Preferred LRMC Model: Initial Thoughts

Gas TCMF

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Key Decision

- Transport Model
  - The key decision is whether to retain Transcost or move to Transportation model
  - Other issues are either encapsulated by (or independent of) the choice of transport model
- Can the model be made available such that tariff calculation can be repeated easily?
- The decision must be made in light of the Licence relevant objectives

Enhancement Options Assessment Criteria

Licence Objectives	Methodology Objectives. Capacity prices should…
GL1: **"Reflect Costs"** reflect the costs incurred by National Grid NTS where charges are not determined by auctions; (principal consideration);	reflect the costs associated with providing that capacity
GL2: **"Facilitate Competition"** facilitate competition between gas shippers and between gas suppliers; **GL5**: **"Promote Competition"** to promote competition between gas suppliers and between gas shippers. **GL3**: **"Business Development"** take account of developments in the transportation business;	**GM3**: be easy to understand and implement. **GM2**: generate stable charges;
GL4 :"Promote Efficiency" to promote efficiency and avoid undue preference in the supply of transportation services;	**GM1**: promote efficient use of the transportation system;

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Cost Reflectivity

- Reflect costs incurred (Historical)?
- Reflect Marginal cost of increasing commercial capacity (flow)?
- Reflect Marginal cost of increasing physical capacity i.e. increasing the capacity above the system practical maximum physical capacity?

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Historical Cost Reflectivity

- **THE PAST**
  - **Historically flows have been forecast to increase steadily at all major existing entry points.**
  - **The network flow pattern has remained stable.**
  - **While this has been the case *Transcost has generated cost reflective prices***
- **THE PRESENT**
  - **Flows are declining at most major terminals and large new Entry points are being constructed**
  - **The position of the new entry points will result in changes to historic network flow patterns**
  - **This has resulted in a scenario where *Transcost will not generate cost reflective prices going forward***

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Transparency, Stability & Repeatability

- Transcost depends on
  - Regulator flow settings
  - Compressor & Regulator pressure settings
  - Configuration i.e. which side of a compressor or regulator a pipe section is fed from
- All these network parameters are set by a network analyst within each years base model and they can effect prices

- Transportation Models depend on
  - Flow distance and the direction of flow

None of the network parameters that can be varied each year are modelled in the Transportation models. Moving to a Transportation Model should therefore result in increased repeatability and stability

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Efficient Use of the Transportation System

- While Transcost (Models A to C) include spare capacity this spare capacity may not be available away from peak conditions.
- Low St Fergus prices might not promote efficient use of the system operationally.
  - Operational costs
  - Buy-back costs

Enhancement Options Assessment

Objective	Capacity prices should	A	B	C	D	F1	F2
GL1: **"Reflect Costs"**	reflect the costs incurred	☹	☹	☹	😐	☺	☺
	reflect the marginal cost of increased physical capacity	☹	☹	☹	😐	☺	☺
	reflect the marginal cost of increased flow	😐	☺	☺	☺	☹	☹
GL2: **"Facilitate Competition"** GL5: **"Promote Competition"** GL3: **"Business Development"**	GM3: be easy to understand and implement.	☹	☹	☹	☹	☺	☺
	GM2: generate stable charges;	☹	😐	😐	😐	☺	☺
GL4 :"Promote Efficiency"	GM1: promote efficient use of the transportation system;	☹	☹	☹	😐	☺	☺

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National Grid NTS Preferred LRMC model

- Transportation model
  - Expansion factor
    - Single Expansion factor for increased transparency and stability
  - S&D forecast
    - Single year consistent with annual charges and allows future years to be forecast
  - Tariff model
    - Adjust to 50:50 average of positive entry and exit costs
    - Negative prices removed
    - Adjustment to allowed revenue dependent on charge type

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