











1 NETWORK REQUIREMENTS

1.1 Sebergham

We are currently seeking flexible services for one of our primary substations in Sebergham.

The flexible services target area for this requirement is located in the village of Sebergham which is south of Carlisle in Cumbria, as illustrated in Figure 1.1.1.

Figure 1.1.1: Flexible services target area for Sebergham



The requirement in Sebergham is for a DYNAMIC response, which means that we only require flexible services in the event of a network abnormality. Figure 1.1.2 shows the service characteristics of this type of response.

Figure 1.1.2: Service characteristics of a DYNAMIC response

Type of Response	When to Act	Trigger	Certainty of Utilisation	Risk to network assets	Frequency of use
DYNAMIC	Post Fault	Network abnormality	Uncertain	High	Low

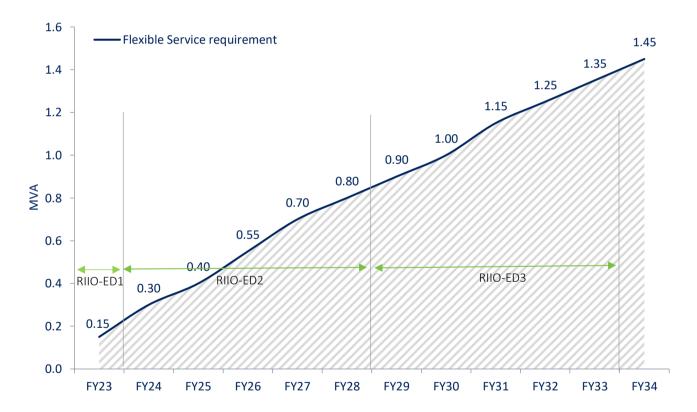
Figure 1.1.3 summaries the requirement in this area, detailing the amount of capacity required and the service window.

Figure 1.1.3: Flexible service requirements for Sebergham

Year	Feeding postcodes	MVA required	Period	Time of day	Service window	Days
2023	CA5 7, CA7 1 & 8	0.15	Nov -Mar	Morning	08:30 - 09:30	Mon - Fri
				Evening	17:30 – 19:00	

The below chart shows how we expect the flexible service requirement may increase over the course of time.

Figure 1.1.4: Forecasted flexible service requirement up to FY34



FY23 requirements

Figure 2.1. Monthly requirement

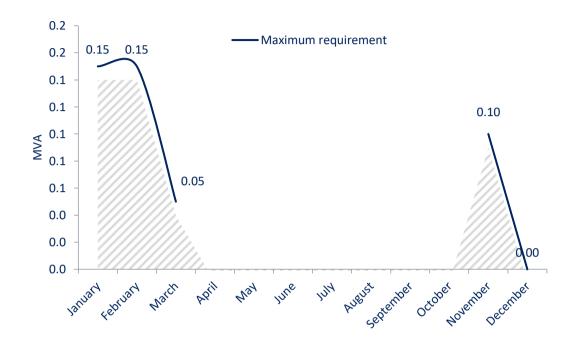


Figure 2.2. Weekly requirement

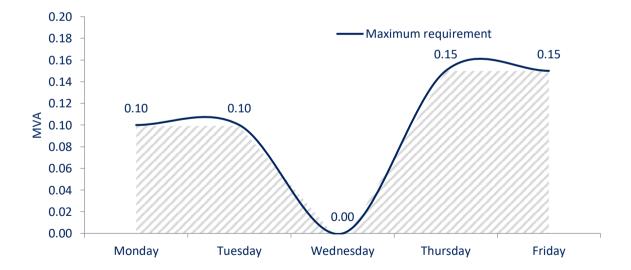


Figure 2.3. Daily Requirement

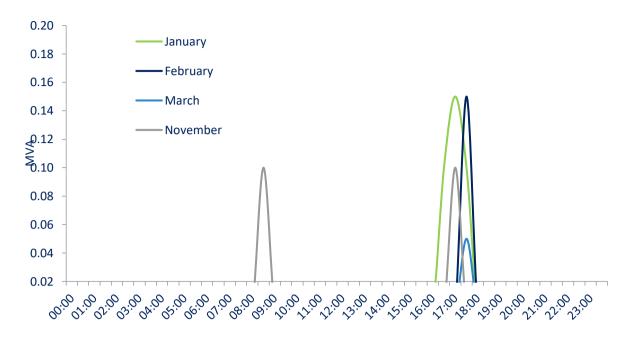


Figure 2.4. Half hourly detailed requirement

Time of day	Jan	Feb	Mar	Nov
00:00 - 00:30	0	0	0	0
00:30 - 01:00	0	0	0	0
01:00 - 01:30	0	0	0	0
01:30 - 02:00	0	0	0	0
02:00 - 02:30	0	0	0	0
02:30 - 03:00	0	0	0	0
03:00 - 03:30	0	0	0	0
03:30 - 04:00	0	0	0	0
04:00 - 04:30	0	0	0	0
04:30 - 05:00	0	0	0	0
05:00 - 05:30	0	0	0	0
05:30 - 06:00	0	0	0	0
06:00 - 06:30	0	0	0	0
06:30 - 07:00	0	0	0	0
07:00 - 07:30	0	0	0	0
07:30 - 08:00	0	0	0	0
08:00 - 08:30	0	0	0	0
08:30 - 09:00	0	0	0	0.10

Time of day	Jan	Feb	Mar	Nov
09:00 - 09:30	0	0	0	0
09:30 - 10:00	0	0	0	0
10:00 - 10:30	0	0	0	0
10:30 - 11:00	0	0	0	0
11:00 - 11:30	0	0	0	0
11:30 - 12:00	0	0	0	0
12:00 - 12:30	0	0	0	0
12:30 - 13:00	0	0	0	0
13:00 - 13:30	0	0	0	0
13:30 - 14:00	0	0	0	0
14:00 - 14:30	0	0	0	0
14:30 - 15:00	0	0	0	0
15:00 - 15:30	0	0	0	0
15:30 - 16:00	0	0	0	0
16:00 - 16:30	0	0	0	0
16:30 - 17:00	0.1	0	0	0
17:00 - 17:30	0.15	0	0	0.10
17:30 - 18:00	0.10	0.15	0.05	0
18:00 - 18:30	0	0	0	0
18:30 - 19:00	0	0	0	0
19:00 - 19:30	0	0	0	0
19:30 - 20:00	0	0	0	0
20:00 - 20:30	0	0	0	0
20:30 - 21:00	0	0	0	0
21:00 - 21:30	0	0	0	0
21:30 - 22:00	0	0	0	0
22:00 - 22:30	0	0	0	0
22:30 - 23:00	0	0	0	0
23:00 - 23:30	0	0	0	0
23:30 - 00:00	0	0	0	0