15 December, 2011

Richard Hume,
Northern Ireland Authority for Utility Regulation,
Gas Directorate,
Queens House,
14 Queen Street,
Belfast
BT1 6ER

CC: Jerry MacEvilly,
Commission for Energy Regulation,
Gas Division,
The Exchange,
Belgard Square North,
Tallaght,
Dublin 24

RE: Consultation Paper CER/11/ 206
Mitigation Measures to address Potential Capacity Constraints at the Moffat Entry Point in 2013/14

Dear Richard,

I am submitting the following on behalf of Coolkeeragh ESB (CESB) in response to the above consultation. This response may be published if required.

Coolkeeragh ESB are most concerned with the current ability of the gas network infrastructure to meet its power generation needs. While the consultation paper proposes measures to address capacity constraints in the 2013/14 timeframe, we would highlight that the power station has recently received letters from BGE NI Networks and Mutual Energy warning of possible gas pressure supply issues this winter.

BGN letter to ESB Independent Generation:

“We confirm our advice that based on peak demand forecasts for the coming Winter 11/12 and taking into account the anticipated inlet pressure to the BGN Network at Moffat from the NTS, it is possible that the Coolkeeragh Offtake will experience available pressures this coming winter which are lower than those experience heretofore”

Indeed, it appears that last winter was even a close call in terms of the ability of the gas network infrastructure to supply:
Joint Gas Capacity Statement 2011:

“Though no major incidents were encountered on the transmission and distribution systems to meet / during the high demand period in December 2010, BGN have indicated, operation of the onshore Scotland system proved very challenging on the 8th of December, as a result of the record flows through the Moffat Entry Point combined with the flow profiling (renominations) on the day. However, favourable pressure conditions at Moffat on the 8th of December, ensured all flow requirements were met”

While not wishing to be overly critical of those who are responsibly warning of potential gas network pressure problems, or of the Regulatory Authorities who are genuinely seeking to address forecasted constraints, it does appear to us that system constraints are appearing much earlier than the 2013/14 timeframe being consulted on and may in effect already be impacting.

The Northern Ireland gas network in particular does not seem robust, and Coolkeeragh ESB have genuine concerns in relation to the gas network’s ability to supply its requirements for power generation.

It is our opinion that gas capacity constraints are an SEM matter and that the Gas and Electricity Regulatory Authorities should fully cooperate and coordinate to ensure that a flexible electricity network requiring integration of large amounts of intermittent renewable generation is fully supported by an equally responsive and flexible gas network.

Should you wish to meet and discuss any aspect of this response I would happy to meet with you, or participate in a conference call at your convenience.

Yours sincerely,

Tom Mooney

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General – Utility Standards Network Planning and The Gas Infrastructure Standard

It would be irresponsible for the Gas Regulation Authorities to plan for a gas network that does not support the entire power generation dependent on it. Power generation gas consumption must be part of the Infrastructure Standard being planned for.

In recent discussions of the Northern Ireland PTL code and the ‘flip-flop’ arrangements contained within, some market participants suggested that this negates the need for both power stations gas requirements to be included as part of the Gas Infrastructure Standard. Coolkeeragh ESB strongly objects to this idea that gas load shedding of power generation should be considered ‘business as usual’. It is absurd to believe that because the PTL gas code contains the ‘flip-flop’ gas load shedding arrangement that this somehow excuses all parties from having to include power generation in the Gas Infrastructure Standard. Furthermore the idea that invoking the flip-flop does not constitute an emergency is a high risk concept. As soon as the gas network is unable to support any of the gas dependent electricity generators on the island all the relevant emergency managers need to be notified and be closely managing the situation to ensure both gas and electricity continuity of supply to the greatest extent possible.

The PTL gas code is probably not compliant with the most recent EU Gas Directives as it seeks to prioritise interruptible gas arrangements over firm gas capacity bookings. The Regulatory Authorities should examine the legality of the code and seek to amend if appropriate. Furthermore it is not fit for purpose in it that contains an automatic gas load shedding sequence that automatically turns down or switches off the Northern Ireland power stations irrespective of the requirements of the overall island electrical grid. The idea that Northern Ireland electricity consumers should ultimately bear the full costs of any liquid fuel power station running, while all the islands consumers get the benefit, is unfair and new arrangements need to be put in place by the Regulatory Authorities to make sure that this is not case.

It is our opinion that gas capacity constraints are an SEM matter and that the Gas and Electricity Regulatory Authorities should fully cooperate and coordinate to ensure that a flexible electricity network requiring large amounts of intermittent renewable integration is fully supported by an equally responsive and flexible gas network.

The required end result is a flexible gas network fully capable of meeting gas generation requirements in a highly intermittent electricity network with significant levels of unpredictable intermittent generation. While there appears to be a short to medium term overall gas capacity issue from now out to 2015, it seems likely that commencement of Corrib gas flowing and the commercial operation of the North/south gas line will overcome this capacity shortfall in coming years. Capital investment to overcome this current capacity constraint should be minimised and the cost/benefit analysis of all measures considered needs to be optimised over this short number of years. The flexibility requirements for the gas network are a much longer term consideration and the cost/benefit analysis for this requirement should be considered over a much longer timeframe.

Capacity Shortfall Day and The ‘Flip-Flop’

The operation of the ‘flip-flop’ in the PTL gas code is mentioned under the heading of Existing
Emergency Managers / TSO Arrangements in the consultation paper:

A mechanism is in place in Northern Ireland for a “capacity shortfall day” which is not an emergency but deals with arrangements where high demand or demand profiling causes a capacity shortfall. Under this arrangement when there is not enough capacity on the system to meet demand, the Ballylumford and Coolkeeragh power station nominations are reduced alternatively in order to meet the available capacity on the system. This process of alternating the reduction of nominations between the two power stations is carried out until the capacity shortfall is addressed. These “flip-flop” arrangements are contained in the PTL network code.

The PTL Code is not fit for purpose in terms of an all-island electricity network. Turning down or turning off either Coolkeeragh or Ballylumford may or may not be the right thing to do in any particular gas shortfall scenario. The code implies that this always the right thing to do – the gas and electricity TSOs and emergency managers need the freedom to decide themselves the optimal action to take in an emergency. They should not be constrained by the PTL code in deciding how best to keep both gas and electricity networks operating at the highest level possible in any emergency or shortfall.

Coolkeeragh ESB strongly disagrees with the statement that a “capacity shortfall day is not an emergency”. There is considerable risk in assuming that a power station, either Coolkeeragh or Ballylumford, can be turned down or off as an automatic gas load shedding measure and assume this is ‘not an emergency’. While it may not be considered a gas emergency under the code, it could very easily be an electricity system emergency if the power station is an essential part of the available generation on a particular day. The 20th December 2010 is a case in point when the entire SEM system was on amber alert, and if on this very cold day the ‘flip-flop’ required Coolkeeragh to turn down its generation, it is highly likely that the island would have experienced rolling electrical blackouts.

Code provisions which prioritise interruptible gas over firm capacity bookings are probably not in line with current EU Directives. We request that the Regulatory Authorities seek a legal opinion on the legality of the Northern Ireland “Capacity Shortfall Day” provisions in the PTL code and order amendments if required.

Remuneration arrangements for power stations switched to much more expensive liquid fuel running is not clear. Coolkeeragh has an older contract with SONI to this end, however the imminent publication of the revised Northern Ireland Fuel Security Code also contains remuneration arrangements for switching to liquid fuel running. Coolkeeragh should have a single arrangement for liquid fuel running, which in our opinion should be the new Fuel Security Code when published. The legal position should be as follows:

- the Fuel Security Code is legally binding and gives SONI the authority to direct a power station to switch to distillate running
- Coolkeeragh ESB should take direction from SONI only, under the Fuel Security code, when required to switch to distillate
- The incremental liquid fuel running cost arrangements should be covered under the Fuel Security Code
- There should be a cost recovery mechanism for SONI to recover its costs from all island consumers as liquid fuel running is to the benefit of all consumers

The question arises from the flip-flop arrangement as to who should pay if either power station is required to run on much more expensive distillate liquid fuel when gas is not available. The SEM market provides no within day cost recovery mechanism for fuel changeovers. The incremental fuel bill therefore would fall back on SONI as the Northern Ireland TSO, and it appears that the only avenue open to them under current arrangements is to recover these costs via the Northern Ireland PSO.
A levy. It seems unfair that this cost of supporting all the island consumers should fall back on Northern Ireland electricity consumers only.

If we have the somewhat ridiculous situation of flip-flop liquid fuel running, which is different from Fuel Security Code liquid fuel running, then we run the risk of confusing emergency procedures (when absolute clarity is required) and ambiguous contractual arrangements as to who pays what when the emergency event is over. Coolkeeragh ESB is requesting clarity on these items, and is very much in favour of a sensible single arrangement to cover all liquid fuel running which should be contained in the new Northern Ireland Fuel Security Code when it is published.

Coolkeeragh ESB – Secondary Liquid Fuel Holding and Costs

Coolkeeragh has a single oil tank currently available to it which can store 9500 tonnes of fuel. The current statutory liquid fuel holding requirement is 5 days of power station running which is approximately 8140 tonnes of oil which easily fits in the tank, so the tank is maintained to at least this quantity to ensure a minimum of 5 days of liquid fuel running is available at any time. With distillate oil currently costing in the region of $700 (US dollars) per tonne the current statutory holding of approx 8140 tonnes has a stock value of $5.7 million. This is a hugely inefficient use of money for Coolkeeragh and represents a significant unused fuel investment and unproductive sunk cost. This is unremunerated anywhere in the current market mechanisms.

Additional required liquid fuel holding beyond the current single tank of 9500 tonnes would be extremely problematic and would incur considerable additional costs for the company. A significant lead time would be required to put in place additional liquid fuel storage, and significant capital investment in delivery and storage infrastructure on the site would be required.

Specific Consultation Questions

Coolkeeragh ESB would like to make the following high level comments in relation to specific questions raised in the consultation paper

1) **The introduction of Interruptible exit capacity products**: CESB would broadly support the introduction of interruptible capacity products, although as a baseload power station would not be interested in having interruptible capacity itself.

2) **Fuel switching by gas fired generating stations and/or large gas customers**: CESB would support the availability of fuel switching contracts but would not be interested in a fuel switching contract itself. Distillate running is considerably more expensive than gas running and the station would probably not be scheduled to run on distillate except in the most extreme of system electrical capacity shortfalls. If our gas fired station is not running because it is bidding more expensive distillate, this creates a significant risk exposure to us through our customer electricity contracts. Our risk management policies and risk pricing to end user electricity consumers is based on the principle that we are generation backed and are therefore not fully exposed to variations in the electricity pool system marginal price (SMP). If the station is not running because it is bidding distillate fuel cost and is too expensive, the resulting end customer electricity contract risk exposure is not acceptable. We would imagine that this situation is similar for all the most modern and efficient CCGTs on the system who expect to be mostly baseload running on gas. There may be some older generation mid-merit or peaker
stations that might be interested in specific fuel switching contracts (or other non generation significant large other gas consumers if they have the capability), but it seems unlikely there would be sufficient interest in this measure and so overall it is probably not a sufficient mitigation measure of itself.

3) **Amend Shipper Renominations** – this creates the risk of creating an electricity emergency instead of a gas one, might work at a spot point in time but might not work at other points in time so is not something you can rely on even with gas/electricity TSOs working hand in hand. There are more and more demands for flexibility on the electricity system – increased unpredictable wind that has ‘must run’ status, intraday trading, increased levels of GB interconnection etc. CESB does not see any reliable method whereby shipper gas renominations can be amended without imposing some level of risk on the electricity system.

4) **Reinforcement of the onshore Scotland network, as proposed by Bord Gáis Networks (BGN)** – CESB suggest that investing in gas flexibility makes sense to get a flexible gas network that supports a high wind and renewables electricity system. However, investing just for capacity alone is a shorter term issue in that Corrib and commercial operation of the North/South gas interconnector will probably solve the capacity problem. CESB would not support large infrastructural investment in the onshore Scotland network unless it has a relatively short payback and makes investment sense to solve a 1 to 4 year gas capacity problem.

5) **Measures involving gas storage** – short term storage measures for a couple of years until CAG and Corrib functioning may make sense and be a better use of money than investing in extensive gas network hardware in Scotland. The caveat is that storage must be available and at reasonable cost, and storage requirements spread fairly among all users.

6) **Measures to ensure continued high pressures at Moffat** – if this can be done cost effectively by writing enhanced pressure contracts to get higher pressures on the GB NTS side of Moffat for the next few years, then this might well be the most cost effective option. CESB suggest that this option be explored very carefully.

**Summary and Conclusions**

There is not enough information in this paper to make definitive conclusions on the best course of action to take to mitigate gas capacity constraints. Therefore our consultation response seeks to outline the areas of specific interest to the Coolkeeragh power station. Coolkeeragh ESB is appreciative of this opportunity to make its views known and would encourage continued consultation and interaction between the gas and electricity RAs and industry participants. We are available to discuss all power station specific measures proposed and will work constructively with the RA’s to get effective measures in place.

Overall all mitigation measures proposed need detailed cost/benefit analysis. Cost effective measures to mitigate all the constraint areas identified are in everyone’s interest.