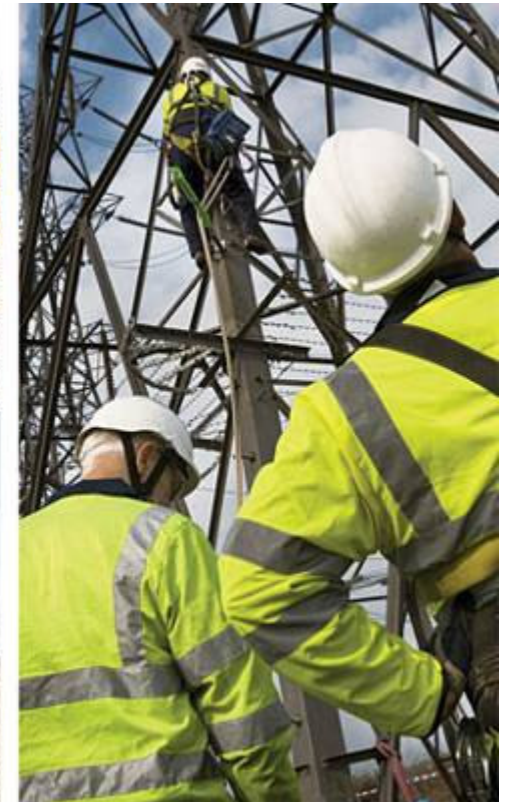


Connecting Coal Bed Methane to the NTS

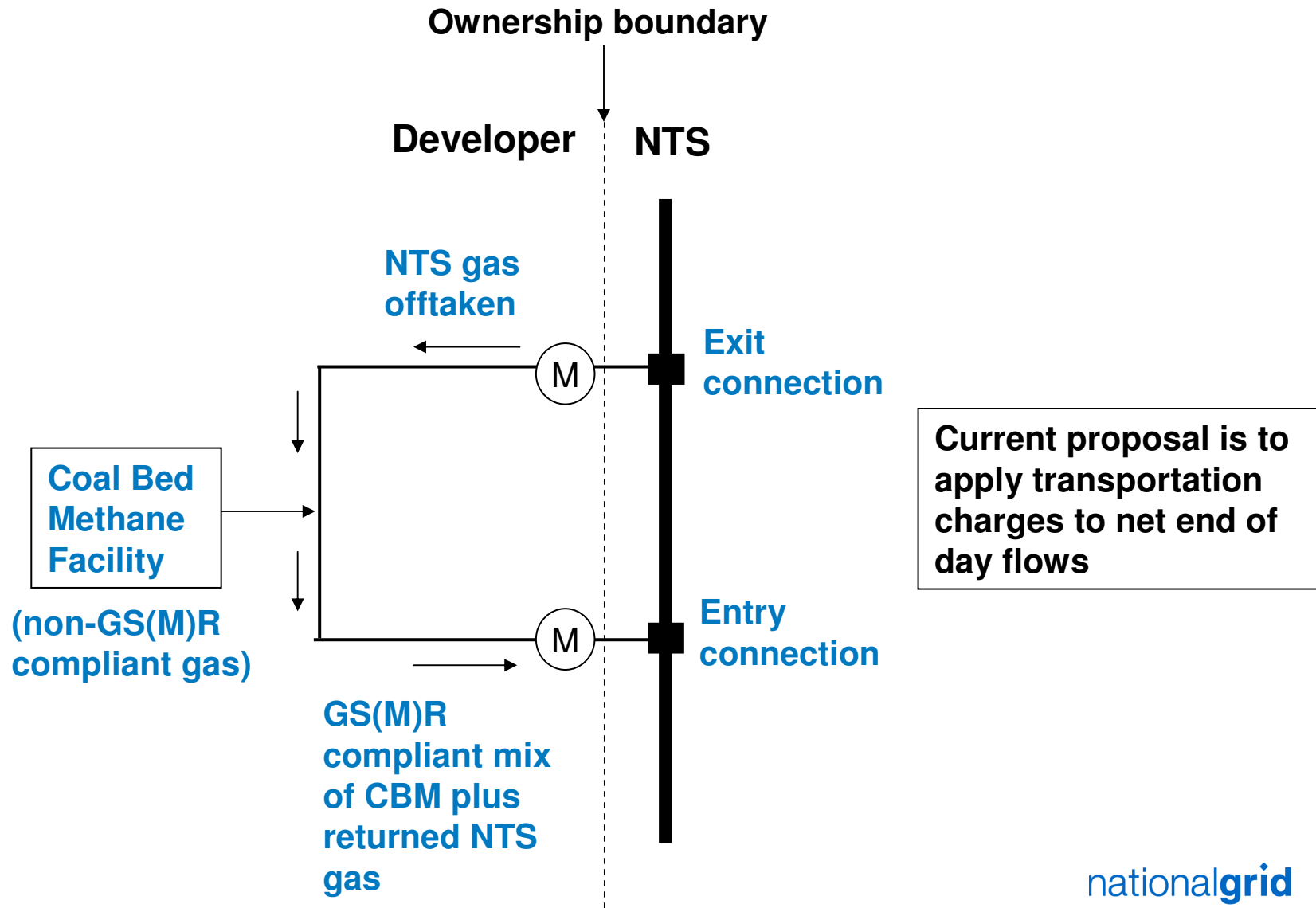
Transmission Workstream
1st July 2010



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Proposed Connection Arrangement



Issue 1: Will the arrangement generate CV shrinkage?

- ◆ We do not expect additional CV shrinkage costs to be generated from the current connection enquiry
- ◆ We do not believe we have a remit to restrict gas that is legally compliant
- ◆ For new NTS entry connections we do not apply 'target' CVs, nor do we publish analysis on potential CV impacts
- ◆ We propose to treat the new CBM connection in the same way
- ◆ We may publish CV shrinkage impact assessments where an existing entry point wants to change its contractual gas quality limits

Issue 2: Project life vs Asset Life

- ◆ Due to the anticipated flows, we do not currently expect CBM connections to require significant NTS investment
- ◆ Even if we did, under the current rules, project life is not a consideration for capacity release
- ◆ We propose to treat this CBM connection in the same way any other new entry connection

Issue 3: How will the allocations work?

- ◆ EOD exit and entry measurements will be required
- ◆ Option 1: Two allocations per shipper – 1 exit, 1 entry
 - ◆ Subtract one from the other to generate the chargeable quantity
- ◆ Option 2: One allocation per shipper, i.e. the net position
- ◆ Our current preference is for option 2
 - ◆ Sets an appropriate basis for other aspects to flow from, eg. system clearing and neutrality processes, nominations and charging
 - ◆ Expected to minimise system changes

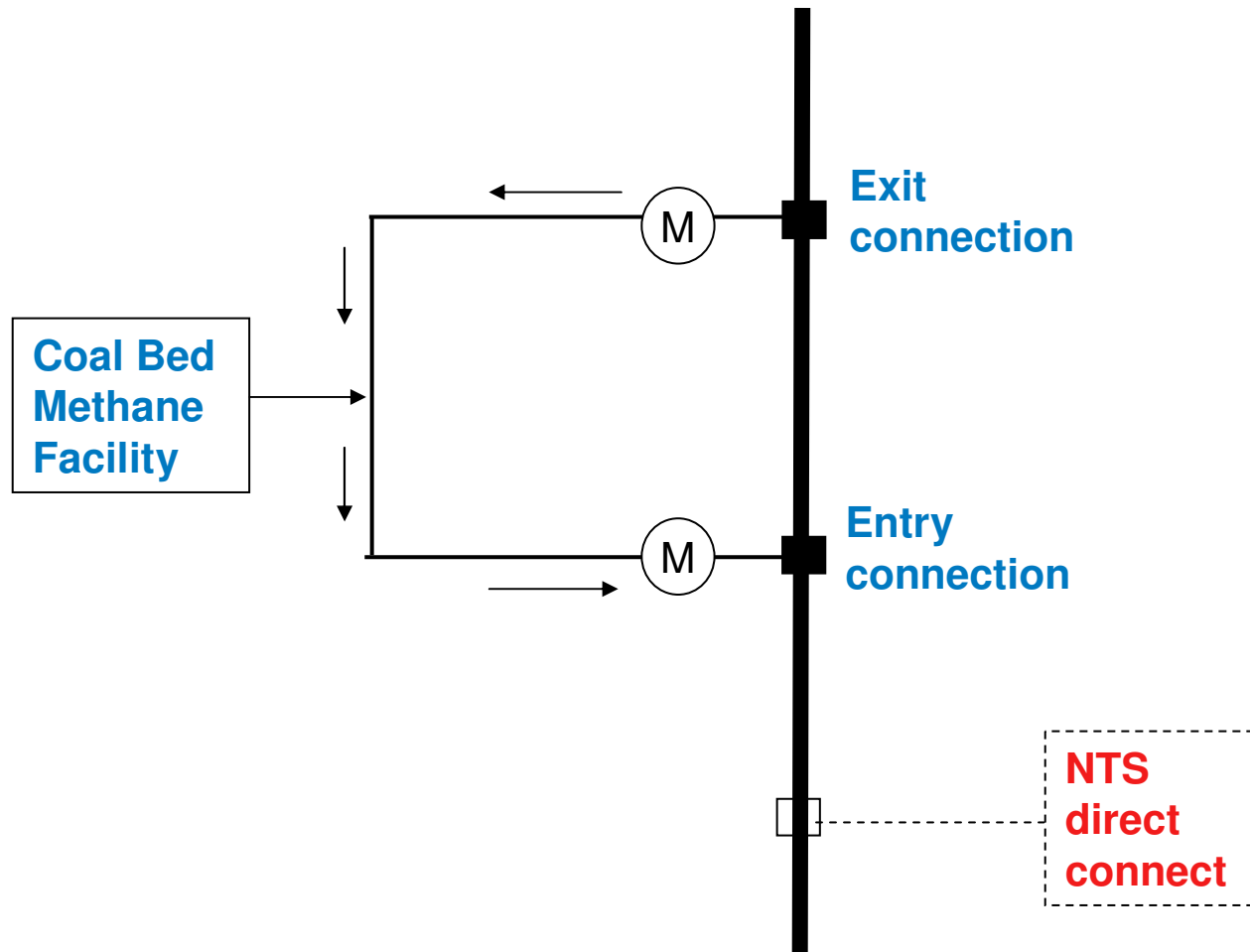
Issue 4: What is the impact on daily energy accounting?

- ◆ We believe that the ‘net’ position should feed into shipper UDQI and UDQO for the day rather than the ‘gross’ quantities oftaken and delivered
 - ◆ Eg. if 3 units are oftaken and 4 units are entered by a shipper on a day, then the UDQI would be 1 unit and the UDQO zero.
 - ◆ 1 unit of ‘throughput’ would then feed into balancing neutrality
- ◆ The ‘option 2’ allocation mechanism would facilitate this

Issue 5: Will short-haul apply?

- ◆ Under allocation option 1, the CBM shipper could apply for short-haul but there would appear to be no commercial driver to do so
 - ◆ Short-haul could only apply for the NTS gas offtaken and returned (not to the net exit / entry flow) which we are proposing would attract nil commodity charges
 - ◆ Eg. if 3 units were offtaken and 4 entered, short-haul could only apply to 3 units, the net entry of 1 must be charged at standard entry commodity
- ◆ Under allocation option 2, short-haul could not be applied to the site
 - ◆ There would either be an exit allocation or an entry allocation but not both

Issue 5: Will short-haul apply? (cont'd)



Issue 5: Will short-haul apply? (cont'd)

- ◆ If gas were shipped from the CBM site to a local NTS direct connect load then short-haul could apply
- ◆ We believe that the entry quantity available for short-haul should be the 'net' entry position, not the 'gross' quantity entered
- ◆ The 'option 2' allocation mechanism would facilitate this
- ◆ Short-haul could not apply in this scenario if there was a net zero or net exit flow

Issue 6: Would the site be receiving a free blending service from National Grid?

- ◆ National Grid would provide two minimum connections in accordance with its standard terms
- ◆ We would not intend to take on any additional obligations, risks or rewards compared to any other connection
 - ◆ The availability of NTS gas at a suitable volume and quality is not guaranteed
 - ◆ The blending of NTS gas with CBM occurs off the NTS at the developer's risk

Issue 7: Would there be a cross subsidy from beach terminals?

- ◆ Upstream parties incur gas processing costs to achieve gas quality compliance
- ◆ The CBM site would appear to be benefiting from the processing carried out by third parties upstream
- ◆ However, we do not intend to restrict the availability of this arrangement, provided that others meet the UNC definition

Issue 8: How does this fit with National Grid's approach to the Bacton / IUK gas quality issue?

- ◆ A gas quality solution discussed in relation to Bacton for IUK imports entailed the provision of a blending/processing service and associated service obligations
- ◆ Under the CBM proposal, our involvement would be limited to the construction of two NTS connections – we would not be processing or blending any gas

Issue 9: Mod Proposal 0164

- ◆ Raised: July 2007 by CSL
- ◆ Purpose: “To stop Users of bi-directional points suffering capacity overrun charges when they have not exceeded their capacity physically”
- ◆ Issue: Where net physical flow at a bi-directional site is entry and a User requires an exit allocation (or vice-versa) the entry allocation has to be increased by the exit allocation amount, which increases the risk of overrun
- ◆ Proposed resolution: For overrun purposes, subtract the exit allocation from the entry allocation
- ◆ Withdrawn in Sept 2007: “the modification cannot be applied at entry zones which have multiple entry points”

Issue 9: Mod Proposal 0164

- ◆ Key learning point: UNC requires that aggregate exit or entry allocations at a point must equal the meter reading
 - ◆ Entry (TPD E2.1.7(b) and E1.4.1)
 - ◆ Exit (TPD E3.2.6 and E1.5.2)
- ◆ A net allocation process for the CBM site (option 2 in these slides) would appear not to comply with this principle

Issue 10: Could there be an adverse impact on balancing the NTS?

- ◆ Based on current CBM enquiries and preliminary design, this does not give us cause for concern
- ◆ If a compliant mix could not be achieved, only the CBM would be curtailed, not the NTS gas
- ◆ The pipework required is expected to have very limited linepack capability relative to the NTS

Issue 11: Should the UNC Mod Proposal cover DN networks as well as the NTS?

- ◆ In principle, we are not opposed to the CBM proposal being applied to the 'Total System'
- ◆ However, due to the timescales associated with the current CBM enquiry our preference would be to limit a Mod Proposal to an NTS application at this stage
- ◆ If DNs feel that there would be benefits in extending the arrangement, this could be achieved by a subsequent Mod Proposal

Issue 12: Commissioning gas

- ◆ If commissioning operations cause a net exit position, then exit charges will be levied
- ◆ The CBM site would be treated the same as any other minimum offtake undertaking commissioning flows

Issue 13: How does the proposal interact with the enduring exit regime?

- ◆ We believe that the exit point could be classed as a CSEP, downstream of which is a Connected Offtake System
 - ◆ Potentially add the facility definition to the list in TPD J1.4.4
 - ◆ NExA required (J1.5.2(a), J1.5.4(a))
- ◆ The capacity regime could apply as in respect of any other exit point:
 - ◆ Exit point recorded in our Licence with a zero baseline
 - ◆ NG has no obligation to make gas available for offtake until a shipper(s) makes a firm booking
 - ◆ Off peak product available as an alternative to firm

Issue 14: Is it possible for the site to have a net exit end of day position?

- ◆ This could result:
 - ◆ During commissioning
 - ◆ If no CBM is input on a day and the exit meter registers slightly more gas than the entry meter (i.e. due to NTS pressure fluctuations)
 - ◆ If a pipe break / gas escape occurs on the third party's pipework
- ◆ We have been informed that there is no possibility of the NTS gas being 'consumed' by the project

Way Forward

- ◆ Produce a comprehensive ‘issues list’, including:
 - ◆ Site definition
 - ◆ Capacity booking
 - ◆ Overruns
 - ◆ Allocation rules
 - ◆ Charging arrangements
 - ◆ Energy balancing etc.
- ◆ Draft business rules for each issue (July/Aug)
- ◆ Produce a draft Mod Proposal thereafter (Sept/Oct)