



Publishing date: 19/01/2015

Document title: 1b - ACER submission 240714 final

We appreciate your feedback



Please click on the icon to take a 5' online survey  
and provide your feedback about this document

# UK Gas Industry Proposal to Amend EU Network Codes to Retain UK Gas Day.

## Contents

1. Introduction
  2. ACER's guidance on network code amendments
  3. The impact of the network codes on the upstream sector
  4. Proposed wording of the amendment
  5. Recognising the exceptional nature of maritime pipeline interconnectors
  6. The current position in the UK
  7. Disproportionate impact on the UK upstream
  8. Financial costs of the change in the UK
  9. Industry efforts to reconcile dual gas days
  10. The Claims Validation Information Agreement (CVIA)
  11. Efficiency of existing interconnector arbitrage
  12. Why NBP liquidity matters
  13. EU security of supply is at stake
  14. Distraction for upstream operators
- Appendix: UK Gas Production and Operations

## 1. Introduction.

As UK industry associations, we are making this application jointly to emphasise that it has the support of the overwhelming majority of both UK upstream producers and downstream shippers. Oil & Gas UK is the upstream industry association representing 450 companies, including major offshore operators, onshore terminal operators and offshore contractors and service companies. The Gas Forum, established in 1994, is an association whose membership is drawn from shippers, suppliers and other participants in the GB wholesale gas market. Between us, the two associations represent almost all UK gas producers and participants active in the GB wholesale gas market. Both associations have been, and remain, consistent and keen supporters of EU gas market liberalisation, completion of the internal gas market and cost-effective regulation.

We are well aware that our application has implications beyond the UK for adjacent Member States and TSOs. We have therefore kept IUK, BBL, Gaslink and UK-based parties including National Grid informed of this application.

The aim of this document is threefold:

- to outline the unanticipated, adverse impact of the recently-adopted EU Capacity Allocations Mechanisms (CAM) and Balancing (BAL) Network Codes on the UK upstream and on the operations of the NBP market
- to describe the unique aspects of the UK's gas transmission network, in particular its connections to both offshore UK fields *and* to those of adjacent Member States
- to propose an EU network code amendment to prevent these adverse, unintended consequences and to ensure the objectives of the codes are met at least cost.

The impact of the CAM and BAL in the UK extends beyond the downstream National Transmission System (NTS) operated by National Grid to onshore terminals and upstream operations in a way which will have an adverse effect on the operation of the NBP wholesale market. We do not believe these adverse consequences were intended or fully appreciated by the authors of the EU network codes in 2011-13.

## **2. ACER's guidance on network code amendments.**

In making this submission, we have taken account of the 'Agency Guidance on Network Code Amendment Proposals' (September 2013). We contend that our proposed *ad hoc* amendment has an urgent character and merits an expedited appraisal since the current deadline for implementation of the CAM and BAL network codes in the UK is 1 October 2015. This deadline is over-ambitious and unachievable in the view of UK terminal operators, given the extensive commercial and legal changes it would require. We have asked National Grid to seek a 12-month delay in implementation with the aim of allowing time for an 'in-depth assessment' envisaged in ACER's guidance notes and, if necessary, to undertake a full impact assessment.

We understand that the process for network code amendments is untried and untested. This initial submission does not contain the full details of the cost estimates, the evidence of terminal operators, the operation of the Claims Validation Information Agreement (CVIA) or copies of the commercial agreements which govern upstream and terminal operations. However, we are willing to provide further information in response to any requests from ACER, ENTSOG or the European Commission to support our application.

## **3. The impact of the network codes on the upstream sector.**

We believe that the upstream sector, comprising production and onshore terminal operations, lies beyond the scope of the EU network codes. Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 represents the legal basis of the network codes. It provides a clear definition of 'transmission' which explicitly excludes upstream pipeline networks, which are recognised and defined separately. ENTSOG, responsible for elaborating the network codes, comprises downstream transmission system operators only.

Both the Department of Energy and Climate Change (DECC) and Ofgem have repeatedly assured the UK upstream industry that it is not within the scope covered by the EU network codes and that it has no new obligations arising from their adoption. However, the combined effect of the CAM and BAL codes, which define the harmonised gas day and apply it to all EU balancing zones, does have a profound adverse impact on UK upstream operators. This adverse impact arises because the UK is the only major gas-producing Member State which is required to change its existing downstream gas day and the upstream and downstream operations in the UK are intimately and necessarily integrated through operational procedures and commercial agreements. The NBP market developed only because of the closeness of this integration, underpinned by an industry-wide legal agreement. NBP market liquidity is now at risk if the EU network codes are not amended and the UK moves to different gas days upstream and downstream.

The impact of the proposed change in the downstream gas day on the UK upstream industry has been referred to by Ofgem as 'wider industry impacts' since July 2013, before the adoption of both

the CAM and BAL network codes. We contend that the size and nature of the impact on UK upstream operations that would be required to preserve the integrity of the NBP market are such that the intended exclusion of the upstream from the scope of the network codes has not been fully respected.

#### **4. Proposed wording of the amendment.**

In our discussions, you asked us to provide the suggested wording of the proposed amendment. We believe the amendment can be short and simple but the precise formulation will need be determined to the satisfaction of ACER and the European Commission since it must be consistent with existing legal definitions.

The aim of the proposed amendment is to give the UK and Ireland a right to keep their existing gas day of 6am-6am UCT. This could be achieved by a simple generic formulation:

*'A Member State shall have the right to maintain an existing Gas Day rather than adopt the harmonised gas day of 5am-5am UCT provided that the following conditions are met:*

- (i) it would not impair the implementation of the EU network codes*
- (ii) there are no objections from adjacent Member States and*
- (iii) there is no detriment to cross-border trading or to any EU consumer.'*

Alternatively, the same effect could be achieved by reference to either the type of interconnectors in each country or to the current time zone in which existing daily balancing operates. We therefore offer the following specific formulations of the proposed amendment and would welcome an opportunity to discuss their relative merits:

*(a) 'A Member State shall be entitled to maintain an existing Gas Day different from the harmonised gas day of 5am-5am UCT if*

- (i) it is interconnected with one other Member State through one or more onshore interconnectors*
- (ii) all the interconnection points of the two so interconnected Member States with any other Member State are established by maritime interconnectors only and*
- (iii) there is no detriment to cross-border trading or to any EU consumer.*

*(b) 'Member States in the GMT (and BST) time zone shall be entitled to maintain an existing Gas Day different by one hour from the harmonised gas day of 5am-5am UCT if there is no detriment to cross-border trading and no detriment to any EU consumer as a result'.*

The effect of the proposed wording of both specific formulations is to restrict the entitlement to adjacent Member States which have only maritime interconnections to any other Member States or to those which already have daily balancing 6am-6am UCT in their gas networks. We believe that both formulations (a) and (b) limit the amendment to the UK and Ireland. We do not exclude the possibility of formulating more elegant wording to achieve the same effect.

If the amendment were approved, the two interconnector pipelines IUK and BBL would continue to operate as they do today with different gas days at each end of their respective pipelines. This

proposed amendment would not prevent IUK, BBL or other TSOs from complying with CAM and other network codes.

CAM defines the harmonised gas day but its application extends to the GB NTS through the adoption of the BAL network code. From a legal point of view, it would seem to be a matter for ACER and the European Commission to determine whether the amendment should be to the CAM or to the BAL network code, or even whether it could be incorporated in one of the forthcoming codes such as Inter-Operability.

We include a reference to consumer interests in the draft amendment because we are confident that there would be no detriment to any EU consumer if the UK and Ireland did not change their current gas day. Neither do we believe that there is any discernible benefit for any EU consumer from changing the GB gas day since we already have highly efficient arbitrage between the NBP and hub markets on the continent (Zeebrugge and TTF). In the recent discussion of the gas day in the UK, no consumer benefit of the proposed change in the GB gas day has been identified by DECC, Ofgem or any industry participant. Indeed, we would go further in saying that there is a far greater risk of consumer detriment if the UK is obliged to change its gas day and the commercial integrity and liquidity of the NBP wholesale market are undermined by the change.

Under the new EU network codes, ACER and NRAs will monitor the functioning of all EU gas and capacity markets. ACER and the European Commission will retain the right to introduce code amendments in their periodic reviews or at any other time. If the amendment is approved, it will of course be subject to revision in the future if markets were to change in a way which justified such a revision.

## **5. Recognising the exceptional nature of maritime pipeline interconnectors.**

Both the CAM and BAL network code refer explicitly in their introductions to the ‘special nature of interconnectors’ to emphasise their role in promoting cross-border trade and the completion of the single market. We believe that our proposed amendment would recognise the exceptional nature of purpose-built, maritime pipeline interconnectors without changing any of existing legal definitions on which the network codes are based.

Maritime interconnector pipelines have embedded operational flexibility arising from the existence of extensive linepack. Such flexibility is not available to onshore interconnectors which comprise either a border crossing point on a transmission pipeline or a border connection point between two adjacent national networks. The two maritime interconnector pipelines linking the UK and continental Europe (Interconnector UK and BBL) are distinguished from onshore interconnectors not only by the size of the linepack associated with their capacity and length but also by the fact that they were designed specifically as interconnectors and are entirely separate from the national networks which they link. Indeed, both IUK and BBL are designated as TSOs in EU law. It is the operational flexibility of IUK and BBL which would allow the UK and Ireland to retain their existing gas days without impairing cross-border trade or the completion of the single market.

IUK and BBL have operated since their commissioning (in 1998 and 2006 respectively) with different gas days at each end of the pipeline. They have different operating and commercial models but both have operated to the satisfaction of users and regulators and have ensured efficient cross-border

arbitrage. We believe that the interconnectors are capable of continuing to operate with different gas days and to comply fully with CAM by bundling capacity 5am-5am UCT at the continental end of the pipeline and bundling capacity 6am-6am UCT at the UK end. Indeed, IUK advised that it can continue to operate as it has in the last 16 years with different gas days at each end of the pipeline.

The gas markets of the UK and Ireland are highly integrated through two separate sub-sea pipelines and unusual legal and regulatory arrangements which transcend state boundaries. The geographical division between the jurisdictions of the Member States of the UK and of Ireland is not coincident with division between the respective NRAs or between the national TSOs. Northern Ireland is part of the UK but integrated within the all-Ireland gas market arrangements. When viewed jointly, the UK and Ireland have interconnection points (IPs) with other EU Member States which are limited to the IUK and BBL pipelines.

We contend that the unique legal arrangements between the UK and Ireland gas markets and the unique nature of their connections to other Member States via IUK and BBL would allow our amendment to be approved without impairing any of the objectives of the Third Energy Package and the EU network codes.

## **6. The current position in the UK.**

The position today is that the UK is heading towards an unnecessary and unsatisfactory co-existence of two different gas days. To make matters worse, the change in the downstream is unlikely to be smooth or synchronised at all terminals because the timetable is too ambitious. This will undermine the integrity of the NBP market, may significantly reduce liquidity and will create a barrier to interoperability between the UK upstream and the downstream network. The EU network codes require a gas day of 5am-5am UCT downstream but they impose no obligations on terminal operators or offshore operators to change from the existing gas day of 6am-6am UCT. If our proposed amendment is approved, it will be possible to preserve the integrity of the NBP market and to avoid the unnecessary costs of the change without any detriment to cross-border gas trading.

After the adoption of the CAM network code in April 2013, National Grid raised a modification to the Uniform Network Code (UNC Mod 461) to change the definition of the GB Gas Day to 5am-5am on 1 October 2015. The UNC Mod Panel, comprising industry members, decided on 20 February 2014 not to recommend implementation because of the 'wider industry impacts' (principally in the upstream) which had long been recognised by Ofgem. On 3 March, recognising these adverse consequences, Ofgem announced an impact assessment of the change of the Gas Day in UNC Mod 461. However, after the adoption of the BAL network code on 26 March, Ofgem cancelled the impact assessment and decided to implement UNC Mod 461 despite the opposition of producers and shippers. It is regrettable that UNC Mod 461 does not incorporate the option available to the TSO to delay implementation of up to 12 months which exists in the BAL network code.

## **7. Disproportionate impact on the UK upstream.**

The UK appears to face the highest costs of complying with the new EU network codes of any Member State which already had functioning daily gas balancing regime. It may even be the highest compliance costs of any EU Member State. We estimate that the cost of full compliance for the UK industry will be £65-100 million (€80-125 million), of which at least £40-50 million (€50-60 million)

will be incurred in the upstream. These estimates exclude any costs which would arise for downstream suppliers and consumers if there were a reduction of NBP liquidity, a widening of bid/ask spreads and an increase in the cost of wholesale gas supply. These costs might not be such a matter of such concern if there were any discernible benefits to EU consumers through improved efficiency of cross-border trade; in our firm view, there are not.

There has not been a cost-benefit analysis or impact assessment of the 'harmonised EU gas day' conducted at EU or at UK national level. If one had been properly conducted, it would surely have identified the disproportionate costs in the UK upstream. An impact assessment would have identified the case for keeping the gas day unchanged in the UK and Ireland and leaving the interconnectors to manage the difference, as they always have done. A cost-benefit analysis would have shown that strict EU-wide harmonisation of the gas day does not deliver the least-cost solution for completing the single market.

## **8. Financial costs of the change in the UK.**

Oil & Gas UK recently conducted a second survey of its members of the costs of changing the gas day. This has confirmed the earlier estimate made in January of a total upstream cost of at least £40-50 million to change the gas day at terminals and in upstream operations. The Gas Forum estimates that the costs for the >200 registered NTS shippers of the necessary IT system changes will be £2-5 million. Total UK gas industry costs, (including distribution network operators, suppliers and National Grid) are estimated to be in the range of £65-100 million. Under the current schedule, all this will have to be spent in 2014 and 2015 to meet the deadline of 1 October 2015.

The upstream costs can be broken down in three categories: (1) changes to IT systems (2) legal costs to review and revise commercial agreements and (3) metering changes at onshore and offshore meters (including some fiscal meters). The first two categories account for the bulk of expected expenditure (>80%). The costs include changes to *oil* allocation systems in some areas of the Central and Northern North Sea where there is extensive output of associated gas (see appendix on UKCS operations). The aggregate figure of £40-50 million does *not* include contingencies or the possible costs of temporarily shutting down some offshore fields to change or re-programme metering equipment. Upstream companies and shippers cannot automatically pass on or recover these costs from customers as the regulated TSOs and DNOs are able to.

The economic burden is likely to fall most severely on low-volume, late-life gas fields such as those in the Southern North Sea which are now facing significant expenditure in IT systems and legal costs. One major producer has questioned whether it will be feasible to make the necessary changes to offshore IT systems which have not been changed since commissioning 25 years ago. Another has indicated that, if the necessary changes offshore cannot be performed during planned maintenance, it may be necessary to temporarily shut in production to undertake the work. We cannot believe that it was the intention of the authors of the CAM and BAL network codes to impose such changes on the upstream operations in any EU Member State.

## **9. Industry efforts to reconcile dual gas days.**

The introduction of dual gas days in the UK would be potentially very damaging to NBP market liquidity. Nevertheless, the offshore and downstream industry engaged in April with National Grid in

a sincere effort to identify a feasible solution to allow two different gas days to operate in the UK with only minimal disruption and costs. Commercial re-negotiations of bilateral Network Entry Agreements and legacy agreements have not yet begun. As time has passed, it has become increasingly clear that such a solution will not be achievable. Even if a 'technical solution' is found, it cannot be implemented by the over-ambitious deadline of 1 October 2015 and it would, in any case, entail adverse consequences for the CVIA and the integrity of the NBP market.

#### **10. The Claims Validation Information Agreement (CVIA).**

UK upstream production and the downstream network developed together in the 1970s and have always been physically and commercially integrated. They have always operated with the same gas day of 6am-6am UCT. Since 1997, the matching of downstream nominations on the NTS with the upstream allocations has been performed in accordance with the Claims Validation Information Agreement signed by more than 220 companies. This agreement, supervised and administered by Claims Validation Services Limited (CVSL), ensures the physical and commercial integrity of the UK gas market. By ensuring that producers are paid for the gas they deliver to the NTS and that shippers receive the gas to which they are entitled, the CVIA reconciles the physical flows upstream and downstream and underpins the operation of the NBP wholesale market. Indeed, it is the success of the CVIA in bringing order to the nascent gas market which permitted the growth of liquidity in the NBP between 1997 and 2010. The success of the NBP market was made possible only by the common gas day in the upstream and the downstream.

If there were two different gas days in the UK, 6am-6am UCT upstream and 5am-5am UCT downstream, the existing CVIA would be unworkable and one of the foundation stones of the NBP market would be removed. If UKCS producers, terminal operators or NTS shippers had to bear the additional risk arising from two different gas days, we expect that some producers would decide to sell gas offshore or at the beach, not at the NBP. CVSL estimates that if, with dual gas days, there was an unresolved average mismatch of only 0.3% between producers' and shippers' aggregate claims, it would lead to a misallocation of £37 million per annum at an NBP price of 60 pence/therm. Although we cannot easily quantify the risk at this stage, we believe this would have a detrimental impact on NBP market liquidity and the degree of competition among sellers in the wholesale market. This issue of NBP wholesale market competition is one which deserves to be raised in the review of the UK retail energy market which is now being conducted by the Competition and Markets Authority.

#### **11. Efficiency of existing interconnector arbitrage.**

The review of the two interconnectors between the UK and the continent in 2012-13 by Ofgem, CREG and ACM concluded that the price-responsiveness of the IUK was 'reasonable'. This assessment seriously under-estimates the efficiency (price-responsiveness) of the bilateral flows across the IUK when account is taken of all relevant factors. In fact, the IUK has the most price-responsive bilateral flows between adjacent networks anywhere in the EU and should serve as a model for price-responsiveness elsewhere in Europe.

The regulators' review raised some areas of possible concern, in particular the size of the GB's commodity charge but it did not cite the different gas days as an impediment to efficient cross-border trade. It also cited the forthcoming changes in the EU network codes which can be expected



to promote increased arbitrage efficiency but it does not include the harmonisation of the gas day among them. This highlights the fact that the TSOs can comply with the new network codes while operating different gas days at each end of the interconnectors. The potential barriers to efficient cross-border trade in future lie in divergent tariff structures or a possible mis-match in the capacity bundling and CMP implementation, not in a non-harmonised gas day in the GB market.

## **12. Why NBP liquidity matters.**

Article 1 of the Regulation No 715/2009 says that it aims at 'facilitating the emergence of a well-functioning and transparent wholesale market'. We contend that an unintended consequence of the implementation of the CAM and BAL network codes as they stand will be to undermine the commercial basis of the most liquid gas market in the EU with possible adverse consequences for NBP market liquidity. We do not believe this is a risk that it is sensible for the EU to run, particularly at a time when the previous strong growth in gas market liquidity has stalled.

An erosion of liquidity at the NBP would probably be seen through the withdrawal of some UKCS producers from the NBP market as they reverted to beach or offshore sales and by a widening of bid-ask spreads. The bid/ask spread represents a key element in the transaction cost of trading and hence an influence on the total cost of gas acquired in wholesale markets. We cannot quantify the risk or effect of such a widening of spreads at this stage. However, even a modest increase in the total cost of wholesale gas supply has the potential to draw, in NPV terms, the known transition costs of changing the gas day. If there is such an increase in wholesale gas supply costs, it will almost certainly be passed on directly to consumers.

## **13. EU security of gas supply is at stake.**

The NBP wholesale market is at the very heart of EU gas market liquidity and security of supply. It holds a central role in European gas price-formation with only a limited influence from oil-indexed term contract prices still common in continental Europe. Although the TTF market has grown in importance in recent years, the NBP market remains the most liquid market on almost all measures, especially for long-dated delivery periods. It attracts gas supply from a wide variety of pipeline sources from the UKCS, Norway and the Netherlands (but not directly from Russia) and as re-gasified LNG from the world market. Indeed, the ability to attract uncontracted LNG is perhaps the key distinguishing economic feature of the NBP relative to other EU hub markets. This has been reflected in the incorporation of NBP price in some LNG term contract formulas in recent years.

The liquidity NBP market is the key pillar of UK and EU security of supply since it ensures that sellers of uncontracted gas have access to the EU market and are able to manage price-related commercial risks. UK and other EU consumers have benefited enormously from the ability of the NBP to attract uncontracted gas and LNG since the last wave of UK pipeline and LNG import infrastructure investment in 2006-2009. Continental Europe also benefits from NBP liquidity since it serves as a key source of price-responsive supply via the IUK. This was graphically illustrated in January 2009, during the last Ukraine-Russia crisis, when flows through the IUK helped indirectly to alleviate shortages in central Europe. As far as our security of supply is concerned, we play with the legal and commercial agreements which underpin the NBP market at our peril. Regulators and policy-makers cannot afford to take the continuation of gas hub market liquidity for granted.

#### **14. Distraction for UK upstream operators.**

The proposed change in the gas day is the most intrusive and disruptive change in the GB gas market since the establishment of the Network Code in 1997. For UK offshore operators and producers, the proposed change in the gas day represents not only a financial cost but also an unwelcome and unnecessary distraction at a time when the UKCS is undergoing both a major change in regulatory arrangements and a government review of offshore taxation. This increases the implementation risk to what is already an unrealistic timetable to change the GB gas day.

The publication of the Wood Review 'Maximising Economic Recovery' in February 2014 has led to the creation of the new, independent Oil and Gas Authority with the aim of more active stewardship of offshore resources. Primary responsibility for the regulation of the UK upstream sector, onshore and offshore, will pass for DECC to the new Oil and Gas Authority in 2015. Running in parallel with this important regulatory reform, is the comprehensive fiscal review of the UKCS announced in March 2014; the formal consultation process began in July. Both these changes are expected to absorb a huge amount of time of those involved in commercial and operational management in the UK upstream. Resources in many smaller operators are limited and the proposed change in the GB gas day on 1 October 2015 will have to compete with resources for other legal and regulatory changes.

## **Appendix. UK Gas Production and Operations.**

The UK, like the Netherlands, is unusual in the EU in having both extensive indigenous offshore production and a competitive, liquid wholesale market. The NBP market grew out of the availability of gas from the North Sea in the mid-1990s and the two have since been intimately linked with common operating and commercial procedures and a common gas day of 6am-6am.

Offshore oil and gas production is regulated by DECC and onshore transmission, distribution and supply, governed by the Uniform Network Code (UNC), is the responsibility of Ofgem. The issue of the gas day involves both downstream *and* upstream operations in the UK because it impinges directly on the interface between National Grid and the onshore terminal operators. This interface is governed by bilateral commercial agreements, some of which were signed in the 1970s and pre-date the creation of the GB's network code. These arrangements are replicated in the commercial interface between terminal operators and offshore gas producers.

Production from offshore fields on the UK Continental Shelf (UKCS) currently provides almost 50% of the gas entering the GB's National Transmission System (NTS). Net production in 2013 was 34.4 bcm, compared to NTS entries of 73.6 bcm. After 15 years of decline, gas production has stabilised so far in 2014. Recent investment is currently expected to keep production in the 30-36 bcm per annum range until 2018. The UK government has just launched a fiscal consultation on UKCS with a view to maximising economic recovery of UKCS resources, including known higher-cost gas reserves.

After 50 years of offshore investment in many phases, offshore commercial arrangements for both hydrocarbons and infrastructure are today extremely complex. Gas production today comes from more than 140 separate offshore fields, operated by 27 different companies. Offshore gas is transported through numerous offshore pipeline systems and is landed at 13 onshore terminals where the gas is processed and liquids (NGLs) are extracted. After processing, the dry gas is delivered into the NTS which provides the virtual trading point for the NBP market. The measured quantities of dry gas delivered into the NTS (and any liquids extracted) provide the basis of the allocation of title between offshore pipeline systems, individual fields and ultimately to each equity owner in each of the producing fields. The commercial arrangements which confer title to dry gas at the NBP based on production from numerous offshore fields are such that, at one UK terminal, changing the gas day will require revision of more than 600 separate commercial contracts.

Almost half of total UK gas production is 'associated gas' produced in conjunction with crude oil. In areas of associated gas production and at onshore terminals which extract NGLs from wet gas, the commercial contracts, IT systems and metering cover both gas and liquids. Changing the gas day will therefore, in many cases, require a change to the metering, IT systems and contracts regarding liquid hydrocarbons, not only natural gas.



Publishing date: 19/01/2015

Document title: 1b - ACER submission 240714 final

We appreciate your feedback



Please click on the icon to take a 5' online survey  
and provide your feedback about this document