Use of network capacity prior to compliance with security standards

Alternative access arrangements

ARODG

23 March 2006

nationalgrid

Content

- Background
  - firm / non-firm rights
  - availability of spare capacity
  - existing short-term firm products
- Options for additional access rights
  - if there is spare capacity
  - if there is no spare capacity
- Implications for cashout / imbalance
- Conclusions

nationalgrid

Scope

- To provide rights to Users that have a local connection but are awaiting completion of the wider reinforcements needed for the network to be compliant with the security standards

  i.e. Stage 2 in the ARODG access framework

- Not envisaged to be the basis for enduring rights following completion of the wider system reinforcements

nationalgrid

Firmness of rights

Firm right

- Compensation agreed if rights are withdrawn:
  - defined in BCA
- Allocated (usually) once network is compliant
- But limited firm access has been provided e.g. STTEC and LDTEC

Non-firm right

- No compensation if rights are withdrawn
- Not defined

A **less-firm right** does not exist, just different compensation if a **firm right** is withdrawn

nationalgrid

Implications of a non-firm right

- Depends on when right is withdrawn

Prior to gate closure

- Lose opportunity to generate
- Opportunity to re-contract and hence avoid imbalance

After gate closure

- Lose opportunity to generate and exposed to imbalance
- Consequential balancing costs

nationalgrid

Availability of spare capacity

Planning Standards

- Assessed against Planning Standards
- Capacity only available on completion of reinforcements

Operational Standards

- Assessed in operational timescales up to a year
  - network topography
  - generation & demand information
- Locational variations
- Temporal variations – time of day / year (outages)
- Limited predictability beyond year (c.f. LDTEC is <1yr)

→ Limited and potentially diminishing

nationalgrid

Existing short-term firm products

	STTEC	LDTEC
Maximum duration of rights	4, 5, or 6 weeks	45 weeks
Notice of firmness	1 or 2 weeks	7 – 45 weeks
Volume provided	Maximum MW	Profiled MW
Long-term rights (>1 year)	None	None
Compensation if withdrawn	Yes	Yes

- Limited duration, capacity and notice of availability
- Allocated on f-c-f-s bases, assuming that:
  - no increase operational costs
  - does not fetter ability to take outages for maintenance / construction

nationalgrid

Alternative access arrangements

- Illustrations of ideas to aid discussion
- Significant design issues to be resolved:
  - timescales for allocation / withdrawal of rights
  - allocation methodology
- Funding and incentives
  - illustrations assume cost neutrality

nationalgrid

If there is spare capacity…

- Scope for alternative STTEC / LDTEC type products

Restrict volume / capacity

- Limit capacity to certain times e.g. off-peak
- Limit to agreed volume e.g. *x* MWh in year

} defined notice of availability

Restrict price (if need to buy-back)

- Price relates to an agreed volume
- Price relates to capacity
  - if zero compensation, effectively a non-firm right

} agreed buyback price

- Combinations of volume and price could be considered

nationalgrid

Illustration 1: *Limit Capacity Offered*

Access at pre-determined times and/or locations

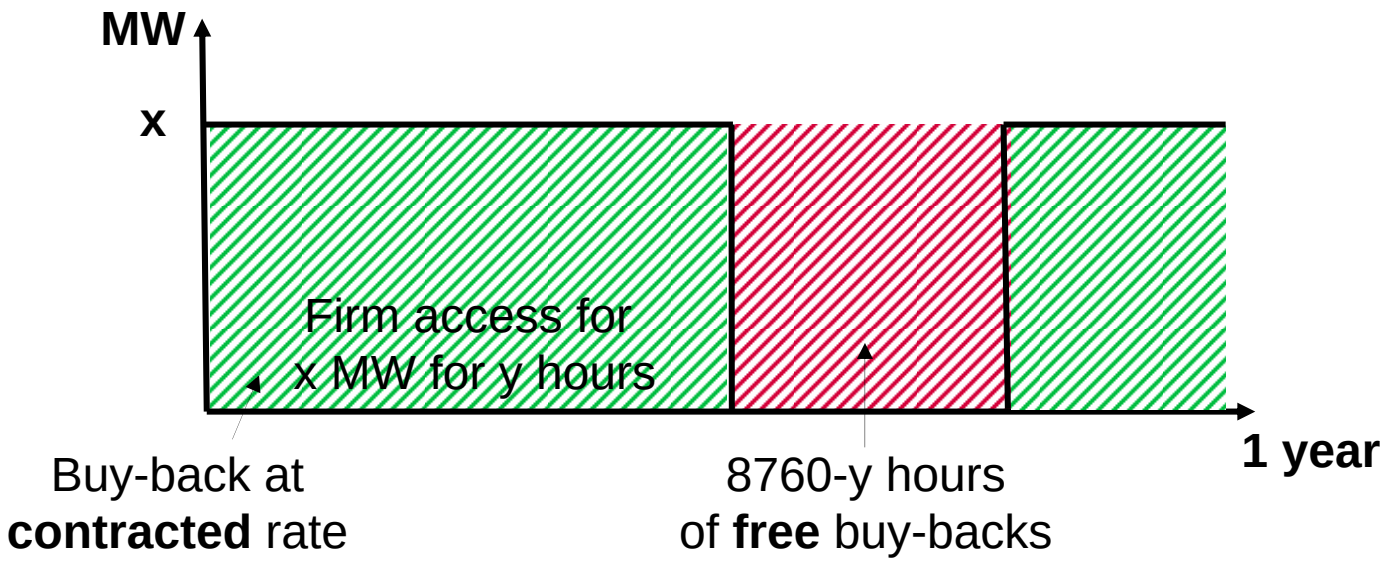
- For example, limited firm access offered off-peak:
  - Monday to Friday, 19:00 to 07:00
  - Saturday and Sunday
- Defined capacity made available at year ahead / application
  - zonal / nodal / if requested ?
- Allocated to
  - highest bidders in an auction;
  - first come first served; or
  - to parties that have met agreed qualification requirements

nationalgrid

Illustration 2: *Limited Volume & Price*

- Following an application, limited firm access offered on the basis of an accepted volume and buy-back price (£ + MWh)

- *x* MW cap and *y* MWh access with pre-agreed buy-back cost and allocated on the basis on lowest cost to SO



nationalgrid

When there is no spare capacity…

- Need to consider means by which access rights can be bought from the existing holders. Two classes of model:

Users purchase rights

- Parties make bilateral arrangements to acquire rights from existing holders on short-term basis

GBSO purchases rights

- Parties pay the short-run costs of the GBSO to buy access rights on their behalf (e.g. congestion costs)

nationalgrid

Illustration 3: *Users purchase rights*

Bilateral arrangements between Users

- Short-term trading between two nominated parties
- Exchange rates calculated prior to trade taking place in operational timescales
  - non-trivial
  - generation / demand
  - network topography

Multiple Users share capacity in defined groups

- New and existing generators agree that aggregate generation will not exceed existing capacity
- Exchange rate issues again
- Notifications to GBSO?
- Treatment of overruns?

nationalgrid

Illustration 4: *GBSO purchases rights*

GBSO Risk Trading

- GBSO trades-off the costs associated with releasing additional access with the revenue received from release
- Need to consider:
  - treatment of revenue from additional access
  - development of incentives

GBSO as Agent / Facilitator

- GBSO incurs costs to buy rights from existing parties to provide these to new parties
- Costs passed through to beneficiaries of transferred rights
  - which costs?
  - accuracy of cost capture?
  - how to pass through?

nationalgrid

Conclusions

- Alternative access arrangements could facilitate access between provision of a local connection and completion of wider reinforcement

- Short-term rights:
  - **if there is spare capacity**, alternative products like LDTEC but expect limitations to availability, duration, and notice of availability
  - **when there is no spare capacity**, access rights will need to be purchased from existing capacity holders

nationalgrid