

**MWP**

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# **Appendix 11B – Noise Survey Details and Calibration Certificates**

**Ballynisky Wind Farm**

**Ballynisky Green Energy Ltd.**

**December 2025**

RECEIVED: 19/12/2025

## Noise Survey Details and Calibration Certs

Table 1: Summary of Noise Instrumentation Used:

Location	Equipment	Model	Serial Number
NMT 1	Sound Level Meter	Type 2250	3010911
	Outdoor Microphone Kit	EH2152_90	2788792
NMT 2	Sound Level Meter	Type 2250	2567756
	Outdoor Microphone Kit	1404	2737145
NMT 3	Sound Level Meter	Type 2250	3007000
	Outdoor Microphone Kit	1404	2745850
NMT 4	Sound Level Meter	Type 2250L	3001350
	Outdoor Microphone Kit	1404	2585952
NMT 5	Sound Level Meter	Type 2250	2820751
	Outdoor Microphone Kit	1404	2415424
All	Acoustic Calibrator	Type 4231	2291867

### Personnel:

**David Courtney, BEng, MIOA (Acoustic Consultant)** graduated with a BEng. in Mechatronic Engineering from DCU in 2017 and qualified with IOA Diploma in Acoustics and Noise Control (2019) & Certificate in Environmental Noise Measurements (2017). David undertakes all types of noise and vibration surveys in relation to wind turbines planning and compliance, IPPC & IE compliance, BS4142, BS5228 and BS8233 assessments, traffic noise, construction, building acoustics and occupational assessments. He also manages a team of survey engineers and provides technical support to consultants. He has considerable expertise in the assessment of wind turbine noise and conducted many similar impact assessments for EIARs.

**Aishaani Sharma, (Junior Consultant)** graduated with an MSc in Environmental Science from Trinity College in 2024 and holds a BSc (Hons.) in Biotechnology and qualified with IOA Certificate in Environmental Noise Measurements (2024). Since starting with Enfonc in May 2024 she has undertaken many noise surveys including baseline surveys in relation to wind farms. She provides expertise in relation to impacts on biodiversity and has drafted several noise and vibration chapters for Environmental Impact Assessment Reports (EIARs) for proposed wind farm developments.

Calibration Certificates:

**HBK** THE CALIBRATION LABORATORY  
Skibbovej 307, DK-2850 Nærum, Denmark

**ILAC-MRA** **DANAK**  
Member of EA MRA

**CERTIFICATE OF CALIBRATION** No: CDK2103324 Page 1 of 12

**CALIBRATION OF**

Sound Level Meter: Brüel & Kjær Type 2250 No: 3010911 Id: -  
 Microphone: Brüel & Kjær Type 4189 No: 2846376  
 Pre-amplifier: Brüel & Kjær Type ZC-0032 No: 6832  
 Supplied Calibrator: Brüel & Kjær Type 4231 No: 2460008  
 Software version: BZ7222 Version 4.7.5 Pattern Approval: PTB1.63-40478500 / 1.63-4078502  
 Instruction manual: BE1712-22

**CUSTOMER**

Enfonic Ltd  
Unit 2A  
Century Business Park  
D11 T0HV Dublin  
Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
 Environment conditions: See actual values in sections.

**SPECIFICATIONS**

The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC 61672-1:2013 class 1. Procedures from IEC 61672-3:2013 were used to perform the periodic tests. The accreditation assures the traceability to the international units system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 8.2 - DB: 8.20) by using procedure B&K proc 2250, 4189 (IEC61672:2013).

**RESULTS**

Calibration Mode: **Calibration as received.**  
 The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-402 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2021-05-18 Date of issue: 2021-05-18

*Rikke Hansen*  
Rikke Hansen  
Calibration Technician

*Jejper Bo Vedel*  
Jejper Bo Vedel  
Approved Signatory

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**Brüel & Kjær** THE CALIBRATION LABORATORY  
Skibbovej 307, DK-2850 Nærum, Denmark

**ILAC-MRA** **DANAK**  
Member of EA MRA

**CERTIFICATE OF CALIBRATION** No: CDK2103021 Page 1 of 12

**CALIBRATION OF**

Sound Level Meter: Brüel & Kjær Type 2250 No: 2567756 Id: -  
 Microphone: Brüel & Kjær Type 4189 No: 2470462  
 Pre-amplifier: Brüel & Kjær Type ZC-0032 No: 3418  
 Supplied Calibrator: None  
 Software version: BZ7222 Version 4.7.5 Pattern Approval: PTB1.63-40478500 / 1.63-4078502  
 Instruction manual: BE1712-22

**CUSTOMER**

Enfonic Ltd  
Unit 2A  
Century Business Park  
Dublin  
D11 T0HV  
Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
 Environment conditions: See actual values in *Environmental conditions* sections.

**SPECIFICATIONS**

The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC6162-1:2013 class 1. Procedures from IEC 61672-3:2013 were used to perform the periodic tests. The accreditation assures the traceability of the international units system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 7.3 - DB: 7.30) by using procedure B&K proc 2250, 4189 (IEC61672:2013).

**RESULTS**

Calibration Mode: **Calibration as received.**  
 The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-402 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2021-03-29 Date of issue: 2021-03-29

*Mikail Önder*  
Mikail Önder  
Calibration Technician

*Susanne Jørgensen*  
Susanne Jørgensen  
Approved Signatory

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**Brüel & Kjær** THE CALIBRATION LABORATORY  
Skibbovej 307, DK-2850 Nærum, Denmark

**ILAC-MRA** **DANAK**  
Member of EA MRA

**CERTIFICATE OF CALIBRATION** No: CDK2106836 Page 1 of 12

**CALIBRATION OF**

Sound Level Meter: Brüel & Kjær Type 2250 No: 3007000 Id: -  
 Microphone: Brüel & Kjær Type 4189 No: 3022866  
 Pre-amplifier: Brüel & Kjær Type ZC-0032 No: 23929  
 Supplied Calibrator: None  
 Software version: BZ7222 Version 4.5.2 Pattern Approval: PTB1.63-40478500 / 1.63-4078502  
 Instruction manual: BE1712-22

**CUSTOMER**

Enfonic Ltd  
Unit 2A, Century Business Park  
Dublin  
D11 T0HV  
Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
 Environment conditions: See actual values in *Environmental conditions* sections.

**SPECIFICATIONS**

The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC6162-1:2013 class 1. Procedures from IEC 61672-3:2013 were used to perform the periodic tests. The accreditation assures the traceability of the international units system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 7.3 - DB: 7.30) by using procedure B&K proc 2250, 4189 (IEC61672:2013).

**RESULTS**

Calibration Mode: **Calibration as received.**  
 The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-402 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2021-09-14 Date of issue: 2021-09-14

*Mikail Önder*  
Mikail Önder  
Calibration Technician

*Susanne Jørgensen*  
Susanne Jørgensen  
Approved Signatory

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**Brüel & Kjær** THE CALIBRATION LABORATORY  
Skibbovej 307, DK-2850 Nærum, Denmark

**ILAC-MRA** **DANAK**  
Member of EA MRA

**CERTIFICATE OF CALIBRATION** No: CDK2104736 Page 1 of 12

**CALIBRATION OF**

Sound Level Meter: Brüel & Kjær Type 2250 No: 3001350 Id: -  
 Microphone: Brüel & Kjær Type 4189 No: 3022867  
 Pre-amplifier: Brüel & Kjær Type ZC-0032 No: 23775  
 Supplied Calibrator: None  
 Software version: BZ7222 Version 4.5.2 Pattern Approval: PTB1.63-40478500 / 1.63-4078502  
 Instruction manual: BE1712-22

**CUSTOMER**

Enfonic Ltd  
Unit 2A, Century Business Park  
Dublin  
D11 T0HV  
Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
 Environment conditions: See actual values in *Environmental conditions* sections.

**SPECIFICATIONS**

The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC6162-1:2013 class 1. Procedures from IEC 61672-3:2013 were used to perform the periodic tests. The accreditation assures the traceability of the international units system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 7.3 - DB: 7.30) by using procedure B&K proc 2250, 4189 (IEC61672:2013).

**RESULTS**

Calibration Mode: **Calibration as received.**  
 The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-402 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2021-08-21 Date of issue: 2021-08-21

*Mikail Önder*  
Mikail Önder  
Calibration Technician

*Susanne Jørgensen*  
Susanne Jørgensen  
Approved Signatory

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**Brüel & Kjær**  
The Calibration Laboratory  
 Skindbergvej 307, DK-2850 Nærum, Denmark

**ILAC-MRA**  
ILAC-MRA

**DANAK**  
DAK Reg. No. 201

**CERTIFICATE OF CALIBRATION** No: CDK2203821 Page 1 of 12

**CALIBRATION OF**

Sound Level Meter: Brüel & Kjær Type 2250 No: 2818081 Id.: 2820751  
 Microphone: Brüel & Kjær Type 4189 No: 2785433  
 Preamplifier: Brüel & Kjær Type ZC-0032 No: 24941  
 Supplied Calibrator: None  
 Software version: BIZ7222 Version 4.7.5 Pattern Approval: PTB1.63-40478500 / 1.63-4078502  
 Instruction manual: BE1712-22

**CUSTOMER**

Enfonic Ltd  
 Unit 2A, Century Business Park  
 Dublin  
 D11 T0HV  
 Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
 Environment conditions: See actual values in *Environmental conditions* sections.

**SPECIFICATIONS**

The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC6162-1:2013 class 1. Procedures from IEC 61672-3:2013 were used perform the periodic tests. The accreditation assures the traceability of the international units system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 7.3 - DB: 7.30) by using procedure B&K proc 2250, 4189 (IEC61672:2013)

**RESULTS**

Calibration Mode: **Calibration as received.**  
 The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-402 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2022-02-18 Date of issue: 2022-02-18

*Mikail Onder*  
 Mikail Onder  
 Calibration Technician

*Susanne Jørgensen*  
 Susanne Jørgensen  
 Approved Signatory

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**Brüel & Kjær**  
The Calibration Laboratory  
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**ILAC-MRA**  
ILAC-MRA

**DANAK**  
DAK Reg. No. 201

**CERTIFICATE OF CALIBRATION** No: CDK2101023 Page 1 of 10

**CALIBRATION OF**

Calibrator: Brüel & Kjær Type 4231 No: 2291867  
 1/2 inch adaptor: Brüel & Kjær Type UC0210  
 Pattern Approval: PTB-1.61-4057176

**CUSTOMER**

Enfonic Ltd  
 Unit 2A, Century Business Park  
 St. Margaret's Road  
 Dublin  
 D11 T0HV  
 Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
 Environment conditions: See actual values in *Environmental conditions* sections.

**SPECIFICATIONS**

The Calibrator Brüel & Kjær Type 4231 has been calibrated in accordance with the requirements as specified in IEC60942:2003 Annex B Class 1. The accreditation assures the traceability to the international unit system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær acoustic calibrator calibration application software Type 7794 (version 2.4) by using procedure P-4231 D04.

**RESULTS**

Calibration Mode: **Calibration as received.**  
 The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-402 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2021-09-02 Date of issue: 2021-09-02

*Mikail Onder*  
 Mikail Onder  
 Calibration Technician

*Susanne Jørgensen*  
 Susanne Jørgensen  
 Approved Signatory

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**Noise Survey Photos:**

**NMT 1**



**NMT 2**



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NMT 3



NMT 4



NMT 5



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