The University
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Title: **Appendix of Deliverable 3.2 "Production of Validated Networks"**

Synopsis: This document clarifies Deliverable 3.2 "Production of Validated Networks".

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Appendix of Deliverable 3.2 "Production of Validated Networks"

The following bullet points clarify aspects related to the report of Deliverable 3.2 "Production of Validated Networks".

- **Application of the methodology**. The developed validation methodology will eventually be applied to all LV networks where monitoring and MPAN data is available.

- **Actions for non-valid feeders**. Feeders found to be non-valid according to the proposed methodology will be further analysed with ENWL to check the corresponding topology and MPAN data based on the GIS data. Feeders with more than 30 customers will be prioritised and will potentially require a site check in order to verify the corresponding topology. The latter will also be applicable to LV networks with many non-valid feeders.

- **Comparison between monitoring data and power flows based on ENWL profiles**. Given that the ENWL diversified profiles have a resolution of 30 minutes, monitoring data (mostly with sampling rates of 10 minutes) was averaged accordingly. This allows for a more appropriate comparison.

- **Ruskin Ave Feature IDs**. The assumption made for the report (page 6) could not be verified by the time of writing of this appendix.

- **ENWL Elexon diversified profiles**. The ENWL diversified profiles used in the report correspond to 2011 and match the corresponding date of the monitoring data (always a weekday). The future application of the proposed methodology will consider the most recent diversified profiles (e.g., 2013) and the most adequate date when options exist.

- **Energy metric**. The proposed methodology uses three-phase energy as the main metric for whole day and peak periods. Errors for metrics such as current or power were initially considered but were extremely high given the nature of demand consumption (the diversified profiles cannot mimic spikes or low values). The energy metric allows for a comparison of the overall behaviour in time, reducing the effects of spikes or low values that occur in between.

- **PV profiles**. The methodology uses the closest weather station to the feeder from the eleven weather stations available (ENWL LV substations and The University of Manchester) and the corresponding available data (e.g., a particular day/month). Due to the dates used in the report (October 2012 and April 2013) the only available data was that from the University.