Entry Reserve Price Methodology
Initial Thoughts

Gas TCMF

5 April 2006

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Background

- TPCR consultations have questioned whether
  - Incremental revenue drivers (UCAs) should be decoupled from Pricing
  - Dynamic baseline entry capacity levels should be set (via a Capacity Release Methodology)
- Requires review of
  - Baseline and incremental entry capacity reserve price methodology
  - Rules that determine incremental capacity release (after auctions)
- Exit capacity reserve prices may be required for Exit Reform

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Decoupling UCAs and Pricing

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Entry UCAs - where are they currently used?

- Reserve prices in entry capacity auctions
- Economic test to determine permanent obligated incremental entry capacity release (NPV test)
- Entry Capacity Investment Incentive to determine:
  - Incremental capacity investment revenue cap and collar, within 5 years of capacity release
  - Maximum allowed revenues from incremental capacity from 5 years after capacity release
- May lead to conflicting requirements for cost reflectivity, stability etc.

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Features of current UCAs relevant to Pricing

- Stable - set for entire Price Control
- Predictable trigger level for investment decisions (NPV test)

But…

- Cost reflectivity diminishes over time (if flow patterns change)
  - Non-cost reflective UCAs imply cross-subsidies between Users when coupled to prices
- Difficult to set appropriate UCA for new entry points

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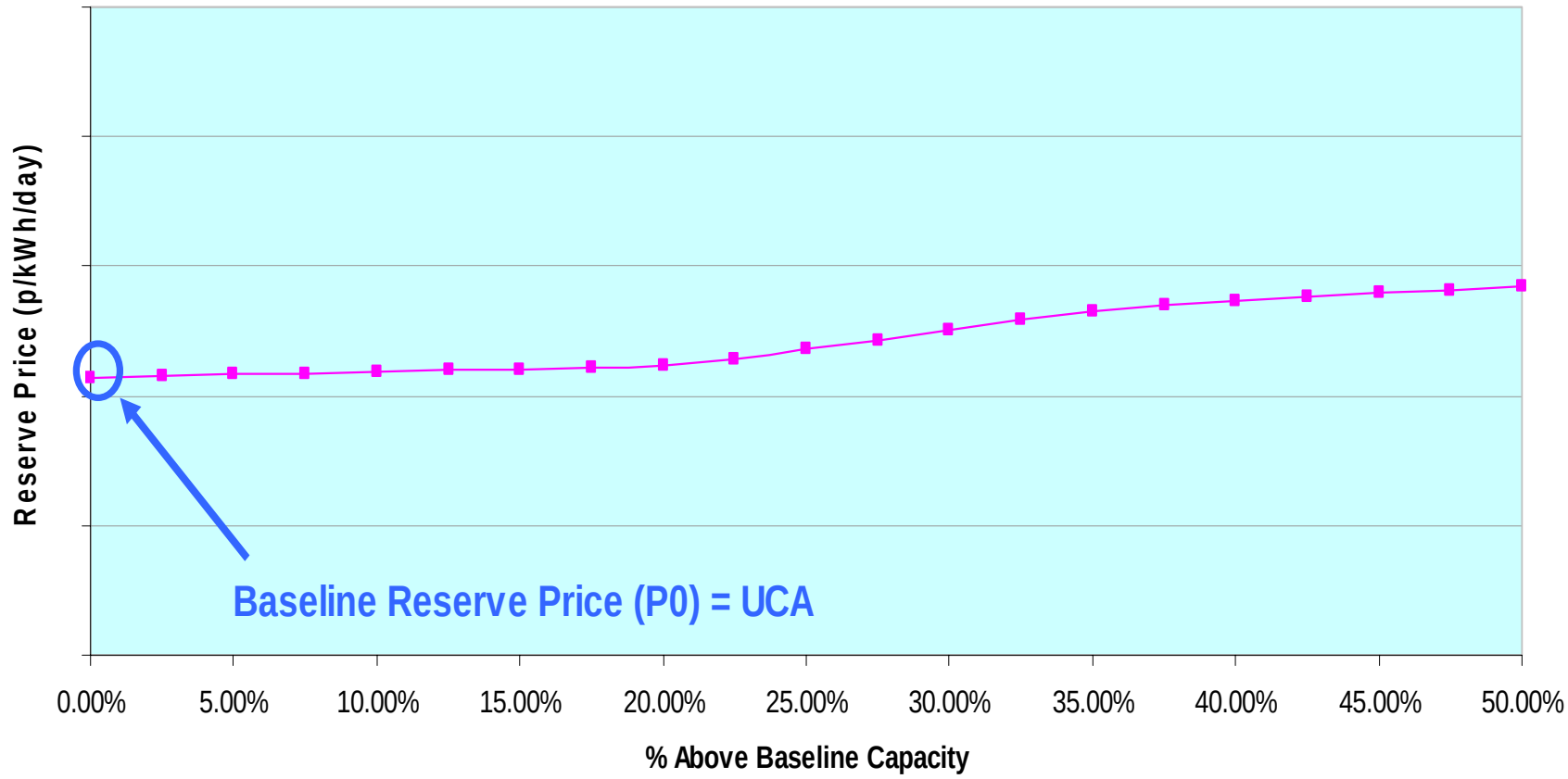
Reserve Prices in Capacity Auctions (Current)
QSEC Price Schedules



Baseline Reserve Price currently also used as a reserve price in MSEC and RMSEC and discounted to establish the DSEC reserve price

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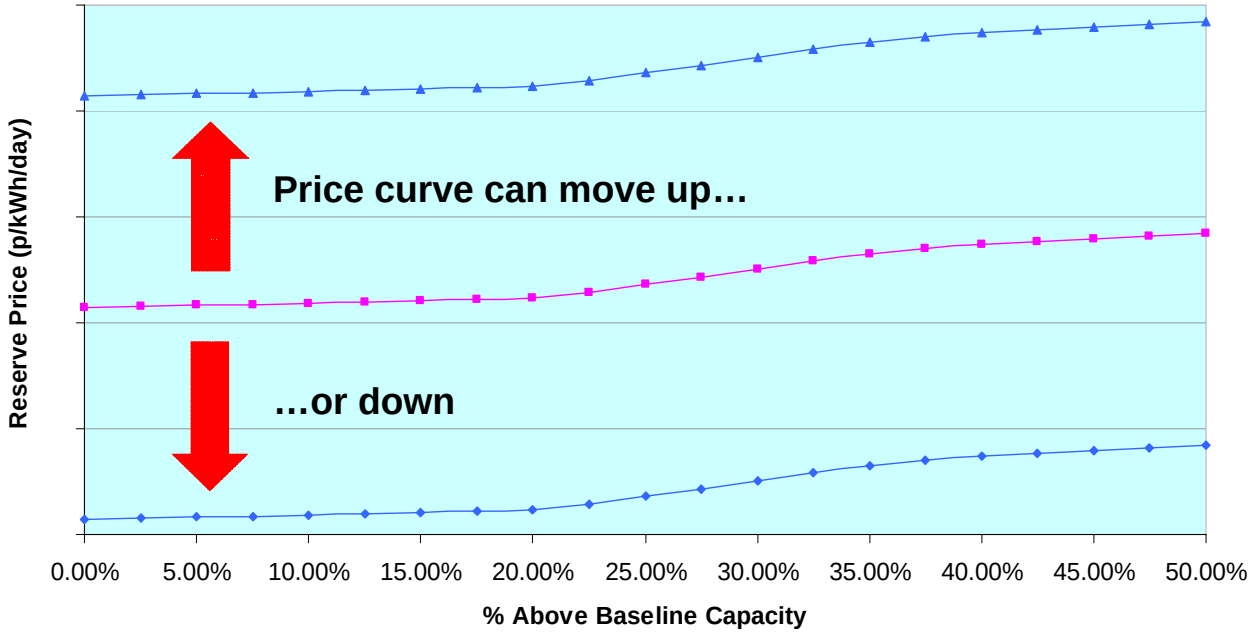
Effect of Decoupling Baseline Reserve Prices and UCAs



- Reserve prices remain cost reflective with time (assuming annual update)
- Improved consistency between entry and exit baseline prices (i.e. can be updated simultaneously)
- Baseline price can be adjusted dynamically with baseline capacity level
- Different methodologies can be applied for Reserve Prices* and UCAs**

* National Grid Charging Methodology, ** Licence Methodology

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Reserve Price Methodology – Initial Thoughts

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How to set Reserve Prices going forward? Extension of Charging Principles

- Baseline reserve prices could be determined from LRMCs
  - Charging Principles work has developed Transport and Tariff model options to calculate LRMCs
- Incremental reserve prices could be calculated in one of two ways:
  - Unit incremental costs (LRICs) from a specified capacity level*
  - Marginal costs (LRMCs) at different capacity levels**
- Need to
  - Revisit some key questions from Charging Principles work
  - Consider charging requirements implied by (long-term) auction objectives
  - Consider TPCR requirements/developments

*Single base supply/demand scenario

** Supply/demand base scenarios incorporating increments at individual terminals

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How to set Reserve Prices going forward? Extension of Charging Principles

	LRIC based prices (Status Quo)	**LRMC based prices**
What are they?	Unit investment costs for increasing capacity **from** a given base capacity level	Marginal costs **at** different capacity levels
How are they related to capacity step prices?	Price differentials for capacity increments above baseline price	Equivalent to prices for different capacity levels
Likely Transport Model Requirements	May require different models to cover range of increment sizes: **Transcost/FALCON (or similar)**	Single model for any level of incremental capacity: **Any of the proposed models**
Likely Tariff Model Requirements	Adjustment for 50:50 entry-exit split Non-negative prices Revenue recovery via commodity charges	

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How to set Reserve Prices going forward? Additional Questions

- **Should the structure of prices reflect size of entry/exit point and increment required?**
  - Are there circumstances where it is appropriate to set a single price for baseline and incremental capacity?
  - Is a single methodology appropriate for entry and exit?
  - How could consistency be ensured for bi-directional points?

- **Would forecast annual prices encourage Users to participate in long term auctions?**
  - Is it more appropriate that prices are predictable, rather than stable?

- **How should (baseline) reserve prices for medium and short term auctions be set?**
  - Should reserve prices be discounted in any auction?
  - Does the clearing price licence obligation undermine long term price signals?

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Capacity Release Mechanism (NPV Test)

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Capacity Release - Current NPV Test

- Looks at incremental capacity requirement signalled over any 32 quarters
- Assumed project cost = quantity of capacity signalled valued at UCA price
- If total revenue signalled exceeds 50% of assumed project cost, National Grid will seek approval to release permanent obligated incremental capacity
- If reserve prices are decoupled from UCAs, the impact on the NPV test needs to be considered…

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Capacity Release - Questions

- **Would the existing NPV Test based on a Licence-defined UCA still be appropriate after decoupling?**
  - Baseline reserve prices can change year-on-year, UCAs are currently set for the 5-year formula period, capacity released up to 16 years ahead
  - UCAs may be determined using a different methodology to reserve prices (e.g. on LRICs with load absorption/supply substitution)

- **Can it be made appropriate by estimating project costs in a different way (i.e. not using the UCA)?**
  - LRMC based prices can also generate secondary information on investment costs

- **Would it be more appropriate to consider capacity release on the basis of user commitment for a pre-specified period?**

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Way Forward

4 May Gas TCMF

- Entry Capacity Reserve Prices
- Incremental Capacity Release - NPV Test
- Initial thoughts on transitional and enduring Exit Pricing options

June Gas TCMF

- Enduring Exit Prices/Charges for constrained and unconstrained release (Flat and Flex)

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Reference material

National Grid

http://www.nationalgrid.com/uk/Gas/Charges/consultations/archive_papers/

- PC76 NTS TO Entry Capacity Auction Reserve Prices and Exit Charges (November 2002)
- PC72 Daily System Entry Capacity Floor Prices (February 2002)

http://www.nationalgrid.com/uk/Gas/OperationalInfo/operationaldocuments

- Incremental Entry Capacity Release Methodology Statement (IECR)
- Incremental Exit Capacity Release Methodology Statement (IExCR)

Ofgem

http://www.ofgem.gov.uk/

- Transmission Price Control Review Third Consultation (March 2006)
- Adjusting National Grid's revenue allowances when large new entry points connect to the gas transmission system (March 2006)
- Open letter - Development of a charging methodology and charging model for gas entry/exit reserve prices (December 2006)
- Transmission Price Control Review Second Consultation (December 2005)
- Gas transmission – new NTS entry points, reserve prices in auctions and unit cost allowances (UCAs) (May 2005)

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