Constraint Management Service

Interim Operation Forum: 12th December 2007

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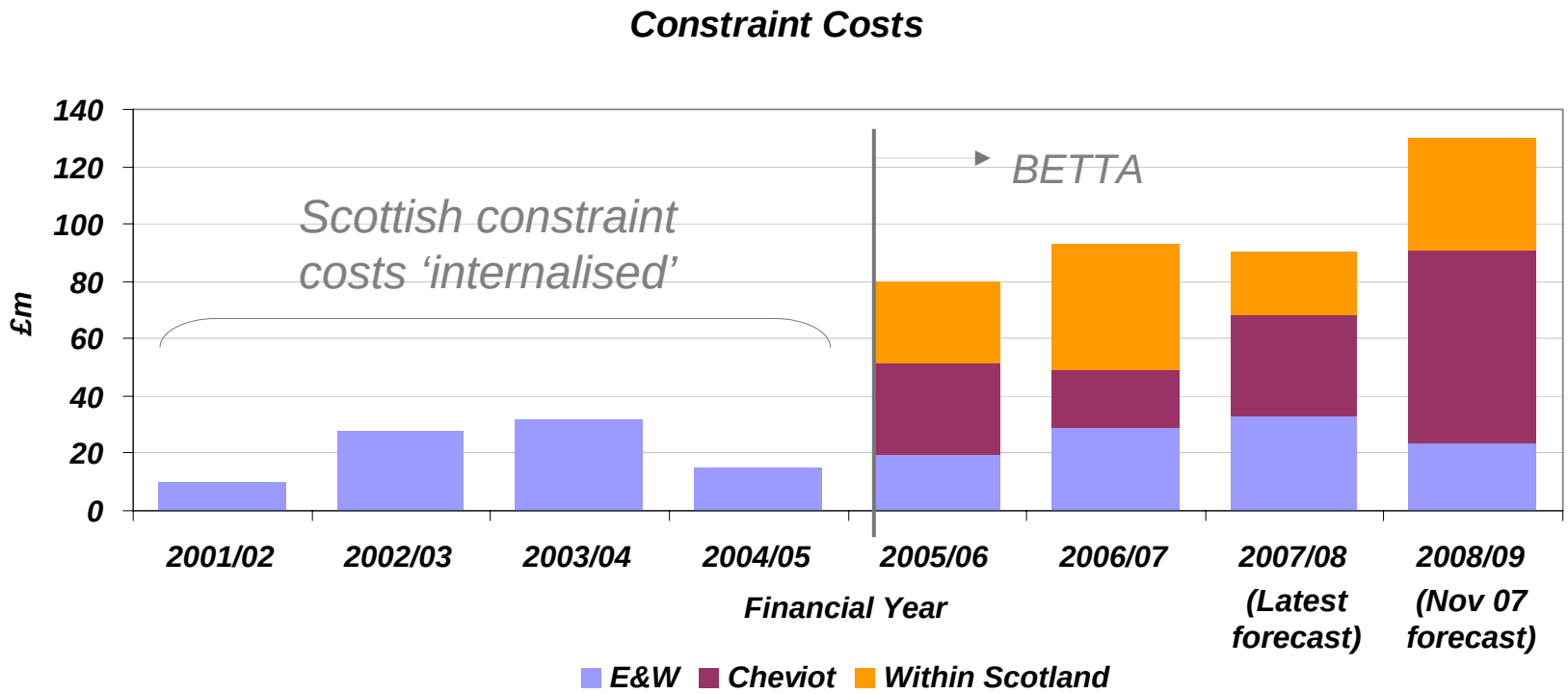
Constraints: Background



- 2008/09 sees around 30 weeks of outages on Cheviot boundary circuits, with significant cost exposure
- Costs associated with the use of ancillary services (e.g. intertrips) and the Balancing Mechanism to manage Scottish transfers
- Such exposure likely to continue in subsequent years until Transmission Investment for Renewable Generation (TIRG) is complete

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Managing Constraint Price Exposure

We have investigated options for managing constraint costs going forward, both in terms of building on existing constraint management tools and by considering potential new balancing services to mitigate cost risk in the Balancing Mechanism

- We seek certainty over constraint prices by contracting ahead of time to fix prices over a defined period in exchange for a fee; however
- Providers face uncertainty regarding how costs will vary over such period, so they factor in risk, making resulting prices unattractive

Price/cost risk can be mitigated by linking prices to a recognised index

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Proposed Constraint Management Service: Price Indexation

- Invitation to tender for capped/collared prices using recognised indices (e.g. wholesale electricity prices/fuel prices) in exchange for an Availability Fee
- Open to both BM and non-BM providers
- Invitation to Tender could be for increased output, decreased output or both
- Procured on a power station/site basis
- Procurement will feature an appropriate level of transparency
- Availability payments based on volume available to be instructed

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Service Principles (1)

- Bounds on submitted prices proposed as follows:

$$\text{Price}\,(\text{MWh}) = \left(\frac{Index\,(MWh)}{Fuel\ Efficiency} \right) \pm c$$

where c is a constant (tendered)

Possible indices:

Gas: *SAP (within-day)*

Coal: *cif ARA (weekly Coal Industry Marker)*

Oil: *ICE Brent (daily ICE BWAVE)*

} *views welcome*

NB 'Fuel Efficiency' will be BMU-specific and is expected to be pre-contracted rather than tendered.

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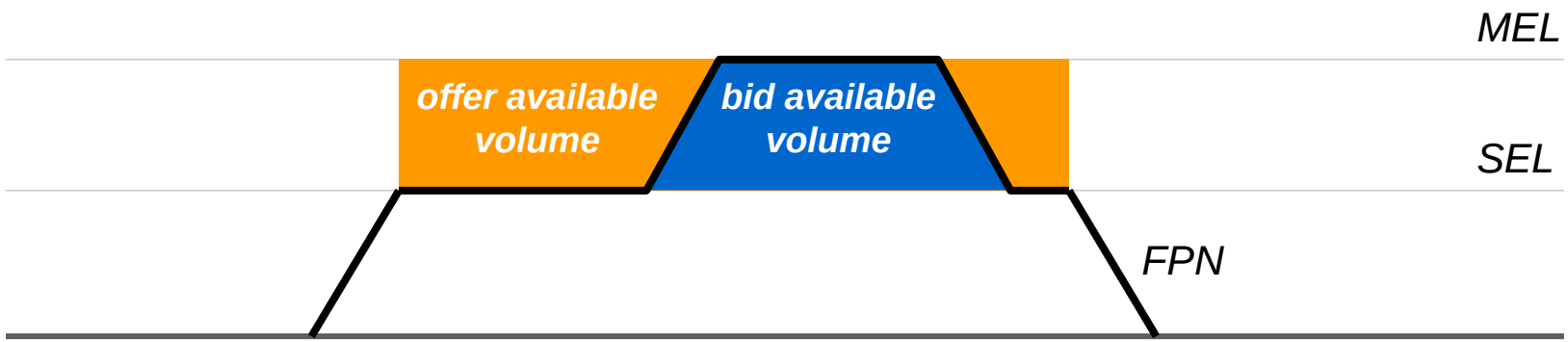
Service Principles (2) – BM Example

At BMU level:



Half-hourly Offer Available Volume is the difference between MEL and FPN
Half-hourly Bid Available Volume is the difference between FPN and SEL

At station level:

Half-hourly Offer Payment (£) = Offer Available Volume x Availability Rate' (tendered)
Half-hourly Bid Payment (£) = Bid Available Volume x Availability Rate (tendered)

Monthly Availability Payment (£) = Sum of Half-hourly availability payments in month

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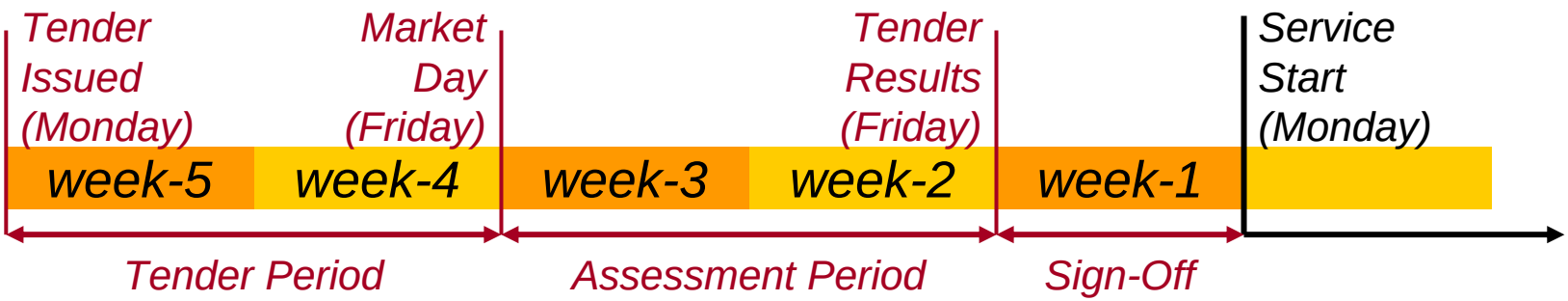
Procurement

- Procurement at Monthly resolution, for single or multi-month service
- Likely tender timescales:



- Tender will require indicative maximum instructable block size (can be aggregated)
- Market Report will be produced

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Next Steps

- Draft service terms available on website this week
- Happy to discuss bilaterally – please get in touch (ian.pashley@uk.ngrid.com, 01926 653446)
- Invitation to Tender issued mid-February
- Planned service commencement 31st March 2008

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