APPENDIX

Response to Mr Felton's question (see minute 10) from the Head of Environment and Regulation.

New LED units have been installed on all major traffic routes to improve the road network within Wirral and to dramatically reduce the Council's overall energy consumption. All units installed are to be controlled via our central management system (CMS). Unfortunately we have a technical problem that has caused a communication failure in certain areas and in turn resulted in some of the new lanterns switching on much later than anticipated, and in some locations not switching at all. We are currently working on this issue alongside the system manufacturer, Harvard Technology Ltd, and will have the matter resolved at the earliest opportunity.

Harvard Technology Ltd have been working closely with Wirral Council on the rollout of our LeafNut Central Management System, which enables the Council to save money, by remotely monitoring, managing and controlling our Street Lighting asset over the internet from a centrally controlled interface. LeafNut has been operating successfully in the area on a limited number of street lighting points for a number of years, utilising wireless radio and GPRS communication technology to apply dimming, profiles and time schedules to individual or groups of streetlights. Fault and energy consumption information are also reported back to the interface via the Central Management System, enabling more efficient maintenance activities and optimising energy management.

During 2015/16, we extended our CMS combined with the rollout programme of new LED lighting units. An Initial 7553 units have now been installed together with LeafNut CMS technology. Unfortunately some of the Radio Nodes (the hardware deployed on each streetlight) fell "out of communication" with the main control system, caused by an external interference or power event. Being "out of communication" in itself is not an issue, as redundancy in the system allows them to continue to operate in the way they were last instructed for up to 2 weeks. After this period, the Nodes will default to a normal "dusk until dawn" profile, based on the on-board light sensor which should have provided a default – failsafe operation of the lights. Upon further investigation however, some of the nodes have not "reset" themselves as expected and as such have remained locked "out of communication" with the central management system. The light sensor on the nodes was also calibrated to a level which has meant that those nodes which have been persistently "out of communication" (and as such which have entered the default light sensor operation) have been switching on much later than what would be the norm with existing streetlights.

A combination of the above has led to the observed "late / early switching", where lights do not come on or switch off as normally expected. Additionally some power supply and other problems encountered during installation have left some streetlights "unlit" and /or out of power. To address the observed issues and underlying causes, we have embarked on a significant programme of improvement in the following areas:

1. We are managing a weekly improvement programme together with Harvard Technology Ltd, our installation contractor and luminaire supplier to identify and

act on performance improvement of the CMS / LED install. This involves site diagnostic and installation visits, remote system management and a routine detailed review of CMS reported performance. This is imperative in the early stages of any rollout and assigns a priority emphasis on addressing any complaints, any “out of light” assets reported and items reported automatically by the CMS as faults or communication issues. Actions are assigned to the various stakeholders and progress is tracked and reported back to us on a weekly basis.

2. Replacement of the affected Nodes. Additional components and software changes have been made to new Nodes, to allow for greater resilience in the resetting function, in case they are affected by any external power or interference event in the future. These are now being deployed to the affected areas to ensure radio communication with the CMS is optimised.

The embedded Light Sensors on the new nodes have been set to levels more normal to those in place elsewhere in the Wirral. This will address “late switching” concerns, if lights are “out of communication” with the CMS for any reason in the future.

I will forward the locations identified onto the system manufacturer and I am confident that a full resolution to the concerns raised by Mr Felton will be achieved soon.