Industrial Emissions Directive & The NTS Compressor Fleet







UNC Transmission Workgroup 1st May 2014 Richard Hounslea, National Grid NTS

IED Background

The Industrial Emissions Directive (IED) brought together 7 existing emissions related Directives into one. Two of these had an impact on National Grid Gas Transmission, the Large Combustion Plant (LCP) Directive and the Integrated Pollution Prevention & Control (IPPC).

IED (LCP)

Under the IED (LCP) we are obliged to reduce NOx and CO emissions below a certain level. 17 compressor units were identified as being non-compliant with the IED (LCP).

| Site (number of units) | Driver | | |
|-------------------------------|--|--|--|
| St Fergus (3) | St Fergus supplies – 1 sub-terminal | | |
| Kirriemuir (1) | St Fergus supplies | | |
| Moffat (2) | | | |
| Carnforth / Nether Kellet (2) | Northern triangle and North-West Supplies | | |
| Warrington (2) | | | |
| Hatton (3) | East Cost / Easington Area Supplies | | |
| Wisbech (2) | Theddlethorpe supplies and South-East demand | | |
| Aylesbury (2) | Southern and South West Demand | | |

IED (IPPC)

■ Under the IED (IPPC) we are obliged to reduce the emissions of our compressor fleet. It means that work is also required on other compressor units (Phase 1 – St Fergus / Kirriemuir; Phase 2 – Hatton; Phase 3 – Peterborough and Huntingdon; Phase 4 – To be determined (3 stations expected).

Scope

RIIO-T1 Final Proposals:

| Project Scheme | Output | Start date | Delivery date | Cost (£m) |
|-------------------------------------|---|------------|--------------------|--|
| IPPCD Phase 3 | Peterborough | | | |
| & | Huntingdon | 2013 | 2020 | 142.7 |
| IED Phase 1 | Aylesbury | | | |
| Emissions abatement optioneering | Development of emissions abatement integrated plan ⁵² | 2013 | 2015 ⁵³ | 9.0 |
| IPPCD Phase 4 and IED Phase 2 | Integrated plan to set outputs | 2015 | - | 269.3 ⁵⁴ Subject to re-opener |

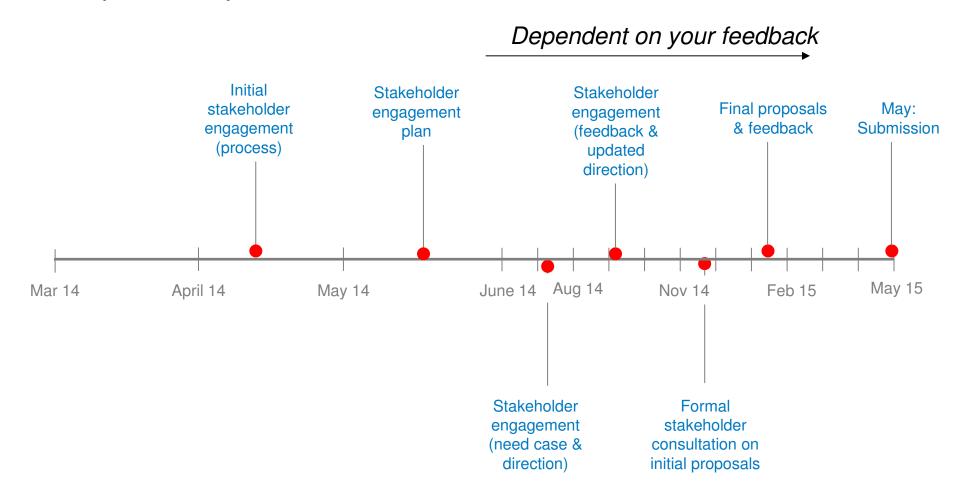
- We are continuing to investigate the implications of IED/IPPC in light of the changing supply and demand picture
- Continuing to meet our capacity release obligations ("baselines") might involve full compressor capability replacement
- Based upon Future Energy Scenarios and customer signals (and potentially revised 'baselines') there are;
 - Credible options to remove some compressors
 - Options to replace existing compressors with different capability
- We will look to incorporate any related network flexibility triggers into our engagement

Discussion

- We would like to seek your views on our stakeholder engagement approach given the magnitude of the potential costs associated with IED and the range of potential options we have identified.
 - What is your level of interest?
 - What can we learn from previous engagement?
 - Who needs to be involved, are there any specific stakeholder groups we should look to engage?
 - Which media and forums should we use, what frequency?
 - To what extent would you like us to differentiate our engagement, recognising that not all stakeholders have the same interest?
 - What do you want to get from the engagement?
 - What topics should we look to bundle in our engagement?
 - What are the potential blockers to the engagement?
- We would also like to seek your views on how we measure the outputs of our compressor strategy.

Next steps

 Gain your feedback and then publish our stakeholder engagement plan in May 2014



Update

- At the UNC Transmission Workgroup on Thursday, 3rd April National Grid NTS was asked how IED work could be completed ahead of the network flex work
 - In developing our integrated plan we will take account of the current flexibility required on the system
 - We will then stress test our plan against future flexibility scenarios, which we will work with you to understand
 - However any specific investment required for network flexibility, independent of the compressors replacement programme, are likely to be progressed as part of the mid period review. It is envisaged that we will run a separate consultation exercise on this during 2015.
- Outside of the UNC Workgroup, feedback has been received which highlighted the importance of sharing the interactions with the flexibility provision at industry workgroups rather than bi-laterally.

Summary

- We welcome your thoughts today on how you would like us to engage on this topic
- We will attending various events our the coming month to get your thoughts on future IED/IPPC stakeholder engagement. We also intend to write out to stakeholders to request their views. We would also be happy to meet on a bilateral basis.
- If you would like to provide any initial feedback on the form and content of future IED/IPPC engagement please contact Hannah Kirk-Wilson and/or Richard Hounslea via any of the following methods;

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