

From the office of the Chief Executive

Sarah Maybin
AES Kilroot Power Ltd
Larne Road
Carrickfergus
Co Antrim
BT38 7LX

31 January 2019

Our Ref – NET/E/TH/53

Dear Sarah

**RE: AES Kilroot Power Ltd
Derogation request under Grid Code Clause CC.S1.1.3.2 (i) at Kilroot Power Station**

Whereas:

- (A) AES Kilroot Power Ltd (“AES”) holds an electricity generation licence granted to it on 31 March 1992 (the “Licence”).
 - (B) The licensee is authorised to generate electricity for the purpose of giving a supply to any premises or enabling a supply to be so given.
 - (C) The Grid Code is required to be prepared by SONI Limited, approved by the Utility Regulator (the UR) and applied by SONI Limited to permit the development, maintenance and operation of an efficient, co-ordinated and economical Transmission System.
 - (D) Paragraph 1 of Condition 4 of the Generation Licence requires AES to comply with the provisions of the Grid Code and the Distribution code insofar as applicable to it.
 - (E) Paragraph 2 (a) of Condition 4 of the Generation Licence provides that the UR may, following consultation with the transmission System Operator (namely SONI Limited (“SONI”) and the Transmission Owner (namely Northern Ireland Electricity Networks Limited)), issue directions relieving AES of its obligations under paragraph 1 of Condition 4 in respect of such parts of the Grid Code and to such extent as may be specified in those directions.
1. On 10th January 2019 AES submitted a document to the UR requesting an extension to the current derogation in respect of Grid Code Clause CC.S1.1.3.2 (i).

From the office of the Chief Executive

CC.S1.1.3.2 (i) – Grid Code requires:

“For CDGUs and for CCGT Installations (in relation to the CCGT Modules therein) the Reactive Power capability shall as a minimum be:

(i) rated power factor (lagging) = 0.8”

The UR has consulted with NIE Networks Limited and SONI Limited, who have given due consideration to all relevant factors, including the specific and unique circumstances of this case. The UR notes the views of NIE Networks of 10 January 2019 namely that: “Taking into account the potential overall system benefits if this derogation request was to be successful and given that this is a time extension to an existing derogation already in place, then NIE Networks’ view would be that, without prejudice, there is merit in granting the derogation requested by Kilroot Power Station in their document dated 10th January 2019.”

It notes the view of SONI Limited also in an email received on 16 January 2019, namely that SONI acknowledge:

“That in the (low probability) event of a capacity issue occurring, additional generation being available on the NI system would improve generation adequacy. For that reason, and as confirmed above, we do not oppose a time-bound extension to the derogation request should it be granted.”

1. The UR has taken into account AES’s comments in relation to the proposed derogation from Grid Code Clause CC.S1.1.3.2. AES considered that:-
 - AES had examined the operational capabilities of the boilers, of K1 and K2, regarding thermal stress loading etc, and has concluded that it is possible to increase the operating boiler pressure above its then current level;
 - Calculations showed that it was possible to provide an additional 20MW of generated electrical power, whilst firing on oil, by availing of the increased boiler pressure.
 - The generated power whilst on coal firing is a maximum of 220MW. (no change)
 - The generated power whilst on oil firing is a maximum of 280MW. (extra 20MW)
 - Calculations show that the additional 20MW produced a power output, at a power factor of 0.8, of 357 MVA which exceeded the rating of the transformer.
 - To ensure that the transformer rating was not exceeded AES calculated that a power factor of 0.85 could still be achieved whilst providing the additional 20MW.
2. AES requests that UR extend the derogation granted to Kilroot on 1st February 2016, from the compliance of Grid Code clause CC.S1.1.3.2 (i) until 1st February 2024 by which time other emissions related impacts may have removed the need for this derogation. This derogation is only required when the GT is fully despatched and the

From the office of the Chief Executive

main unit is despatched above 242MW (sent out); below these despatches the units are fully compliant and the derogation is not required.

3. The UR has also taken into account AES's view, that this derogation will have no impact on consumers, there will be increased security of supply as additional MW made available. AES has also confirmed that there were no occasions since the first derogation was issued when the GT was fully despatched and the main unit is despatched above 242MW (sent out).

The Utility Regulator now gives the following Directions:

Direction 2

4. Pursuant to its power under paragraph 2 (a) and (b) of Condition 4 of the Electricity Generation Licence in favour of AES, the UR directs that the Licensee is relieved of its obligations under Grid Code clause CC.S1.1.3.2 (i) for unit K1 and K2 generators.
5. The following conditions shall apply:
 - This direction applies until 1st February 2022.
 - This direction facilitates a power factor of 0.85 lagging to be allowed solely to the combined K1, GT1 and K2, GT2 connection points for the specific circumstance of the relevant GT operating a full load and main unit is despatched above 242MW (Sent Out).

Signed:



Name: **Jenny Pyper**

Date: **31 January 2019**

Authorised by and on behalf of the Northern Ireland Authority for Utility Regulation