UMSUG Paper - 13th December

Street lighting on Private Networks

Purpose

This document is intended to highlight the current approach to UMS street lighting and the challenges this approach presents to private network operators (PNOs), particularly those operating in a residential context where the street lights are adopted by local councils (local highways authorities).

Street lights are currently settled (typically) through Unmetered Supply arrangements under BSCP520. This is an established process that is well-understood by local highways authorities. Where street lights are connected directly to a private wire, alongside other loads, it is difficult to follow the unmetered supply arrangements in a cost-effective manner.

SNRG, as a PNO for new build domestic developments, would like to explore ways in which the industry can better support the settlement of street lights that are connected to private wire networks, while ensuring such approaches can be readily administered by non-specialist local highways authority resources.

Background

SNRG is a private wire network operator (PNO). We work with housing developers to fund, install and operate private network-based energy solutions serving both domestic and non-domestic consumers. These solutions save money for developers through reductions in onsite infrastructure costs and reduce network reinforcement (new connection) costs. It also protects energy consumers by using locally generated renewable energy, supported by storage and load management, to provide a low cost and low carbon source or power.

These private wire networks are connected to the local distribution network via a single HH final consumption metered point of connection.

This arrangement means that all loads within the community are serviced via the private wire, including street lighting. The electricity required to supply street lights is usually settled using an unmetered supply process, which is difficult to replicate cost-effectively under a private wire scenario. Furthermore, local highways authorities are not typically well set up to deal with non-standard solutions. We are looking for a solution that aligns private wire-connected street lighting settlement with the standard unmetered supply arrangements and avoids consumers connected to a private wire from having to bear the cost of the street light energy supply or a highly bespoke settlement solution.

BAU solutions

At present, the BAU approach is for a developer to engage with the DNO/IDNO/ICP to install the network that supplies the street lighting. Street lighting on adopted roads is normally adopted by the local highways authority and added to their inventory. To settle these loads, an unmetered supply is registered and, currently, settled on a non-half hourly basis against a deemed demand profile. While SNRG is aware that unmetered supply is due to move to half hourly settlement in 2024, we are not aware of any plans to mandate metered supply for street lighting. To enable UMS settlement of street lighting, the street lights have to be registered on a DNO network. It is the responsibility of the DNO to maintain an up-to-date record of the connected assets. Financial settlement is through the local authority's supplier. The challenge for the PNO is that the street lighting load is not (directly) connected to the DNO network and the route to registering the load as an unmetered supply for settlement purposes is not immediately apparent.

Potential SNRG solutions

One option could be to register an MPAN on the private wire network and install a meter to enable the street lighting load to be differenced (netted out from the private network boundary supply) with the local authority taking on the differenced supply. This will result in additional costs to the PNO in establishing and maintaining the differencing arrangements and introduce complexity for the local authority's supplier (for example, by having to ensure they can work with the incumbent MOP and data collector). Such a set up would have to be established with each local authority in which a private network operates.

A simpler solution would be to create a standardised approach to netting and settling unmetered supply for local authority adopted street furniture loads that are connected to a private network.

At this stage, SNRG is looking for guidance from the UMSUG on which routes might offer the most cost effective solution and whether any modifications may be required to ensure a solution can be implemented across all local authority areas without having to rely on the local authority having niche energy industry expertise.