

Roundtable note – West London Power Connections December 2022

On 9 December 2022, techUK participated in a roundtable with the GLA and energy stakeholders to discuss the West London electricity capacity constraints. Present parties included the GLA, techUK, SSEN, NGET, NGENSO. This session aimed to explore potential solutions to the issues of grid capacity in three affected London boroughs.

Further detail on the background can be found [here](#). The current proposed solutions can be found [here](#).

The agenda for the session was as follows:

- 14.00 - 14.05 Introductions
- 14.05 - 14.15 Overview of the West London Capacity issues by SSEN / GLA and the potential impact on housing delivery up until 2037.
- 14.15 – 14.55 Open forum to understand initial thoughts from data centres.

Opening context

The data centre community has been aware of the power issues in West London for over a year, and techUK has been working on their behalf to address delays to connection delivery which have become a serious issue for the sector in the region. The purpose of this GLA chaired roundtable was to examine the efficacy of short-term or temporary release of contracted power connections by data centres for residential developments in three affected boroughs.

To open, SSEN set out the background to the capacity constraints in West London, due to the recent proliferation of large single point loads – including (Battery Energy Storage Solutions) and data centres along the M4 corridor, compounded by the Transmission and Distribution upgrade timetables. SSEN set out the proposal to unlock the queue, for smaller capacity need developments where large single applicants would not be detrimentally affected.

Of interest to this discussion are two data centre market segments:

- Large industrial size (typically running at full electricity capacity); and
- On-premise data centres (some may have excess capacity – but only ‘usable’ by SSEN if the extra capacity is new – i.e. within the past 5 years, otherwise it has already been considered)

Public sector proposals

1. Using excess electrical capacity for other nearby developments

If there is excess capacity on a site - by reducing capacity requirements, data centres would in turn see a reduction in their distribution use of system charges. For the large industrial market segment, it will be very hard for data centres to release any large amounts of capacity, as there are contractual commitments with their clients.

Discussions suggested the possibility of the release of comparatively small amounts of power by large industrial data centres (1-5MVA). This equates to circa 200-1000 homes’ worth of electricity. Under a release scenario, surrendered energy could not be reserved for certain types of customers in the borough. Additionally, the capacity surrendered would need to be located geographically

close to the site or on the same section of network as those wishing to utilise it. Finally, the proposal to release capacity is only possible for already connected users.

2. Applications process

The GLA questioned whether data centre operators in the affected boroughs were applying for the electrical capacity that they need or allowing for excess. This included discussions around BESS and if a similar way of thinking could be applied to data centre usage. It is the GLA's understanding that data centre applications do not consider / require any pre-existing connections (ie from a historic industrial estate).

It is the view of techUK that the future planning of data centres in the area has been exacerbated by the delays and failed commitments of the power connection timelines in the past. Lengthy connection times and possible delays are now factored into the data centre risk management and growth models, in some areas.

3. Electricity Usage

SSENs current assessment of data centre power consumption is that it is continuous load, unlike other demands that are cyclic. It has been noted that the demand requirements for data centres do increase during summer periods. This assessment was challenged, as some research shows differences between seasons as well as throughout the day. SSEN were keen to receive any data that can help support these alternative views.

There was a suggestion that SSEN convene a working group to discuss and exchange information to assess the electricity usage of data centres. This is with the aim of better utilising the existing capacity in West London. techUK are open to participating in such discussions.

Next Steps

The GLA sends thanks to those in attendance for a useful introductory session. The GLA team asks that if your site has the potential to release excess electrical capacity – either through a historical connection or recent under-use, could a member of your team please get in contact with Kosh Kar (kosh.kar@london.gov.uk) who can help facilitate next steps with SSEN.

As briefly mentioned, the GLA is also looking to convene engagement workshops with data centre teams on a variety of subjects (including infrastructure). More information on this will be announced once a date and agenda has been confirmed.

Further Information



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