambridge University
David Newberry	Cambridge University
Richard Green	Imperial College
Christos Vasilakos Konstantinidis	Imperial College
Rodrigo Moreno	Imperial College
Ioannis Konstantelos	Imperial College
Attendees	
Alain Michie	Scottish Power
Andy Hiorns	National Grid
Charlotte Ramsay	Ofgem
Chris Veal	Transmission Capital
Fabien Laroche	Ofgem
Guy Nicolson	Renewable UK
Ian Marlee	Ofgem
Laura Edwards	Ofgem
Mark Cox	EDF Energy
Min Zhu	Ofgem
Richard Clay	Crown Estate
Robert Longden	Mainstream Renewable Power
Samantha Ridsdale	SSE
Sean Gammon	NERA Economic Advisors
Terry McCormick	National Grid
Tim Collins	Centrica
Tim Tutton	Oxera

Venue

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