



#### Future Trading Arrangements Working Group 3





## ▶ 1. Aim of WG3

- 2. Work-stream scope
- 3. Prioritisation
- 4. Next steps and way forward





The aim of today is to scope in more detail the terms of reference of the work-streams & to prioritise them





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Previously we grouped issues & levers into seven work-streams



Making a positive difference Linkages between all work-streams but some have more specific policy implications than others







Five steps to determine each workstream's terms of reference

Step 1	Key driver	Remember what is driving the work-stream
Step 2	Size of issue	<ul> <li>Assess materiality of the issue, by quantitative analysis where possible</li> <li>Consider whether analysis should draw on third-party information or be bespoke</li> </ul>
Step 3	Detailed design & scoping	<ul><li>Identify policy options to consider</li><li>Design detail of policy options</li></ul>
Step 4	Approach to assessment	<ul><li>Benefit assessment and cost impact</li><li>Distributional effects</li></ul>
Step 5	Output	The ultimate deliverable from the work-stream





Terms of reference for WS1: locational pricing







Making a positive difference Terms of reference for WS2: managing intermittency by market participants



Wind capacity to double by 2018/19 & DSR 20% Wind forecasting error  $\overline{}$ to play increasing role in market Step 15% Key driver Market participants may need additional 10% tools to manage inherent uncertainty 5% 0% Increased requirement for trading tools  $\sim$ One-two hours Day-ahead Step Size of issue linked to growth in wind capacity and wind ahead Source: National Renewable Energy Laboratory forecasting error Consider additional measures to manage uncertainty near real-time e.g. Detailed က intra-day auctions, balancing energy market, cross-border trading, DSR etc. Step design & Links to Ofgem's Smart Grids Forum & institutions WS e.g. DSR aggregation scoping Not considering SO balancing services (see Work-stream 3) Step 4 Approach to Benefit assessment (e.g. lower cost of overall dispatch, environmental gains, improved investment signals & liquidity) vs. costs (e.g. implementation) assessment S Step Output Recommendation to the Forum on options to better manage intermittency

### Making a positive difference Terms of reference for WS3: ancillary services, balancing & reserve review

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Step 1	Key driver	<ul> <li>Change in generation mix leads to demand for additional tools to keep system in balance</li> <li>System in balance</li> </ul>			
Step 2	Size of issue	<ul> <li>E.g. SO predicts STOR could double to 8GW by 2020, at £200 million + per year</li> <li>Freq response costs forecasted to increase by £44M in 2015/16 due to increase in largest generator loss</li> </ul>			
Step 3	Detailed design & scoping	<ul> <li>Consider short-term organised reserve market, ancillary service review, payas-clear in balancing market, changes to timing &amp; settlement periods etc</li> <li>Cross-border balancing, as promoted in EU Balancing Network Codes</li> </ul>			
Step 4	Approach to assessment	Benefit assessment (e.g. avoided additional reserve costs, environmental) vs. costs (e.g. implementation costs, especially on SO)			
Step 5	Output	Recommendation to Forum on requirement for additional services, changes to how services are procured and any other potential market changes			
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# Making a positive difference for energy consumers A: impact of financial regulations



Step 1	Key driver	<ul> <li>European regulation that will apply to energy trading e.g. MiFID &amp; EMIR</li> <li>REMIT already being addressed by Ofgem</li> </ul>			
Step 2	Size of issue	<ul> <li>Size dependent on regulation once finalised</li> <li>GB market 85% OTC in 2012 with limited involvement of exchanges/clearing houses</li> <li>Source: 2013 GB National Report to EC</li> </ul>			
Step 3	Detailed design & scoping	<ul> <li>Analyse the impact of the different regulations on trading arrangements e.g. likely that trades will need to go through clearing houses</li> <li>Links with Ofgem Liquidity Project e.g. impact on trading &amp; market liquidity</li> </ul>			
Step 4	Approach to assessment	Benefits (e.g. transparency, liquidity) vs. costs (esp. need to minimise to GB consumers while still being compliant, credit/collateral requirements)			
Step 5	Output	Provide Forum with analysis on impact of regulations, once they are finalised			





## Terms of reference for Work-stream



B: flexibility in gas markets

Step 1	Key driver	Intermittency requires greater flexibility, with gas likely to play an important role in the market			
Step 2	Size of issue	<ul> <li>Profile of gas generation likely to be much more volatile in the future</li> <li>Challenge to NTS design</li> <li>Challenge to NTS design</li> </ul>			
Step 3	Detailed design & scoping	<ul> <li>Possibility of intra-day balancing market for gas</li> <li>Implications for price of gas and value of flexibility, such as line pack storage and additional flexibility products</li> <li>Interactions with EU Gas Target Model e.g. more market-based balancing</li> </ul>			
Step 4	Approach to assessment Benefit assessment (e.g. lower cost of overall dispatch through more flexible gas as a fuel source) vs. costs (e.g. implementation)				
Step 5	Output	Recommendation on policy options to inform Forum (to be considered later)			
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Step 1	Key driver	driver Market changes may lead to changes in institutional roles, or vice versa			
Step 2	Size of issue	<ul> <li>A number of institutions may be affected by changing roles, such as DNOs, SO, central aggregators, power exchanges, clearing houses, end-consumers etc</li> <li>E.g. evolving role of power exchanges under the EU Target Model</li> </ul>			
Step 3	Detailed design & scoping	<ul> <li>Consider the changing roles and responsibilities of institutions and their governance arrangements</li> <li>Also consider if there is scope for complementary improvements to the trading arrangements</li> </ul>			
Step 4	Approach to assessment	<ul> <li>Benefit assessment of taking on new roles (e.g. synergies, experience, informational advantages, economies of scale) vs. cost impact (e.g. implementation costs, conflicts of interest, competition)</li> <li>Welfare considerations from transferring roles and responsibilities</li> </ul>			
Step 5	Output	Recommendation to the Forum on governance, rules and regulations (to be considered once Work-streams 1-3 have been further developed)			
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## Terms of reference for Work-stream



#### D: longer-term market arrangements

Step 1	Key driver	<ul> <li>Path dependency in policy and regulatory choices means that the short- medium term affects the longer-term picture</li> <li>E.g. trading arrangements need to allow for Capacity Mechanism in short-</li> </ul>
		medium term & DECC's indication that CM may not be an enduring solution
Step 2	Detailed design & scoping	<ul> <li>Draw up the high-level picture for the GB electricity market for 2025 and beyond, especially relating to security of supply</li> <li>Starting point should be principles defined by FTA Forum</li> </ul>
Step 3	Approach in work-stream	Identify the trading arrangements necessary to ensure that security of supply is achieved over the long-term
		Recognise potential uncertainties and opportunities associated with future e.g. generation mix, impact of technology, interaction with other policies, etc
		Where appropriate, identify and assess policy solutions

Ensure policy conclusions in other work-streams are consistent and compatible with the longterm picture





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We can prioritise the work-streams according to three criteria to see if we should proceed now

		Necessity	Size of issue	Urgency	Proceed now?	Кеу
1	Locational pricing	High	High	High	1	Necessity: Ofgem required to
2	Managing intermittency	Medium	Medium	Medium	1	act by EU Target Model / binding Network Codes
3	Ancillary service review	Medium	High	Medium	1	Size of issue: Estimated
А	Impact of financial regs.	?	?	?	?	magnitude of issue Work-stream is to address
В	Flexibility in gas markets	Low	Low now, but increasing	Low	Х	Urgency: Market is evolving
С	Institutions	Low	Medium	Low	?	& it may be worth addressing issue sooner vs. later

	Long-term	All of the above work-streams must be consistent	1
U	market view	with the long-term view of market arrangements	V





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