

Appendix 9.5 Charts showing measured baseline data, derivation of noise limits and evaluation of predicted noise levels

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Chart 9.1 – Wind rose of measured wind speeds and directions at 80 m above ground level

Wind Rose at Hoy 10m AGL (2019-10-15 00:00:00 - 2019-11-14 23:50:00)

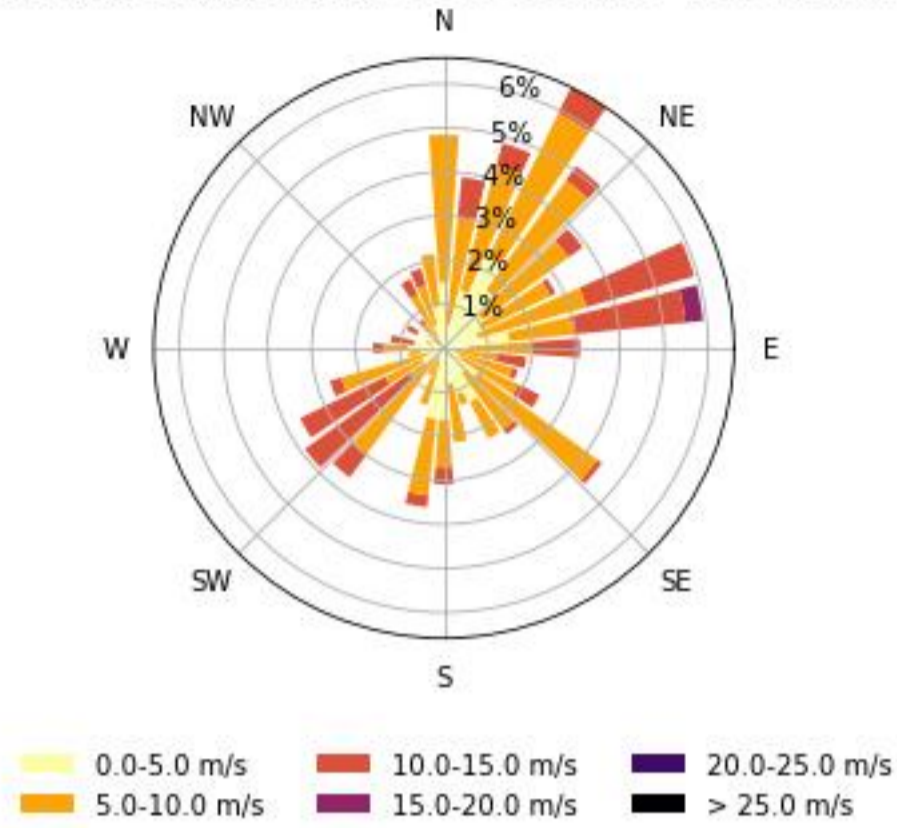


Chart 9.2 – Time History of Measured Noise Levels at NMP1 – Little Scaews

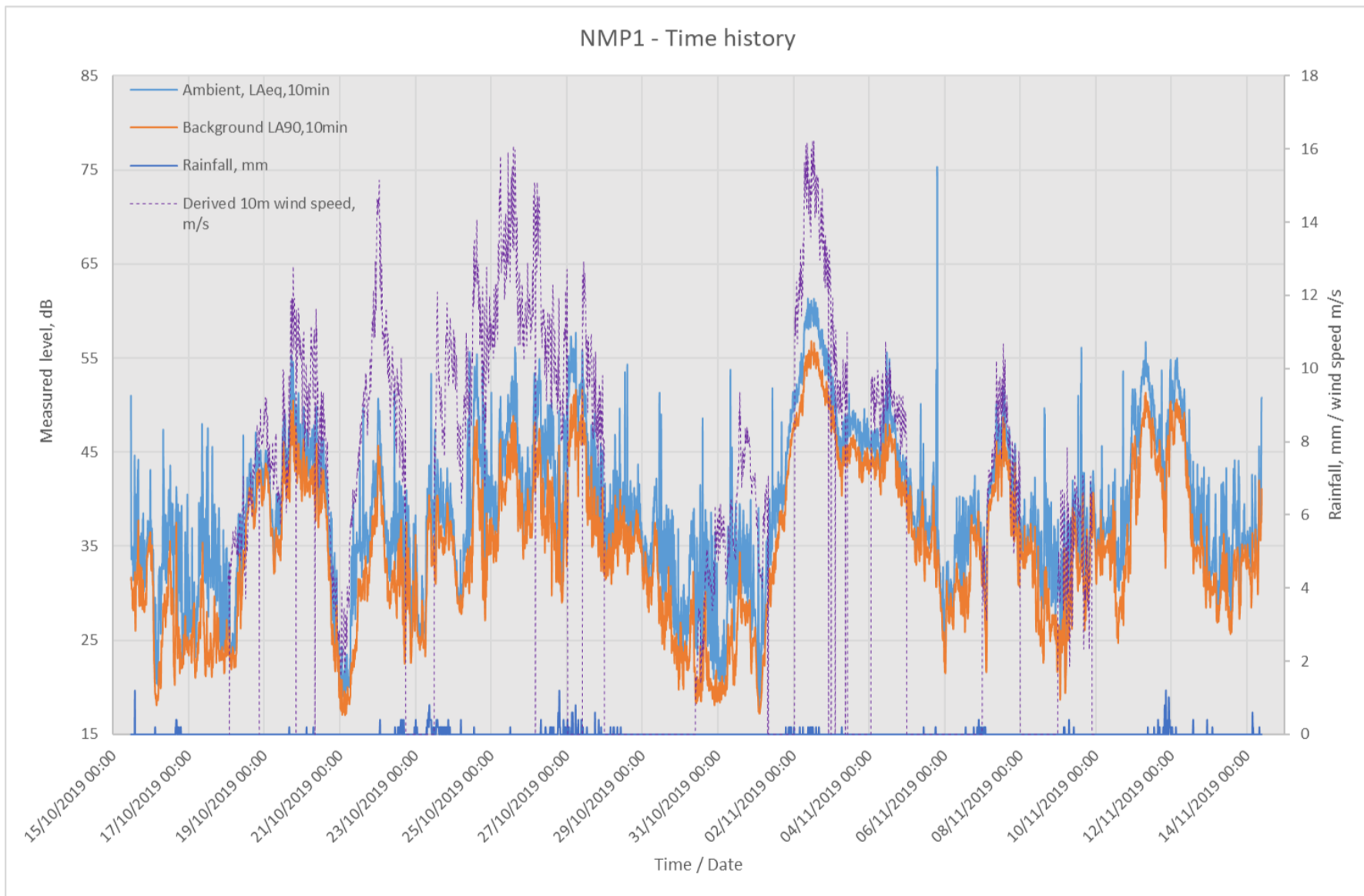


Chart 9.3 – Noise Limit Derivation at NMP1, Quiet Daytime Period

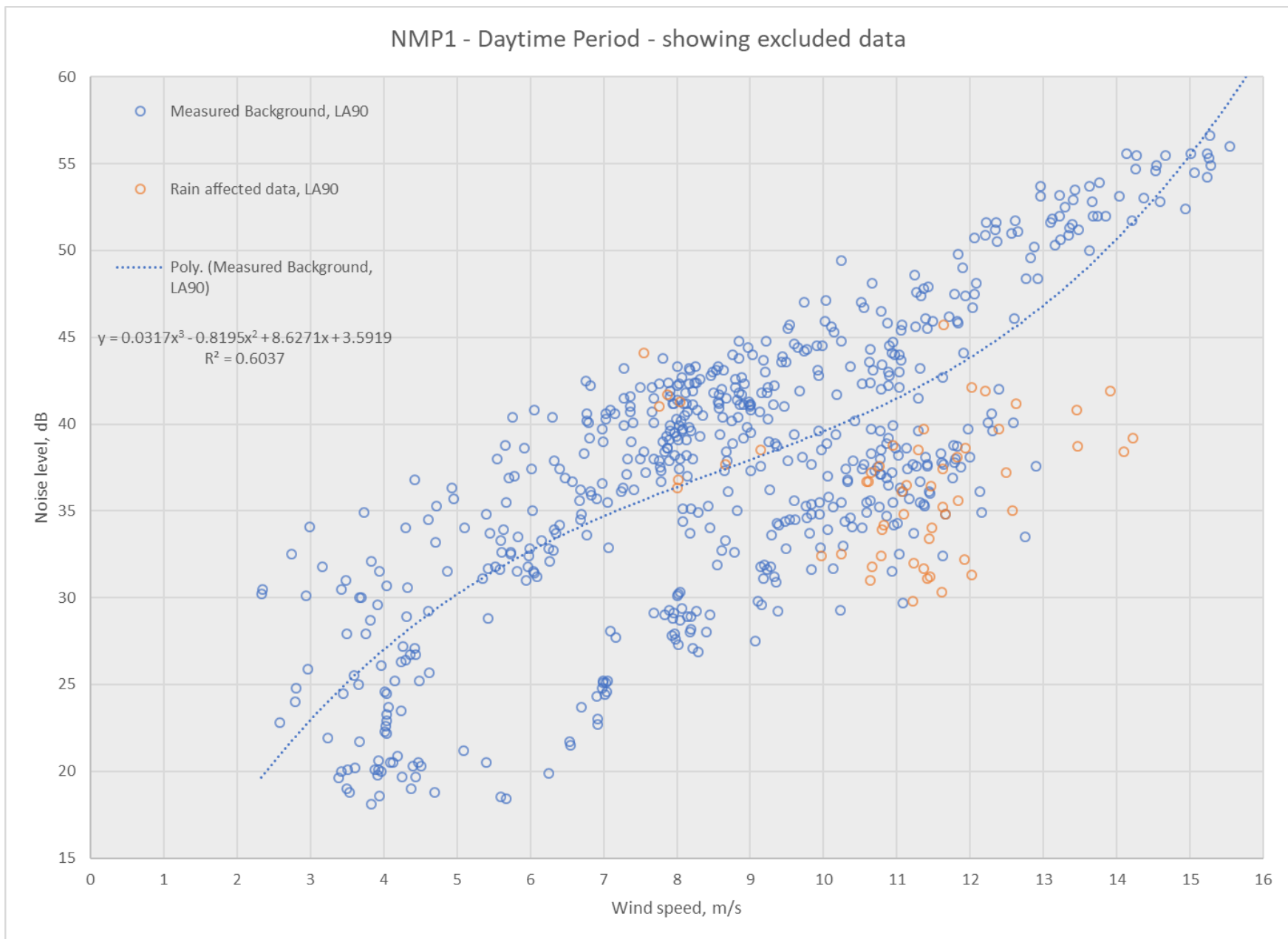


Chart 9.4 - Noise Limit Derivation at NMP1, Night-time Period

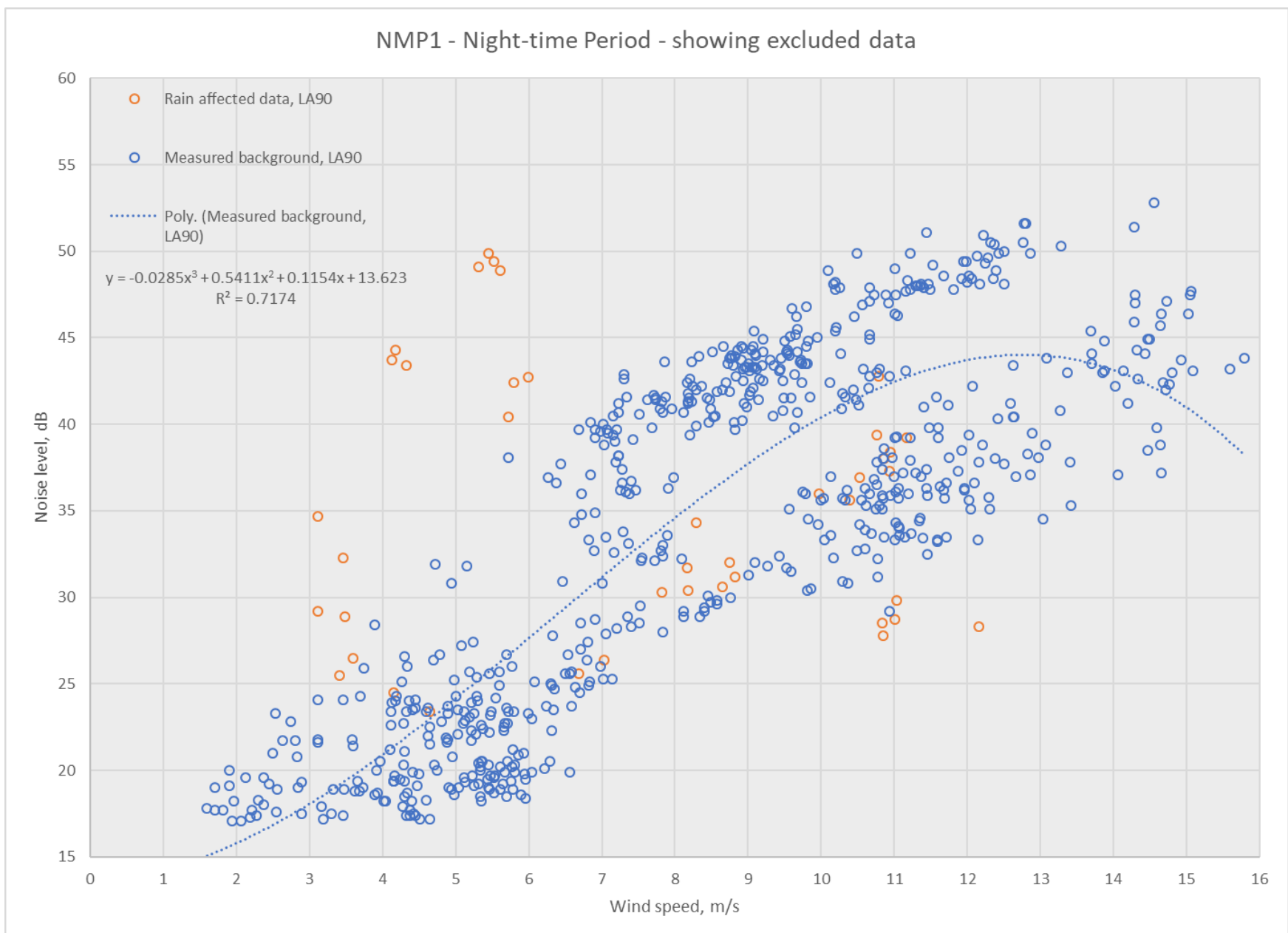


Chart 9.5 - Time History of Measured Noise Levels at NMP2 – North Walls School

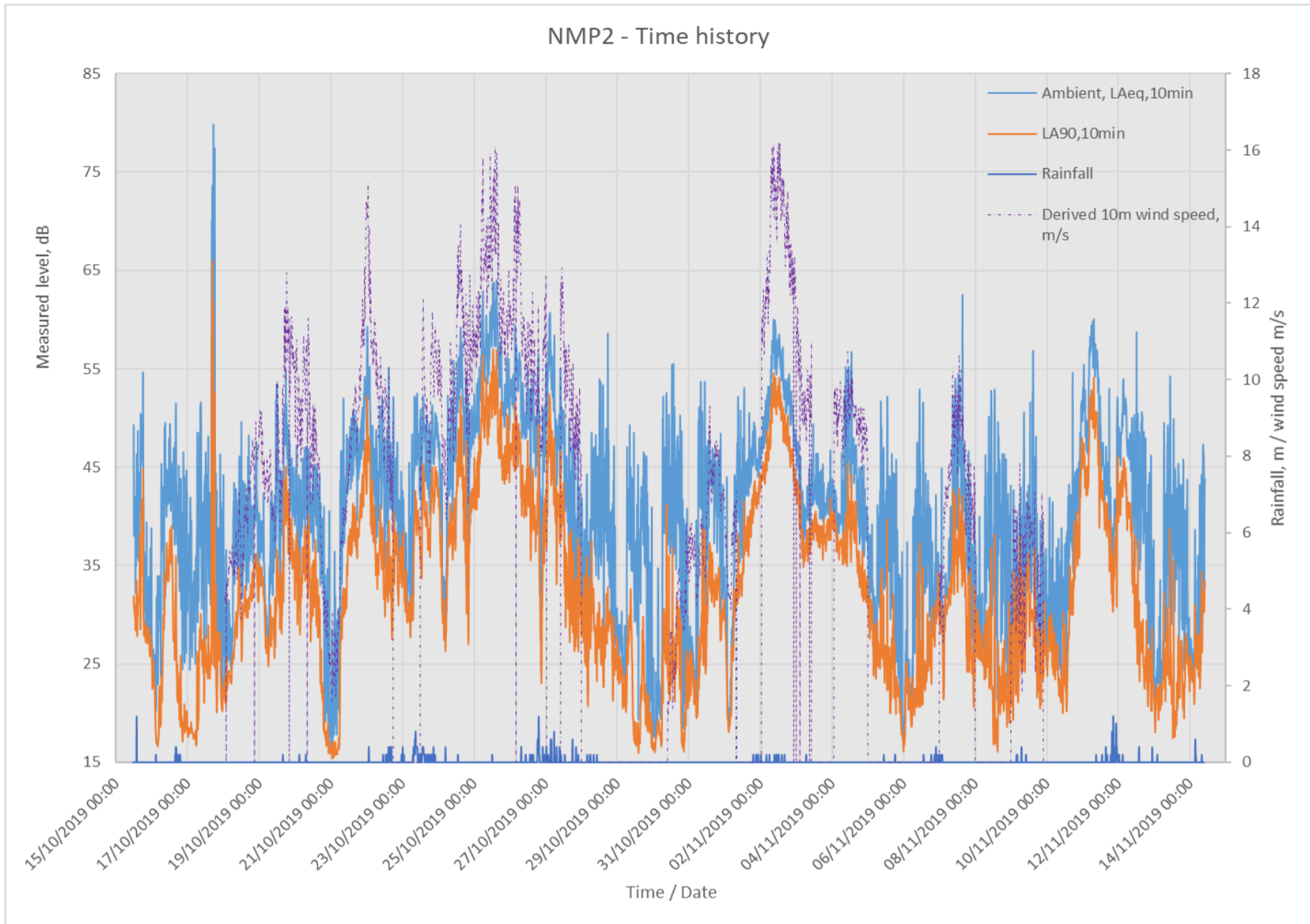
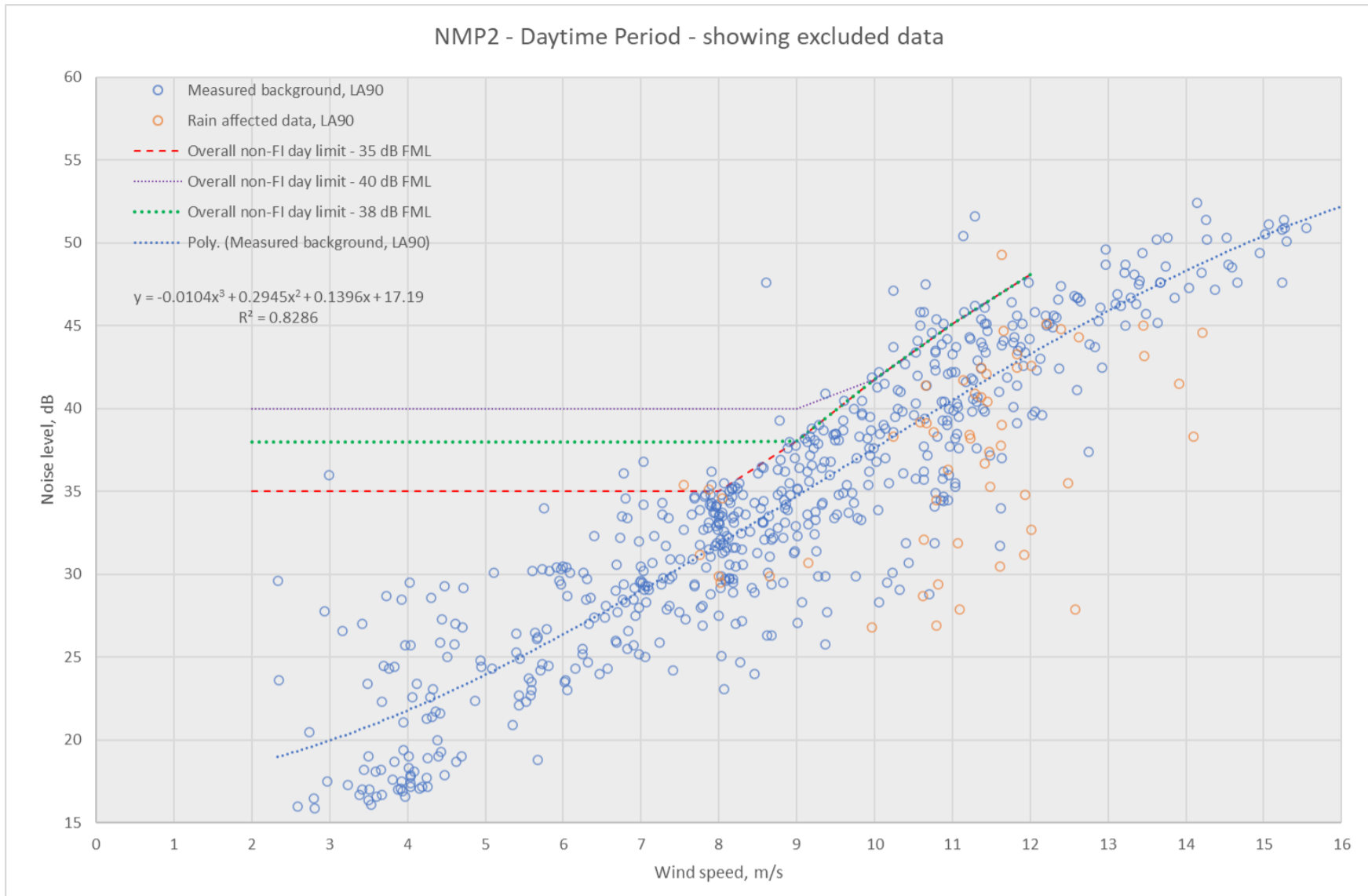


Chart 9.6 – Noise Limit Derivation at NMP2, Quiet Daytime Period



Note – noise limits account for contribution of existing cumulative turbines, and are not reflective of purely ‘background +5 dB’

Chart 9.7 - Noise Limit Derivation at NMP2, Night-time Period

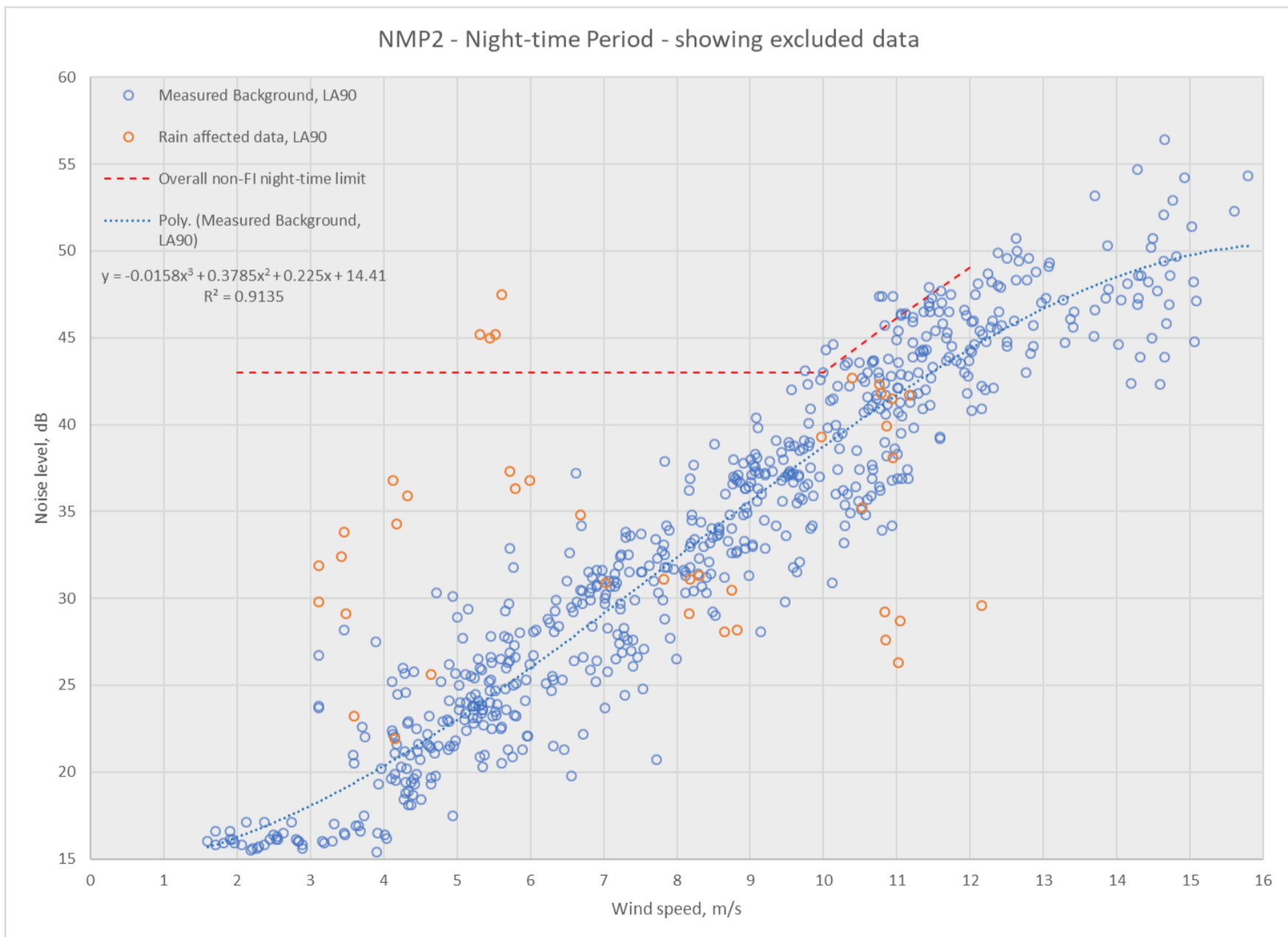


Chart 9.8 - Time History of Measured Noise Levels at NMP3 – Upper Seatter

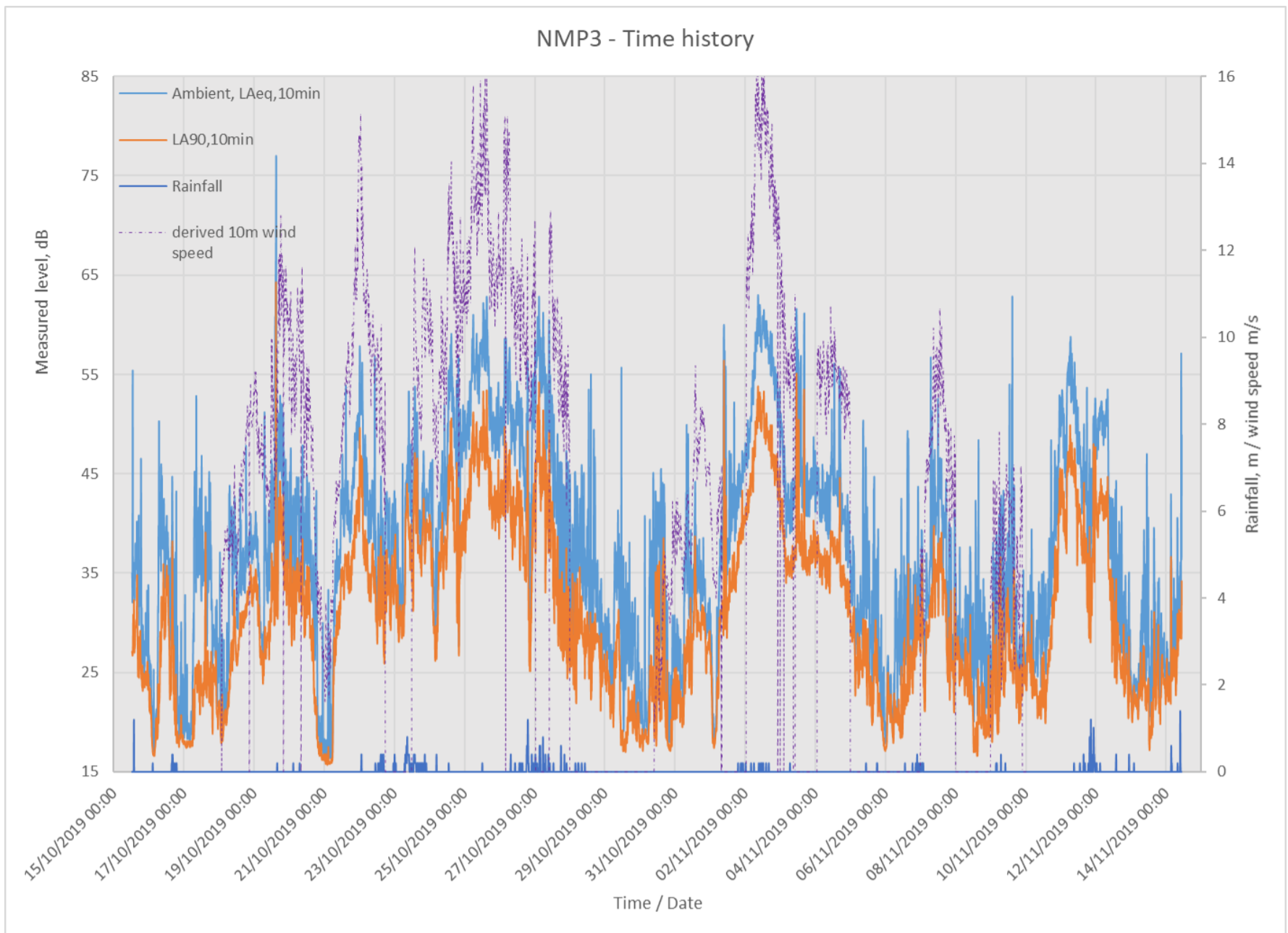
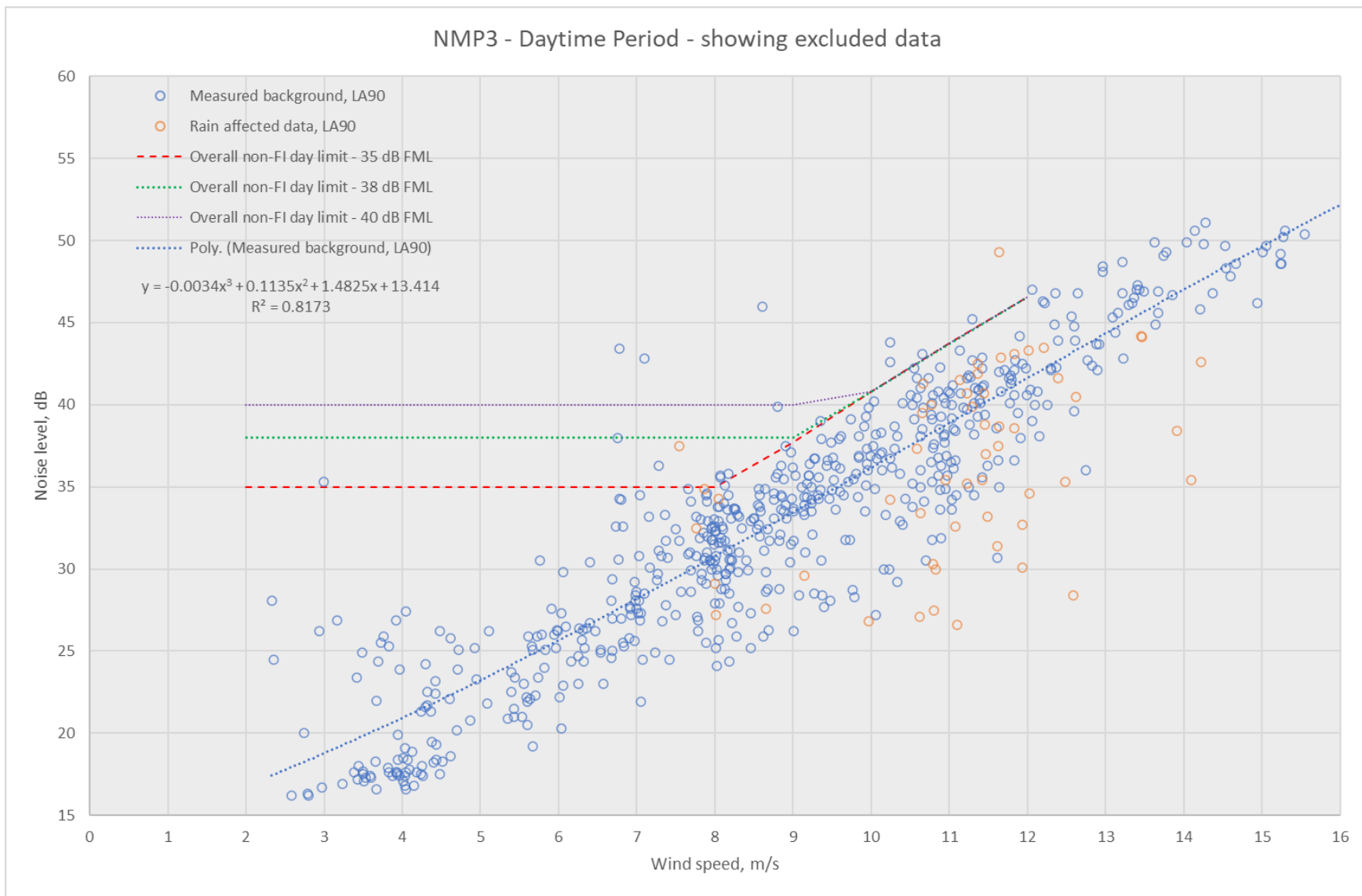


Chart 9.9 – Noise Limit Derivation at NMP3, Quiet Daytime Period



Note – noise limits account for contribution of existing cumulative turbines, and are not reflective of purely 'background +5 dB'

Chart 9.10 - Noise Limit Derivation at NMP3, Night-time Period

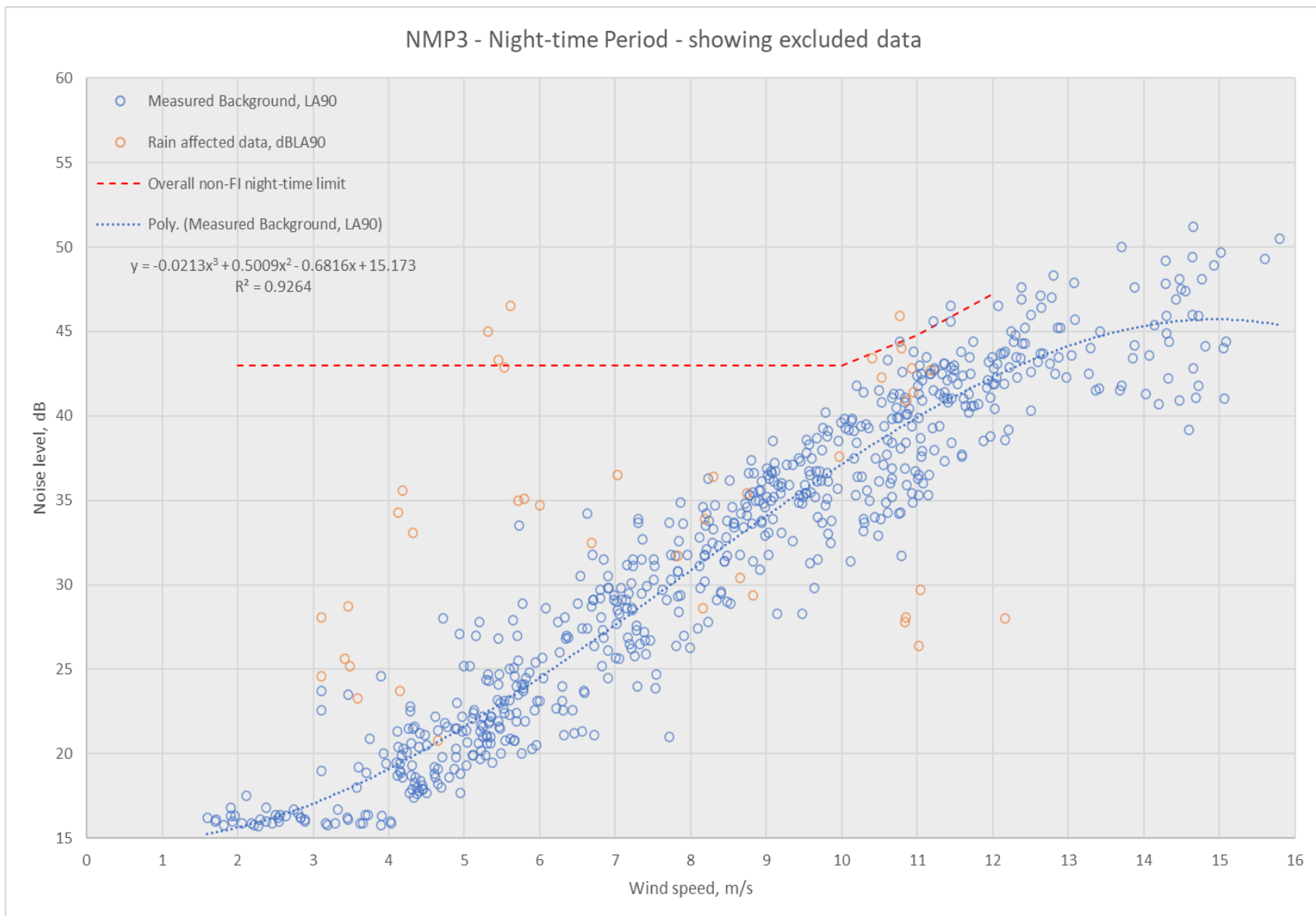
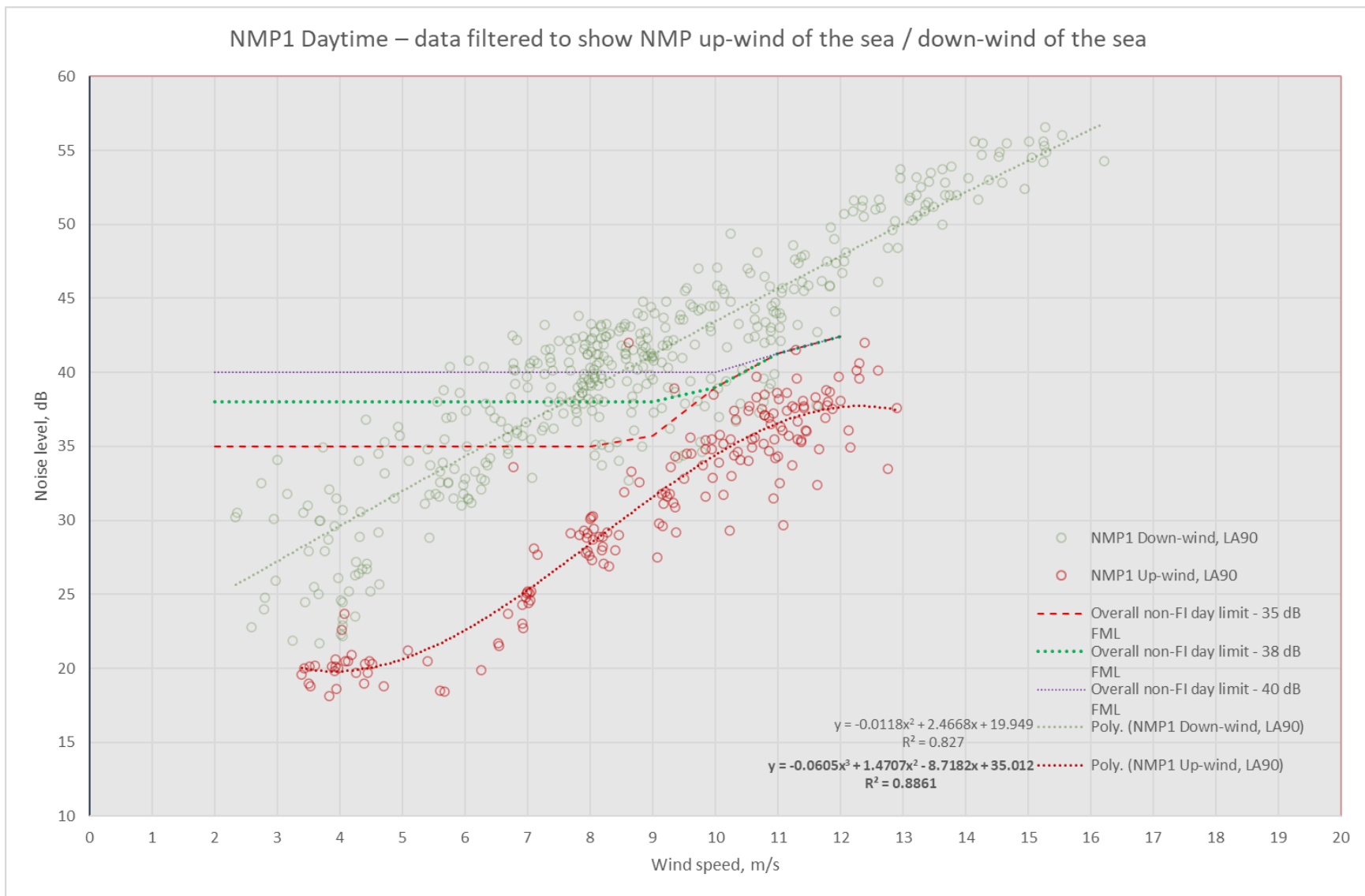


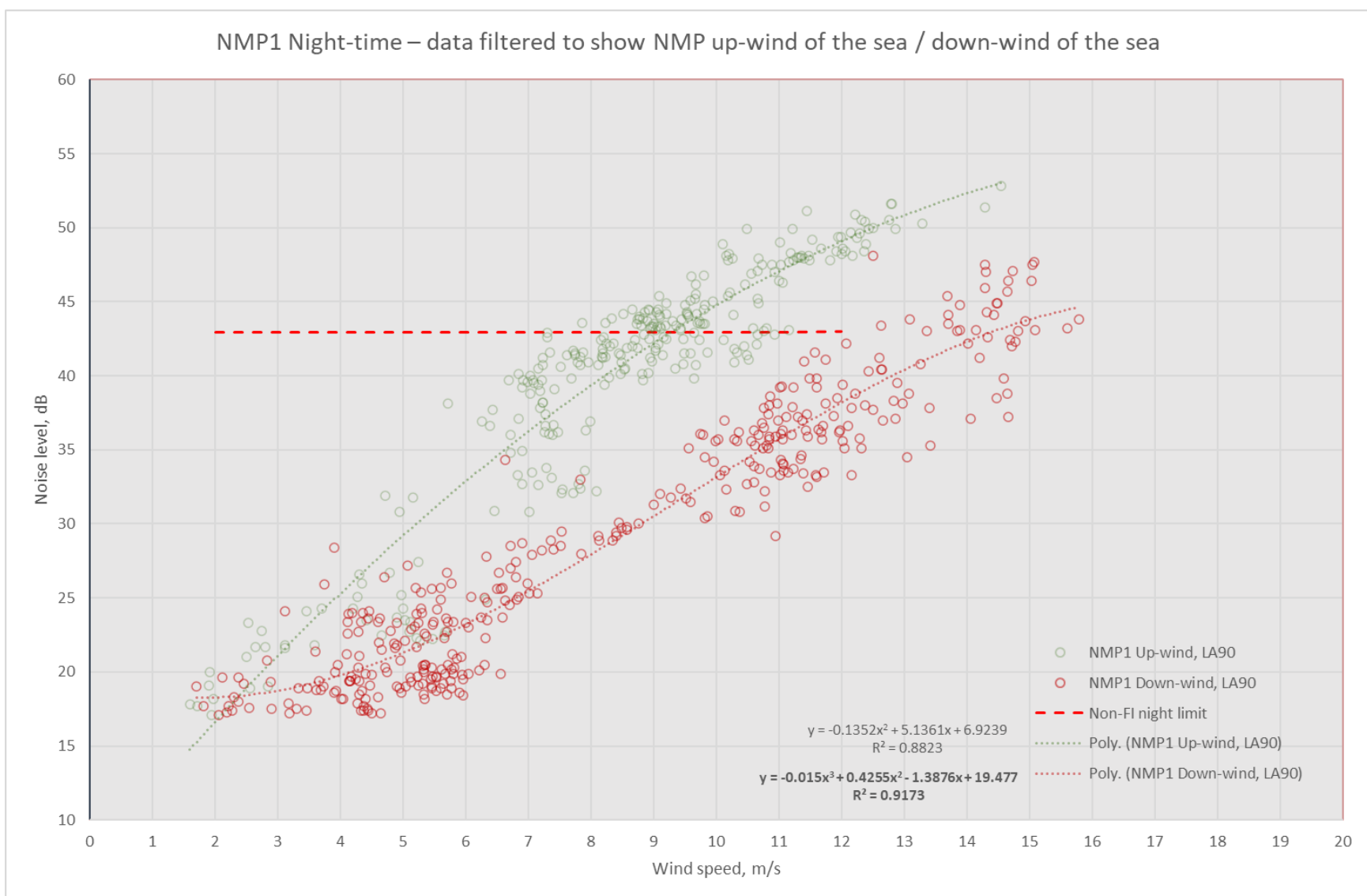
Chart 9.11 – Results of directional filtering of measured data at NMP1, daytime period



Note 1 – equation in **bold** used to derive background noise levels and resultant noise limits

Note 2 – noise limits account for contribution of existing cumulative turbines, and are not reflective of purely 'background +5 dB'

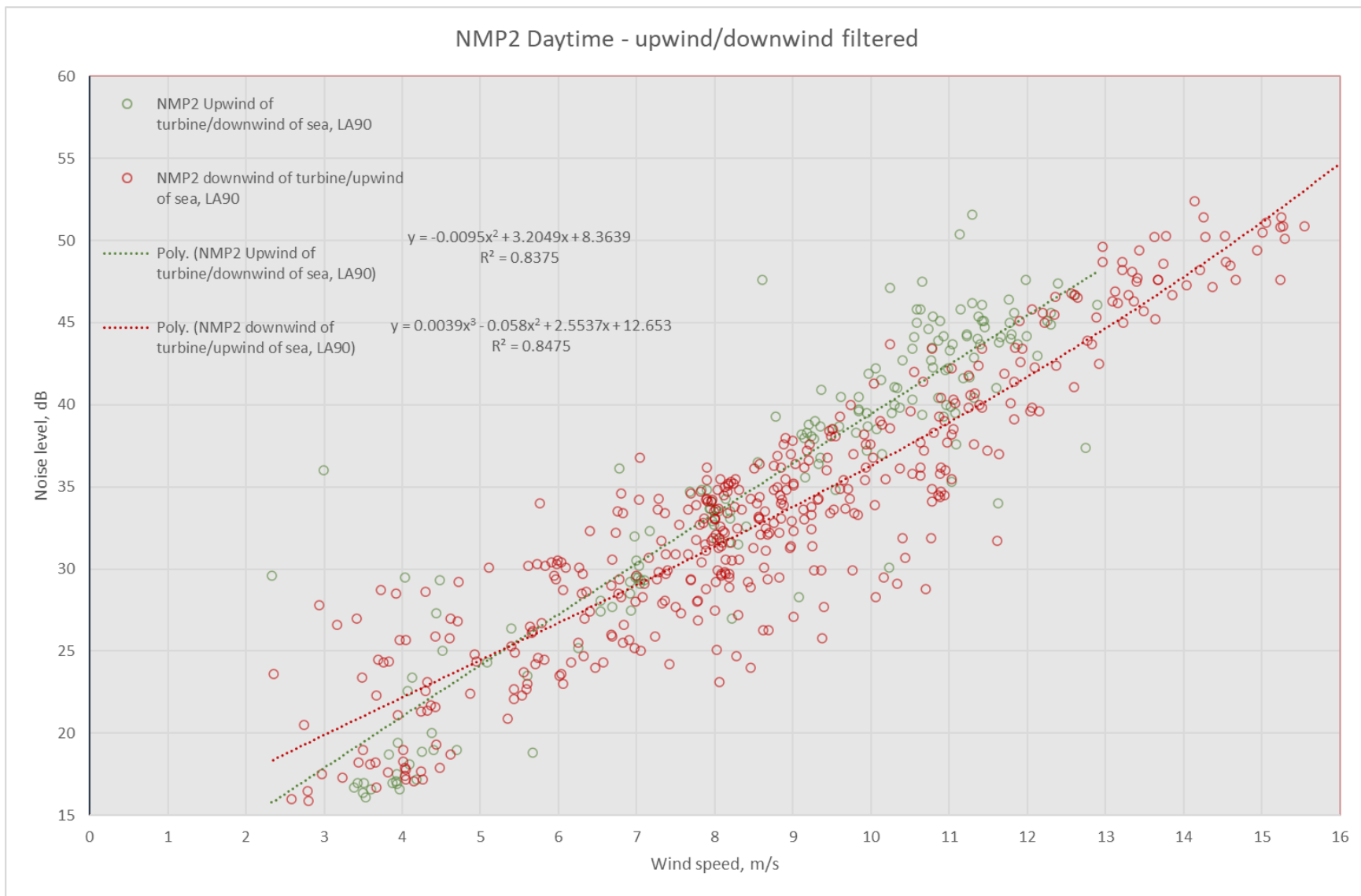
Chart 9.12 – Results of directional filtering of measured data at NMP1, night-time period



Note 1 – equation in **bold** used to derive background noise levels and resultant noise limits

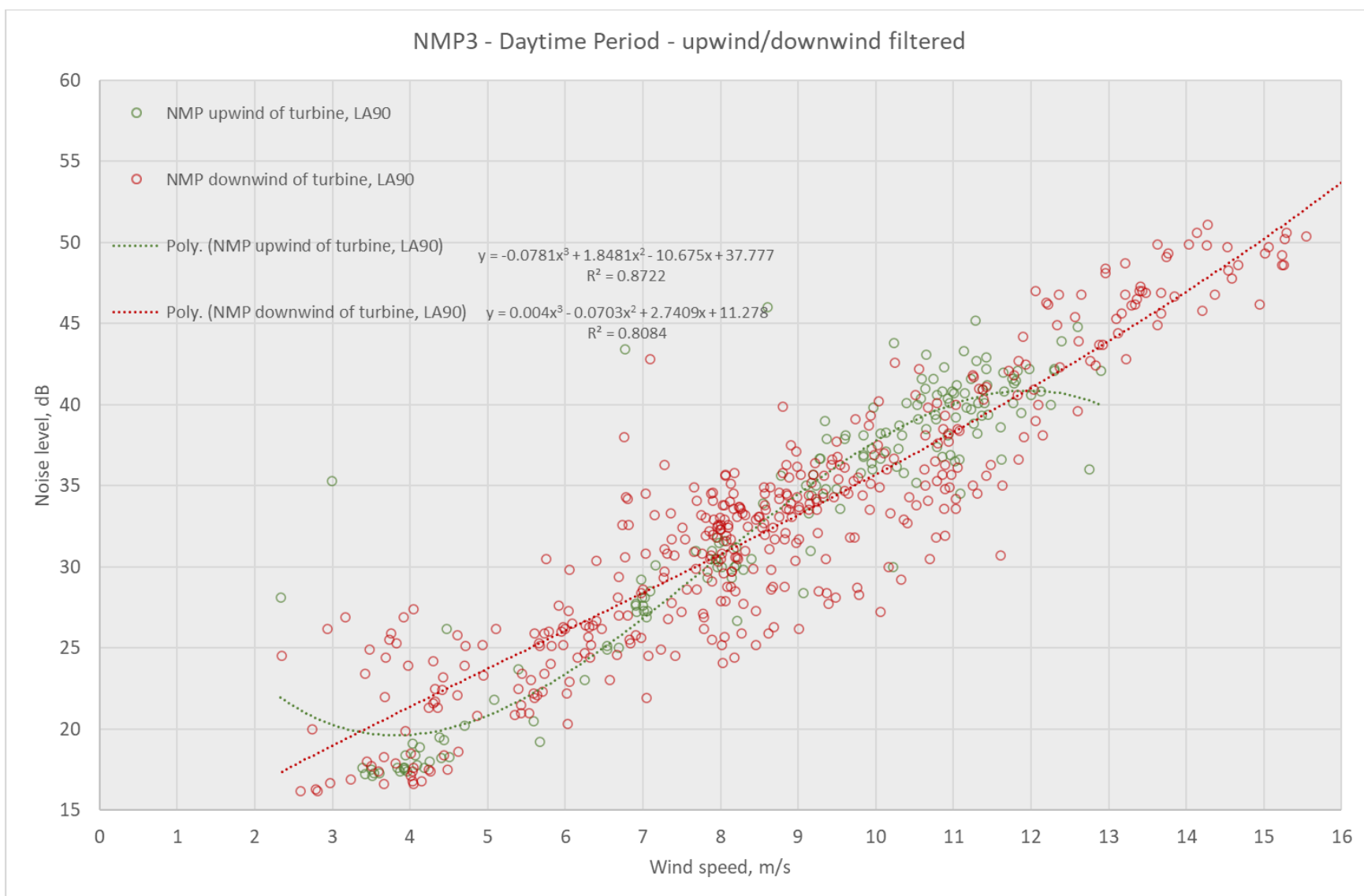
Note 2 – noise limit accounts for contribution of existing cumulative turbines

Chart 9.13 – Results of directional filtering of measured data at NMP2, daytime period



Note – Ore Brae turbine is to the north-west of NMP2 and Gable End Theatre turbine is to the north-east of NMP2, therefore NMP2 ‘upwind’ of turbines in wind directions $>270^\circ - <90^\circ$.

Chart 9.14 – Results of directional filtering of measured data at NMP3, daytime period



Note – Ore Brae turbine is to the north of NMP3 and Gable End Theatre turbine predicted to have negligible contribution to noise levels here, therefore NMP3 ‘upwind’ of turbines in wind directions $>270^\circ - <90^\circ$.