# **Network Assessment Guide**

-

Assessments in association with NGED Matrix designs

June 2025





nationalgrid

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## **Data Portal 2**

### Introduction

This guidance document can be used to assist with the evaluation of National Grid Electricity Distribution's (NGEDs) system in association with the determination process for the connection of loads up to 5.75kVA as per Standard Technique: SD5F.

### **DataPortal 2**

NGED's network topology can be viewed on our DataPortal2 website, please note that only organisations with a business need are provided access. This is for security of our network and customers.

Log In - NGED DataPortal2

## Step 1. Create an account

We'll accept access to the system for work in conjunction with the assessment of our network in line with our Standard Technique: SD5F (Relating to connecting multiple small low voltage connections with limited network analysis).

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Once the account has been accepted, you'll be provided with a link to validate your account, once validated, you can pass to the next step.

## Step 2. Accept Terms and Conditions



## Step 3. Launch EMU Online

This is our mapping system

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	•	Our Online Mapping application (EMU Online) provides you with access to our network records and information via an easy to use web interface.			
	•	Some of the features available are:			
		Gazetteer by Postcode, Street, Locality or NGED Equipment     Use Grid References or Easting/Northing to locate sites     Ouery features for further attribution     Print to high quality PDF			
		Launch EMU Online			

You'll see this page



## Step 4. Finding the network of relevance.

Under MENU, select GAZATEER



Our assets can then be searched via Post Code, Equipment names and numbers or via Grid Reference

Within the example, post code **BA5 1UP** has been entered into the search function



The screen will now display an area of asset associated with the chosen search method

## Step 5. Assessing the network

Substations can be ascertained by the substation text and by determining the red (high voltage conductors) lines entering into an outlined shape with exiting blue (low voltage conductors) lines.

For this example, the Substation is called Southover Wells and the substation number is 16/1066.

The prefix 16 denotes the area – for this example the area is East Mendip (Midsomer Norton office)



The scroll button can be used to zoom in and out and the left or central mouse button can be used to grab and pull the screen around the network.

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#### **Guidance with Open Points (ends of network)**

To determine the extent of a circuit, the blue lines are followed until an open point is found,

Example of an open point in the South West – A triangle denotes the end of a circuit. For this example, the open link is between the overhead line and underground cable.



The below drawing, shows an LDB (Linkable Distribution Box), with a triangle showing the end of circuit between two cables.



The below picture shows an open (Links out) link box within the Midlands region – electricity does not flow through the link box



The below picture shows a closed (Links in) link box within the Midlands region – electricity flows through the link box. Therefore, this is not the end of the circuit.



## **Conductor guidance**

Example of a 0.1 square inch, five core pilc cable. This cable has a modern equivalent cross sectional area of 70mm<sup>2</sup>, the cores will the copper and the five cores show a Separate Neutral Earth (TN-S) cable – this asset has likely been converted to provide PME (TN-C-S).



Example of a four wire 0.05 Aluminium overhead line plus street light wire. The direct relationship between the cross sectional area 0.05 square inch and the metric equivalent is 35mm<sup>2</sup>, however, for <u>overhead lines only</u>, the imperial cross sectional areas denote the equivalent copper conductor, based on thermal capacity. Therefore, for an overhead line, the following applies;

- 0.05 AL = 50mm<sup>2</sup> Aluminium
- 0.05 CU = 35mm<sup>2</sup> Copper
- 0.1 AL = 100mm<sup>2</sup> Aluminium
- 0.1 CU = 70mm Copper

The above does not apply to an underground cable, the imperial to metric conversion correlates to size and not thermal capacity.



Example of a 300mm<sup>2</sup> three core wavecon cable (combined neutral earth / PME), the cable has aluminium phases and a copper neutral



#### **Conductor nomenclature**

The below does not impact the assessment.

Historic cables can be seen by the use of imperial square inch cross sectional values, the below cable is 0.3 Sq in or 185mm<sup>2</sup> as a metric value. The cable is also noted as four core (4C) which for a paper insulated lead covered cable (PILC) is a Combined Neutral Earth cable (TN-C-S).

Therefore, the following naming conventions apply,

A CNE cable

• 3c wavecon or 4c PILC

A SNE cable

• 4c wavecon or 5c PILC

Note,

A 3c PILC cable is an old D.C. cable that has two phases and neutral i.e. its not three phase.



## **Connected Data**

NGED make various network data available to stakeholders of need and within the Distribution Substation data file, the below information can be found.

Please ensure that an up to date data capture is downloaded for each phase of works.

Dataset - Connected Data Portal | National Grid

## Step 1. Raise and account and log in

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## Step 2. Use the link to search for the 'Distribution Substation' data set

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iags		This dataset provides the distribution substations within NGED's four licence areas and their connection to the primary substation. A distribution substation is an electrical					
substation	3						
ev	2	Distribution Substation Location (Easting / Northings)					
generation	2						
hp	2	Location of NGED Distribution Substations (Easting / Northings)					
ict	2						
ру	2	11kV Substations					
storage	2	FOF 28					
substations	2	11kV substations for all NGED areas supplied chunked at OS 20km Grid in zipped ESRI Shapefile (SHP) format. Important Safety Information The information contained in this					
transformers	2						
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## Step 3. Locating data

Substation name and number within column J & K

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2 East Midle	990003 WEST BUR	900002 LINCOLN Methoring	900037 900037/00 Grd Mitd	Parker Close Pranston		9	07241 1502224	06 -0.4696	52 1000	104	40	500	2	0	0	2	46	19	4	0
4 Fast Midla	890003 WEST BUR	900002 LINCOLN   North Hyk	900029 900029/00 Grd Mtd	THORPE GRANGE INDU		9	00378 5K91597	06 -0.6312	53,1696	166	75	800	0	0	0	0		13	2	ő
5 Fast Midla	890003 WEST BUR	900002 LINCOLN   Fiskerton	900035 900035/00 Grd Mtd	Merleswen Dunholme		9	04375 TE01973	07 -0.4714	53,2986	249	302	500	5	0	0	5	36	101	28	0
6 Fast Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/00 Grd Mtd	OAK CRESCENT CHERRY		9	04569 TE02695	07 -0.4628	53,23584	164	251	300	4	0	1	3	24	39	12	0
7 Fast Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/00 Grd Mtd	CHURCH VIEW CRESCEN		91	04593 TE05223	27 -0.425	53,2345	220	438	500	6	0	1	5	39	117	31	0
8 Fast Midla	890003 WEST BUR	900002 LINCOLN / Waddingt	900033 900033/00 Grd Mtd	LIBRARY BRANSTON		9	04629 TE02027	DE -0.47431	53,19359	138	221	300	3	0	1	2	30	23	5	0
9 East Midla	890003 WEST BUR	900002 LINCOLN / Wraeby 35	900036 900036/00 Pole Mtd	Wickenby		9	04757 TE08655	85 -0.3701	53,3251	28	51	100	3	0	3	0	20	12	4	0
10 East Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/00 Grd Mtd	22 HIGH STREET HEIGHI		9	04799 TE03054	96 -0.45579	53,21214	251	370	315	4	0	0	4	27	9	2	0
11 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 3	900036 900036/00 Grd Mtd	PRIORY GRANGE EAST		9	04829 TF13118	07 -0.3046	53,2878	294	260	1000	4	0	4	0	24	33	9	0
12 East Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/00 Grd Mtd	FEN VIEW ESTATE HEIG		9	04855 TE03669	06 -0.4491	53,2113	106	114	300	2	0	1	1	10	32	10	0
13 East Midla	890003 WEST BUR	900002 LINCOLN   Methering	900037 900037/00 Grd Mtd	MOOR LANE POTTERHA		9	04895 TF05597	06 -0.4211	53,1874	136	192	315	6	0	5	1	31	18	6	0
14 East Midla	890003 WEST BUR	900002 LINCOLN   Methering	900037 900037/00 Grd Mtd	ROBIN COURT DIGBY		9	04956 TF04614	35 -0.4392	53.0947	80	146	500	0	0	0	0	0	0	0	0
15 Fast Midla	890003 WEST BUR	900002 LINCOLN / Wraeby 3	900036 900036/00 Pole Mtd	GOLTHO HOUSE		9	05005 TE11822	67 -0.324	53,2889	24	12	100	0	0	0	0	0	0	0	0
16 Fast Midla	890003 WEST BUR	900002 LINCOLN / Wragby 35	900036 900036/00 Grd Mtd	CARRON CLOSE BARDN		9	05049 TE11867	DE -0.3262	53,213	113	231	315	4	0	1	3	26	44	12	0
17 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 32	900036 900036/00 Pole Mtd	MANOR FARM STAINFI		9	05078 TF10544	67 -0.3449	53,2438	62	36	100	0	0	0	0	0	0	0	0
18 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 35	900036 900036/00 Pole Mtd	HENRY LANE IND ESTAT		9	05107 TF12770	5£ -0.3128	53,211	35	27	200	0	0	0	0	0	26	2	2
19 East Midla	890003 WEST BUR	900002 LINCOLN   Methering	900037 900037/00 Pole Mtd	TANVATS METHERINGH		9	05116 TF13129	36 -0.3094	53,1608	28	62	100	1	0	1	0	8	15	4	0
20 East Midla	890003 WEST BUR	900002 LINCOLN   Methering	900037 900037/00 Grd Mtd	LIBRARY AND CLINIC M		9	05143 TF06936	06 -0.4028	53,1392	265	248	500	0	0	0	0	0	53	14	0
21 East Midla	890003 WEST BUR	900002 LINCOLN   Doddingto	900028 900028/00 Pole Mtd	HARBY RAILWAY BRIDG		9	03353 SK88111	6; -0.6815	53,2313	40	55	100	3	0	3	0	15	10	4	0
22 East Midla	890003 WEST BUR	900002 LINCOLN   Doddingto	900028 900028/00 Grd Mtd	MONSON PARK SKELLIN		9	03712 SK92235	0; -0.6196	53.2342	121	174	315	2	0	1	1	19	26	8	0
23 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	RAF SWINDERBY AMO		9	03746 SK90128	26 -0.65366	53,15407	151	264	750	4	0	3	1	22	97	38	0
24 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	ROYAL OAK LANE AUBO		9	03856 SK92377	06 -0.6201	53.1533	176	238	200	5	0	2	3	28	24	6	0
25 East Midla	890003 WEST BUR	900002 LINCOLN / Doddingto	900028 900028/00 Grd Mtd	SHAWBURY CLOSE		9	03873 SK93207	06 -0.60586	53.20812	248	466	315	3	0	0	3	36	85	24	0
26 East Midla	890003 WEST BUR	900002 LINCOLN / Doddingto	900028 900028/00 Grd Mtd	DAMONS RESTAURANT		91	03877 SK92634	06 -0.6145	53.2072	276	355	500	0	0	0	0	0	49	1	0
27 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	MEADOW LANE N. HYKE		9	03933 SK94654	0( -0.5852	53.1789	203	189	315	1	0	1	0	5	43	9	0
28 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	NORTH HYKEHAM WES		9	03948 SK93920	06 -0.5955	53.1987	397	296	500	8	0	1	7	160	102	8	0
29 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	EXCHANGE ROAD LINCO		91	03955 SK94079	06 -0.593	53.2009	482	272	800	2	0	0	2	7	3	1	0
30 East Midla	890003 WEST BUR	900002 LINCOLN / Rookery L	900030 900030/00 Grd Mtd	SCOTTON DRIVE LINCO		9	04175 SK95047	9( -0.5782	53.2107	367	325	500	1	0	1	0	7	35	10	0
31 East Midla	890003 WEST BUR	900002 LINCOLN / Beevor Sti	900009 900009/00 Grd Mtd	Tritton Road Trading Es		91	04212 SK96391	01 -0.55776	53.22096	412	316	750	0	0	0	0	0	0	0	0
32 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	BROOKSIDE NTH HYKEH		91	04215 SK94790	0( -0.58258	53.19551	335	412	500	6	0	1	5	40	97	26	0
33 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	ELIZABETH AVE NO 52 M		9	04220 SK94814	06 -0.5826	53.18397	190	245	750	3	0	0	3	22	27	7	0
34 East Midla	890003 WEST BUR	900002 LINCOLN FRookery L	900030 900030/00 Grd Mtd	WALBURY CLOSE		91	04512 SK96762	06 -0.5532	53.19114	260	317	500	5	0	3	2	33	73	21	0
35 East Midla	890003 WEST BUR	900002 LINCOLN / Doddingto	900028 900028/00 Grd Mtd	THE POINT OFFICE PAR		91	06080 SK92733	0( -0.6132	53.2014	197	68	1000	2	0	0	2	14	18	3	0
36 East Midle	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	THE DROVE		9	06050 SK92644	06 -0.6151	53.1818	315	174	315	18	0	1	17	127	34	9	0
37 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00 Grd Mtd	WIRTGEN WHISBY ROA		91	05737 SK93085	16 -0.608	53.2001	277	187	500	0	0	0	0	0	1	1	0
38 East Midla	890003 WEST BUR	900002 LINCOLN / Methering	900037 900037/00 Grd Mtd	KIRKBY GREEN		91	05680 TF08458	15 -0.3813	53.1064	72	132	200	3	0	2	1	18	3	2	0
39 East Midla	890003 WEST BUR	900002 LINCOLN / Waddingt	900033 900033/00 Grd Mtd	STONE LANE		9	00492 SK97565	06 -0.5419	53.1695	85	94	315	0	0	0	0	0	46	13	0
40 East Midla	890003 WEST BUR	900002 LINCOLN / Methering	900037 900037/00 Grd Mtd	Station Road Potterhar		91	07374 TF05322	0E -0.4254	53.1835	90	143	800	0	0	0	0	0	17	3	0 🚽
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## Step 4. Formatting data

Freeze frame for titles.

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Highlight the column K and use the search function to search for the substation number of choice.

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2 East Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/0/	Pole Mtd (Manor Farm	Reepham			903154 TF028	81537 -0.4	502 5	3.2574	123	98	315	0	0	0	0	0	0	0	0
3 East Midla	890003 WEST BUR	900002 LINCOLN / Methering	900037 900037/00	Grd Mtd D Parker Close	Branston			907241 TF023	32406 -0.4	596 5	3.1998	104	40	500	3	0	0	3	46	18	4	0
4 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00	Grd Mtd D THORPE GR	ANGE INDU:			900378 SK915	59706 -0.6	312 5	3.1696	166	75	800	0	0	0	0	0	13	2	0
5 East Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/0	Grd Mtd D Merleswen	Dunholme			904375 TF019	07307 -0.4	714 5	3.2986	249	302	500	5	0	0	5	36	101	28	0
6 East Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/0/	Grd Mtd DOAK CRESCE	INT CHERRY			904569 TF026	59507 -0.4	528 53	.23584	164	251	300	4	0	1	3	24	39	12	0
7 East Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/0	Grd Mtd D CHURCH VIE	W CRESCEN			904593 TF052	22327 -0.	125 5	3.2345	220	438	500	6	0	1	5	39	117	31	0
8 East Midla	890003 WEST BUR	900002 LINCOLN / Waddingt	900033 900033/0/	Grd Mtd DLIBRARY BR	ANSTON			904629 TF020	2706 -0.47	31 53	.19359	138	221	300	3	0	1	2	30	23	5	0
9 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 32	900036 900036/0	Pole Mtd (Wickenby				904757 TF086	55588 -0.3	701 5	3.3251	28	51	100	3	0	3	0	20	12	4	0
10 East Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/00	Grd Mtd D 22 HIGH STR	EET HEIGHI			904799 TF030	5496 -0.45	579 53	.21214	251	370	315	4	0	0	4	27	9	2	0
11 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 32	900036 900036/00	Grd Mtd D PRIORY GRA	NGE EAST V			904829 TF131	1807 -0.3	046 5	3.2878	294	260	1000	4	0	4	0	24	33	9	0
12 East Midla	890003 WEST BUR	900002 LINCOLN / Fiskerton	900035 900035/06	Grd Mtd D FEN VIEW E	STATE HEIG			904855 TF036	56906 -0.4	91 5	3.2113	106	114	300	2	0	1	1	10	32	10	0
13 East Midla	890003 WEST BUR	900002 LINCOLN   Methering	900037 900037/0/	Grd Mtd D MOOR LANE	POTTERHA			904895 TF055	5970E -0.4	211 5	3.1874	136	192	315	6	0	5	1	31	18	6	0
14 East Midla	890003 WEST BUR	900002 LINCOLN   Methering	900037 900037/0	Grd Mtd DROBIN COU	RT DIGBY			904956 TF046	51435 -0.4	392 5	3.0947	80	146	500	0	0	0	0	0	0	0	0
15 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 3	900036 900036/0/	Pole Mtd IGOLTHO HO	USE			905005 TF118	32267 -0.	324 5	3.2889	24	12	100	0	0	0	0	0	0	0	0
16 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 31	900036 900036/0	Grd Mtd D CARRON CL	OSE BARDN			905049 TF118	3670E -0.3	262	53.213	113	231	315	4	0	1	3	26	44	12	0
17 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 35	900036 900036/0/	Pole Mtd IMANOR FAR	RM STAINFI			905078 TF105	4467 -0.3	49 5	3.2438	62	36	100	0	0	0	0	0	0	0	0
18 East Midla	890003 WEST BUR	900002 LINCOLN / Wragby 3	900036 900036/0	Pole Mtd HENRY LAN	IND ESTAT			905107 TE127	77056 -0.3	128	53.211	35	27	200	0	0	0	0	0	26	2	2
19 East Midla	890003 WEST BUR	900002 LINCOLN   Methering	900037 900037/0	Pole Mtd ITANVATS M	ETHERINGH			905116 TF131	12936 -0.3	094 5	3.1608	28	62	100	1	0	1	0	8	15	4	0
20 East Midla	890003 WEST BUR	900002 LINCOLN   Methering	900037 900037/0/	Grd Mtd DLIBRARY AN	D CUNIC M			905143 TE069	3606 -0.4	028 5	3.1392	265	248	500	0	0	0	0	0	53	14	0
21 East Midla	890003 WEST BUR	900002 LINCOLN   Doddingto	900028 900028/0	Pole Mtd HARBY RAIL	WAY BRIDG			903353 SK881	1116; -0.6	815 5	3.2313	40	55	100	3	0	3	0	15	10	4	0
22 East Midla	890003 WEST BUR	900002 LINCOLN / Doddingto	900028 900028/0/	Grd Mtd D MONSON P	ARK SKELLIN			903712 SK922	23507 -0.6	196 5	3.2342	121	174	315	2	0	1	1	19	26	8	0
23 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/0	Grd Mtd DRAF SWIND	ERBY AMQ			903746 SK901	12826 -0.65	366 53	.15407	151	264	750	4	0	3	1	22	97	38	0
24 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00	Grd Mtd DROYAL OAK	LANE AUBC			903856 SK923	37706 -0.6	201 5	3.1533	176	238	200	5	0	2	3	28	24	6	0
25 East Midla	890003 WEST BUR	900002 LINCOLN   Doddingte	900028 900028/0	Grd Mtd D SHAWBURY	CLOSE			903873 SK932	20706 -0.60	586 53	.20812	248	466	315	3	0	0	3	36	85	24	0
26 East Midla	890003 WEST BUR	900002 LINCOLN / Doddingto	900028 900028/0/	Grd Mtd DDAMONS R	STAURANT			903877 SK926	53406 -0.6	145 5	3.2072	276	355	500	0	0	0	0	0	49	1	0
27 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/06	Grd Mtd D MEADOW L	ANE N.HYKE			903933 SK946	55406 -0.5	352 5	3.1789	203	189	315	1	0	1	0	5	43	9	0
28 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00	Grd Mtd D NORTH HYK	EHAM WEST			903948 SK939	92006 -0.5	955 5	3.1987	397	296	500	8	0	1	7	160	102	8	0
29 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/06	Grd Mtd DEXCHANGE	ROAD LINCO			903955 SK940	07906 -0.	593 5	3.2009	482	272	800	2	0	0	2	7	3	1	0
30 East Midla	890003 WEST BUR	900002 LINCOLN / Rookery L	900030 900030/00	Grd Mtd D SCOTTON D	RIVE LINCO			904175 SK950	04796 -0.5	782 5	3.2107	367	325	500	1	0	1	0	7	35	10	0
31 East Midla	890003 WEST BUR	900002 LINCOLN / Beevor Sti	900009 900009/06	Grd Mtd D Tritton Road	d Trading Es			904212 SK963	39107 -0.55	776 53	1.22096	412	316	750	0	0	0	0	0	0	0	0
32 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00	Grd Mtd DBROOKSIDE	NTH HYKEH			904215 SK947	79006 -0.58	258 53	.19551	335	412	500	6	0	1	5	40	97	26	0
33 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/0	Grd Mtd DELIZABETH	VE NO 52 N			904220 SK948	31406 -0.5	326 53	.18397	190	245	750	3	0	0	3	22	27	7	0
34 East Midla	890003 WEST BUR	900002 LINCOLN   Rookery L	900030 900030/0	Grd Mtd D WALBURY C	LOSE			904512 SK967	76206 -0.5	532 53	.19114	260	317	500	5	0	3	2	33	73	21	0
35 East Midla	890003 WEST BUR	900002 LINCOLN / Doddingte	900028 900028/00	Grd Mtd D THE POINT	OFFICE PAR			906080 SK927	73306 -0.6	132 5	3.2014	197	68	1000	2	0	0	2	14	18	3	0
36 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00	Grd Mtd D THE DROVE				906050 SK926	54406 -0.6	151 5	3.1818	315	174	315	18	0	1	17	127	34	9	0
37 East Midla	890003 WEST BUR	900002 LINCOLN / North Hyk	900029 900029/00	Grd Mtd D WIRTGEN W	HISBY ROAL			905737 SK930	0851€ -0.)	508 5	3.2001	277	187	500	0	0	0	0	0	1	1	0
38 East Midla	890003 WEST BUR	900002 LINCOLN / Methering	900037 900037/00	Grd Mtd D KIRKBY GRE	EN			905680 TF084	-0.3	813 5	3.1064	72	132	200	3	0	2	1	18	3	2	0
39 East Midla	890003 WEST BUR	900002 LINCOLN / Waddingt	900033 900033/00	Grd Mtd D STONE LAN				900492 SK975	56506 -0.5	19 5	i3.1695	85	94	315	0	0	0	0	0	46	13	0
40 East Midla	890003 WEST BUR	900002 LINCOLN Methering	900037 900037/00	Grd Mtd D Station Roa	d Potterhar			907374 TF053	32206 -0.4	254 5	3.1835	90	143	800	0	0	0	0	0	17	3	0 🛫
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## Step 5. Determining substation utilisation

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114491 South We	206008 Bridgwate 210448 Street Bsp Wells	160824 160824/00 Pole Mtd   Glencot	160	851 ST5320004	-2.6715	51.21861	23	40	100	1	0	0	1	7	1	1	
114492 South We	206008 Bridgwate 210448 Street Bsp Wells	160824 160824/00 Grd Mtd D Martins Close Wells	161	050 ST5376704	-2.6632	51.2051	121	64	300	3	0	1	2	18	40	12	
114493 South We	206008 Bridgwate 210448 Street Bsp Wells	160824 160824/00 Grd Mtd D Southover Wells	161	.066 ST5482904	-2.648	51.2052	171	132	800	4	0	0	4	53	2	1	
114494 South We	206008 Bridgwate 210448 Street Bsp Millfield	210100 210100/09 Pole Mtd   Tor View West	213	238 ST4945663	-2.7239	51.1397	39	16	100	0	0	0	0	0	6	2	
114495 South We	206008 Bridgwate 210448 Street Bsp Millfield	210100 210100/09 Grd Mtd D Blenheim Road	213	335 ST4782103	-2.7469	51.1202	133	52	300	2	0	1	1	21	28	21	
114496 South We	206008 Bridgwate 210448 Street Bsp Millfield	210100 210100/09 Pole Mtd Lower Farm	213	395 ST5743893	-2.6094	51.1071	28	12	100	5	0	3	2	34	0	0	
114497 South We	206008 Bridgwate 210448 Street Bsp Millfield	210100 210100/09 Grd Mtd D Oriel Terrace	213	708 ST4821003	-2.74142	51.12203	49	38	315	1	0	0	1	7	13	5	
114498 South We	206008 Bridgwate 210448 Street Bsp Millfield	210100 210100/09 Pole Mtd   West End	212	378 ST4726713	-2.7549	51.1233	112	74	200	1	0	0	1	7	16	6	
114499 South We	206008 Bridgwate 210448 Street Bsp Snapwick	210460 210460/05 Pole Mtd Catcott Burtle	212	743 514016674	-2.8575	51.1843	92	63	200	5	0	2	3	49	25	7	
114500 South We	206008 Bridgwate 210448 Street Bsc Milheld	210100 210100/09 Grd Mtd D George Street	216	827 514987703	-2.718	51.1491	166	335	300	3	0	2	1	20	3	1	
114501 South We	200008 Bridgwate 210446 Street Bsp Edgarley	210110 210110/09 Pole Mita Whitings Road	217	229 513063733	-2.7009	51.1538	04	49	200	0	0	0	0	0	19		
114502 South We	206008 Bridgwate 210448 Street Bsp Millieu	210100 210100/05 Pole Mtd Harvath Villege	213	056 515525523	-2.0091	51.0872	25	22	200	0	0	0	0	10	0	3	
114504 South We	206008 Bridgwate 210448 Street Bsp Edgarley 206008 Bridgwate 210448 Street Brs Shapwick	210110 210110/05 Pole Mitd Pravyatt Village	213	201 513519003	-2.07049	51.13094	125	22	200	0	0	1	0	10	24	7	
114505 South We	206008 Bridgwate 210448 Street Bro Shapwick	210460 210460/05 Pole Mtd I Werthay South	212	163 574338704	2 81127	51 17571	41	17	100	1	0	1	0	5	24	7	
114506 South We	206008 Bridgwate 210448 Street Bsr Millfield	210100 210100/09 Pole Mtd Meare Council Hses	212	166 ST4499774	-2.7881	51 1684	52	45	200	2	0	1	1	14	23	5	
114507 South We	206008 Bridewate 210448 Street Bsr Millfield	210100 210100/09 Grd Mtd D St Appes School	212	875 ST5462603	-2.6495	51,109	96	85	315	2	0	2	0	10	32	10	
114508 South We	206008 Bridgwate 210448 Street Bsc Shapwick	210460 210460/05 Pole Mtd   Ashrott Heath	212	924 ST4477053	-2.7911	51,1505	13	4	16	0	0	0	0	0	10	1	
114509 South We	206008 Bridgwate 210448 Street Bsc Millfield	210100 210100/09 Grd Mtd D Burleigh Lane	213	245 ST4856003	-2.7364	51.1194	103	45	500	4	0	1	3	31	35	10	
114510 South We	206008 Bridgwate 210448 Street Bsc Shapwick	210460 210460/05 Pole Mtd Millmoat Farm	213	271 ST3606104	-2.9158	51.1603	27	19	100	3	0	0	3	20	20	3	
114511 South We	206008 Bridgwate 210448 Street Bsp Edgarley	210110 210110/09 Pole Mtd Laverly Cafe	212	570 ST5611803	-2.62882	51.15218	19	8	25	0	0	0	0	0	14	4	
114512 South We	206008 Bridgwate 210448 Street Bsp Wedmore	181817 181817/00 Pole Mtd   Wood Farm Theale	182	137 ST4574414	2.77813	51.21307	8	13	50	0	0	0	0	0	3	1	
114513 South We	206008 Bridgwate 210448 Street Bsp Wells	160824 160824/00 Pole Mtd   Tanyard Lane	161	054 ST5650604	-2.6236	51.1732	32	18	50	5	0	3	2	52	15	5	
114514 South We	206008 Bridgwate 210448 Street Bsp Wells	160824 160824/00 Pole Mtd Beaconsfield House	161	069 ST5147004	-2.69636	51.22365	39	15	50	1	0	0	1	7	3	1	
114515 South We	206008 Bridgwate 210444 Bridgwate Martock	250300 250300/00 Grd Mtd D Rusty Axe	215	956 ST4253202	-2.82005	50.98072	131	123	300	3	0	3	0	13	32	7	
114516 South We	206008 Bridgwate 210444 Bridgwate North Stre	210090 210090/09 Pole Mtd Ham Court	217	145 ST4235003	-2.82432	51.07581	20	14	50	0	0	0	0	0	4	1	
114517 South We	206008 Bridgwate 210444 Bridgwate Curry Mall	210450 210450/09 Pole Mtd Burton Pynsent	215	282 ST3745802	-2.89298	51.01485	26	40	100	0	0	0	0	0	0	0	
114518 South We	206008 Bridgwate 210444 Bridgwate Somerton	210080 210080/09 Pole Mtd Lydford Fair Place	215	561 ST5708003	-2.6142	51.0891	27	15	50	1	0	1	0	9	2	1	
114519 South We	206008 Bridgwate 210444 Bridgwate Curry Mall	210450 210450/09 Pole Mtd Waldrond Park	215	816 ST3745302	-2.89237	50.97913	14	4	200	0	0	0	0	0	0	0	
114520 South We	206008 Bridgwate 210444 Bridgwate Curry Mail	210450 210450/09 Pole Mtd Park Cottage	215	817 513773032	-2.8884	50.9784	221	156	315	2	0	1	1	25	80	4	
114521 South We	200008 Bridgwate 210444 Bridgwate North Stre	210090 210090/09 Grd Mtd D War Memorial	210	185 513923302	-2.8678	51.0229	105	80	300	2	0	2	0	11	9	2	
114522 South We	206008 Bridgwate 210444 Bridgwate Somerton	250300 250300/09 Pole Mild Cashebrook	217	150 514667403	3.76500	51.05252	70	30	20	3	0	2	1	21	51		
114524 South We	205008 Bridgwate 210444 Bridgwate Martock	250200 250200/00 Pole Mtd Likisher Street	250	126 \$74631801	-2 7596	50 9295	252	212	100	2	0	0	2	14	12	3	
114525 South We	206008 Bridewate 210444 Bridewate Martock	250300 250300/00 Grd Mtd D North St Stoke	250	131 574740901	-2.7502	50.9597	100	64	500	2	0	0	2	14	9	3	
114526 South We	206008 Bridgwate 210444 Bridgwate Burnham	210470 210470/02 Grd Mtd D Hillsborough Gardens	213	449 ST3076005	-2.9935	51,2483	133	74	500	7	0	0	7	51	34	10	
114527 South We	206008 Bridgwate 210444 Bridgwate Burnham	210470 210470/02 Grd Mtd D Rose Tree Paddock	213	467 ST2983505	-3.007	51.2612	64	35	500	1	0	1	0	4	9	3	
114528 South We	206008 Bridgwate 210444 Bridgwate Burnham	210470 210470/02 Grd Mtd D Ramsay Way	216	563 ST3151404	-2.9825	51.2418	193	103	500	3	0	0	3	22	29	8	
114529 South We	206008 Bridgwate 210444 Bridgwate Colley Lan	210120 210120/02 Grd Mtd D Walnut Drive	213	153 ST3145703	-2.9808	51.1227	237	145	500	3	0	1	2	18	42	12	- <b>.</b>
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