Secondary considerations

These slides are initial thoughts to aid discussion only. They are not in any way meant to signify the views of GEMA, which for the avoidance of doubt has not made any decisions on this particular issue.

Introduction

- We have identified a number of potential secondary considerations
- We are seeking views on these considerations
- Secondary considerations depend heavily on the primary considerations
- Will be further developed once we have a minded position on the primary considerations

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1. Reserve market

What and why?

Definition

- An organised set of arrangements for purchasing ahead of real time the ability to activate an increase or decrease in generation or demand-side response for activation closer to real time

Potential benefits

- Reduce cost of reserve
- Increase transparency of reserve purchasing
- Aid targeting of reserve into cash-out prices
- Align with target model differentiation of balancing products
- And requirement for short term reserve products

1. Reserve market

Context

- Framework guideline
  - The Network Code on Electricity Balancing shall require:
    - a standardisation of balancing energy and balancing reserve products
    - TSOs to procure as many reserves as possible in the short term

1. Reserve market

Design questions

- Definition of reserve products?
- Time frame for market (day-ahead)?
- Participation (System Operator only counterparty or 2 sided market?)
- Bilateral or auction based?
- Secondary trading - tradable or auction windows?
- Could a reserve market emerge without intervention
- Would there need to be an obligation on the SO to use this service?
- Should location be accounted for?

Models presented are for discussion, not firm proposals

1. Reserve market

Straw man 1: One sided market

- Products defined and made available to auction
  - at day-ahead stage?
- SO only counterparty
- SO purchases reserve offered with option and exercise fees
- SO dispatches reserve

1. Reserve market

Straw man 2 : Two sided market

- SO and market participants can purchase reserve
- Option fee to allow increase or decrease in energy up to gate closure
- Auction (at the day-ahead stage?)
  - Following the auction, OTC trading of contracts could continue – or via subsequent auctions

1. Reserve market

Straw man 3: two-sided market – offsetting imbalance risk

- Market participants and/or SO could purchase reserve
- Bilaterally traded
  - Or could a platform/auction could aid liquidity?
- Option holder can exercise **before** gate closure
- Only SO can exercise **after** gate closure
  - SO pays exercise fee if not used to address option holder imbalance
  - Option holder can avoid imbalance charges if option is dispatched by the SO after gate closure
- *Option fee* - agreed bilaterally and paid by option holder
- *Exercise fee* – Paid by option holder if dispatched before gate closure and SO if dispatched after
  - (could imbalance exposure of market participant that bought the option be reduced if SO uses option?)

1. Reserve market

Barriers to commercially driven introduction?

- Dampened cash-out price signals
- Inaccurate targeting of reserve costs
- Could a market that could reduce imbalance exposure if exercised by the SO after gate closure be introduced without code changes?
  - Others?

1. Reserve market

Questions for discussion

- Would there be value in having an organised market for reserve?
  - Would parties use this instead of going long?
- Should market participants be able to purchase as well as offer reserve?
- Should owners of options exercised by the SO have their imbalance exposure reduced?
- How should location be accounted for?
- When should a reserve market be held?
- Are there reasons that this would not be introduced commercially in response to market signals?
- Would code changes need to be made?

2. Information imbalance charge

Introduction

- Information imbalance charge applicable to the difference in Final Physical Notification data (as modified by Acceptances) and BM Unit Metered Volume a from BM Unit in a Settlement Period
  - The functionality to have an information imbalance charge sits within the BSC but has not been used (set to £0)
  - Other incentives do exist – licence obligation, and FPNs are baseline for any bids and offers

- Is deterioration in information provided to the SO leading to balancing inefficiencies?

An information imbalance charge may not be necessary under the current arrangements

Would an information imbalance charge be necessary under the current arrangements?

2. Information imbalance charge

Interactions with other proposals

- Single cash-out price; single trading accounts; ex-post contract notifications
  - Would an information imbalance charge be needed to prevent self-balancing after gate closure resulting in the system from 'flipping,' creating uncertainty for the SO?
- Balancing energy market
  - Would an information imbalance charge be needed to provide an incentive to balance between BEM and real-time?
- To improve information provided by the System Operator
  - In order to improve the information that the SO can provide would an incentive on participants to submit better information be necessary?

Would there be a case for an information imbalance charge with a single cash-out price separate trading accounts or ex-post contract notifications?

Information imbalance charge

How would an information imbalance charge be derived?

- Simple £ value paid by participants?
  - Could this be the same as a fixed uplift on the cash-out price?
  - Or would an information imbalance charge need to be linked to system stress in some way?

Potential issues with an information imbalance charge

- Increased complexity
- Would add to the RCRC pot?
- Difficulties with how to set the information imbalance charge?

How could an information imbalance charge be derived and applied?

Improved provision of information

Net Imbalance Volume

- Range of information currently provided by the System Operator – could this, or how this is provided, be improved?
- Some appetite for an improved provision of **Net Imbalance Volume (NIV)**
  - **Indicated imbalance** published at the day ahead stage → difference between demand forecast and Physical Notifications (PNs)
- Could the quality of indicated imbalance be improved?
  - Would an information imbalance charge be needed to improve information submitted by participants?
  - Could indicated imbalance be published closer to real time?
- Could an improved forecast of NIV be a **self-defeating** prophecy?

How useful is indicated imbalance currently? What are the drivers of inaccurate indicated imbalance? Could this situation be improved by a information imbalance charge?

2. Improved provision of information

Renewables forecasting

System Operator incentive schemes from 2013 initial proposals paper consulted on a renewables forecasting incentive

- To enable stakeholders to balance their positions more accurately
- If participants choose to rely on NGET's forecasts, it should also enable NGET to minimise the costs of operating reserve
- Proposals would incentivise the accuracy of the forecast currently published at 5pm
- NGET is proposing to increase the number of forecasts it publishes to two in 2013/14 and four by 2015/16
- Paper sought views on whether a **regional forecast** would be necessary

What other information would help participants manage their imbalances and imbalance risk?

3. Amending gate closure

Introduction

Gate closure – the point at which

- Final physical notifications (FPNs) and Bid and Offer are submitted
- Contract notifications are submitted

Interactions

- Balancing energy market
- More marginal cash-out price

Options

1. Move gate closure nearer to real time
2. Allow ex-post contract notifications

3. Amending gate closure

Move gate closure nearer to real time

- Trade off between
  - the need of the market to be able to trade as close to real time as possible (implying shorter GCTs), and
  - the need for the TSO to ensure operational security (implying longer GCTs).
- Gate closure reduced from 3.5hr to 1hr by Modification P12
- "Confidence Criteria" used to measure this in Mod P12
  - Imbalance volumes resolved in the Balancing Mechanism are low;
  - Physical Notifications are accurate;
  - Sufficient Bids and Offers available in the Balancing mechanism (with short notice times);
  - Generator dynamics are rational;
  - NETA has operated successfully through periods where the system is under stress.

Would there be benefit in moving gate closure closer to real time?

3. Amending gate closure

Target Model interactions

"Gate Closure Time – deadline for the participation to a given market or mechanism"

"The Electricity Balancing Network Code(s) shall provide that TSOs harmonise the gate closure times until which BSPs can place and/or update their bids and schedules. It shall be as close to real time as possible, take into account the gate closure times of the other cross-border energy markets and promote the liquidity of markets".

LITHUNIA	24	LATVIA	2
CYPRUS	24	FRANCE	1
AUSTRIA	24	BELGIUM	1
IRELAND	20	POLAND	1
CZECH REPUBLIC	16	ESTONIA	1
HUNGARY	13	THE NETHERLANDS	1
GREECE	12	GREAT BRITAIN	1
SLOVENIA	10	DENMARK	0.75
LUXEMBOURG	9.5	FINLAND	0.75
ITALY	9	GERMANY	0.75
ROMANIA	9	NORWAY	0.75
SPAIN	3.25	SWEDEN	0.75
PORTUGAL	3.25		

Note: information not available for Bulgaria, Iceland, Malta and Slovak republic.

3. Amending gate closure

Ex-post contract Notifications

- Contract notifications currently submitted at gate closure (ex-ante)
- Ex-post contract notifications could allow participants to trade out their imbalances after real-time, in order to:
  - allow participants to better manage imbalance risk
  - encourage participation of demand side response
  - encourage participation of aggregators
- Would this need to be paired with an information imbalance charge?
  - To ensure that trading didn't continue after gate closure resulting in participants constantly adjusting their positions

Would this deliver similar benefits to a single cash-out price, or single trading accounts? Would this need to be paired with an information imbalance charge?

Residual Cashflow Reallocation Cashflow (RCRC)

- Reallocation of net cashflow from imbalance charges

Issues

- RCRC flows are unpredictable and opaque

Relevant Modifications

- BSC Modification P285 - Revised treatment of RCRC for Interconnector BM Units
- BSC Modification P286 – Revised treatment of RCRC for generation BM Units

Residual Cashflow Reallocation Cashflow (RCRC)

Interactions

- Single → less RCRC
- PAR → more marginal; more RCRC
- Single trading accounts → less RCRC
- Information imbalance charge → more RCRC
- Non-costed actions → more RCRC?

Options

- Possibility of distributing RCRC according to imbalance share
  - may reduce incentives to balance
- Net RCRC off BSUoS charges

What changes to the RCRC mechanism should we consider?

Reverse Price

- Introduced by BSC Modification P078A, 'Revised Definitions of System Buy Price and System Sell Price'

- Market Index Definition Statement
  - Defined and maintained by the Panel
  - Reviewed annually
  - Currently reflects products within 12 hours of Gate Closure

Summary of questions

Information imbalance charge

- Would an information imbalance charge be necessary under the current arrangements?
- Would there be a case for an information imbalance charge with a single cash-out price separate trading accounts or ex-post contract notifications?
- How could an information imbalance charge be derived and applied?

Improved provision of information

- How useful is indicated imbalance currently? What are the drivers of inaccurate indicated imbalance? Could this situation be improved by a information imbalance charge?
- What other information would help participants manage their imbalances and imbalance risk?

Gate closure

- Would there be benefit in moving gate closure closer to real time?

Contract notifications

- Would ex-post contract notifications deliver benefits to the market? Would these be similar benefits to a single cash-out price, or single trading accounts? Would this need to be paired with an information imbalance charge?

RCRC

- What changes to the RCRC mechanism should we consider?


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