Northern Ireland Fuel Security Code
Consultation Paper

September 2009

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1 Introduction

The Fuel Security Code that is currently in force in Northern Ireland was drafted in 1992 by DETI following on from the privatisation of NIE.

Many changes have taken place in the energy sector in Northern Ireland since then. Following the implementation of SEM in November 2007, a consultation on a proposed update to the 1992 Fuel Security Code (FSC) was undertaken by the Utility Regulator on behalf of DETI. This focused on a minimal update to the existing provisions. The responses to the consultation clearly demonstrated that the changes in the industry were so significant that a simple update of the FSC would not be sufficient and that a full review was required.

DETI and The Utility Regulator have accepted these views and have been undertaking a root and branch review of fuel security provisions in Northern Ireland. This consultation paper summarises the issues that have been identified during the review and proposes text for a new Fuel Security Code for Northern Ireland.
The Fuel Security Code is focused on issues that could disrupt the supply of electricity in Northern Ireland. Issues associated with gas supplies are detailed in the relevant safety cases.

1.1 Structure of the Paper

The paper discusses each stage of the process of responding to a fuel security event in turn, starting with preparation for a fuel security event, moving through the operational stages, before stating the proposed rules for financial settlement.

Each section begins by stating of the objectives to be achieved at that stage in the process. The issues are discussed. Throughout the paper, the proposals are illustrated with reference to a Combine Cycle Gas Turbine (CCGT), with distillate as a secondary fuel. This is for ease of reading only, it is intended that the proposals should be applied to all power stations irrespective of technology.

1.2 Comments Requested

Comments are requested on all aspects of this paper, in particular:

- The appropriateness of the objectives;
- The completeness of the issues identified;

Comments should be returned, preferably in electronic format, by 17:00 on Friday 7 November 2009 to

Sarah.friedel@niaur.gov.uk

Or in writing to:

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2 Background

2.1 Changes within the Northern Ireland Electricity Industry Since 1992

The current Fuel Security Code (FSC) was drafted in 1992 as part of the privatisation of the power stations in Northern Ireland. At that time Northern Ireland was electrically isolated from both GB and RoI.

In the intervening 17 years, many changes have taken place in the energy sector in Northern Ireland. The most significant being:

- The construction of the Scotland to Northern Ireland natural gas transmission pipeline (SNIP) in 1996 (with associated legislation and gas safety cases);
- The reinstatement of the North-South interconnector in 1995
- The construction of the Moyle Interconnector in 2002
- The introduction of SEM in November 2007;
- The increase in wind generation;
- The divestment of SONI from NIE T&D;
- The changing role of the Power Procurement Business within NIE Energy Supply

All of these changes have had consequences for the FSC, and they will be reflected, as appropriate, in the updated document.

In 1992, electricity in Northern Ireland was generated from coal and oil. These fuels were stored in significant quantities on the power station sites, with strategic reserves being held elsewhere. The volume of stock held in NI, ensured that there would be a significant amount of time available to identify a potential fuel security event and to transfer production onto secondary fuels in a coordinated and composed manner.

In 2008, 70% of power generated in Northern Ireland came from gas fired power stations. The Moyle interconnector imported 626 GWh from GB and exported 148 GWh. The flows on the North-South tie line are scheduled economically by the Transmission System Operators and are based on bids into SEM. In 2008, 292 GWh were imported into NI from RoI and 764 GWh exported. (Total NI generation was 9594 GWh in 2008)

2.2 Current Risks

All gas supplied in NI is provided via SNIP and there is currently no gas storage in Northern Ireland. This poses the biggest risk to Northern Ireland's fuel security. Unlike the scenarios considered in 1992, a reduction to, or failure in, our gas supply could impact on our power supply in a matter of hours. The 2009 Fuel Security Code, will therefore focus on preparing for a sudden reduction in gas supplies to the island of Ireland, while being mindful of the impacts of risks associated with the other fuels used to generate electricity in NI.

2.3 Current Provisions

The provisions that are currently in place to help secure electricity supplies in Northern Ireland are:

2.3.1 Consents Granted by DETI

The construction, extension or operation of any generating station, the capacity of which exceeds 10 megawatts, requires DETI's consent under article 39 of the Electricity Order (Northern Ireland) 1992.

2.3.2 Fuel Security Code 1992

The current NI Fuel Security Code describes the arrangements for licence holders to co-operate in response to directions given by the Department under Article 37 of the 1992 Order. The Code also describes arrangements for licence holders to coordinate contingency planning in respect of fuel when declaring a fuel security event and the principles for financial settlement of generators in NI during an event. It assumes a long lead time into an event, while stocks of oil or coal are depleted and the Power Procurement Business are responsible for financial settlement, with costs being reclaimed from customers via the Public Service Obligation (PSO) levy. As described above this is no longer appropriate for the electricity industry in NI.

2.3.3 Gas legislation and Associated Safety Cases

The main piece of legislation relating to gas emergencies in Northern Ireland is the Gas Safety (Management) Regulations (Northern Ireland) (GSMR(NI)). The responsibility for enforcing the GSMR(NI) rests with the Health and Safety Executive Northern Ireland (HSENI).

Key requirements of the GSMR(NI) are:

- **Safety Case** – the GSMR(NI) requires that anyone conveying gas must have a safety case that has been approved by HSENI. The legislation envisages two types of safety case – one to be submitted by those conveying gas and one by the NINEC.
- **NINEC** – a Northern Ireland Network Emergency Coordinator (NINEC) must be appointed where more than one person is conveying gas.

The NINEC safety case must demonstrate the arrangements that the holder has established to coordinate the actions to be taken to prevent a supply emergency or to coordinate actions in the event of an emergency. This includes coordination with the power stations. The safety case of those conveying gas should include arrangements to cooperate with the NINEC and other bodies conveying and supplying gas.

2.4 All-island Issues

The two government departments have created a Joint Working Group to examine measures for co-operation in for all fuels in both jurisdictions. NIAUR and CER are both represented in this group.

3 General Provisions

3.1 Definitions

Any document of this kind requires formal definitions of certain terms. Where possible, the definitions used in the FSC 2009 will be as stated in the NI Grid Code, Northern Ireland Electricity Licenses and the SEM Trading and Settlement Code.

3.2 Parties to the Code

Most participants in the electricity industry in NI are obliged to comply with the Fuel Security Code under existing electricity license conditions and the NI Grid Code. Where it is identified in this document that additional parties are required to support implementation of or to comply with the code, for example System Operators outside of NI, this will be highlighted and comments requested. A copy of this consultation will be sent to those parties explicitly affected by the code who are not currently required to comply with it.

3.3 General Principles and Objectives

The high level objectives of the Fuel Security Code 2009 are:

- to ensure that sufficient electricity is produced to meet demand during a fuel security event;
- to ensure that this electricity is produced in as economical a way as possible;
- in the event that sufficient electricity is not available (or the cost would be higher than it would be reasonable to expect customers to pay), to ensure that any load shedding is undertaken in a structured and non-discriminatory manner;
- to provide adequate financial settlement in a timely manner for the generators;
- to ensure that excessive profiteering is not possible during a fuel security event.

Question: Are these high level objectives appropriate for Northern Ireland?

4 Preparation for a Fuel Security Event

4.1 Objectives

The main objectives of the "Preparedness" section of the Fuel Security Code are:

- To ensure that the systems and procedures necessary to achieve the general objectives of the code are in place in advance of a fuel security event
- To ensure that the System Operator has sufficient data to manage the system in a prudent and economic manner during a fuel security event
- To ensure that sufficient back-up fuel stocks are available at all times
- To ensure that appropriate testing of back up fuels and communications systems

Question: Are these objectives appropriate?

4.2 Data Required by the System Operator

4.2.1 The Issue to be Addressed

The Grid Code and Trading and Settlement code require generators to provide technical and commercial data to the Market Operator (MO) and System Operator (SO). These are used to determine the economic operation of the system and the market schedule. These data only relate to the primary fuel of the power station (e.g. for a CCGT commercial and technical data related to firing on gas). Under their consent issued by DETI, the power station will also have to be capable of running on an alternative fuel and hold the specified amount of reserves of that fuel (e.g. enough distillate to run for five days at max output)

During a fuel security event, the system operators require data (both commercial and technical) relating to operation on the secondary fuel. There is currently no mechanism that the SO can use to request these. However, as all generators must comply with the FSC, the obligation to provide the appropriate data can be included in the 2009 Fuel Security Code.

4.2.2 The Technical Data Required

The data that the SO has highlighted as being required in advance of a fuel security event are:

- Incremental, fixed heat and start-up costs for back-up fuel – to be updated monthly
- Gas equivalence figures for incremental, fixed heat and start-up – to be updated monthly
- Machine availability on back up fuel – to be provided weekly and updated in real time as changes occur.
- Technical characteristics of the machines when dispatched on back-up fuel. To be submitted initially and updated when any of the characteristics change.

It is proposed that the technical data requirements are formalised via the Grid Code. The details of the data to be submitted will be the subject of a separate consultation by SONI on behalf of the Grid Code Review Panel.

Question: Is it possible for the data to be provided / maintained in these timescales?

4.2.3 Parties and Responsibilities

This section of the 2009 FSC relates to the System Operator (NI), all generators and possibly the Market Operator. Compliance with the FSC is already specified in their licenses.

4.2.4 Options to Enforce Provision of Commercial Data

There are three main options for requiring generators to submit commercial data:

1) Within the Fuel Security Code
2) Within the Grid Code
3) Within the documents that require the equivalent data provisions for primary fuel (e.g. the TSC)

Given that the TSC is an all island document and the Fuel Security Code is not a technical document, it is proposed that the Grid Code should specify all of the relevant data to be provided for the secondary fuel (including definitions and supporting clauses).

Question: Which is the most appropriate document to use to specify the data and the mechanisms for their provision?

4.3 Systems to Process the Data

4.3.1 The Issues to be Addressed

The System Operator systems currently process one set of data for each generating machine. This is done using a suite of bespoke software systems that run on the SEM market platform. This is due to the complexity of the data and the numerous permutations considered when identifying the optimum dispatch schedules.
Once the additional data relating to secondary fuel are provided, SONI will require a means of storing, updating and processing these data in parallel with the primary data.

4.3.2 Proposals

There are various systems that could be used for these data. The two main options are:

1) Full parallel systems holding the secondary data, which fully interface with the market and optimize on an all-island basis. This would require developments to the market engine and would be costly and require a significant amount of development time.

2) Simpler NI only systems, which will deliver the basic functionality only. This could be implemented quicker and at a lower cost.

It is proposed that SONI do not use full optimization software for storing and processing these data and that a simpler, more cost effective, NI only solution is used. This would have the additional advantage of being available for use in a shorter timescale. The data held within the market systems would become relevant again once the generators submit their technical and commercial data for their secondary fuel, which should be no more than 2 days into an event. .

The costs of this solution would be approved via the normal regulatory procedures. The costs of any changes to the market systems would be approved via the normal route for modifications.

Question: Do you agree with Proposal 2 above?

4.4 Simulation and Testing

4.4.1 Parties and Responsibilities

This section of the code will require action from SONI, generators, the gas industry (NINEC and other people defined under the safety cases) and National Grid. Some of these parties are not currently required to comply with it under their licenses.

4.4.2 Current Provisions

Currently the ability to switch fuels is a requirement under the consent process and generators undertake regular tests (at a time of their choosing and at their own cost). There is no formal requirement for testing and notification of results.
Industry participants in NI (and RoI) are included in gas emergency simulation exercises initiated by their counterparts in GB. These exercises normal last for a predefined period of time, and the full effects of the emergency are not always experienced in NI due to this timing issue.

4.4.3 Proposed Options

It is proposed that NI specific simulation exercises are undertaken on a two yearly basis. These should be focused on the impacts of a fuel emergency on market participants here. They should be coordinated by DETI, with the support of NINEC, SONI and NIAUR. This exercise could be undertaken in conjunction with the relevant organisations in Ireland at the discretion of DETI and DCENR.

It would be possible to require routine testing on secondary fuel under the 2009 Fuel Security Code. SONI propose that two types of test be undertaken:

- Regular change over to secondary fuel initiated and paid for by the generators. The machines should be changed over monthly during the winter but only two monthly in summer. The outcome should be reported to SONI. The Utility Regulator understands that this would be a formalization of the current custom and practice.

- A full capability test should be undertaken in the month of October each year. This would be initiated by SONI and would be paid for only if successful. The costs to be recovered under these payments are discussed in the financial settlement section of this paper.

Question: Are these proposals for testing appropriate?

4.5 Fuel Stocking

4.5.1 Current Provisions

The current fuel stocking provisions are specified in the consent document issued by DETI to each power station as part of its permits to operate. The grid code makes no specific provisions. There is currently no procedure for auditing of fuel stocks or the ability to replenish stocks in a timely manner.

4.5.2 Proposed Options

It is proposed that minimum fuel stocking requirements are defined in the 2009 Fuel Security Code (while leaving DETI the option of more stringent standards for specific sites of strategic importance). It is proposed that a minimum stock of 10 days operation at full secondary fuel capacity is required.

In addition, regular reporting of fuel stock availability should be provided to the System Operator.

- Stocking level of back-up fuel – provided to SONI monthly
- Confirmation that there is a supply contract in place that is able to facilitate running all of the plant, 24/7, on back up fuel – annually to SONI (in conjunction with the full capability test each October) plus confirmation of renewal/ replacement on expiry.

Due to the critical nature of these stocks for the wellbeing of the people of NI during an emergency, it is proposed that the stocks and contracts be audited on a regular basis.

Question: Are these measures appropriate?

5 Actions in Anticipation of a Fuel Security Event

5.1 Objectives

This section of the code is used to identify the steps to be taken when circumstances arise that might result in a fuel security event. It is acknowledged that a fuel security event may occur very suddenly and that there may not be sufficient time available for these anticipatory actions, however where possible parties should endeavour to follow this section of the code.

- To identify circumstances where it is appropriate for parties to enter a state of readiness
- To define the actions required to enter a state of readiness in advance of a potential fuel security event (when sufficient time is available)
- Where possible, to pro-actively facilitate the transition between fuels to reduce the risk of load shedding during a sudden interruption to fuel supplies.

Question: Are these objectives appropriate?

5.2 Circumstances Where It Would Be Appropriate to Enter a State of Readiness

It is not possible to define all of the situations where would be appropriate to enter a state of readiness; however some examples are listed below.

- Where a geo-political issue has the potential to disrupt gas supplies into the British Isles
- Where significant maintenance is being undertaken on the pipelines and equipment between the GB exit point at Moffat and the island of Ireland
- Where a maritime incident has the potential to impact on the integrity of the gas pipelines across the Irish Sea.
- Where there is disruption to the routine replenishment of supplies of other fuel stocks (e.g. coal or oil)
- Industrial action, either in Northern Ireland or beyond

Situations which could reduce the gas flows into RoI are also to be considered as this could potentially reduce the volumes of gas available for NI also, due to gas flows from NI to RoI

Question: Are these circumstances appropriate? Should there be a formal definition in the code?

5.3 Parties Required to Enter a State of Readiness

The parties who are required to enter a state of readiness are:

- SONI
- The Power Stations
- DETI

- NIAUR
- Moyle Capacity Holders (risk of ATC being revised down)

Question: Should any other parties be required to prepare?

5.4 Actions to be Taken in Anticipation of a Fuel Security Event

1. **DETI**: monitoring role: to inform themselves about potential events and to request parties to enter a state of readiness. Can consult with parties to ascertain the significance of the risk. Can form a Fuel Security Committee to obtain advice and guidance, should time permit (see next section for details).
2. **DETI**: to inform other parties about the situation and formally request them to enter a state of readiness.
3. **SONI**: in the case of a potential gas emergency, SONI should update NINEC on a daily basis of their preferred option for curtailing power generation from gas. This preference should be based on the commercial offer data received from the power stations and technical constraints on the network (refer to Section SDC… of the Grid Code for full criteria that can be used)
4. **SONI**: in the case of a potential problem with fuels other than gas (or with more than one fuel) SONI should report to DETI on a daily basis the actions being taken to conserve stocks, dates of expected deliveries and length of time that current stocks are expected to last.
5. **Power Stations**: to review the technical and cost data that they have submitted to SONI and undertake any checks and/or staff briefings that may be necessary to ensure a smooth and timely changeover to secondary fuel if required.
6. **SONI**: if the situation is such that a sudden drop in gas availability could reasonably be expected to occur within the coming hours, SONI should consider a pro-active switch to secondary fuel at one power station. Stations may also be ramped to facilitate a speedy switchover if required. Non-gas fired power stations may be synchronized out of merit if not already constrained on.
7. **SONI**: If there is a risk to stocks of coal or oil, and the plant operating on those are in merit (as defined in the Grid Code), then other plant may be dispatched out of merit in order to preserve a reasonable margin of fuel stocks.
8. **SONI**: If the fuel security event that is anticipated will only affect energy supplies on the island of Ireland, SONI may reduce the ATC of the Moyle Interconnector to remove the obligation to provide additional power for export at times when there is a risk of load shedding on the island. If the anticipated event is likely to impact on electricity supplies in GB also, SONI should liaise with NGC to ensure that risk is shared appropriately between the jurisdictions.

Question: Are these actions reasonable and appropriate? Should more, or less action be taken?

5.5 Financial Settlement for Actions Taken in Anticipation of a Fuel Security Event

It is recognized that costs would be incurred by power stations as a result of any fuel switching in anticipation of a fuel security event. The procedures for claiming these costs are detailed in Section 9 of this paper. Costs may only be claimed under this section of the Fuel Security Code if DETI have issued a request for parties to enter a state of readiness.

It is expected that only the costs associated with fuel switching would be refunded under the code, as the provision of commercial and technical data is a requirement under the grid code.

6 Notification of a Fuel Security Event

6.1 Objectives

This section of the code will identify the procedures to be followed by DETI when declaring a fuel security event. It will include:

- Parties to be notified
- Criteria to be met
- Formation of an advisory committee

Question: Are these objectives appropriate?

6.2 Circumstances Where it is Appropriate to Declare a Fuel Security Event

It is not possible to define all of the situations where would be appropriate to declare a fuel security event; however some examples are listed below.

- Where gas supplies into the British Isles have been disrupted or reduced by a geo-political issue
- Where there is an outage on the pipelines and equipment between the GB exit point at Moffat and the island of Ireland
- Where any incident has impacted on the integrity of the gas pipelines across the Irish Sea
- Where there is disruption to the routine replenishment of supplies of other fuel stocks (e.g. coal or oil)
- Industrial action, either in Northern Ireland or beyond

Question: How much guidance should be provided in the code? Is it appropriate to include insufficient generating margin here?

6.3 Parties to be Notified and Methods of Notification

In the event of a gas emergency, NINEC will undertake all relevant notifications necessary to secure the gas system, as specified in the relevant safety cases.
Once DETI (with or without consulting their Fuel Security Advisory Committee) have decided that the situation is a Fuel Security Event, they will issue a formal notification to:

- SONI
- Gas Shippers
- Gas System Operator
- NIAUR

This notification will be by phone, fax or e-mail.
SONI will then use a standard message to inform the centrally dispatched power stations that they have entered a Fuel Security Period.
In addition, DETI will coordinate the high level media briefings. NIE T&D will remain responsible for communications with customers regarding the impact on supplies (see section 7.5 for further details).

Only power stations whose fuel supply is likely to interrupted must be contacted by SONI; the provision of information to other stations is discretionary and should only be done if time permits.

Question: Are these parties and methods of contacting them appropriate?

6.4 Formation of a Fuel Security Advisory Committee

The purpose of the fuel security advisory committee is to support DETI in it decision making processes. The composition of the committee should be decided only as the situation arises, as it is important that the committee is streamlined and effective. Possible members include, but should not be limited to:

- Representative of SONI
- Representative of Distribution System Operator
- Expert advisor(s) with knowledge of the specific fuel supply issue, e.g. gas network operator
- Representative of NIAUR, related to role in the financial settlement process

Ideally, nominations should be sought from the relevant organisations before any event occurs and DETI should maintain a list of people who can be called upon at short notice, on a 24 hour basis. Where appropriate, nominations should be staff involved in near time operations, as it may not be in the public interest to divert real time staff away from the critical task of maintaining energy supplies.

7 Operation During a Fuel Security Event

7.1 Objectives

During a fuel security event, the main objectives are:

- Maintaining supplies of electricity to vulnerable customers if at all possible.
- Ensuring any load shedding is undertaken in a controlled and equitable manner.
- Ensuring that economic dispatch of the power stations continues and power is only supplied at costs that are reasonable for the consumer.
- Informing customers of the situation and the status of their power supplies.

Question: Are these objectives appropriate? How should a “reasonable” cost be defined and calculated?

7.1.1 Notifications to the Power Stations

7.1.2 NINEC and Gas Shippers

The role of NINEC and the communication channels (via the gas shippers) to the power stations are defined in the relevant gas safety cases. Nothing in the Fuel Security Code should compromise the procedures stated in these documents and in the event of any conflict, the gas safety cases have precedence over the FSC.

In a gas emergency, the gas shippers will notify the power stations of a requirement to cease / reduce consumption of gas. This does not constitute a fuel switching notice under the grid code and the gas shippers do not have the authority to instruct the dispatch to alternative fuel.

SONI must be notified under the potential emergency and emergency declaration stages of the gas safety case. While in practice NINEC will inform SONI about the supply interruption, there is no formal requirement for them to do so at the interruption stage. The appropriate procedures will be followed to introduce a formal notification to SONI into the relevant gas documentation.

7.1.3 SONI

In order to ensure a speedy and effective switch over in a sudden gas emergency, SONI will be relieved of their license obligation to dispatch economically for the first hours of any gas emergency. Unless there is a compelling reason not to, stations that are required to cease gas consumption and are already synchronized immediately prior to a fuel security event should be issued a fuel switching notice as quickly as possible.

At this point in any gas emergency, it is essential that all three parties (power station, gas shipper and SONI) are in close communication with each other.

Question: Should the power stations have the option of declaring the need to stop gas consumption via EDIL and request a fuel switching notice?

7.2 Transition to Secondary Fuels

During the first hours of a fuel security event, SONI will review the technical and commercial offer data stored for operation on secondary fuel and identify an updated merit order. Power Stations will be required to submit their commercial and technical offer data based on their secondary fuel into the market systems for the subsequent trading day, unless requested to continue bidding on primary fuel by DETI. DETI should only issue this request if:

- they believe that the fuel security event will be over before the start of the trading day that the data relates to, or
- if flows are reduced marginally

Fuel costs incurred as a result of fuel switching, above the amount of income received from the market, will be settled via the processes described in section 9 of this document.

7.3 Steady State Operation of Secondary Fuel

In the event of a longer fuel security event, the commercial offer data submitted into the market should be based on the secondary fuel, and the market systems should operate as normal. The exceptions to this are detailed in Section 9

7.4 Load Shedding and Communication with Customers

It is proposed that the existing procedures for load shedding and customer communication followed by NIE T&D during adverse weather and potential shortfalls in generating margin should be adopted during a Fuel Security Event. These have been tried and tested. No changes are expected to be required for a Fuel Security Event.

8 Transition to Normal Operation

8.1 Objectives

The objectives during the transition back to primary fuels are:

- Minimising the total cost of producing electricity;
- Coordinated action between the gas and electricity industries.

Question: Are these objectives appropriate?

8.2 Notifications to Power Stations / SONI

8.2.1 NINEC

The emergency coordinator will inform the gas shippers of the availability of gas supplies to the power stations. They in turn will inform the power stations.

8.2.2 The Power Stations

The Power Stations should then inform SONI that they are capable of being dispatched back to their primary fuel.

8.2.3 SONI

SONI have as duty to dispatch power generation in the most economic manner. This duty continues though a fuel security event. SONI should therefore switch plant back to its primary fuel in a timely manner, while taking account of the risk to the security of the NI system caused by generation plant going through this transition.

8.3 Declaring the End of the Fuel Security Event

DETI, in consultation with the Fuel Security Advisory Committee, will issue formal notification of the end of the Fuel Security Period. This notification should be issued to the same parties that received the notification declaring a Fuel Security Event and in the same format.

Question: Are these actions appropriate?

9 Financial Settlement

9.1 Objectives

The financial settlement rules for the costs incurred in preparation for or as a result of a Fuel Security Event should meet the following objectives:

- No party should make a net loss as a result of fulfilling its obligations under this code and the trading and settlement code during or in anticipation of a Fuel Security Event
- As a corollary to this, no licensed company should make excessive profits as a result of a Fuel Security Event (either via Fuel Security Payments or Market Income)
- All claims should be approved and audited before submission to NIAUR
- Claims should only relate to the Short Run Marginal Cost of operation, as defined in the Bidding Code of Practice

Question: Are these objectives appropriate?

9.2 Preparatory Costs

9.2.1 Principles

The following principles apply to the financial settlement of costs associated with preparing for a Fuel Security Event.

- Preparatory costs are settled at actual cost only
- Costs incurred should be approved in advance by NIAUR
- Costs should be proportional to situation (i.e. a low probability / high impact event)
- NIAUR may undertake an independent audit of any costs claimed
- The costs associated with preparation for a Fuel Security Event should be funded via the Dt or Kt item in the SSS tariff

It is anticipated that only SONI will incur costs under this category of spend.

9.2.2 Implementation

SONI will be responsible for identifying the work required to prepare for a Fuel Security Event and for claiming the costs of such work via their tariff. The usual approval routes for Dt and Kt items should be followed.

9.3 Testing Costs

The ability to run on a secondary fuel is a requirement of the consents granted to the power stations by DETI. There is currently an obligation on generators to routinely test the switchover of plant to secondary fuel. The costs of these tests should continue to be funded by the generators.

In addition, SONI are required to initiate a full operational test on secondary fuel in the October of each year. It is proposed that this annual test be paid for by SONI, if successful. The principles to be used to calculate the settlement amount are:

- Generators should be paid at short run marginal cost only
- SONI should settle the costs above those recovered from the market only
- The anticipated costs for the test should be submitted to SONI before 1st October each year
- The cost of annual testing should be claimed by SONI via the At item in the SSS tariff
- NIAUR may undertake an independent audit of any costs claimed
- Claims by generators should be submitted within 30 days of the test, with payment according to the terms stated in the standard Ancillary Services Contract

9.4 Operational Costs

There are three aspects to the costs associated with operation during a fuel security event. During the first day or two of a Fuel Security Event, there is a potential for generators to be required to operate on their secondary fuel, at a significantly higher cost than that submitted in their Commercial Offer Data. In a longer event, it would be possible for bids to be submitted into the market based on secondary fuels.

These would result in a higher SMP, and potentially excessive profits for generators who are able to avoid fuel switching (e.g. in the event of reduced gas supplies). The third aspect is the potential for generators to operate significantly below their bid price following their return to normal operation.

9.4.1 Fuel Switching Costs at Start of an Event

The Fuel Security Code will implement the following principles for Fuel Switching costs at the start of (or in anticipation of) a Fuel Security Event:

- No generator should make a net loss across the duration of the security event. Any costs that are not recovered during the event may be claimed by the generator
- If a generator suffers a material loss in the first day/s of the event, he may submit a claim for an interim payment
- The costs claimed may not exceed the difference between SMP (plus constraint payments, if relevant) and the short run marginal cost of generating on the secondary fuel. Inframarginal rent is not preserved in this situation
- Claims for an interim payment should be submitted to SONI within 5 days of being incurred. A provisional settlement will be made within 10 days, however this will be subject to audit by NIAUR post event and any erroneous claims will have to be repaid plus interest at the Bank of Ireland base rate +1%

9.4.2 Normal Operation during a Longer Fuel Security Event

During a longer Fuel Security Event it will be possible for generators to submit commercial offer data into the market based on their secondary fuel. The settlement

of these costs will be settled via the normal market systems, either at SMP or at bid price if constrained on.

9.4.3 Overpayments during the Transition to Normal Operation

- Generators who are switched back to their primary fuel while their commercial offer data still reflects the costs of the secondary fuels should repay the excess to SONI within 10 days
- The refund will be the savings made when running with the Short Run Marginal Cost of the Primary Fuel instead of the Short Run Marginal Cost of the Secondary fuel
- The short run marginal costs should be calculated in accordance with the bidding principles
- With the exception of preparatory costs and interim claims for fuel switching, all licensed companies should submit only one claim per event
- All claims should be submitted within 3 months of the date specified by DETI as being the end of the Fuel Security Event

Question: Are these settlement rules appropriate?

10 Possible Changes to Other Industry Documents

10.1 Objectives

The purpose of this section of the consultation is to identify the impact that this consultation has on other industry documents.

10.2 Grid Code

The Grid Code may need to be updated to include the data that SONI require to enable them to comply with the requirement to schedule generation at the lowest production cost during a Fuel Security Event. This will depend out the outcome of this consultation.

Should the Grid Code be the preferred document to specify the data to be provided a full Grid Code Consultation will be undertaken by SONI.

10.3 Moyle License and Trading Arrangements

There is possibility that changes may need to be made to the Moyle documentation to allow SONI to reduce the ATC in the event of a generation shortfall in NI that does not affect GB. Should this option prove to be favourable to respondents, the normal procedures for such a change will be followed.

10.4 SONI License

The Annex 1 to SONI's licence defines the revenue that SONI may claim. The revenue required to be claimed by SONI in order to fulfil its duties under the Fuel Security Code will be claimed under the D_{TSOt} or K_{TSOt} items in its revenue calculation, in accordance with Condition 8.1 (f) of Annex 1.

It is not anticipated that any change to SONI's licence is required to facilitate this.

10.5 NIE T&D Licence

The final arrangements may require changes to be made to the NIE Transmission and Distribution Licence. These will be consulted upon, following the normal statutory procedures.

10.6 Other Documents

It is not anticipated that any other industry documents will need to be updated as a result of the development of the Fuel Security Code, however NIAUR would be grateful if respondents indentified any implications for documents or codes that have not been foreseen.