



**Single Electricity Market
(SEM)**

Trading and Settlement Code

Scheduling and Dispatch Parameters 2021

Decision Paper

**SEM-20-075
11 November 2020**

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1. Introduction

Under the terms of the SEM Trading and Settlement Code (TSC) Part B, the Regulatory Authorities (RAs) shall determine certain parameters proposed by the Market Operator (MO) in relation to the Scheduling and Dispatch process.

In May 2020 the RAs requested the Transmission System Operators (TSOs) to review the following parameters utilised in Scheduling and Dispatch:

1. Long Notice Adjustment Factor (LNAF); and
2. System Imbalance Flattening Factor (SIFF).

On 21st August 2020, the RAs received reports from the TSOs outlining their recommendations for the proposed values for the above parameters. The RAs then published a consultation on the 17th September (SEM-20-066), consulting on the TSOs' recommendations. This paper presents the SEM Committee's decision in relation to these parameters considering stakeholder comments, and is structured as follows:

- Section 2 provides an overview of LNAF & SIFF.
- Section 3 outlines the TSOs' proposal for 2020.
- Section 4 provides a summary of respondents' comments.
- Section 5 provides the SEM Committee's response to comments from respondents.
- Section 6 details the SEM Committee's decision.
- Section 7 outlines Next Steps.

2. Background

The consultation paper (SEM-20-066) explained that LNAF and SIFF are a means of giving effect to the objectives of scheduling and dispatch from the market design decisions balancing the trade-off of “early” energy balancing actions against the cost of non-energy actions. LNAF is a multiplier applied to the start-up costs of Generator Units, which increases with increasing length of notice provided in any instruction to synchronise. SIFF is another multiplier applied to the start-up costs, which reduces with reducing forecast system imbalance.

The consultation paper further explained that under section 10A of EirGrid’s Transmission System Operator (TSO) Licence, and section 22A of SONI’s Transmission System Operator Licence, the System Operator (SO) is required to report to the RAs, proposing values for parameters to be applied in the Scheduling and Dispatch process.

3. TSOs’ Proposals

The TSOs’ report presents high level analysis carried out to evaluate the need to apply LNAF and SIFF values, and the potential risks of applying them based on existing market data.

The TSOs’ report noted that one indication that there may be a need for a LNAF is whether there is sufficient liquidity in the Intraday markets from units offering to sell. The TSOs analysed the traded volumes across the Day Ahead and Intraday Markets and concluded that there are more than sufficient volumes of offers-to-sell to meet the bids-to-buy, where the total sell volumes normally exceed the total bid volumes. The TSOs’ report noted that sufficient liquidity may exist in the two markets if prices in the Intraday markets follow the shape and magnitude of the Day-ahead market price profile. The TSOs’ analysis found the prices in these markets to be relatively convergent.

The TSOs’ report noted that one of the risks of assigning a LNAF and SIFF value is the potential impact on constraint costs, or the costs of non-energy actions. Within the report the TSOs noted that the ratio of non-energy to energy action volumes is an important metric to determine the potential impact applying LNAF could have.¹ This is because part of the intention is to apply the LNAF in situations where the energy imbalance is relatively high, while attempting not to increase the cost of non-energy actions. If there are situations where the energy action volumes are consistently greater than the non-energy volumes, then there

¹ A non-energy action can be defined as a balancing action taken by the TSOs to move a unit away from its Ex Ante market position for system security reasons. An energy action can be defined as an action required to satisfy system demand that hasn’t been met in the Ex Ante markets.

would be a clear case where the application of LNAFs should not overly impact the non-energy volumes. From the analysis carried out by the TSO, there was a daily average ratio of 6.1 non-energy volumes to energy volumes, with a maximum daily ratio of 38 and a minimum of 0.8. Given this, the TSO's report noted that the application of an LNAF at any level of imbalance would very likely have the unintended consequence of increasing the cost of the larger relative volume of non-energy actions in the market. The TSOs' report noted that this could lead to an increase in the Dispatch Balancing costs for the System Operator.

The TSOs notes that a main driver for implementing LNAF/SIFF is to avoid the propensity for early synchronisation of units by the System Operator. The TSOs note in their analysis that the Covid-19 pandemic coincided with the review period of the report (May 2019- May 2020). The TSOs' report also noted that in April 2020 the TSO in Ireland and Northern Ireland provided additional time for the synchronisation of generators and this constraint should be considered when considering "Early Actions".

Based on operational data for dispatch instructions, the TSOs carried out analysis on the synchronisation instructions issue time compared to the scheduled effective time. Out of a total of 6,658 synchronisation instructions (covering all dispatchable units from 31 May 2019 to 31 May 2020) 97% were issued within 1 hour of the notification time or last time to instruct. Many long notice synchronisation instructions (69%) were issued in the hour before the last time to instruct.

Following the outcomes of the TSOs' analysis, the TSOs recommend that the LNAF and SIFF should remain at zero. The TSOs' report notes that for subsequent years if there are any changes to the metrics for determining whether the LNAF and SIFF are needed due to decreased relative liquidity in the intraday markets or decreased risk of increasing non-energy costs, then a more detailed analysis of suitable values for LNAF and SIFF can be carried out.

4. Respondents' Comments

General Overview

There was a total of five respondents to this consultation, with the majority of respondents agreeing with the proposed values contained within the consultation paper². Additionally, some respondents suggested that additional analysis be undertaken by the TSOs in its next review. However, one respondent disagreed with the TSOs' proposed values.

Summary of Responses who Agree with Proposed Values

One respondent welcomed the proposed zero values of the LNAF and SIFF parameters in 2021 as a continuation of the 2020 approved values that "are meeting operational requirements to date". The respondent noted that the actions of the TSOs are key to maintaining a secure and stable power system for the SEM while having "a sustained focus on minimising costs and charges to the consumers" and welcomed the analysis by the TSOs. The respondent also noted that zero LNAF and SIFF parameters avoided increases to Dispatch and Balancing Costs. On the issue of constraints, the respondent stated that the "constrained nature of the network was a long-standing concern" and requests that the RAs give consideration to whether Dispatch Balancing Costs could be calculated for particular constraint areas.

One respondent supported the recommendation to keep LNAF and SIFF at zero for 2021 on the basis that no evidence had been provided to justify a change to the parameters. The respondent noted it would be prudent to keep the parameters unchanged and review again at a future date. Similarly, another respondent, agreed with the conclusion and recommendation that the SEM scheduling and dispatch parameters, LNAF and SIFF, be kept at zero for 2021. However, the respondent notes that the TSOs' analysis is insufficient to enable any other informed conclusion and that the "operational data from the Balancing Market is limited, not least as a result of pricing defects which affected the first year of the market".

Regarding the matter of the TSOs' analysis, another respondent noted that the TSOs' analysis only examines historical data rather than looking at different scenarios under non-zero values. The respondent does not propose changing the values for LNAF or SIFF for 2021 but suggests a more detail study should be conducted by the TSOs.

Summary of Response which Disagreed with Proposed Values

One respondent disagreed with the TSOs' proposal to apply a zero value to the LNAF and SIFF. The respondent suggests that applying a non-zero LNAF and SIFF would help send the correct signal to the market regarding the need for additional system flexibility and network

² Bord Gáis Energy, Energia, Irish Wind Energy Association & Renewable NI, NABLA, Power NI Energy (PPB)

investment to meet carbonisation goals. The respondent also suggests that further analysis is required on the impact of early unit commitment actions on renewable generation and carbon emissions. The respondent noted that from the TSOs' report, the majority of actions taken by the TSOs are for non-energy reasons. This, they suggest, is due to the fact that the system is highly constrained due to network limitations and operational constraints.

The respondent also suggests that while applying the LNAF and SIFF may increase the cost of non-energy actions, and therefore lead to an increase in Dispatch Balancing Costs for the TSOs, these costs would act as an investment signal for system flexibility and network development. The respondent also notes that whilst the TSOs raise concerns regarding the complexity of applying the LNAF and SIFF in their scheduling considerations – these are operational considerations that can be overcome, and that potential complexity is not a valid reason not to do something.

The respondent requests that the RAs reconsider their minded to position and requests the TSOs to set out a programme of work to explore how and when the LNAF and SIFF should be applied in the scheduling and dispatch process.

5. SEM Committee Response

Having considered all the responses to this consultation, the SEM Committee have decided that retention of the existing LNAF and SIFF parameter values is a prudent approach at this time.

The SEM Committee notes respondents' comments requesting additional detailed analysis. The SEM Committee will therefore keep these parameters under observation and will request the TSOs to complete a more detailed review, supported by longer sample of outturn data, to allow a clearer view on what LNAF and SIFF parameters should be applied in the future.

6. SEM Committee Decision

A summary of the decision made by the SEM Committee in relation to the LNAF and SIFF are displayed in Table 1.

Parameter	Current Value SEM	TSO Proposal for 2021	SEM Committee Decision
LNAF	0	0	0
SIFF	0	0	0

Table 1: LNAF and SIFF Values for 2021

7. Next Steps

These parameters will apply from 1st January until 31 December 2021. A consultation may be carried out in August 2021 to determine the values to apply from January 2022. The Trading and Settlement Code provides for the RAs amending the values of parameters where necessary outside the normal parameter-setting process. While this would only arise in exceptional circumstances, the SEM Committee has obligations to balance regulatory certainty with ensuring that no unnecessary consumer harm arises. On this basis, the RAs will keep all parameters under observation and may propose changes in the interim if necessary, via consultation.