
Gas Infrastructure – UK/Norway issues

EAG/12/02

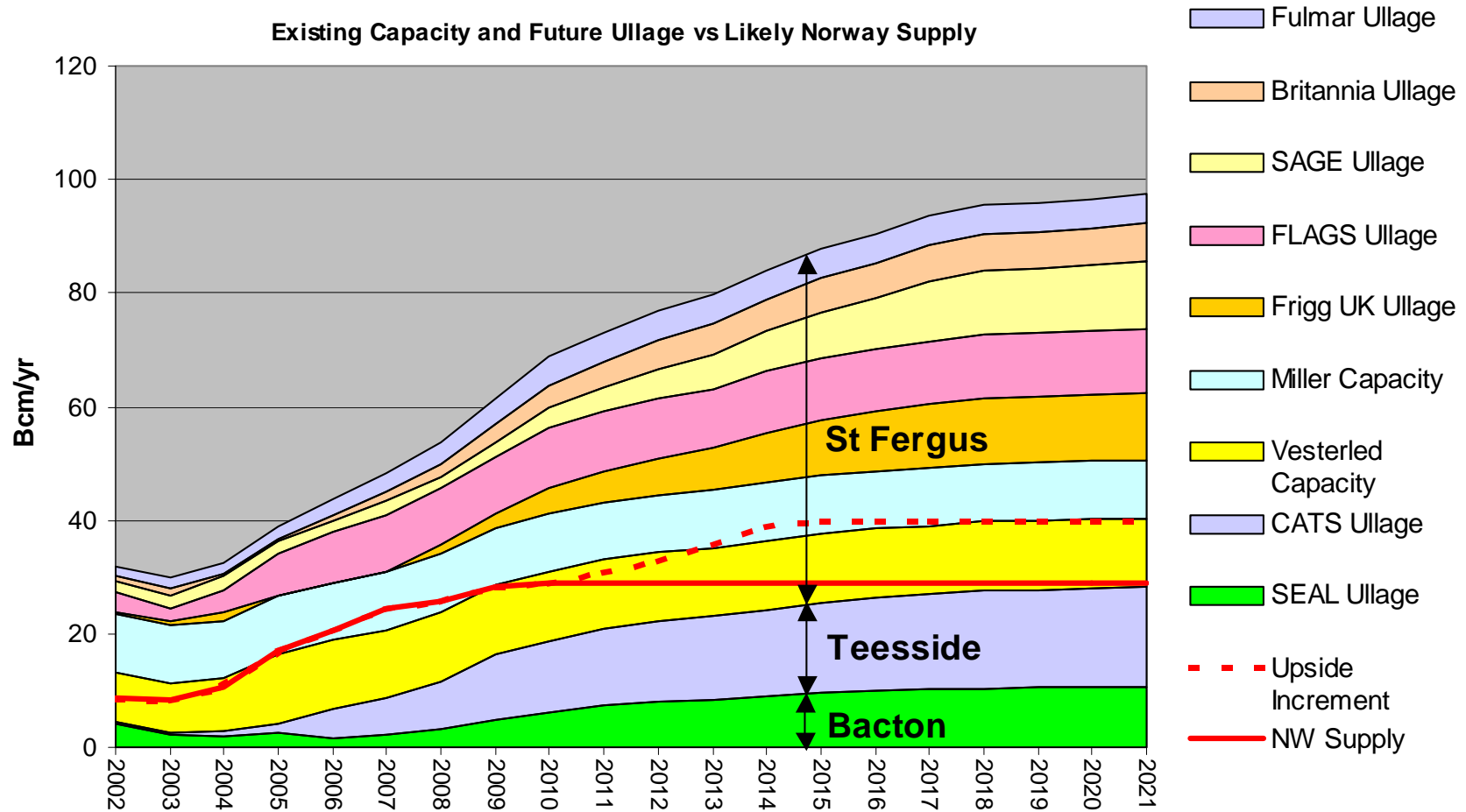
Presentation for the EAG – 11/11/02

Neville Howlett / Barry Anderson

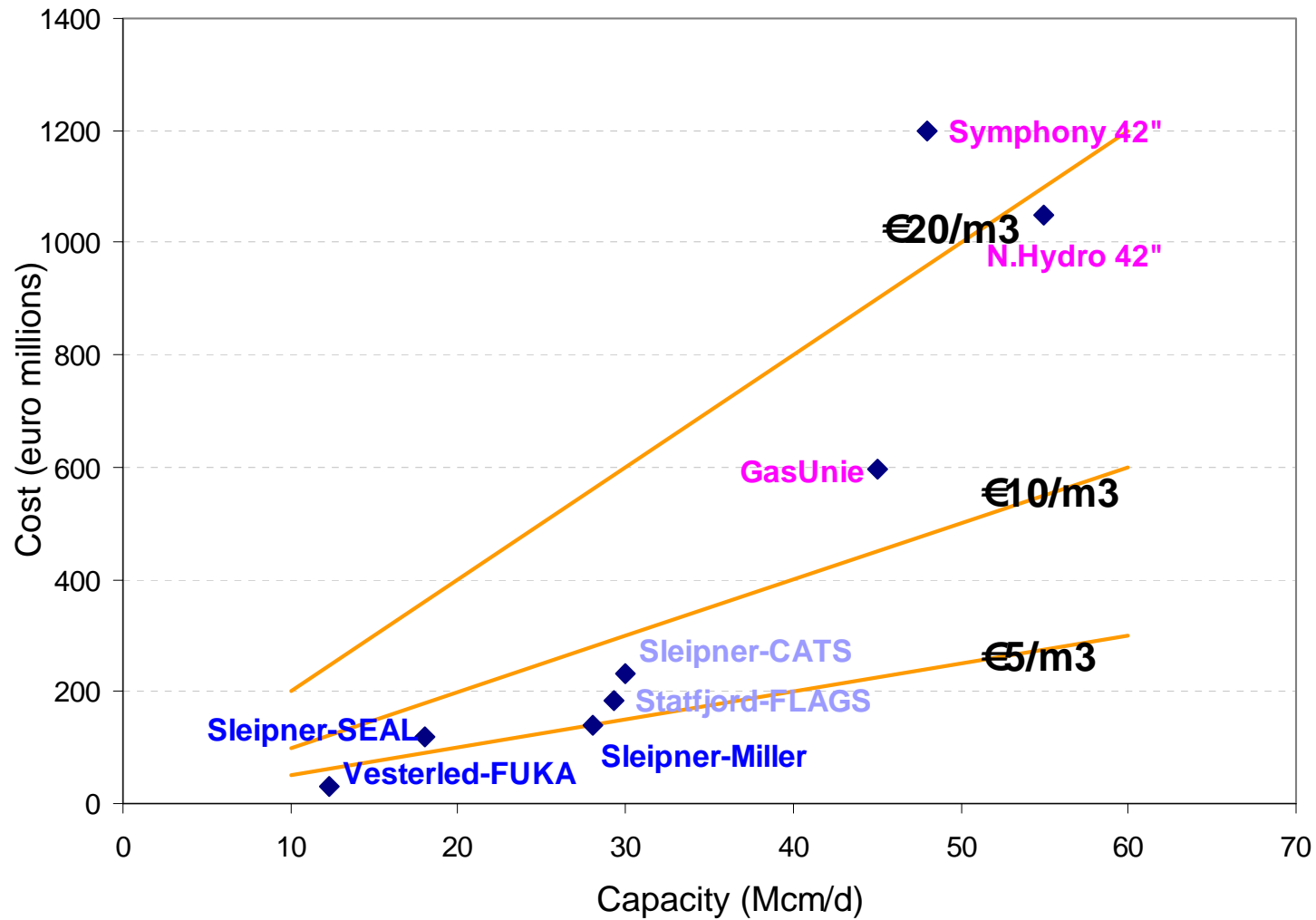
Issues to consider

- Ullage in the UK system
- Investment comparison
- Components of comparative economics for the Norwegian shipper
- The drivers for UK infrastructure versus a Norwegian new build
- Conclusions

UK Existing Pipeline Ullage Grouped by Landing Point



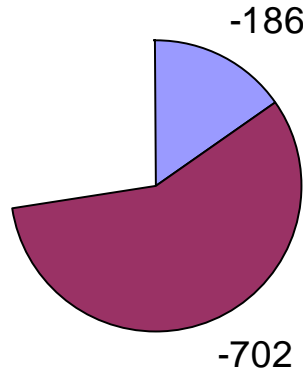
Cost Comparisons: Newbuild vs Links to Existing Infrastructure



Norwegian vs UK Pipeline: Money Trail (€M NPV7)

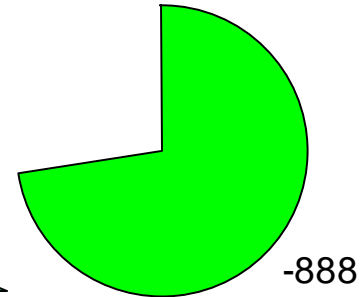
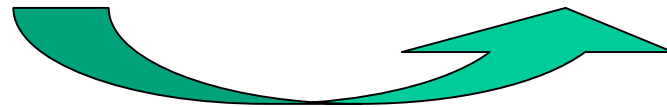
Scenario 1: 20 bcm/yr.

Norwegian Newbuild



Total = €888M

- Norway Shipper
- Norway Govt

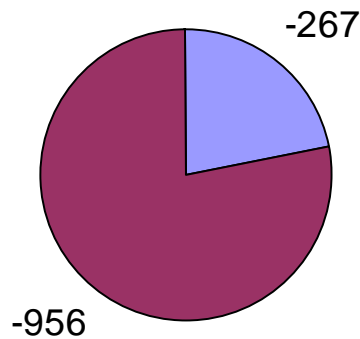


Total = €888M

- Contractors

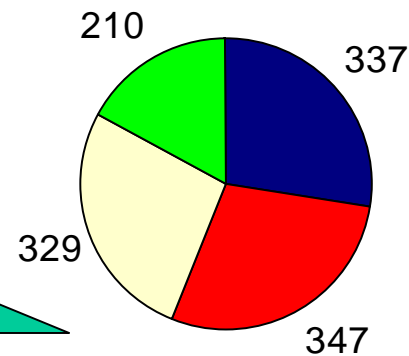
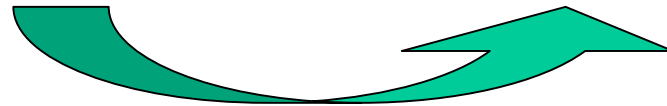
Scenario 2: 20 bcm/yr.

UK Infrastructure – 0.5p/t tariff – 0.42p/t entry



Total = €1223M

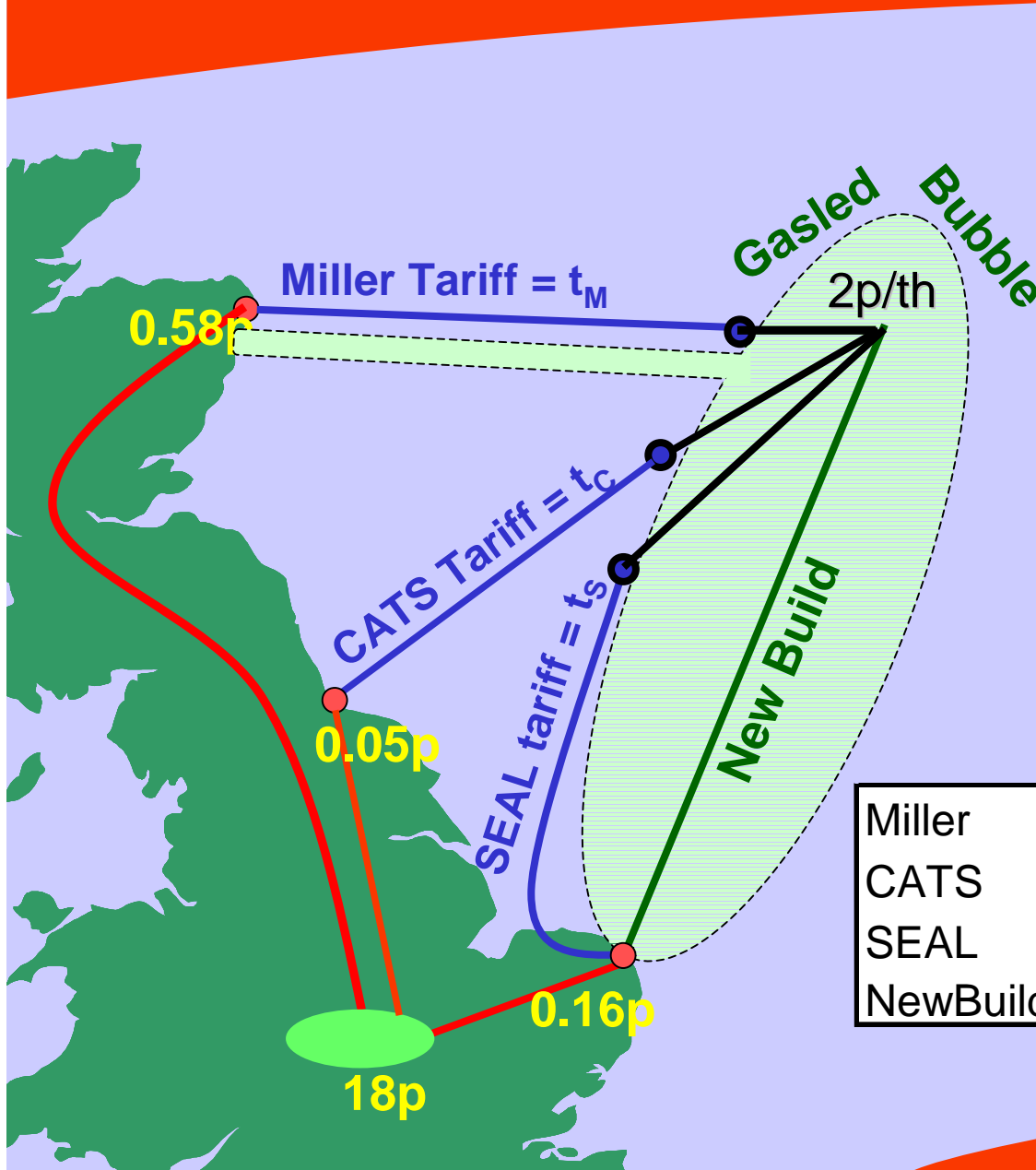
- Norway Shipper
- Norway Govt



Total = €1223M

- UK Owner
- UK Govt
- Transco
- Contractors

Comparison of Norwegian Bubble – NBP Routes



Assumptions :

NBP=18p/th

Gasled Bubble Exit Tariff=2p/th

LINKS SUBJECT TO GASLED EXIT TARIFF

	NBP Price	Entry Cap	Line Tariff	Netback Price
Miller	18	0.58	t_M	$15.4 - t_M$
CATS	18	0.05	t_C	$\sim 16 - t_C$
SEAL	18	0.16	t_S	$\sim 15.8 - t_S$
NewBuild	18	0.16	0	~ 15.8

Newbuild vs Existing Infrastructure

Drivers for Links to UK Infrastructure (from UK/NW point of view)

- **Low Capex**
- **Early availability: 2-3 years ahead of newbuild line**
- **Existing lines with moderately well-defined ullage**
- **Short connections only required**
- **UK and Norway Flexibility: multiple hubs and landing points**
- **Some value as a sustainable development issue**

Newbuild vs Existing Infrastructure

Drivers for Newbuild Pipelines (from NW point of view)

- **Single system with 100% control**
- **Increase market share in the UK**
- **New line with no concerns over pipe condition or operation (offshore or onshore)**
- **No competition with UK fields for ullage**
- **Known exit tariff from Norwegian bubble**
- **Preferred southern UK landing point with high market impact**
- **Favourable Norwegian tax system mitigates high Capex outlay (but noting the impact on the Norwegian taxpayer)**

Conclusions

- **We are looking for a level playing field to enable UK infrastructure to compete**
- **Can the exit tariff imposed by the Norwegian gas bubble be discounted?**
- **Can the the entry charges mechanism imposed for the NTS be adjusted?**
- **To address any other areas which do not create a level playing field (e.g.tax)**