OPTION 1 – Adapted De-centralised Market

Understanding of the package

GB/continental-style bilateral market with more emphasis on self-dispatch and balancing, but *adapted* to SEM with market power mitigation measures and to provide greater freedom for the TSOs to dispatch the system in the intraday market. Much greater responsibility is placed on market participants to manage supply-demand balance through a series of voluntary physical markets over different timescales.

Key challenges

- Mitigating market power
- Facilitating wind
- Significant difference between self-nominations and actual dispatch
- Significant market change for SEM

Specific clarification questions

- 1. What rules would govern bidding in the BM to ensure that market power is not abused?
- 2. Does Wind bid into the DA and ID timescales, and would this be facilitated by use of intermediaries? Is there a de minimus category that would not have to bid or that would be netted off against demand?
- 3. What is the 'balancing market algorithm' doing in constructing the imbalance price does this distinguish energy balancing actions from network constraints and system requirements i.e. tagging?
- 4. Would curtailment of wind be managed through the BM, and how would this interact with current rules on curtailment for generation with firm and non-firm access rights?
- 5. How would the TSO carry out balancing actions across the interconnector ahead of Gate Closure (1h prior to delivery)? What measures would prevent these balancing actions from being unwound in the intra-day market?
- 6. What measures would be put in place to mitigate market power and ensure that market participants could gain equitable access to hedging products across a range of market timeframes? In particular, to what extent is market access safeguarded for independents (especially renewables)?
- 7. Is price regulation ex ante or ex post? If ex ante, what rules might be considered and how will it be ensured that this does not distort price coupling?
- 8. Is it expected that BM pricing would be set to give strong incentives to self-balance, or would be more cost reflective, with relatively benign incentives.
- 9. Is there an opportunity under this package to align both the energy and capacity markets more closely with GB? Is this, or should this, be considered a criterion in evaluating the packages?

OPTION 2 – Mandatory Ex-Post Pool for Net Volumes

Understanding of the package

Firm ex-ante prices for some physical ex-ante volumes. The residual schedule is based on an ex-post pool as per current market arrangements. Unlike option 1, dispatch and balancing are more centralised and regulated, and the ex-post schedule is potentially deeper than a balancing algorithm.

Key challenges

• Potential for different offer formats and different gate closures for plan in/out of DA market.

• Mitigating market power in the voluntary market

Specific clarification questions

- 1. Does Wind bid into the DA and ID timescales, and would this be facilitated by use of intermediaries? Is there a de minimus category that would not have to bid or that would be netted off against demand?
- 2. Could different offer formats and/or bidding rules lead to price distortion and gaming opportunities between the two markets? For example SRMC bidding in the ex-post pool might lead to a different price compared to non-regulated bids in the voluntary DAM.
- 3. In constructing the ex post market schedule assuming volumes from DA and ID as pricetakers this will effectively reduce demand and potentially the quality of the imbalance price. How will a feasible and reliable imbalance price be ensured?
- 4. Could different gate closure times lead to an inefficient dispatch?
- 5. As with option 1, what mitigation measures are put in place to mitigate market power in the voluntary market, and to ensure that all generators and suppliers have equitable access to the market across the full range of market timescales?
- 6. How would the incs and decs from generators in the DA market be used in calculating the pool price? Would bidding rules be put in place (a) to mitigate market power in the voluntary markets; and (b) so that the incs and decs are consistent with the complex regulated bids submitted into the pool? How would cost recovery for generators be assured (with or without a capacity mechanism)?
- 7. Similarly how would offer data in different formats be combined and used in dispatch decisions?

Is it correct to assume that pricing of balancing actions is likely to be more benign (perhaps cost reflective) when compared against Option 1?

- 8. Who picks up the cost for distortions to ex-post scheduling and pricing that result from generators nominating commitments that are not feasible, especially if balancing pricing is benign?
- 9. Who picks up the cost associated with balancing actions taken through the day as IC nominations are adjusted as a result of continuous intra-day trading?
- 10. Is the solution compliant with the EU target model? Will it accommodate potential future cross border balancing requirements? Could it lead to inefficiency in cross border balancing between TSOs because of gate closure in the net pool not being aligned with gate closure in GB?

OPTION 3 - Mandatory Day-Ahead Pool

Understanding of the package

Based around a mandatory Day-Ahead market (to provide reference price) that delivers a market schedule, forming a good basis for a feasible initial dispatch. Iberian style market with mandatory day-ahead and intra-day auctions; this should focus liquidity day-ahead, and the mandatory nature of the day-ahead pool should address market power concerns.

Key challenges

- Participation of demand
- Interaction between intra-day trading and TSO dispatch actions

Specific clarification questions

- 1. Are suppliers submitting demand forecasts to feed into each market schedule and then exposed to imbalance, or do suppliers remain protected from imbalance with demand being forecast at an aggregate level?
- 2. Does Wind bid into the DA and ID timescales, and would this be facilitated by use of intermediaries? Is there a de minimus category that would not have to bid or that would be netted off against demand?
- 3. What prevents intra-day pool auctions from reversing actions across the interconnector taken by the TSO ahead of gate closure?
- 4. How would intra-day trading interact with the firm positions established at day-ahead? If participants are just submitting offer data for deviations from their committed position they would need to price in unit constraints (e.g. MSG). Could the RAs influence the EUPHEMIA design to support any additional complexity in offer data that might be desirable in the SEM?
- 5. Could a phased approach be taken to implementing this package i.e. only implement the day-ahead pool initially, but with the option to add the intra-day trading later as market coupling extends to the intra-day stage?
- 6. Under long term trading, what is meant by the mitigant of regulated share for physical energy trading?

OPTION 4 - Net Settlement of Gross Mandatory Pool

Understanding of the package

An ex-ante price and volumes are set through voluntary trading (participating in price coupling) whilst maintaining an ex-post reference price (same algorithm?) based on a gross mandatory pool. Compensation towards volumes settled ex-ante ensures financial firmness on price and volumes.

Key challenges

- EU Target Model Compliance
- Exposure to ex-post pool price
- Concerns over market power and potential for gaming

Specific clarification questions

- 1. Will an ex-post schedule, based upon offer data submitted at an early (e.g. day-ahead) gate closure, comply with the Balancing network code?
- 2. How would the 'compensation' or 'make-whole' payments proposed actually work (does it provide financial firmness only)? For example, if a generator is contracted to generate at 50 €/MWh and the SMP outturn is 40 €/MWh, does the generator then pay the pool 40 €/MWh to fulfil its contract (hence the generator receives net 10 €/MWh)? Who pays for the 'compensation' or 'make whole payments'?
- 3. Is there any physical link between the DA and ID timeframes and the imbalance mechanism?
- 4. No market power mitigation has been proposed in this case. Would measures be included to promote day-ahead liquidity and pricing transparency? In the absence of bidding principles could firm 'compensation' / 'make-whole' payments for DA/ID positions be subject to gaming?
- 5. What is the status of the IC position in the market schedule?
- 6. What are the proposed internal gate closures for SEM ex-post pool? If gate closure for the pool is day-ahead, as today, is there a risk (a) of distortion and gaming between the voluntary markets and the ex-post mandatory pool; and (b) of inefficient cross-border balancing?

7. As the IC position evolves over time there may be a need for additional balancing actions. This is similar to current market but under proposed design there will be significantly more scope for the IC position to change and therefore balancing actions to increase along with the price risk on generators. How will the costs of these actions be allocated across market participants?

OPTION 5 - Cross Border Integration (Centralised)

Understanding of the package

The package aims to increase the efficiency of interconnector flows whilst maintaining all the key features of the current SEM.

Key challenges

• Cash flows resulting from day-ahead and intra-day trading

Specific clarification questions

- 1. How do the cash flows locked in by SEMO at the day-ahead and intra-day stages filter down to individual market participants?
- 2. How would contractual position between SEM and other European players be managed? Who would be the counterparty for SEM? Who carries counterparty credit risk, etc?
- 3. How would potential inaccuracies in the construction of the SEM curve be paid for i.e. SEM bid offer curve (prepared ex ante) will not necessarily reflect the actual change in SMP (determined ex post) when increasing or decreasing IC flow given feasibility constraints in SEM algorithm. Who picks up the cost of this mismatch?
- 4. As with option 4, what are internal gate closures for SEM? If gate closure is as today, is there a risk of inefficient cross-border balancing and non-compliance with the balancing network code?