

Optional ('Short-haul') Commodity Tariff - Charging Methodology Review

Gas TCMF – 4th June 2009

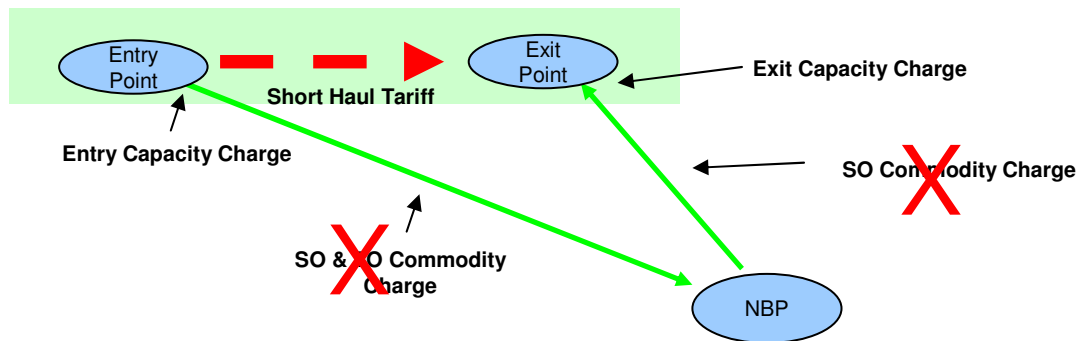
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Background

This presentation covers issues associated with the existing NTS Optional ('Short-haul') Commodity Charge & the NTS Charging Methodology rate calculation process.

- ◆ 'Short-haul' was introduced in 1998 to reflect more accurately the costs of gas transportation from a terminal to a nearby large supply point to avoid inefficient by-pass.
 - Shippers can elect to pay the optional tariff as an alternative to both the entry and exit NTS commodity charges.
 - The tariff is derived from the estimated cost of laying and operating a dedicated pipeline of NTS specification (i.e. the cost of by-passing the NTS).
 - A charging function has been calculated based on flow rate and pipeline distance.
 - Available to all daily-metered supply points, although in practice it is only attractive for large supply points situated close to terminals



The 'Short-haul' Tariff

This is available as an alternative to the standard SO commodity tariff (both entry and exit) and the TO commodity tariff (at entry).

Charge rate is related to the

- ◆ distance (D) of the exit point from the elected aggregate system entry point
- ◆ peak daily offtake rate (SOQ)

$$\text{Rate(p/kWh)} = 1230 \times [(\text{SOQ})^{-0.834}] \times D + 363 \times (\text{SOQ})^{-0.654}$$

The charge currently recovers around £6m of the target £305m SO commodity revenue per annum

The 'Short-haul' Review

The aim of the short-haul review is to improve cost reflectivity and add clarity & transparency.

A pragmatic approach upholds the principle of providing an economic signal to deter exit points close to entry points by-passing the NTS.

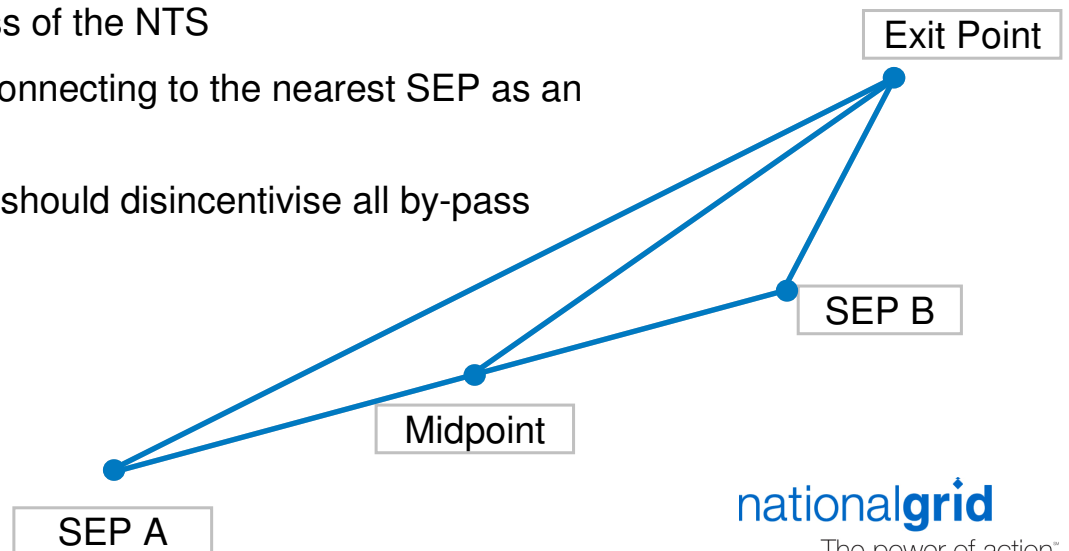
Summary of Issues

1	Distance from ASEP to exit point
2	Load Factor
3	Depreciation time for alternate pipeline
4	Minimum Charge
5	Annual updating of charge
6	Application to multiple exit points from a single entry point
7	Application at storage exit points
8	'Capacity' or 'Commodity' short-haul charge

Issue 1: Distance from ASEP to exit point

Distance from ASEP to exit point

- ◆ This is currently the straight line distance (km) from the ASEP to the boundary of the exit point.
- ◆ No problem where an ASEP has all SEPs at same location, but
- ◆ Where there is more than one SEP what is the appropriate location from which to measure?
- ◆ Currently use the mid point
 - Which is consistent with UNC (i.e. a single point) but is this realistic?
- ◆ **Initial View - closest SEP**
 - The risk being mitigated is by-pass of the NTS
 - Using the mid point might leave connecting to the nearest SEP as an economic option
 - Therefore using the nearest SEP should disincentivise all by-pass
 - Requires a UNC change



Issue 2: Load Factor

The current load factor is assumed to be 75% in the tariff calculations.

- ◆ This therefore assumes high utilisation.

But

- ◆ Actual data suggests that in some instances the load factor is significantly lower.
- ◆ The current average load factor is around 50%.
- ◆ Using this figure in the derivation of the tariff would imply a 50% increase in the tariff.

Could use site specific load factors but this would add significant complexity

- ◆ New sites – no load factor available
- ◆ Existing sites – forecast or historic load factors
- ◆ How often should the load factor be updated?

Initial View - use a fixed load factor for all sites & review figure to be used

- ◆ A single load factor simplifies the tariff calculation
- ◆ Reducing the load factor may leave by-pass as an economic option for high load factor sites

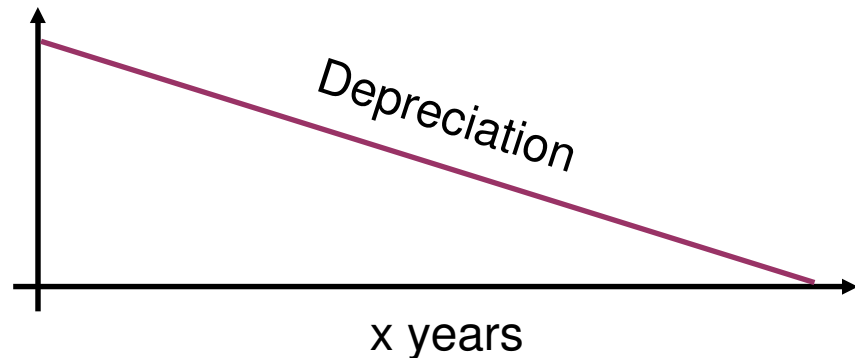
Issue 3: Depreciation time for alternate pipeline (1)

Costs have been assumed to be fully depreciated over 10 years. This was based on the view that project approvals have historically used this assumption.

- ◆ Is this assumption still valid?

Or

- ◆ Is there a more appropriate time to consider?
 - 45 years (*asset life*)
 - 20 years
 - *Other?*
 - *Increasing the asset life would reduce the tariff.*



Issue 3: Depreciation time for alternate pipeline (2)

Costs inflated to current prices

Depreciation Time	Index per kWh	Inflated to cover increases in construction costs (initial view)	Inflated by RPI
As-Is (10 years)	1	2.26	1.33
20 years	0.74	1.67	0.98
45 years	0.60	1.36	0.80

Issue 4: Minimum Charge

There is currently a charge to reflect the costs of connecting a pipe from the specified entry terminal to an exit point within the terminal (i.e. when the assumed distance is zero).

- ◆ Current charge is related to the SOQ at the exit point.
- ◆ This charge is applicable when the distance is deemed to be zero.
- ◆ This should reflect the costs of the alternative connection.
 - Latest cost estimates are independent of SOQ at £1m per connection (as in Connection charging statement) and are lower than existing assumed costs.
 - Charge (p/kWh) would remain a function of SOQ to recover the annuitised cost
 - The unit charge (p/kWh) would in general be lower than at present

Initial View – retain concept of minimum charge based on fixed connection cost

Issue 5: Annual updating of charge

There have been no updates since the charge was introduced.

- ◆ Would it be appropriate to update charges going forward in line with changes to other tariffs?
 - RPI
 - Construction cost index (consistent with expansion factor in the transportation model)
 - Other?

Initial View – Annual Updating

Issue 6: Application to multiple exit points from a single entry point

Application to multiple exit points from a single entry point is allowed under the UNC

...but the default allocation, where there is insufficient entry flow to meet the required exit flow, is to pro rate.

- ◆ Alternative allocations can be requested but only where we agree
- ◆ This has recently been queried by a shipper who wishes to define an 'allocation order'. This is being investigated as there are systems implications.

This situation is more likely to be an issue where the actual load factors are significantly lower than assumed in the methodology.

As the load factor assumption is key in calculating the rate, allowing revised allocations which would facilitate reduced load factors would undermine the cost reflectivity of the charge

- ◆ NB the load factor used for the calculation of the charge should only include flows from the relevant ASEP and not flows from other ASEPs

Initial View – remove alternate allocations

- ◆ This requires a UNC change

Issue 7: Application at storage exit points

Storage points are not eligible entry points for 'short-haul' however, storage points are eligible exit points.

- ◆ This may have been an oversight given that 'short-haul' was introduced when commodity only applied to exit.

Storage points currently avoid NTS commodity charges since storage is deemed to be part of the wider system

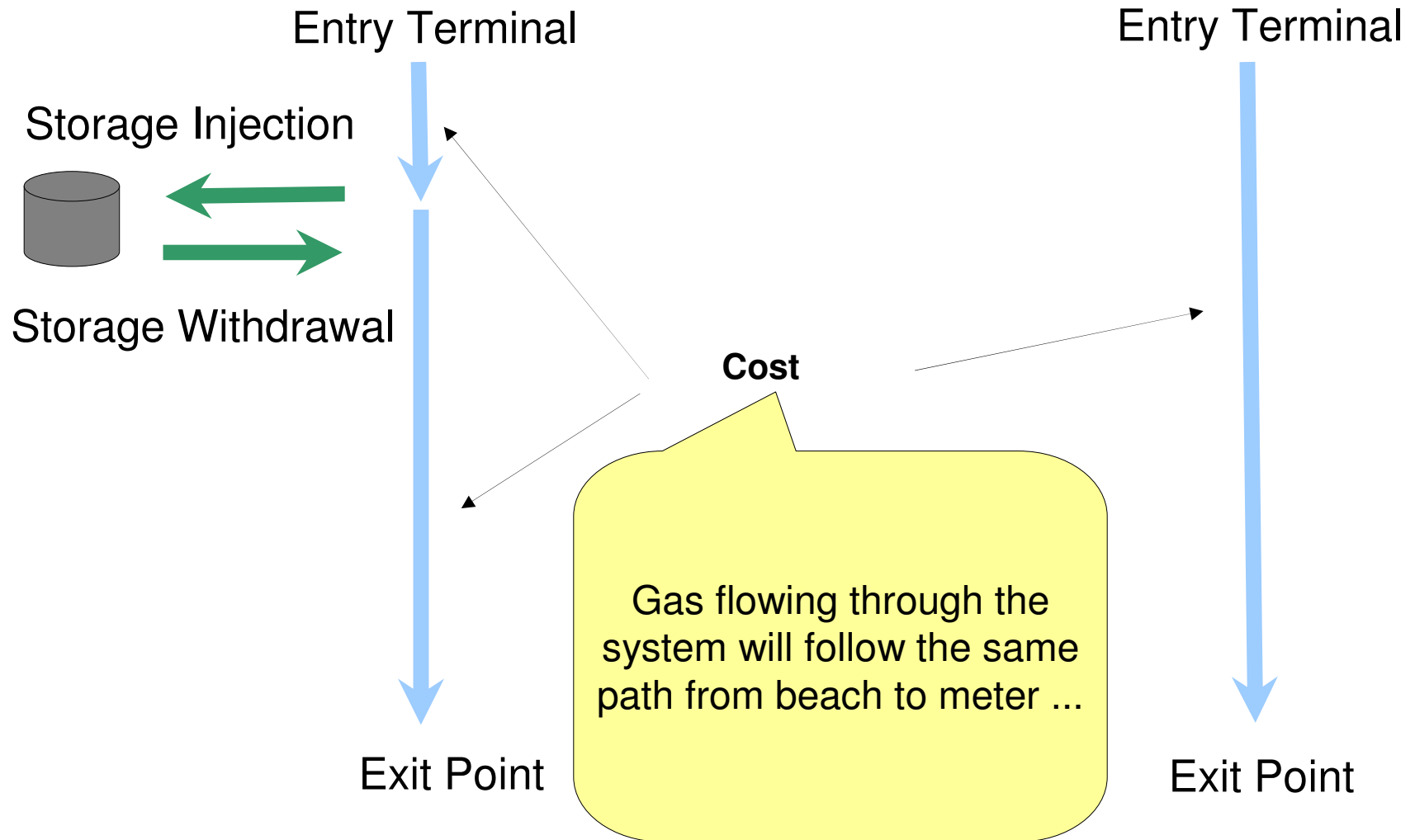
- ◆ to charge commodity for storage gas might be double counting as the charges are paid for a unit of gas at entry to the system (beach) and on final exit (customer) from the system
- ◆ This is the principle that leads to storage sites avoiding standard NTS commodity charges*

By allowing the short haul rate for storage exit, a unit of gas flowing via a storage site can avoid paying entry commodity (beach) which might be significantly higher than the short haul rate.

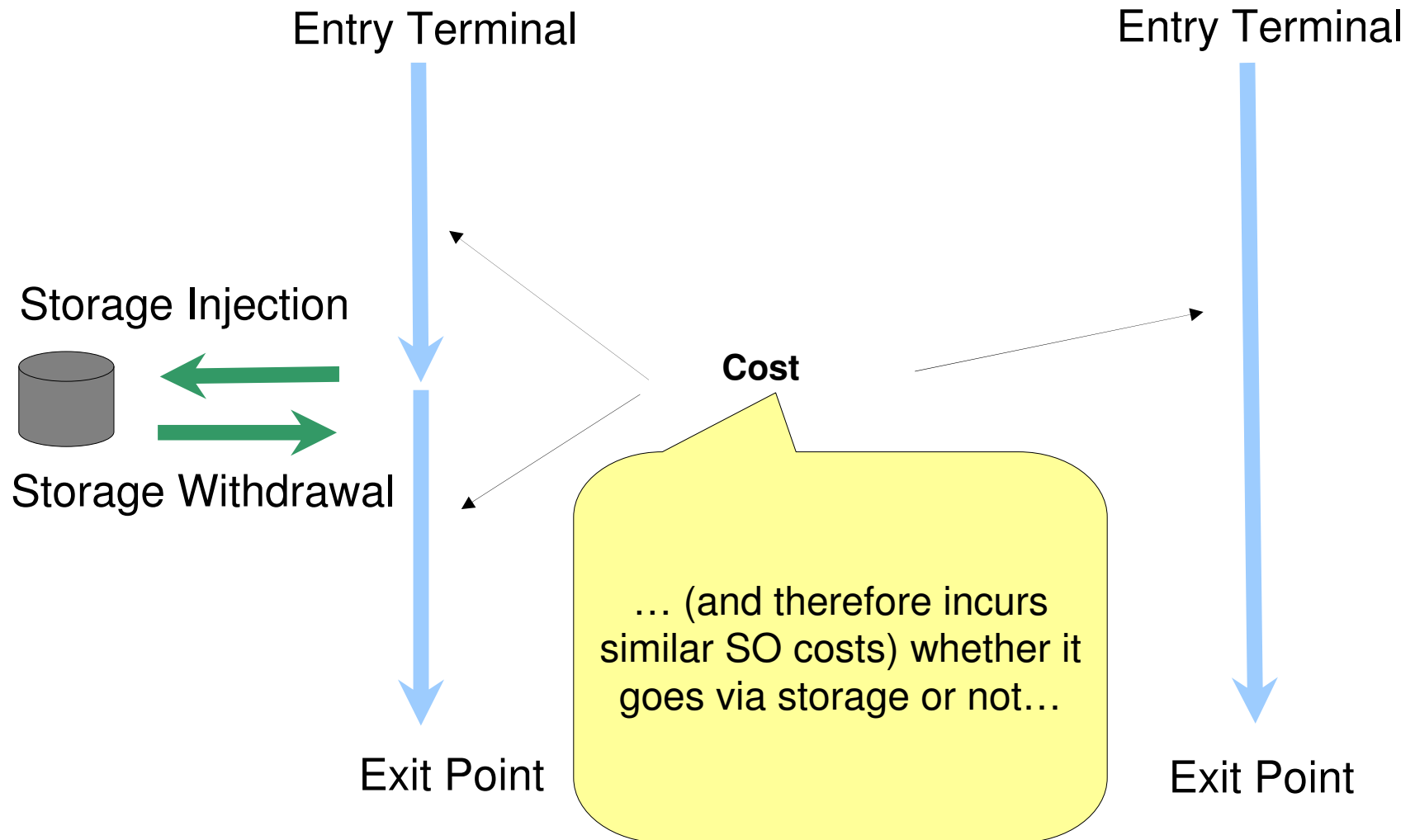
- ◆ Question: Does this undermine the principle of storage sites avoiding NTS commodity charges?
- ◆ Storage sites that 'by-passed' the system for storage injection would no longer be treated as storage for storage withdrawal charging purposes i.e. they would start to attract the NTS entry commodity rate, and hence there would be no material risk of by-pass if short-haul were removed as an option for storage injection.

* NB The UNC allows storage sites to opt for short-haul at storage exit and defines the chargeable quantity as the UDQO. For standard NTS commodity at storage the chargeable quantity is storage own use gas only.

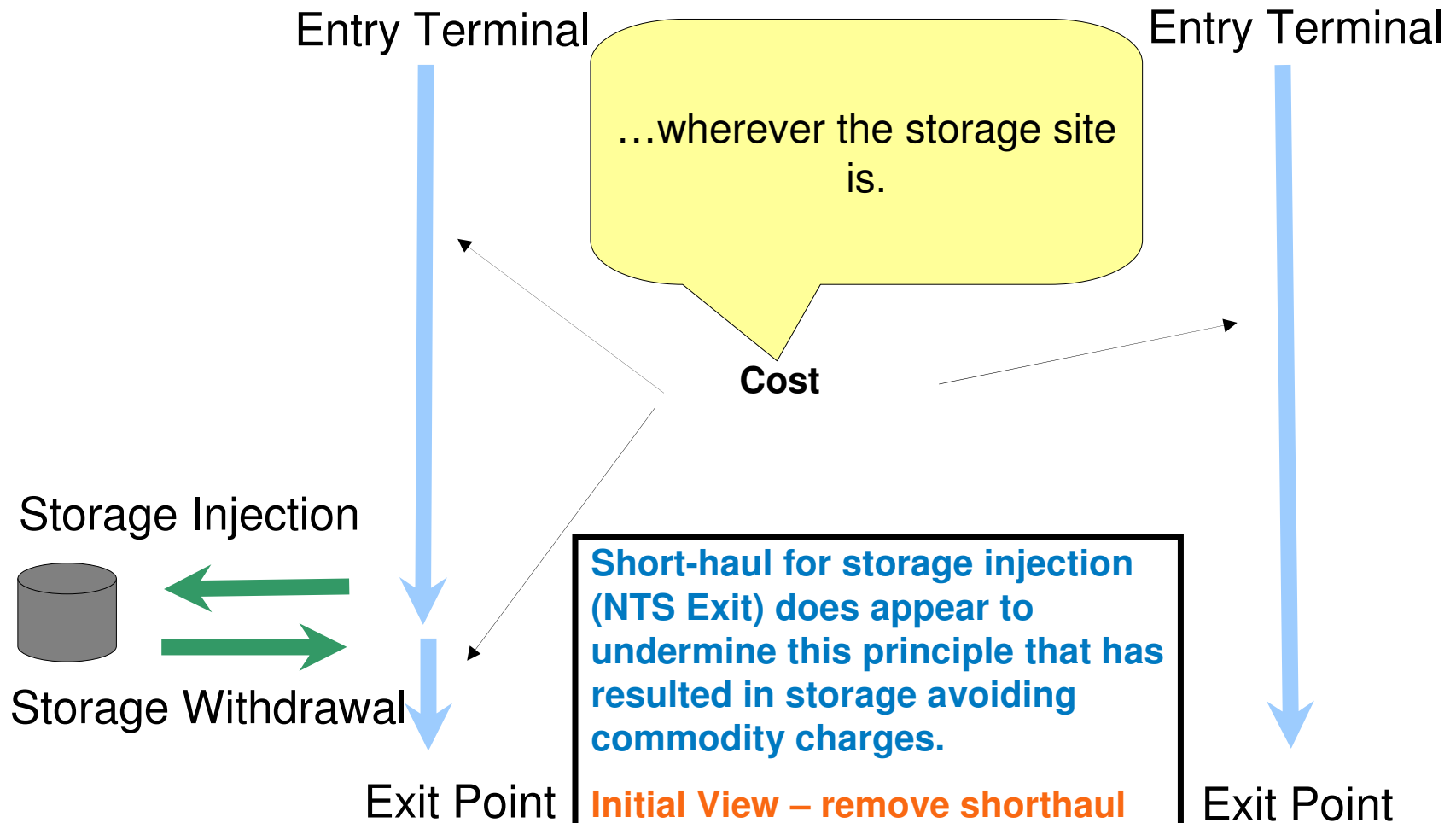
SO Costs & Storage (1)



SO Costs & Storage (2)



SO Costs & Storage (3)



...wherever the storage site is.

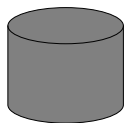
Cost

Short-haul for storage injection (NTS Exit) does appear to undermine this principle that has resulted in storage avoiding commodity charges.

Initial View – remove shorthaul for storage injection

- This requires a UNC change

Storage Injection



Storage Withdrawal

Exit Point

Exit Point

Issue 8: 'Capacity' or 'Commodity' short-haul charge

It has been suggested that the optional 'short-haul' commodity charge could be replaced with a capacity charge as it is attempting to reflect fixed costs

This would require

- ◆ system changes
- ◆ Invoice changes
- ◆ a UNC change
- ◆ Licence change (potentially)
- ◆ Definition of a 'capacity amount' that was independent of the exit capacity procured post 1st October 2012

This seems to add significant cost & complexity for little benefit

Initial View – Retain as commodity charge

Summary & Way Forward

	Issue	Initial View
1	Distance from ASEP to exit point	Nearest SEP
2	Load Factor	Fixed - review figure
3	Depreciation time for alternate pipeline	Update - review figure
4	Minimum Charge	Retain minimum charge based on fixed connection cost
5	Annual updating of charge	Yes
6	Application to multiple exit points from a single entry point	Retain & remove alternate allocations
7	Application at storage exit points	Remove
8	'Capacity' or 'Commodity' short-haul charge	Retain as commodity charge

Summer 2009: Development of Proposals?

September TCMF: Discussion or Consultation Paper?

Implementation date: April or October 2010?

Appendix A: Impact on SO and TO Commodity Charges (In Detail)

NTS Charge		Actual rates from 01 April 2009	Rates that would apply if there was no 'short-haul' charge	Rates that would apply if 'short-haul' Users built their own pipe
SO Commodity	Relevant Annual Flow (GWh)	1,934,686	2,169,382	1,934,686
	Annual Revenue (£m)	298.92	305.03	305.03
	SO Commodity Rate (p/kWh)	0.0155	0.0141	0.0158
TO Commodity	Relevant Annual Flow (GWh)	971,947	1,089,294	971,947
	Annual Revenue (£m)	110.80	110.80	110.80
	TO Commodity Rate (p/kWh)	0.0114	0.0102	0.0114
Current Optional 'Short-haul' Commodity	Relevant Annual Flow (GWh)	117,348	N/A	
	Annual Revenue (£m)	6.11		
	SO Commodity Rate (p/kWh) (Weighted Average)	0.0052		