



Air Quality Impact from Biomass Project

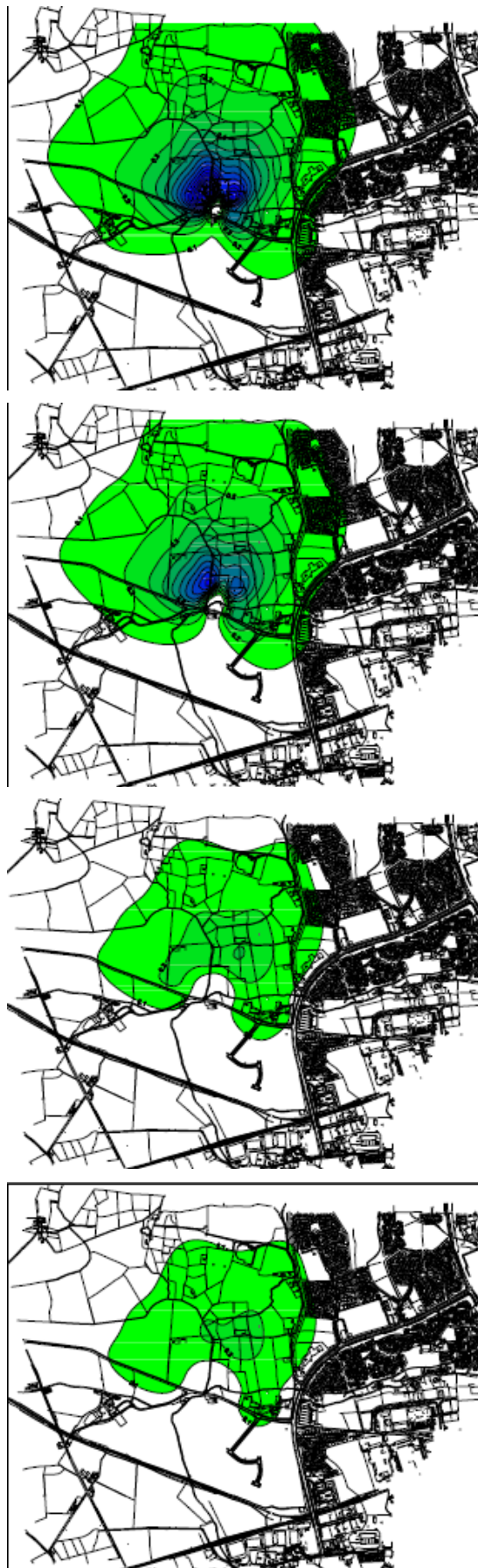
The Carvill Group applied to Lisburn City Council for a combined heat and power biomass fuelled boiler plant as part of a sustainable housing project. The scheme would use local supplies of sustainable coppice and wood waste to generate combined heat and power for the new development.

The plant was to be adjacent to existing and new housing. At a late stage in the application process, the local authority raised concerns about potential air quality impacts, particularly about PM₁₀. The Carvill Group needed a detailed assessment with quick turnaround to prevent the delay of the planning application determination. At this outline stage of planning there was only sketchy information on the boiler emissions of particles and oxides of nitrogen.

The Airshed was able to confirm realistic emission conditions with the preferred equipment supplier at short notice. Atmospheric dispersion was predicted using an advanced dispersion model (ADMS 4.0.3) and 5 years of meteorological data. A sensitivity analysis was conducted to consider the likely errors and variability arising from the meteorological data, surface roughness, efflux velocity, temperature of release, and receptor height.

The assessment concluded that the project was unlikely to significantly affect the short term or annual mean concentrations at sensitive receptors, provided appropriate mitigation measures were adopted. The Airshed was able to advise the client on the specifications for procurement.

The stack location and stack height were selected to ensure that residual pollution was adequately dispersed. The Airshed met the client's tight deadline. The report was accepted by the local authority.



The Airshed