

The purpose of this pilot wind turbine installation is to assess the viability of deploying small scale roof top turbines across the Elephant and Castle core development area with a view to generating a significant proportion of the Mayor's 20% renewable energy requirement.

The project has been split into two phases. In the first phase, we erected and monitored a Proven 6kW horizontal axis turbine on the roof of Ashenden House. We found wind speeds to be less than predicted, however there were no noise or vibration impacts and the project was well received by local residents.

In this second phase, we have relocated the Proven 6kW turbine further along the roof and erected a QR5 vertical axis turbine in its place. The turbines are monitored from a vacant flat directly below the QR5.

Prior to the product upgrade in February 2009, the turbine speed (rpm) was capped and the turbine suffered from an overly sensitive vibration safety switch. This resulted in the turbine being unavailable for approximately 36% of the time up till February 2009. This has impacted the cumulative net energy balance.

However, from 24th February onwards, the period during which the QR5 turbine was fully operational, it still consumed more power than it produced.

No measurable impact on noise levels both externally and within the flat due to operation of the QR5 turbine

Vibration levels within the flat are well below the comfort criteria for 24hr working.

Residents supportive of the project. No adverse reaction from occupants or members of the public to date.