

## Comparison of Cumulative and Individual Wind Farms Contributions

Comparison of cumulative and individual wind farm derived daytime and night-time levels of  $L_{A90,10\text{-min}}$  at a selection of receivers that exceeded the omni-directional noise limits (H217 to H222).

Table 1 Comparison of Cumulative and Individual Wind Farm Derived Daytime Levels of  $L_{A90,10\text{-min}}$  for Various Wind Speeds

NSL Ref.	Parameter	Derived $L_{A90,10\text{-min}}$ Levels (dB) at Various Standardised 10m Height Wind Speeds						
		4	5	6	7	8	9	10
	<b>Daytime Criterion</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>45</b>	<b>45</b>
H217	Cumulative Predicted	--	--	--	41.2	41.9	--	--
	Daytime Excess	--	--	--	1.2	1.9	--	--
	Castlebanny Predicted	--	--	--	21.1	21.8	--	--
	Ballymartin / Smithstown Predicted	--	--	--	41.2	41.8	--	--
	Predicted Level Difference	--	--	--	20.1	20.0	--	--
	Castlebanny Contribution < 10 dB	--	--	--	Yes	Yes	--	--
H218	Cumulative Predicted	--	--	--	41.8	42.5	--	--
	Daytime Excess	--	--	--	1.8	2.5	--	--
	Castlebanny Predicted	--	--	--	20.8	21.5	--	--
	Ballymartin / Smithstown Predicted	--	--	--	41.8	42.4	--	--
	Predicted Level Difference	--	--	--	21.0	20.9	--	--
	Castlebanny Contribution < 10 dB	--	--	--	Yes	Yes	--	--
H219	Cumulative Predicted	--	--	40.1	42.7	43.4	--	--
	Daytime Excess	--	--	0.1	2.7	3.4	--	--
	Castlebanny Predicted	--	--	20.1	20.7	21.4	--	--
	Ballymartin / Smithstown Predicted	--	--	40.1	42.7	43.4	--	--
	Predicted Level Difference	--	--	20.0	22.0	22.0	--	--
	Castlebanny Contribution < 10 dB	--	--	Yes	Yes	Yes	--	--
H220	Cumulative Predicted	--	--	41.8	44.3	45.0	--	--
	Daytime Excess	--	--	1.8	4.3	5.0	--	--
	Castlebanny Predicted	--	--	22.9	23.5	24.2	--	--
	Ballymartin / Smithstown Predicted	--	--	41.7	44.3	45.0	--	--
	Predicted Level Difference	--	--	--	20.8	20.8	--	--
	Castlebanny Contribution < 10 dB	--	--	--	Yes	Yes	--	--
H221	Cumulative Predicted	--	--	--	40.8	41.5	--	--
	Daytime Excess	--	--	--	0.8	1.5	--	--
	Castlebanny Predicted	--	--	--	24.1	24.9	--	--
	Ballymartin / Smithstown Predicted	--	--	--	40.7	41.4	--	--
	Predicted Level Difference	--	--	--	16.6	16.5	--	--
	Castlebanny Contribution < 10 dB	--	--	--	Yes	Yes	--	--
H222	Cumulative Predicted	--	--	--	40.2	40.9	--	--
	Daytime Excess	--	--	--	0.2	0.9	--	--
	Castlebanny Predicted	--	--	--	24.0	24.8	--	--
	Ballymartin / Smithstown Predicted	--	--	--	40.1	40.8	--	--
	Predicted Level Difference	--	--	--	16.1	16.0	--	--
	Castlebanny Contribution < 10 dB	--	--	--	Yes	Yes	--	--

Table 2 Comparison of Cumulative and Individual Wind Farm Derived Night-Time Levels of LA90,10-min for Various Wind Speeds

NSL Ref.	Parameter	Derived LA90, 10-min Levels (dB) at Various Standardised 10m Height Wind Speeds						
		4	5	6	7	8	9	10
	<b>Night-Time Criterion</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>
H219	Cumulative Predicted	--	--	--	--	43.4	43.4	43.4
	Night-Time Excess	--	--	--	--	0.4	0.4	0.4
	Castlebanny Predicted	--	--	--	--	21.4	21.5	21.5
	Ballymartin / Smithstown Predicted					43.4	43.4	43.4
	Predicted Level Difference	--	--	--	--	22.0	21.9	21.9
	Castlebanny Contribution < 10 dB	--	--	--	--	Yes	Yes	Yes
H220	Cumulative Predicted	--	--	--	44.3	45.0	45.0	45.0
	Night-Time Excess	--	--	--	1.3	2.0	2.0	2.0
	Castlebanny Predicted	--	--	--	23.5	24.2	24.3	24.3
	Ballymartin / Smithstown Predicted	--	--	--	44.3	45.0	45.0	45.0
	Predicted Level Difference	--	--	--	20.8	20.8	20.7	20.7
	Castlebanny Contribution < 10 dB	--	--	--	Yes	Yes	Yes	Yes