

UNC Workgroup 0714 Minutes
Amendment to Network Entry Provision at Perenco Bacton terminal
Thursday 05 March 2020
at Elexon, 350 Euston Road, London, NW1 3AW

Attendees

| | | |
|---------------------------|-------|------------------------|
| Alan Raper (Chair) | (AR) | Joint Office |
| Helen Bennett (Secretary) | (KV) | Joint Office |
| Lorraine O'Shaughnessy | (LOS) | Joint Office |
| Adam Bates | (AB) | South Hook Gas |
| Alex Barnes | (ABa) | Waters Wye Associates |
| Andrew Pearce | (AP) | BP |
| Angus Paxton | (APa) | Afry |
| Anna Shrigley | (AS) | Eni Trading & Shipping |
| Anna Stankiewicz | (ASt) | National Grid |
| Ashley Adams | (AA) | National Grid |
| Bethan Winter | (BW) | Wales & West Utilities |
| Bill Reed* | (BR) | RWE |
| Chris Wright | (CW) | ExxonMobil |
| David Mitchell* | (DM) | SGN |
| David Adlam | (DA) | Cadent |
| Debra Hawkin | (DH) | TPA Solutions |
| Emma Buckton* | (EB) | Northern Gas Networks |
| Jeff Chandler* | (JC) | SSE |
| Jennifer Randall | (JR) | National Grid |
| John Costa | (JCo) | EDF Energy |
| Julie Cox | (JCx) | Energy UK |
| Kamila Nugumanova | (KN) | ESB |
| Kamla Rhodes | (KR) | Conoco Phillips |
| Lea Slokar | (LS) | Ofgem |
| Leyon Joseph* | (LJ) | SGN |
| Malcolm Montgomery | (MM) | National Grid |
| Paul Youngman* | (PY) | Drax |
| Phil Hobbs | (PH) | National Grid |
| Richard Fairholme* | (RF) | Uniper |
| Richard Pomroy | (RP) | Wales & West Utilities |
| Steve Pownall | (SP) | Xoserve |
| Steven Britton | (SB) | Cornwall Energy |
| Terry Burke | (TB) | Equinor |
| Tracy Brogan* | (TB) | Neptune Energy |
| Will Webster | (WW) | Oil & Gas UK |

*via teleconference

Copies of all papers are available at: www.gasgovernance.co.uk/0714/050320

The Workgroup Report is due to be presented at the UNC Modification Panel by 16 April 2020.

1.0 Introduction and Status Review

1.1. Approval of Minutes (23 January 2020)

The minutes from the previous meeting were accepted.

2.0 Initial Representation – Uniper

See update to outstanding Action 0202.

3.0 Review of HSE timings

PH provided a presentation which covered the following:

- Flow Weighted Average CV (FWACV) – Recap
- FWACV Calculation
- CV Shrinkage
- Modification 0714 FWACV Analysis
- Billing CV Maps: 2019/20 Base Case
- Billing CV Maps: 2025/26 Base Case
- Billing CV Maps: 2019/20 Scenario 1
- Billing CV Maps: 2025/26 Scenario 1
- Billing CV Maps: 2019/20 Scenario 2
- Billing CV Maps: 2025/26 Scenario 2
- Billing CV Maps: 2019/20 Scenario 3
- Billing CV Maps: 2025/26 Scenario 3
- Conclusions

During the presentation PH advised that National are no longer proposing to pursue the HSE Exemption and are now looking at exploring a solution within the terminal. PH is looking to see if National Grid can setup an arrangement to operate the terminal in such a way the Wobbe Index of the terminal output gas is not impacted.

For now, the Modification is staying as-is and he is hopeful an amended Modification will be submitted in time for the next Workgroup meeting in April 2020.

In summary, PH concluded:

Scenarios 1 and 3 result in CV capping affected by the low CV gas coming in from Perenco but are unlikely to occur in reality.

Scenario 2 does not result in CV capping that is due to the low CV of gas coming in from Perenco. Scenario 2 is more realistic, though still takes a worst-case view of Perenco CV.

During these discussions, it was suggested that biomethane flows could, in theory have a large impact on capping, as shown in Scenario 2. In reality, however, CV capping due to biomethane sites should not occur as they are currently required to enrich to a higher CV.

4.0 Review of impacts on downstream customers

This was not considered at this meeting.

5.0 Amended Modification

The Modification has not been amended since the last Workgroup meeting, however, PH confirmed it will be amended, the revised solution is actively being worked on and the amended Modification will be submitted within the next 2-3 weeks.

6.0 Development of Workgroup Report

This was not considered at this meeting.

7.0 Review of outstanding actions

Action 1203: Neptune Energy/Centrica (TB) to contact Ofgem to ascertain if there was a requirement for them to undertake an Impact Assessment.

Update: No update. **Carried forward**

Action 0201: National Grid (PH) to investigate the FWACV impacts on this proposed change.

Update: Please see update provided and captured as part of agenda item 3.0. **Closed**

Action 0202: All to provide feedback in relation to the commercial implications of flow weighted averages and the associated impacts of this proposed change.

Update: RF advised that Uniper have submitted an initial representation which is published on the Joint Office website: www.gasgovernance.co.uk/0714/050320. The key points of the initial representation are as follows:

- As the Wobbe Index (WI) reduces the part load CO tends to increase. For most gas turbines it the CO emissions limit that determines what their minimum export load is, thus part load CO issues can limit part load operation when operating on low WI fuels.
- The reduced reactivity of low WI fuels changes the flame structure and position which tends to have an adverse impact on combustion dynamics (pulsations). This can lead to increased pressure oscillations in the combustion chamber which in turn cause vibration in the combustor components. This can lead to increased wear and damage to components and reduced component life. If dynamics reach alarm/action levels de-loads or trips will occur.
- Reduced reactivity can result in the flames of some burners lifting resulting in trips due to unacceptable exhaust temperature distributions.
- Ignition of low WI fuels is more difficult due to the reduced reactivity and this can lead to starting problems.

Workgroup offered no questions, however, PY advised he has the same feedback on those types of issues and JC advised he had nothing further to add.

AR clarified that some of the information from the initial representation can go into the Workgroup Report including costs to organisations, wider concerns, risk of blackouts if number of generators trip at the same time.

PH confirmed the modification as proposed at present is not the solution that National Grid are currently looking at. **Closed**

Action 0203: Neptune Energy/Centrica (TB) to provide a proposed solution to cover the outage period.

Update: TB confirmed that Neptune Energy are looking at other means to avoid this impact. The proposed solution means that sub-GS(M)R (Gas Safety (Management) Regulations Network) (Normal Conditions) gas would not enter the GM(S)R governed network.

TB advised that Neptune Energy are looking at a solution to facilitate entry of the gas into the network by blending with other streams, meaning that GS(M)R compliant gas would exit the National Grid terminal. It was confirmed that the proposed solution would still require an amendment to the Network Entry Agreement (NEA). **Carried forward**

Action 0204: Joint Office (AR) and National Grid (PH) to clarify the nature & extent of conversations between the affected parties for inclusion within the Workgroup Report.

Update: AR and PH confirmed this will start this once amended Modification is received. **Carried forward**

Action 0205: National Grid (PH) to contact IUK and BBL, from a commercial Stakeholder perspective, regarding the potential impacts of the proposed change at the Bacton Terminal.

Update: PH confirmed that discussions are ongoing. **Carried forward**

8.0 Next Steps

AR confirmed that Workgroup will await a revised Modification to be submitted which will set out the new solution and how the highlighted issue would be mitigated.

9.0 Any Other Business

None.

10.0 Diary Planning

Further details of planned meetings are available at: www.gasgovernance.co.uk/events-calendar/month

Workgroup meetings will take place as follows:

| Time / Date | Venue | Workgroup Programme |
|------------------------------------|--|--|
| 10:00 Thursday 02 April 2020 | Radcliffe House, Blenheim Court, Warwick Road, Solihull B91 2AA | Detail planned agenda items. <ul style="list-style-type: none"> • Amended Modification • Consideration of Business Rules • Review of Impacts and Costs • Review of Relevant Objectives • Consideration of Wider Industry Impacts • Development of Workgroup Report |

Action Table (as at 06 February 2020)

| Action Ref | Meeting Date | Minute Ref | Action | Owner | Status Update |
|------------|--------------|------------|--|--|--|
| 1203 | 05/12/19 | 1.3.4 | Neptune Energy/Centrica (TB) to contact Ofgem to ascertain if there was a requirement for them to undertake an Impact Assessment. | Neptune Energy/Centrica (TB) | Carried forward <i>(Transferred from TXWG)</i> |
| 0201 | 06/02/20 | 1.0 | National Grid (PH) to investigate the FWACV impacts on this proposed change | National Grid (PH) | Closed |
| 0202 | 06/02/20 | 1.0 | All to provide feedback in relation to the commercial implications of flow weighted averages and the associated impacts of this proposed change. | ALL | Closed |
| 0203 | 06/02/20 | 1.0 | Neptune Energy/Centrica (TB) to provide a proposed solution to cover the outage period. | Neptune Energy/Centrica (TB) | Carried Forward |
| 0204 | 06/02/20 | 2.1.2 | Joint Office (AR) and National Grid (PH) to clarify the nature & extent of conversations between the affected parties for inclusion within the Workgroup Report. | Joint Office (AR) & National Grid (PH) | Carried Forward |
| 0205 | 06/02/20 | 2.1.2 | National Grid (PH) to contact IUK and BBL, from a commercial Stakeholder perspective, regarding the potential impacts of the proposed change at the Bacton Terminal. | National Grid (PH) | Carried Forward |