



Distribution Network Options Assessments (DNOA)

SP Distribution
May 2026



Introduction to DNOA

For every location where our network assessments have identified that there will be insufficient network capacity to meet customer needs, we have a decision to make – how should we best intervene to provide the capacity?

Our DSO Decision Making Framework provides detail and transparency on the processes we follow to impartially select optimal solutions, and how we decide when and where to rely on flexibility services instead of other network interventions.

We have continued the publication of Distribution Network Options Assessments (DNOA) to provide stakeholders with more information on individual scheme decisions. This provides an overview of the individual constraint, how we are managing it; and where flexibility forms part of our solution, we provide details of the flexibility requirements at this location. Following the move to monthly tendering for flexibility, the annual DNOA publication will signpost upcoming longer-term requirements. We intend to publish our DNOA annually, but we may refresh information more frequently if there are any changes in our decision making at individual sites.



SP Energy Networks | Distribution Network Options Assessment 2026

Kaimes GSP Reinforcement

Reinforce, supported with flexibility

Kaimes 275/350V GSP Supply Point (GSP) is located in the Edinburgh and Borders district of SP Distribution, providing support to ca. 35,000 customers via eleven primary transformers. The scheme relates to a mixture of urban and rural environments, comprising a mix of underground cables (GPOC) and overhead lines (OHL).

Constraint
Decision
Justification for decision

Constraint
Decision
Justification for decision

Flexibility product
Constraint reason(s)
Guidance price
Reinforcement category

SCHEDULED UTILISATION

100% Flexibility procured to date

Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Peak demand (MW)	36	36	36	36	36
Flexibility required (MW)	-	3.6	-	3.6	3.6
Flexibility procured (MW)	0	4.2	-	4.2	4.2
Flexibility margin (MW)	+100%	+100%	-	+100%	+100%

Flexibility Tendering Open

We are planning to tender for flexibility services at this location in future years through our monthly ahead model.

More information is available on our [Open Data Portal](#).

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and detailed justification are available in this scheme's [Engineering Justification Paper](#).

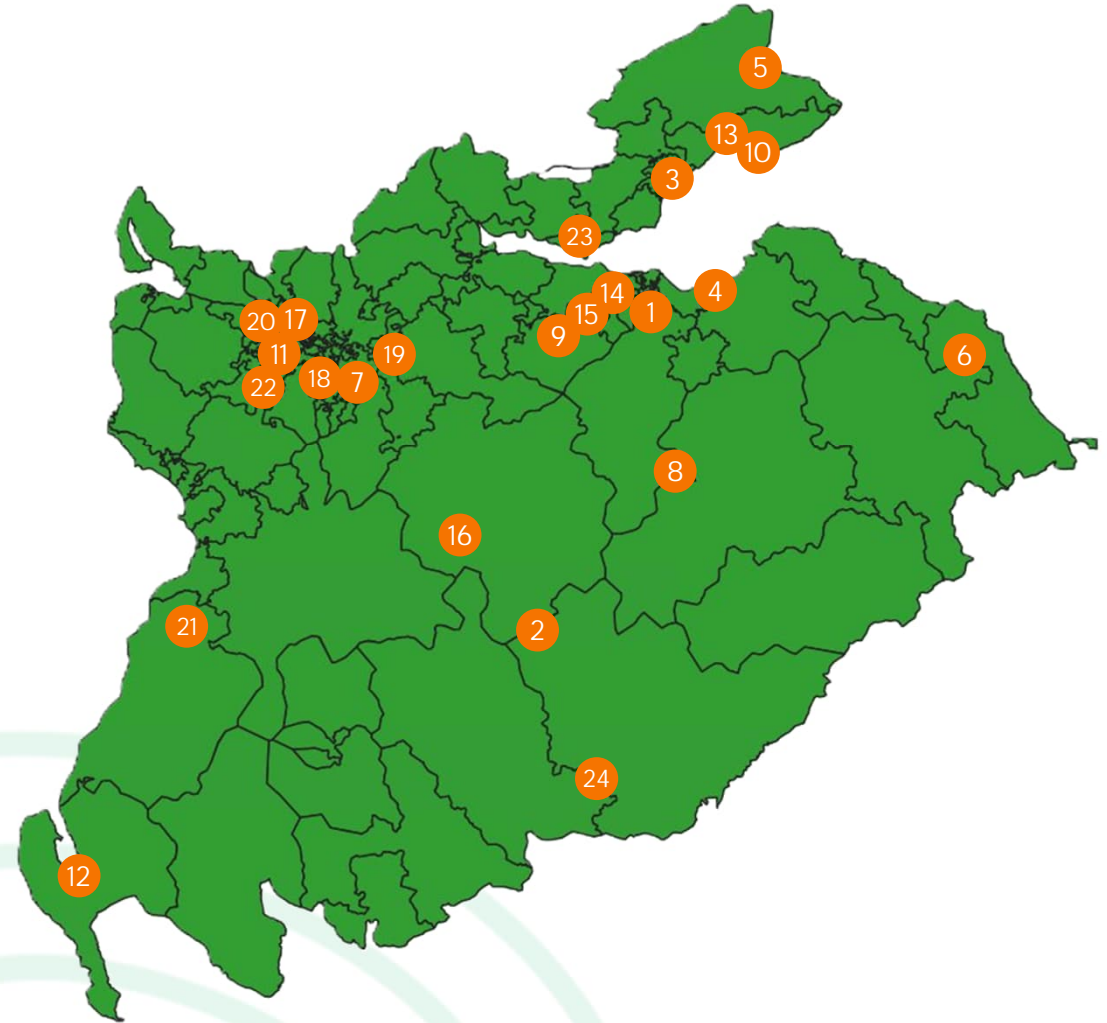
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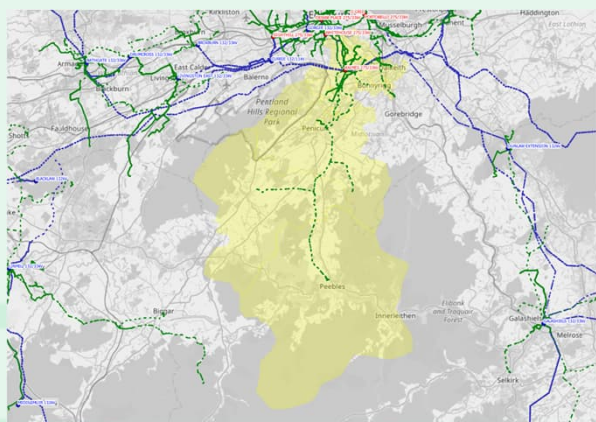
SPD DNOA Site List

1. Kaimes GSP Reinforcement
2. New Moffat GSP
3. Redhouse GSP Reinforcement
4. Monktonhall-Tranent Reinforcement
5. St. Andrews Primary Reinforcement
6. Ayton Primary Reinforcement
7. Hamilton Primary Reinforcement
8. Yair Bridge 22kV Upgrade
9. Kirknewton Primary Reinforcement
10. Levenbank Primary Reinforcement
11. Govan-St Andrews Cross 6.6kV Upgrade
12. Stranraer Primary Reinforcement
13. Leven Primary Fault Level Mitigation
14. Whitehouse GSP Fault Level Mitigation
15. New Currie GSP
16. New Redshaw GSP
17. West George St Primary Fault Level Mitigation
18. Whitlawburn Primary Fault Level Mitigation
19. Newarthill GSP Fault Level Mitigation
20. West George St Fault Level Mitigation
21. Maybole Primary Reinforcement
22. Castle Primary Reinforcement
23. Castlandhill-Pitreavie Group Reinforcement
24. Middlebie Primary Reinforcement (NEW)



Kaimes GSP Reinforcement

Reinforce, supported with flexibility



Kaimes 275/33kV Grid Supply Point (GSP) is located in the Edinburgh and Borders district of SP Distribution, providing supplies to ca. 53,000 customers via eleven primary substations. The Kaimes network is a mixture of urban and rural environments, comprising a mix of underground cable (UGC) and overhead line (OHL).

Constraint

THERMAL and SECURITY OF SUPPLY
Peak demand at Kaimes Grid Supply Point (GSP) is forecast to exceed the Firm Capacity within the RIIO-ED2 period. Furthermore, peak demand by the end of RIIO-ED2 is forecast to exceed the first circuit outage security. Without mitigation this site is predicted to become non-compliant with EREC P2/8 during the RIIO-ED2 price control period.

Decision

Relocate two primary substations to Whitehouse GSP. Off-load demand by relocating Kings Buildings and Lugton primary substations to the adjacent Whitehouse GSP, which involves installation of three new 33kV circuits. Contract flexibility services to support the network during the project delivery. Flexibility services will be further used across the group to manage extant thermal constraints. The proposed solution would delay installation of a new GSP to the middle of RIIO-ED3.

Justification for decision

Sufficient flexibility to defer reinforcement of new GSP into RIIO-ED3, enabling smaller scope of reinforcement to be progressed in RIIO-ED2. Flex has been procured to support the network during reinforcement; a second competition remains open for flexibility provision later in the period.

Flexibility product

SCHEDULED UTILISATION

Constraint season(s)

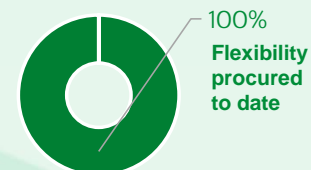
Winter

Guide price

Utilisation fee from £100/MWh

Reinforcement timescale

2027/28



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	-	30	-	41	561.5
Flexibility required (MW)	-	3.6	-	19.5	27.3
Flexibility procured (MW)	0.1	4.2	-	-	-
Flexible MW capacity met (%)	>100%	>100%	-	-	-

Flexibility Tendering

Open

We are planning to tender for flexibility services at this location in future years through our month-ahead model.

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Technical Appraisal

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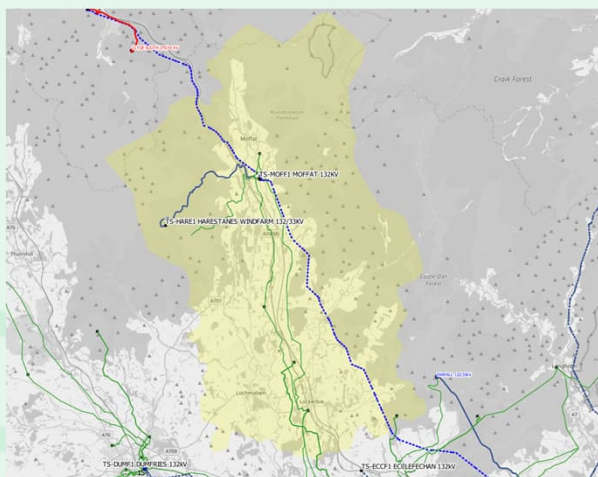
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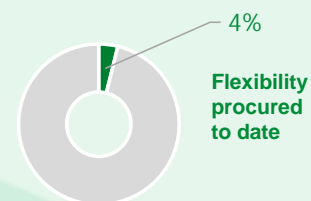
New Moffat GSP

Reinforce, supported with flexibility



Chapelcross 132/33 kV Grid Supply Point (GSP) is in the Dumfries and Galloway District of the SP Distribution licence area, near the Scottish Border. Via eight primary substations it supplies ca. 22,000 customers, about 7,300 of which are supplied by the Lockerbie/Kirkbank/Moffat primary demand group. This network is rural, and infrastructure is relatively sparse.

Constraint	THERMAL and VOLTAGE Peak demand in the Lockerbie/Kirkbank/Moffat demand group is forecast to exceed the Firm Capacity within the RII0-ED2 period. The group is supplied via long 33kV overhead line circuits from Chapelcross Grid Supply Point (GSP). The forecast demand growth puts the network at risk of steady-state voltage excursions outside of statutory limits, with primary transformer at the limits of their tap operation.
Decision	New 132/33kV GSP substation The new GSP will utilise an existing 60MVA transformer near Moffat primary and a second 132/33kV 60MVA transformer will be installed by SP Transmission. Moffat and Kirkbank primary substations will then be connected to the new GSP substation, which is in closer proximity to the demand centre, consequently improving the voltage profile of the network.
Justification for decision	Insufficient flexibility to defer reinforcement so works are being progressed. Flexibility will support management of the constraint in the interim.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	2026/27



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	-	-	21.5	136	468
Flexibility required (MW)	-	-	1.9	9.4	11.6
Flexibility procured (MW)	-	-	0.1	-	-
Flexible MW capacity met (%)	-	-	4%	-	-

Flexibility Tendering **Open**

We are planning to tender for flexibility services at this location this year through our month-ahead model.

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Technical Appraisal

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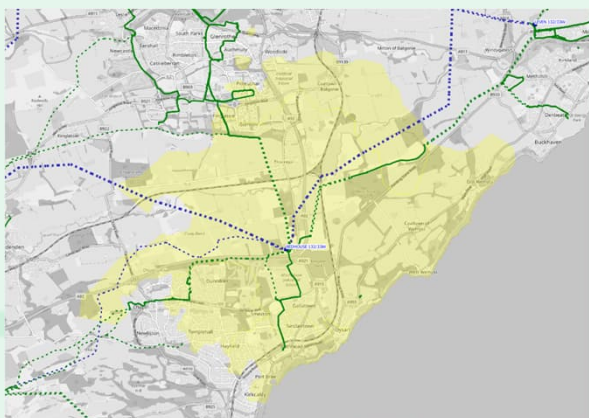
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Redhouse GSP Reinforcement

Manage with flexibility



Redhouse 132/33kV Grid Supply Point (GSP) is located in the Central and Fife district of SP Distribution, providing supplies to ca. 23,000 customers via four primary substations. The Redhouse network is a mixture of urban and rural environments, comprising a mix of underground cable (UGC) and overhead line (OHL). Redhouse GSP is interconnectable at 33kV with Leven GSP, Glenniston GSP and Glenrothes GSP.

Constraint	THERMAL Peak demand at Redhouse Grid Supply Point (GSP) is forecast to exceed the firm capacity within the RIIO-ED2 period. The primary drivers for this investment are insufficient thermal headroom and security of supply risk.
Decision	Manage with flexibility Defer a conventional reinforcement, on the SP Transmission system of the replacement of a 60MVA grid transformer, by managing the thermal constraint through the RIIO-ED2 period by using flexibility services.
Justification for decision	The proposed solution represents the lowest cost and most efficient engineering solution from the whole system perspective to meet the forecast demand growth when compared with the alternative schemes identified.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	Deferred into RIIO-ED3 using flexibility



Flexibility yet to be procured

Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	-	-	-	172	223
Flexibility required (MW)	-	-	-	4.4	5.0
Flexibility procured (MW)	-	-	-	-	-
Flexible MW capacity met (%)	-	-	-	-	-

Flexibility Tendering

Open

We are planning to tender for flexibility services at this location this year through our month-ahead model.

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Technical Appraisal

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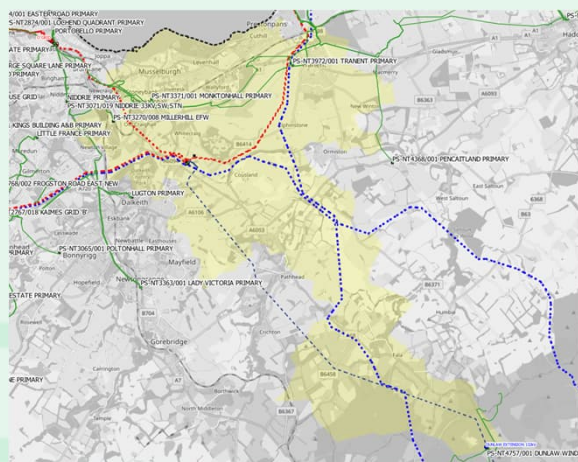
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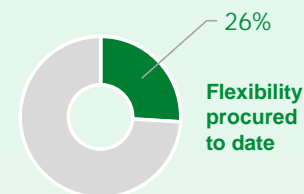
Monktonhall-Tranent Primary Reinforcement

Reinforce, supported with flexibility



Monktonhall and Tranent 33/11kV primary groups are geographically located in the Edinburgh region of SP Distribution (SPD) licence area. Monktonhall serves ca. 9,700 customers and is supplied by Portobello Grid Supply Point (GSP). Tranent serves ca. 11,300 customers and is supplied by Cockenzie GSP.

Constraint	THERMAL Demand is forecast to exceed thermal rating, leading to risk of thermal overloading on 33/11kV transformers and the 33kV circuits supplying each site.
Decision	New primary substation Establish a new primary substation, "Prestongrange Primary", geographically located between Tranent and Monktonhall substations. Prestongrange substation will connect to Cockenzie substation which is approx. 4.6km away.
Justification for decision	Insufficient flexibility to defer reinforcement and remain EREC P2/8 compliant so works are being progressed. Flexibility will support management of the constraint in the interim.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	2027/28



Flexibility position at March 2026	2023/24		2024/25		2025/26		2026/27		2027/28	
Site	Monk.	Tran.	Monk.	Tran.	Monk.	Tran.	Monk.	Tran.	Monk.	Tran.
Risk duration (hrs)	14.0	3.5	32.0	4.5	657	417	458	606	864	1079
Flexibility required (MW)	1.1	0.7	1.6	1.0	10.2	3.6	9.9	3.9	10.6	4.4
Flexibility procured (MW)	0.74	0.75	0.17	0.16	0.3	0.5	-	-	-	-
Flexible MW capacity met (%)	70%	>100%	11%	16%	3%	13%	-	-	-	-

Flexibility Tendering **Open**

We are planning to tender for flexibility services at this location this year through our month-ahead model.

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Technical Appraisal

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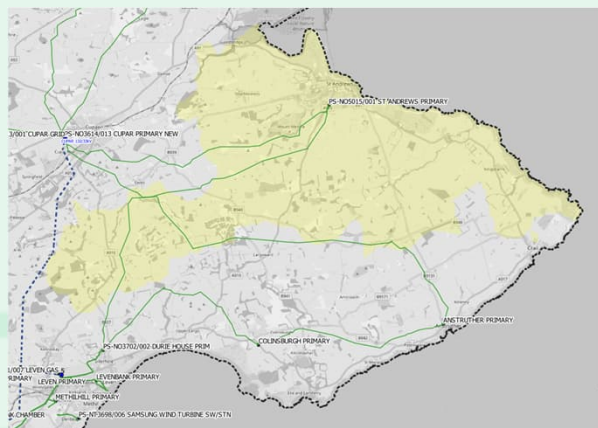
[Engineering Justification Paper](#)

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St Andrews Primary Reinforcement

Reinforce, supported with flexibility



The St Andrews demand group supplies ca. 9,000 customers and is geographically located in the Central and Fife region of SP Distribution (SPD) licence area. It is supplied by Cupar Grid Supply Point (GSP).

Constraint THERMAL and VOLTAGE
Demand is forecast to exceed thermal rating, leading to risk of thermal overloading on 33/11kV transformers and the 33kV circuits supplying each site. Network studies also show that step voltages, beyond EREC P28 compliance, may be observed, for planned or unplanned outages.

Decision New primary substation
Establish a new primary substation in Guardbridge, which lies on the outskirts of St Andrews town.

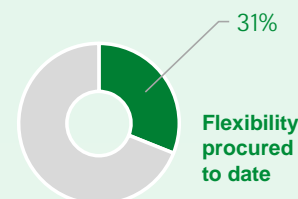
Justification for decision Insufficient flexibility to defer reinforcement and remain EREC P2/8 compliant so works are being progressed. Flexibility will support management of the constraint in the interim.

Flexibility product SCHEDULED UTILISATION

Constraint season(s) Winter

Guide price Utilisation fee from £100/MWh

Reinforcement timescale 2027/28



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	-	0.5	373	298	2663
Flexibility required (MW)	-	0.5	2.7	2.4	5.7
Flexibility procured (MW)	0.7	0.1	0.2	-	-
Flexible MW capacity met (%)	>100%	20%	7%	-	-

Flexibility Tendering **Open**

We are planning to tender for flexibility services at this location this year through our month-ahead model.

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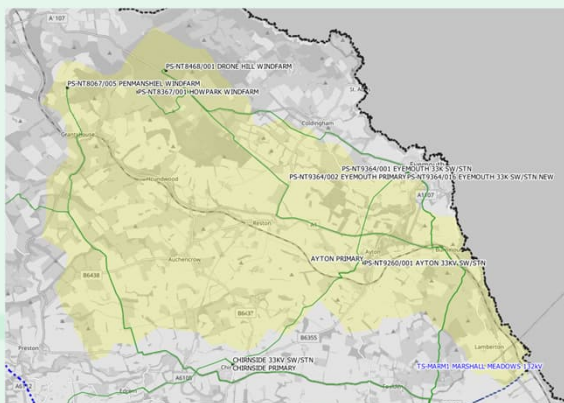
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Last updated: 30/04/26

Ayton Primary Reinforcement

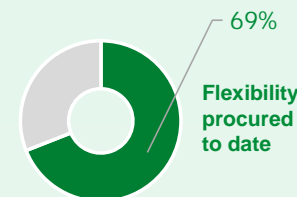


Manage with flexibility



The Ayton demand group supplies ca. 1,600 customers and is geographically located in the Edinburgh and Borders region of the SP Distribution (SPD) licence area. It is supplied by Berwick and Eccles Grid Supply Points (GSPs). The Primary substation is fed from the interconnected "Berwick Ring" 33kV network.

Constraint	THERMAL With forecast uptake of Low Carbon Technologies (LCTs), the group demand at Ayton Primary is forecast to exceed its Firm Capacity by the end of the RIIO-ED2 price control period, with risk of thermal overloading on the 33/11kV transformers, and non-compliance with EREC P2/8.
Decision	Manage with flexibility Defer conventional reinforcement by managing the thermal constraint through the RIIO-ED2 period by using flexibility services.
Justification for decision	Demand levels have not increased as forecast in the area; therefore, it is currently proposed to manage with flexibility services.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	Deferred until at least RIIO-ED3 using flexibility.



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	5.0	5.0	791	1018	1138
Flexibility required (MW)	0.6	0.7	0.26	0.41	0.41
Flexibility procured (MW)	0.9	0.0	0.17	-	-
Flexible MW capacity met (%)	100%	0%	66%	-	-

Flexibility Tendering **Open**

We are planning to tender for flexibility services at this location this year through our month-ahead model.

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Technical Appraisal

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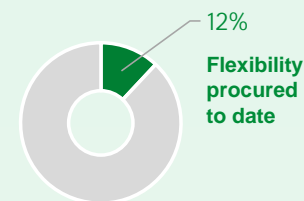
Hamilton Primary Reinforcement

Manage with flexibility



The Hamilton demand group supplies ca. 6,000 customers and is geographically located in the Lanarkshire region of the SP Distribution (SPD) licence area. It is supplied by Strathaven Grid Supply Point (GSP). The existing 11kV network is located in Hamilton town centre, which is in a built urban environment, comprising mainly underground cable (UGC). Hamilton primary is interconnected at 11kV with Burnbank, Leven Street and Neilsland substations.

Constraint	THERMAL With forecast uptake of Low Carbon Technologies (LCTs), the group demand at Hamilton Primary was forecast to exceed its Firm Capacity by the end of the RIIO-ED2 price control period, with risk of thermal overloading on the 33/11kV transformers, 33kV circuits, and non-compliance with EREC P2/8.
Decision	Manage with flexibility Defer conventional reinforcement by managing the thermal constraints through the RIIO-ED2 period by using flexibility services.
Justification for decision	Demand levels have not increased as forecast in the area; therefore, it is currently proposed to manage with flexibility. Exceedance of Firm demand without flexibility is currently expected in 2030/31.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	Deferred until at least RIIO-ED3 using flexibility.



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	8.5	13	208	285	467
Flexibility required (MW)	0.7	1.0	3.2	3.5	3.9
Flexibility procured (MW)	0.3	0.1	0.2	-	-
Flexible MW capacity met (%)	44%	10%	5%	-	-

Flexibility Tendering **Open**

We are planning to tender for flexibility services at this location this year through our month-ahead model.

More information is available on our [Open Data Portal](#)

Technical Appraisal

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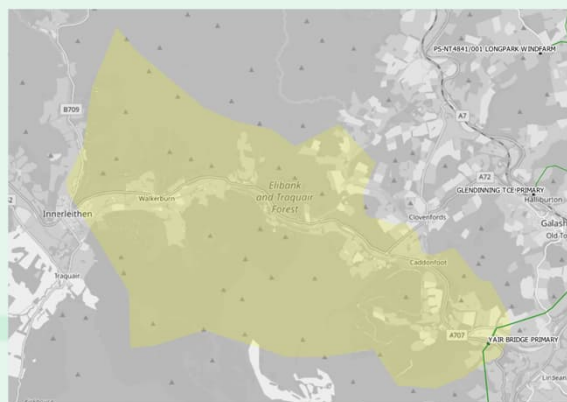
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Last updated: 30/04/26

Yair Bridge 22kV Upgrade

Reinforce, supported with flexibility



The Yair Bridge/Innerleithan demand group supplies ca. 2,500 customers and is geographically located in the Edinburgh & Borders region of SP Distribution (SPD) licence area. It is fed from Galashiels and Kaimes Grid Supply Points (GSPs). The network under consideration is the distribution network between Yair Bridge and Kingsland. It is a non-standard network made up of four voltages: 33kV & 22 kV (EHV) and 11kV & 6.6kV (HV).

Constraint

THERMAL, ASSET RISK AND MODERNISATION
Kingsland Primary is currently at thermal limits and load is forecast to increase further during RIIO-ED2 due to uptake of Low Carbon Technologies (LCTs), forecasting non-compliance of EREC P2/8. Innerleithan and Walkerburn Primaries are also at single circuit risk with a Normally Open Point (NOP) across a potential grid parallel.

The non-standard voltage limits network capacity and increases incremental cost for plant installation and replacements, as well as increasing risk for fault repairs and availability of spares. Aging legacy assets and civils require remedial works. The civils are of particular concern due to substantial flooding issues

Decision

Reinforce supported by flexibility
Install second EHV circuit to Innerleithan Primary to offload Kingsland Primary and resolve single circuit risk. Remove Walkerburn Primary and transfer customer to Innerleithan network to increase security of supply and resolve asset risk and modernisation.

Justification for decision

Insufficient flexibility to defer reinforcement and remain EREC P2/8 compliant so works are being progressed. Flexibility will support management of the constraint in the interim.

Flexibility product

SCHEDULED UTILISATION

Constraint season(s)

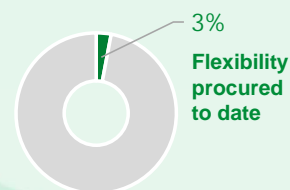
Winter

Guide price

Utilisation fee from £100/MWh

Reinforcement timescale

2026/27



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	4.0	6.0	48	207	417
Flexibility required (MW)	1.7	1.9	4.0	5.0	5.3
Flexibility procured (MW)	0.0	0.1	0.2	-	-
Flexible MW capacity met (%)	0%	5%	4%	-	-

Flexibility Tendering

Open

We are planning to tender for flexibility services at this location this year through our month-ahead model.

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Technical Appraisal

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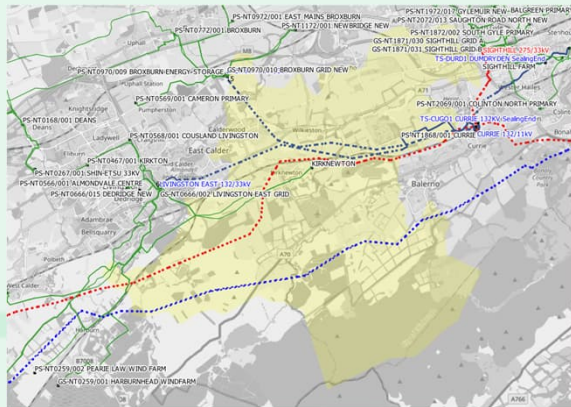
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Last updated: 30/04/26

Kirknewton Primary Reinforcement

Reinforce, supported with flexibility



The Kirknewton demand group supplies ca. 2,700 customers and is geographically located in the Central & Fife region of SP Distribution (SPD) licence area. It is fed from the Broxburn Grid Supply Point (GSP).

Constraint

THERMAL

Our Baseline View forecasts a peak demand of 12.7MVA by 2028, including an expected uptake of up to 1,022 electric vehicles and 511 heat pumps. This exceeds the 10MVA firm capacity of Kirknewton primary demand group by the end of R10-ED2. Additionally, for the Kirknewton/West Calder demand group, the Baseline View scenario forecasts a peak demand by 2028 of 22MVA, with an expected uptake of up to 1,923 electric vehicles and 1,465 heat pumps. This exceeds the groups Firm Capacity of 20MVA within the ED2 period.

Decision

Reinforce supported by flexibility

The proposed option for this scheme is to replace the existing 10MVA transformers with new 20MVA units and provide a dedicated connection to Kirknewton 33/11kV substation by installing two new 33kV UGC circuits and associated comms infrastructure from the Livingston East GSP to the tee off points at Oakbank.

Justification for decision

Insufficient flexibility to defer reinforcement and remain EREC P2/8 compliant so works are being progressed. Flexibility will support management of the constraint in the interim.

Flexibility product

SCHEDULED UTILISATION

Constraint season(s)

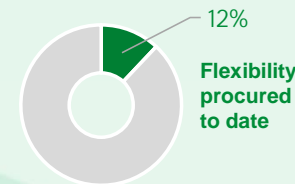
Winter

Guide price

Utilisation fee from £100/MWh

Reinforcement timescale

2027/28



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	6.5	28.0	183	498	498
Flexibility required (MW)	0.4	1.3	0.6	0.7	0.7
Flexibility procured (MW)	0.0	0.18	0.1	-	-
Flexible MW capacity met (%)	0%	14%	14%	-	-

Flexibility Tendering

Open

We are planning to tender for flexibility services at this location this year through our month-ahead model.

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Levenbank Primary Reinforcement

Reinforce, supported with flexibility



The Levenbank demand group supplies ca. 3,500 customers and is geographically located in the Central and Fife region of SP Distribution (SPD) licence area. It is supplied by Leven Grid Supply Point (GSP).

Constraint

THERMAL

The loading at Levenbank Primary demand group is presently approaching the Firm Capacity of the network and it is forecast that with further load growth in the area, by 2028, the demand will exceed the Firm Capacity of the group. In order to secure supplies within the group, meet the licence obligations under EREC P2/8; and to accommodate future demand growth within the area, it is proposed to carry out system reinforcement in the RIIO-ED2 price control period.

Decision

Replace existing transformers
Replace the existing 10MVA 33/11kV transformers at Levenbank Primary with new 20MVA units.

Justification for decision

Insufficient flexibility to defer reinforcement and remain EREC P2/8 compliant so works are being progressed. Flexibility will support management of the constraint in the interim.

Flexibility product

SCHEDULED UTILISATION

Constraint season(s)

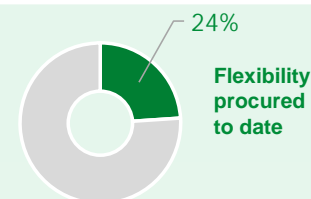
Winter

Guide price

Utilisation fee from £100/MWh

Reinforcement timescale

2027/28



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	12.0	17.5	232	380	378
Flexibility required (MW)	1.1	1.3	1.8	2.2	2.2
Flexibility procured (MW)	0.9	0.0	0.1	-	-
Flexible MW capacity met (%)	79%	2%	3%	-	-

Flexibility Tendering

Open

We are planning to tender for flexibility services at this location this year through our month-ahead model.

More information is available on our [Open Data Portal](#)

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

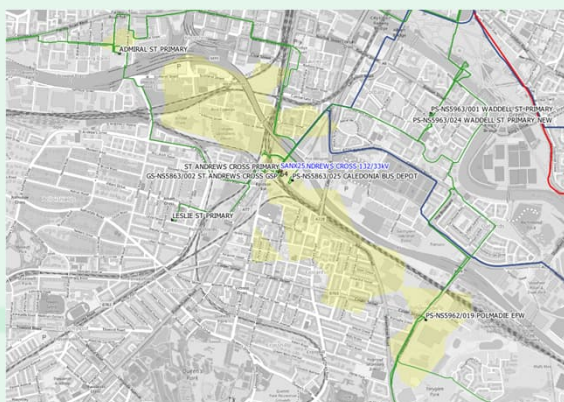
To ensure that our plans and publications cover the needs of our stakeholders, customers, and the communities we serve, we welcome ongoing feedback.

Feedback can be emailed to: systemdesignteam@spenergynetworks.co.uk

Last updated: 30/04/26

Govan – St. Andrews Cross 6.6kV Upgrade

Reinforce, supported with flexibility



Constraint

THERMAL, ASSET RISK AND MODERNISATION

Admiral St and Elizabeth St Primaries are predicted to be non-compliant under EREC P2/8 by the end of the RIIO-ED2 price control period. The non-standard voltage limits network capacity and increases incremental cost for plant installation and replacements, as well as increasing risk for fault repairs and availability of spares. Aging legacy assets and civils require remedial works. The civils are of particular concern and require significant expenditure to address due to the age of buildings and significant cost of land in the area.

Decision

Reinforce without flexibility
Installation of assets across various 33/11kV Primary substations; 1 x 20MVA transformer, 2 x 32MVA transformers, 28 x 11kV circuit breakers and various secondary network upgrades.

Justification for decision

Insufficient flexibility to defer reinforcement and remain EREC P2/8 compliant so works are being progressed. Flexibility will support management of the constraint in the interim.

Flexibility product

SCHEDULED UTILISATION

Constraint season(s)

Winter

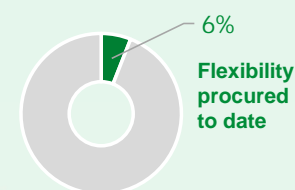
Guide price

Utilisation fee from £100/MWh

Reinforcement timescale

2027/28

The Govan/St Andrews Cross demand groups supply ca. 36,000 customers and is geographically located in the Glasgow region of SP Distribution (SPD) licence area. The Govan / St. Andrews Cross area is served by a legacy area of network, primarily running at 6.6kV.



Flexibility position at March 2026	2023/24		2024/25		2025/26		2026/27		2027/28	
	Adm.	Eliz.	Adm.	Eliz.	Adm.	Eliz.	Adm.	Eliz.	Adm.	Eliz.
Site										
Risk duration (hrs)	0.0	0.0	0.0	4.0	0.0	312	0.0	312	0.0	451
Flexibility required (MW)	0.0	0.0	0.0	0.9	0.0	1.3	0.0	1.3	0.0	1.5
Flexibility procured (MW)	-	-	-	0.0	-	0.1	-	-	-	-
Flexible MW capacity met (%)	-	-	-	1%	-	10%	-	-	-	-

Flexibility Tendering

Open

We are planning to tender for flexibility services at this location this year through our month-ahead model.

More information is available on our [Open Data Portal](#)

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

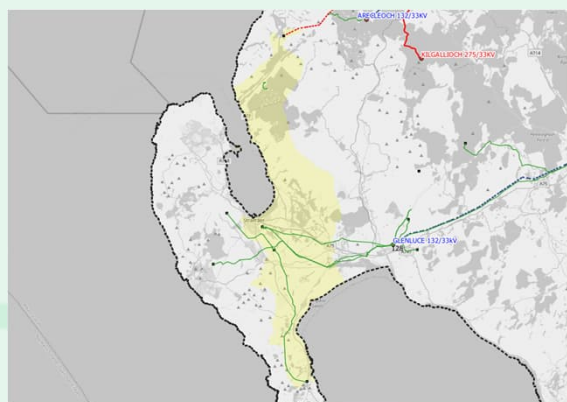
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Feedback can be emailed to: systemdesignsteam@spenergynetworks.co.uk

Last updated: 30/04/26

Stranraer Primary Reinforcement

Manage with flexibility



The Stranraer demand group supplies ca. 6,000 customers and is geographically located in the Dumfries and Galloway region of SP Distribution (SPD) licence area. It is supplied by Glenluce Grid Supply Point (GSP), via two long 33kV overhead line (OHL) circuits (14 and 15.5km).

Constraint VOLTAGE
The demand group is presently operating close to voltage limits. Studies indicate that additional demand growth and LCT uptake will lead to steady state undervoltage (<0.94 pu) and voltage step issues (> -10%) beyond operational management. Therefore, in order to maintain voltages within statutory limits it was proposed to carry out system reinforcement in the RIIO-ED2 price control period.

Decision Manage with flexibility
Defer innovative STATCOM reinforcement by managing the voltage constraints through the RIIO-ED2 period by using flexibility services.

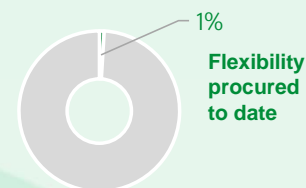
Justification for decision Demand levels have not increased as forecast in the area; therefore, it is currently proposed to manage with flexibility. Exceedance of voltage limits without flexibility is currently expected in the RIIO-ED3 period.

Flexibility product SCHEDULED UTILISATION

Constraint season(s) Winter

Guide price Utilisation fee from £100/MWh

Reinforcement timescale Deferred until RIIO-ED3 using flexibility.



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	0.5	0.5	372	268	262
Flexibility required (MW)	0.9	1.0	9.5	9.2	9.2
Flexibility procured (MW)	0.0	0.0	0.1	-	-
Flexible MW capacity met (%)	0%	1%	1%	-	-

Flexibility Tendering **Open**

We are planning to tender for flexibility services at this location this year through our month-ahead model.

More information is available on our [Open Data Portal](#)

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

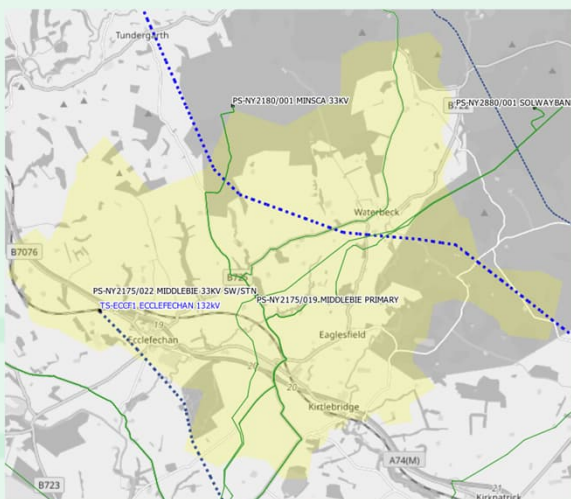
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Last updated: 30/04/26

Middlebie Primary Reinforcement

Reinforce without flexibility



The Middlebie demand group supplies ca. 1,200 customers and is geographically located in the Dumfries & Galloway region of SP Distribution (SPD) licence area.

Constraint	THERMAL Demand growth is leading to risk of thermal overloading on the 11kV circuits supplying Middlebie Primary demand group under N-1 conditions. In order to secure supplies within the group, meet the licence obligations under EREC P2/8 and to accommodate future demand growth within the area, it is proposed to carry out system reinforcement in the RIIO-ED2 price control period.
Decision	Reinforce without flexibility The proposed solution is to install a second 33/11kV transformer to Middlebie Primary, with a new 3-panel 33kV switchboard. Replacement of the existing 11 kV switchboard at Middlebie will be required for this solution.
Justification for decision	Step-change in demand means waiting for local flexibility market to develop could risk security of supply for our customers, and EREC P2/8 compliance, so works are being progressed.
Flexibility product	N/A
Constraint season(s)	Year round
Guide price	Competition closed
Reinforcement timescale	2028/29



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering Closed

We are not currently tendering for flexibility services at this location.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention will be available in this scheme's

[Engineering Justification Paper](#)
(awaiting publication)

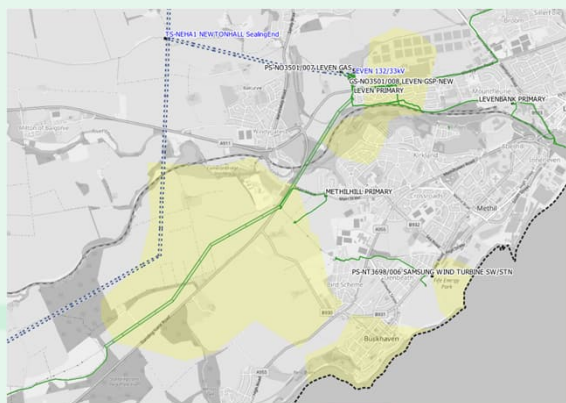
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systemdesignsteam@spenergynetworks.co.uk

Last updated: 30/04/26

Leven Primary Fault Level Mitigation

Manage with RTFLM



The Leven demand groups supply ca. 1,700 customers and is geographically located in the Central & Fife region of SP Distribution (SPD) licence area. It is fed from Leven Grid Supply Point (GSP).

Constraint

FAULT LEVEL

Both the 11kV peak make and RMS break duty fault level exceeded the design rating at around 110%. The main reason for the high fault level was due to the best view of connected generation at Leven Primary. The 11kV primary switchgear is rated at 350MVA and independent design limits (IDL) of 20kA RMS break duty was in place, with an operational measure to mitigate the fault level issue by keeping the 33/11kV transformer T2 on open standby.

Decision

Install innovative Real Time Fault Level Management (RTFLM) Following a thorough review of connected generation by Central & Fife District and subsequent remodelling, the peak fault levels are currently approx. 96% of rating. It is proposed to monitor with RTFLM to validate the fault levels, subject to connections activity in RIIO-ED2.

Justification for decision

The remodelling exercise reduced the prospective fault levels below design rating limits. Fault levels can be validated once RTFLM is installed. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

Deferred post RIIO-ED2



Flexibility not required

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

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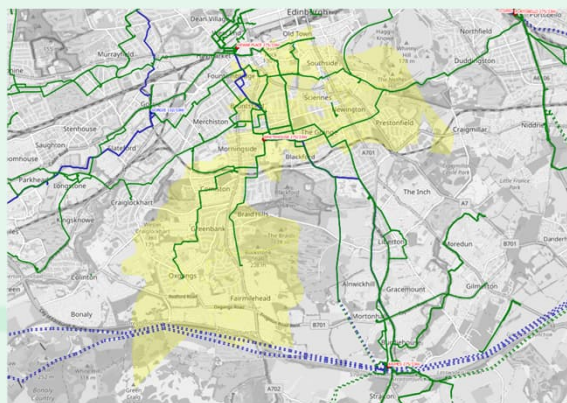
Feedback can be emailed to: systemdesignsteam@spenergynetworks.co.uk

Last updated: 30/04/25

Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Whitehouse GSP Fault Level Mitigation

Reinforce without flexibility



The Whitehouse demand groups supply ca. 36,000 customers and is geographically located in the Edinburgh & Borders region of SP Distribution (SPD) licence area. The GSP supplies six primary substations (George Square Lane, Martin Miller, Maxwell Street, Mortonhall, Oxgang Road and Park Road). It has interconnections to Kaimes and Portobello GSPs.

Constraint

FAULT LEVEL

The peak make fault level at Whitehouse GSP 33kV is above 95% of the switchgear rating, which would prevent connection of future Low Carbon Technologies (LCTs). The peak make rating of this legacy switchgear is considerably lower than the 33kV design limit of 50kA. In addition, this GSP is important for supporting Kaimes GSP in an N-2 situation, which introduces higher fault levels.

Decision

Reinforce without flexibility

The proposal is to replace the existing Whitehouse GSP indoor 33kV 'A' and 'B' with new indoor 33kV switchboards of 50kA Peak Make and 17.5kA RMS Break, to resolve the existing fault level breach and provide additional headroom for future demand growth and new embedded generation connections.

Justification for decision

Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

2027/28



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

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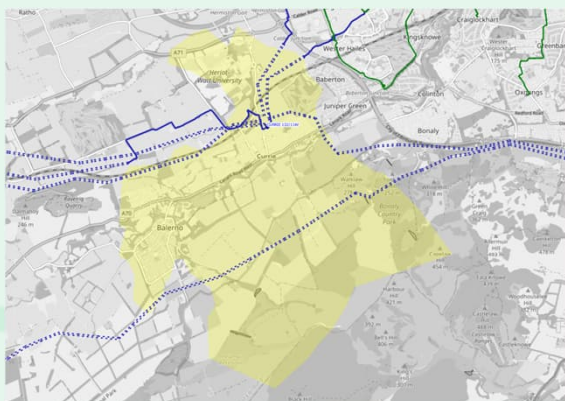
Feedback can be emailed to: systemdesignsteam@spenergynetworks.co.uk

Last updated: 30/04/26

New Currie GSP



Reinforce without flexibility



The Currie demand groups supply ca. 5,000 customers and is geographically located in the Edinburgh & Borders region of SP Distribution (SPD) licence area. The existing Grid Supply Point (GSP) is a non-standard 132/11kV supply.

Constraint

FAULT LEVEL

The 11kV peak make fault level exceeds the design limit and the RMS break duty is approaching 95%. The main reason for the high fault level is due to high fault level infeed from the transmission network. Since 2018, several applications have been withdrawn due to the issue of fault level infeed into the site with various LCT applications unable to proceed due to the fault level constraints at the site.

Decision

Reinforce without flexibility

It is proposed to standardise the site by establishing a 132/33kV 60MVA Grid Supply Point (GSP), a new indoor 33kV switchboard and a local 33/11kV 20MVA Currie Primary substation. Install 11kV interconnection with Kirknewton Primary to support network demand during online build stage.

Justification for decision

Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

2028/29



Flexibility not required

Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

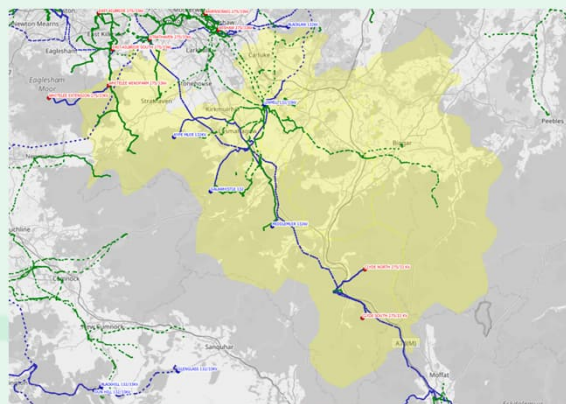
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Last updated: 30/04/26

New Redshaw GSP

Reinforce without flexibility



The Linmill demand groups supply ca. 28,000 customers and is geographically located in the Lanarkshire region of SP Distribution (SPD) licence area. The GSP supplies seven 11kV primary substations; Biggar, Braidwood, Corra Linn, Douglas West, Lanark, Lesmahagow and Symington. There is also interconnection with both Wishaw and Newarthill GSP's.

Constraint
FAULT LEVEL
 The peak make fault level at the Linmill GSP 33kV switchboard exceeds the network design limit and the RMS Break is above 95% of the design limit, which would prevent connection of future Low Carbon Technologies (LCTs), as it would require a prohibitive cost for the fault level mitigation.

Decision
Reinforce without flexibility
 It is proposed to establish a new 132/33kV 90MVA Redshaw GSP which shall connect into a new Redshaw 400/132kV transmission substation. Transfer Lesmahagow and Douglas West feeder circuits, as well all encompassed generation including Andershaw Wind Farm, which will have a dedicated circuit breaker. These proposed transfers will create sufficient fault level headroom at Linmill GSP.

Justification for decision
 Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product N/A

Constraint season(s) Year round

Guide price Competition closed

Reinforcement timescale 2029/30



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

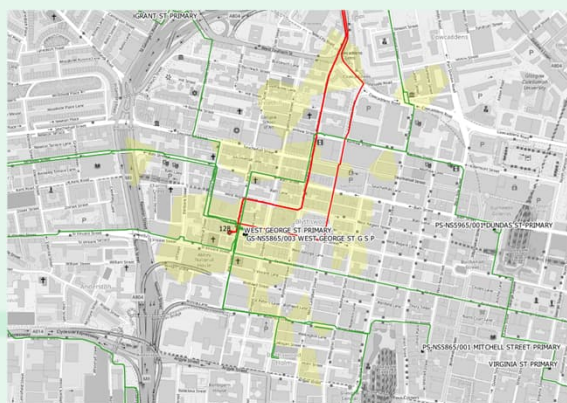
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Feedback can be emailed to: systemdesignsteam@spenergynetworks.co.uk

Last updated: 30/04/26

West George St Primary Fault Level Mitigation

Reinforce without flexibility



The West George Street demand groups supply ca. 1,000 customers and is geographically located in the Glasgow region of SP Distribution (SPD) licence area. It is located in Glasgow city centre in close proximity to mainly commercial premises.

Constraint
FAULT LEVEL
 The 11kV board at West George Street primary was commissioned in 1964 and the switchgear has an RMS break rating of 7.87kA. The 11kV fault level exceeds the equipment rating and hence the site is deemed overstressed. There are currently operational restrictions, and a derogation is in place to manage the fault level issues.

Decision
Reinforce without flexibility
 The proposed solution is to replace the existing 'A' and 'B' 11kV switchboards (22-panels in total) with a new rationalised 11kV switchboard within the West George Street site. The new board will comprise of 19-panels, 16 of which are feeder breakers, a bus section and two incomer breakers, with the facility for an additional circuit breaker on each side.

Justification for decision
 Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product N/A

Constraint season(s) Year round

Guide price Competition closed

Reinforcement timescale 2027/28



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

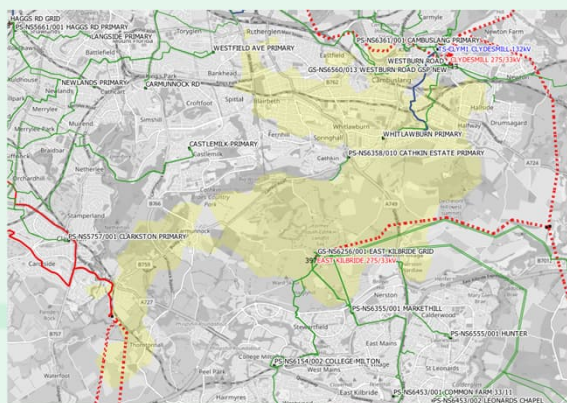
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Feedback can be emailed to: systemdesignsteam@spenergy.co.uk

Last updated: 30/04/26

Whitlawburn Primary Fault Level Mitigation

Reinforce without flexibility



The Whitlawburn demand groups supply ca. 14,000 customers and is geographically located in the Glasgow region of SP Distribution (SPD) licence area.

Constraint

FAULT LEVEL

The 11kV peak make fault level exceeds the equipment rating and the RMS break duty is at 95%. Although, there is one landfill generation site that contributes to the fault level issue, the main reason for the high fault level is attributed to the impedance on rating (31.1%) of the 33/11kV, 20/40MVA transformers and the configuration of the 33kV network.

Decision

Reinforce without flexibility

Establish a new Cathkin primary substation with two 20MVA 33/11kV transformers and a 9-panel 11kV switchboard, located on ground occupied by the former Cathkin substation owned by SPEN. Once Cathkin primary substation is established and the demand on the Whitlawburn 33/11kV transformers is reduced, the Whitlawburn 33/11kV transformers will be renewed, replacing the 20/40MVA units with standard impedance 20MVA transformers.

Justification for decision

Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

2027/28



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

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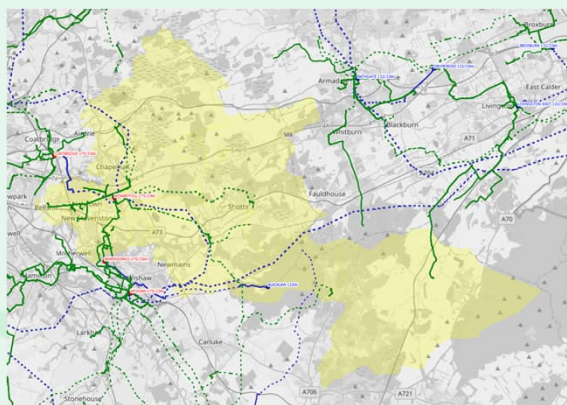
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Last updated: 30/04/26

Newarthill GSP Fault Level Mitigation

Reinforce without flexibility



The Newarthill demand groups supply ca. 45,000 customers and is geographically located in the Lanarkshire region of SP Distribution (SPD) licence area. The GSP supplies nine 11kV primary substations; Allanbank, Bellshill, Carfin, Chapelhall, Coddington Cres, Forth, Newhouse, Shotts and Towers Rd.

Constraint

FAULT LEVEL

The peak make and RMS Break fault level at the Newarthill GSP 33kV switchboard exceeds the network design limit. During RIIO-T2 preparation we worked collaboratively with SP Transmission to undertake a whole system approach to identify the most economic and efficient solution. It was identified that a reduction in fault levels to a value less than the network design rating can only be achieved with transmission works.

Decision

Reinforce without flexibility

SPT will install a three-panel switchboard onto the cabling between each SGT and 33kV incomer on the switchboard. A 45MVA reactor will be connected between each three-panel switchboard to provide an alternative path when the bus-section circuit breaker on the main switchboard is operated in the normally open position, thereby limiting the fault level infeed from the transmission system.

Justification for decision

Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

2026/27



Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

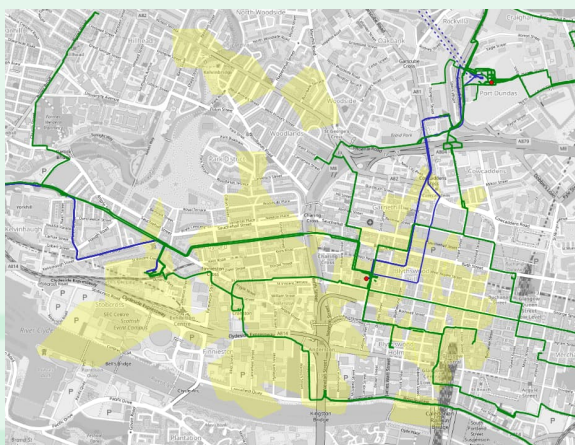
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Feedback can be emailed to: systemdesignsteam@spenergynetworks.co.uk

Last updated: 30/04/25

West George St GSP Fault Level Mitigation

Reinforce without flexibility



The West George St demand groups supply ca. 16,000 customers and is geographically located in the Glasgow region of SP Distribution (SPD) licence area. The GSP supplies five 11kV primary substations; Dundas St, Elliot St, Mitchell St, West George St, Grant St.

Constraint **FAULT LEVEL**
 The peak make and RMS Break fault level at the West George St GSP 33kV switchboard exceeds the network design limit. During RIIO-T2 preparation we worked collaboratively with SP Transmission to undertake a whole system approach to identify the most economic and efficient solution. It was identified that a reduction in fault levels to a value less than the network design rating can only be achieved with transmission works.

Decision **Reinforce without flexibility**
 SPT will replace the 120MVA SGT2 transformer with a 90MVA 275/33kV unit. The new higher impedance transformer, when in parallel with SGT1 will lower the fault infeed from the transmission system to a value less than the system design limit.

Justification for decision Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product N/A

Constraint season(s) Year round

Guide price Competition closed

Reinforcement timescale 2026/27



Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering **Closed**

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

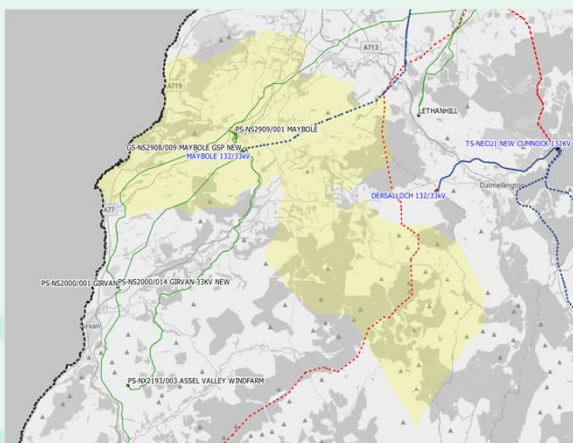
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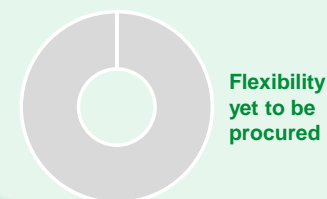
Last updated: 30/04/25

Maybole Primary Reinforcement

Manage with flexibility



Constraint	THERMAL With forecast uptake of Low Carbon Technologies (LCTs), the group demand at Maybole Primary is forecast to exceed its Firm capacity by the end of the RIIO-ED2 price control period, with risk of thermal overloading on the 33/11kV transformers, and non-compliance with EREC P2/8.
Decision	MANAGE WITH FLEXIBILITY The proposed solution is to procure flexible services for Maybole Primary for the RIIO-ED2 period. This solution addresses the prospective network constraints due to the forecast loading and defers the need for conventional network reinforcements until at least the RIIO-ED3 period.
Justification for decision	Due to the uncertainty associated with how the system will evolve in the future, flexibility solutions can efficiently, economically and with shorter timescales manage the network needs. This can help manage and address the capacity shortfalls at lower costs until the need for conventional reinforcement is established.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	Post RIIO-ED2



Maybole 33/11kV Primary substation is in the Ayrshire and Clyde South District of the SP Distribution licence area. It provides supply to ca. 4,400 customers. This network is rural, and infrastructure is relatively sparse. The site is fed from Maybole Grid Supply Point (GSP).

Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	-	-	-	-	7.0
Flexibility required (MW)	-	-	-	-	0.6
Flexibility procured (MW)	-	-	-	-	-
Flexible MW capacity met (%)	-	-	-	-	-

Flexibility Tendering Pending

We are planning to tender for flexibility services at this location in future years through our month-ahead model.

More information is available on our [Open Data Portal](#)

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

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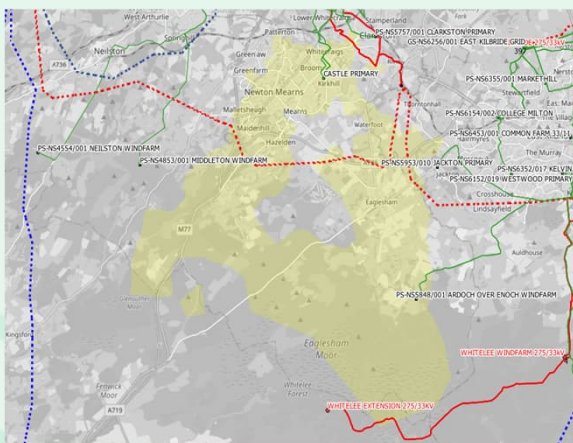
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Last updated: 30/04/26

Castle Primary Reinforcement

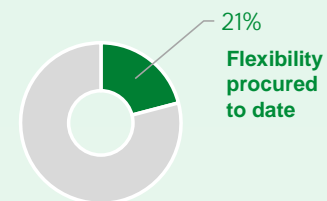


Manage with flexibility



Castle 33/11kV Primary substation is in Lanarkshire District of the SP Distribution licence area. It provides supply to ca. 11,200 customers. This network is urban, mainly serving the town of Newton Mearns, near Glasgow. The site is fed from East Kilbride Grid Supply Point (GSP).

Constraint	THERMAL With forecast uptake of Low Carbon Technologies (LCTs), the group demand at Castle Primary is forecast to exceed its Firm capacity by the end of the RIIO-ED2 price control period, with risk of thermal overloading on the 33/11kV transformers, and non-compliance with EREC P2/8.
Decision	MANAGE WITH FLEXIBILITY The proposed solution is to procure flexible services for Castle Primary for the RIIO-ED2 period. This solution addresses the prospective network constraints due to the forecast loading and defers the need for conventional network reinforcements until at least the RIIO-ED3 period.
Justification for decision	Due to the uncertainty associated with how the system will evolve in the future, flexibility solutions can efficiently, economically and with shorter timescales manage the network needs. This can help manage and address the capacity shortfalls at lower costs until the need for conventional reinforcement is established.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	Post RIIO-ED2



Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	57.5	63.5	220	361	511
Flexibility required (MW)	2.3	2.4	6.0	7.0	7.7
Flexibility procured (MW)	0	1.2	0.8	-	-
Flexible MW capacity met (%)	0%	50%	13%	-	-

Flexibility Tendering **Open**

We are planning to tender for flexibility services at this location this year through our month-ahead model.

More information is available on our [Open Data Portal](#)

Technical Appraisal

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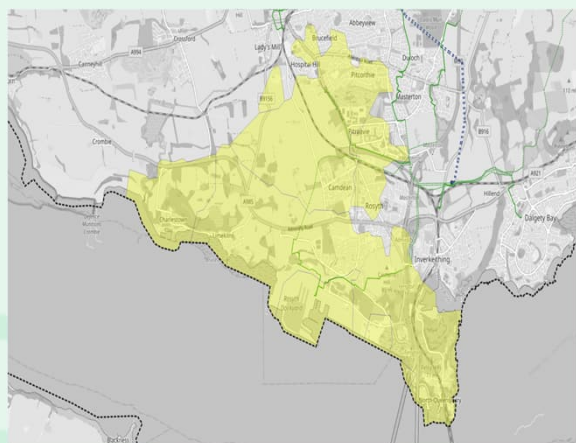
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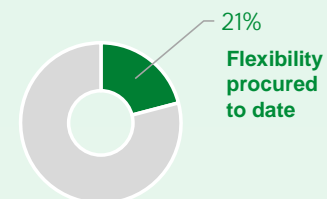
Last updated: 30/04/26

Castlandhill-Pitreavie Group Reinforcement

Manage with flexibility



Constraint	THERMAL With forecast uptake of Low Carbon Technologies (LCTs), the group demand is forecast to exceed its Firm capacity by the end of the RIIO-ED2 price control period, with risk of thermal overloading on the 33/11kV transformers, 33kV circuits, and non-compliance with EREC P2/8.
Decision	MANAGE WITH FLEXIBILITY The proposed solution is to procure flexible services for this group for the RIIO-ED2 period. This solution addresses the prospective network constraints due to the forecast loading and defers the need for conventional network reinforcements until at least the RIIO-ED3 period.
Justification for decision	Due to the uncertainty associated with how the system will evolve in the future, flexibility solutions can efficiently, economically and with shorter timescales manage the network needs. This can help manage and address the capacity shortfalls at lower costs until the need for conventional reinforcement is established.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	Post RIIO-ED2



Castlandhill and Pitreavie 33/11kV Primary substations are in the Central & Fife District of the SP Distribution licence area. They provides supply to ca. 9,300 customers. This network is urban, mainly serving the towns of Dunfermline and Inverkeithing. Both Primaries are fed from Inverkeithing Grid Supply Point (GSP)

Flexibility position at March 2026	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	-	-	44	222	695
Flexibility required (MW)	-	-	0.5	2.0	3.1
Flexibility procured (MW)	-	-	0.1	-	-
Flexible MW capacity met (%)	-	-	21%	-	-

Flexibility Tendering

Open

We are planning to tender for flexibility services at this location this year through our month-ahead model.

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Technical Appraisal

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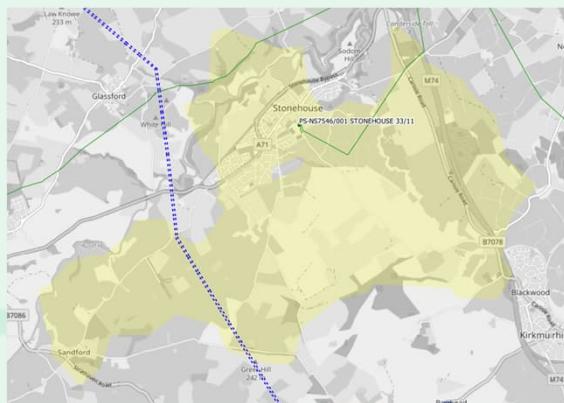
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Last updated: 30/04/26

Stonehouse Primary Reinforcement

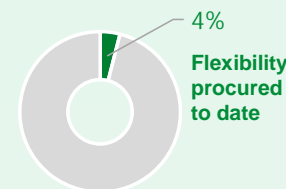


Reinforce, supported with flexibility



The Stonehouse demand group supplies ca. 2,800 customers and is geographically located in the Lanarkshire region of SP Distribution (SPD) licence area. It is supplied by Wishaw Grid Supply Point (GSP).

Constraint	THERMAL Demand is forecast to exceed thermal rating, leading to risk of thermal overloading on the single 33/11kV transformer. The demand group is predicted to be non-compliant under EREC P2/8 by the end of the RIIO-ED2 price control period; consequently, investment is required.
Decision	New 11kV circuit and HV automation scheme Utilise a section of de-energised 33kV overhead line (OHL), to form part of a new interconnected 11kV circuit to Strathaven Primary, that would otherwise be decommissioned. Establish a HV automated load transfer scheme to adjacent primaries under N-1.
Justification for decision	Insufficient flexibility to defer reinforcement and remain EREC P2/8 compliant so works are being progressed. Flexibility will support management of the constraint in the interim.
Flexibility product	SCHEDULED UTILISATION
Constraint season(s)	Winter
Guide price	Utilisation fee from £100/MWh
Reinforcement timescale	2025/26



Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	6.5	7.0	10.0		
Flexibility required (MW)	1.1	1.1	1.3		
Flexibility procured (MW)	0.0	0.1	-		
Flexible MW capacity met (%)	0%	9%	-		

Flexibility Tendering Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

[Engineering Justification Paper](#)

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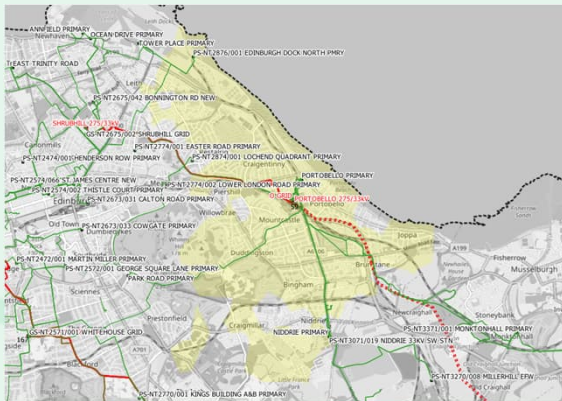
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Last updated: 30/04/25

Portobello Primary Fault Level Mitigation



Reinforce without flexibility



The Portobello demand groups supply ca. 23,000 customers and is geographically located in the Edinburgh & Borders region of SP Distribution (SPD) licence area. It is fed from Portobello Grid Supply Point (GSP).

Constraint

FAULT LEVEL

Both the 11kV peak make and RMS break duty fault level exceed the design rating and are around 120% and 110% respectively. The main reason for the high fault level is due to the legacy connection arrangement of the primary substation including three transformers and three busbar sections. The 11kV primary switchgear is rated at 350MVA however the network switchgear on the connected circuits will be rated at 250MVA which puts the wider 11kV network at risk.

Decision

Reinforce without flexibility

Replace the existing 11kV switchboard and establish a new Baileyfield Road 'B' primary substation with two new 33/11kV transformers and 11kV switchboard. The existing T2 and T3 transformers will be used to feed the new Baileyfield Road 'A' Primary.

Justification for decision

Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

2027/28



Flexibility not required

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

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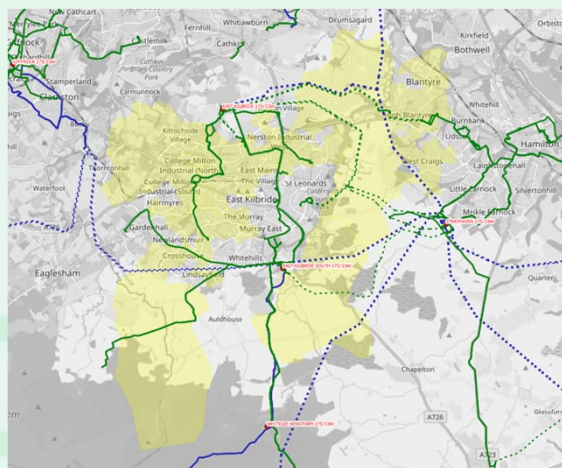
Last updated: 30/04/26

Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

East Kilbride GSP Fault Level Mitigation



Reinforce without flexibility



The East Kilbride demand groups supply ca. 29,000 customers and is geographically located in the Lanarkshire region of SP Distribution (SPD) licence area. The GSP supplies five 11kV primary substations; College Milton, High Blantyre, Hunter, Market Hill and Westwood.

Constraint

FAULT LEVEL

The peak make and RMS Break fault level at the East Kilbride GSP 33kV switchboard exceeds the network design limit. During RIIO-T2 preparation we worked collaboratively with SP Transmission to undertake a whole system approach to identify the most economic and efficient solution. It was identified that a reduction in fault levels to a value less than the network design rating can only be achieved with transmission works.

Decision

Reinforce without flexibility

SPT will install a three-panel switchboard onto cabling between each SGT and 33kV incomer on the East Kilbride switchboard. A 30MVA reactor will be connected between each three-panel switchboard to provide an alternative path when the bus-section circuit breaker on the main switchboard is operated in the normally open position, thereby limiting the fault level infeed from the transmission system.

Justification for decision

Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

2025/26



Flexibility not required

Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme's

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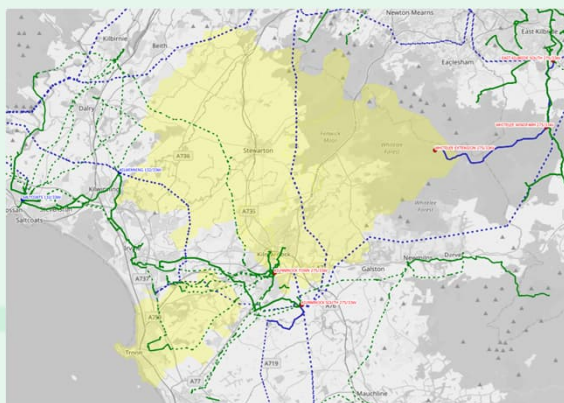
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Last updated: 30/04/26

Kilmarnock Town GSP Fault Level Mitigation



Reinforce without flexibility



The Kilmarnock Town demand groups supply ca. 45,000 customers and is geographically located in the Ayrshire region of SP Distribution (SPD) licence area. The GSP supplies six 11kV primary substations; Grassyards, Kilmarnock Main, Langlands St, Queens Dr, Stewarton and Troon

Constraint
FAULT LEVEL
 The peak make and RMS Break fault level at the Kilmarnock Town GSP 33kV switchboard exceeds the network design limit. During RIIO-T2 preparation we worked collaboratively with SP Transmission to undertake a whole system approach to identify the most economic and efficient solution. It was identified that a reduction in fault levels to a value less than the network design rating can only be achieved with transmission works.

Decision
 Reinforce without flexibility
 SPT will replace both existing 120MVA 275/33kV supergrid transformers. The new transformers will have dual 33kV windings (60MVA + 60MVA) to supply the "A" and "B" 33kV switchboards and limit the fault level infeed from the transmission system to each switchboard.

Justification for decision
 Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product N/A

Constraint season(s) Year round

Guide price Competition closed

Reinforcement timescale Complete



Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Flexibility Tendering Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

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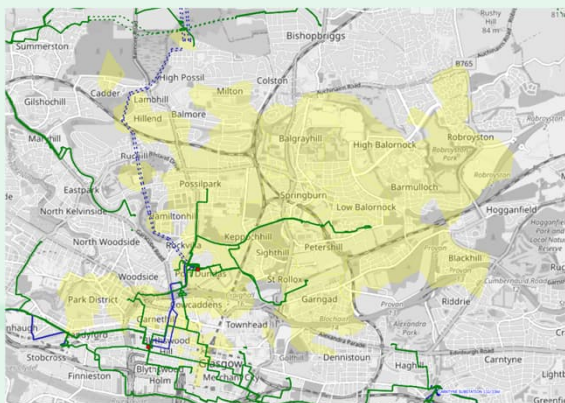
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Last updated: 30/04/26

Port Dundas GSP Fault Level Mitigation



Reinforce without flexibility



The Port Dundas demand groups supply ca. 27,000 customers and is geographically located in the Glasgow region of SP Distribution (SPD) licence area. The GSP supplies five 11kV primary substations: Charles St, Denmark St, Flemington St, Grant St and Petershill Rd.

Constraint

FAULT LEVEL

The peak make and RMS Break fault level at the Port Dundas GSP 33kV switchboard exceeds the network design limit. During RIIO-T2 preparation we worked collaboratively with SP Transmission to undertake a whole system approach to identify the most economic and efficient solution. It was identified that a reduction in fault levels to a value less than the network design rating can only be achieved with transmission works.

Decision

Reinforce without flexibility

SPT will replace the 120MVA SGT2 transformer with a 90MVA 275/33kV unit. The new higher impedance transformer, when in parallel with SGT1, will lower the fault infeed from the transmission system to a value less than the system design limit

Justification for decision

Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

2025/26



Flexibility not required

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

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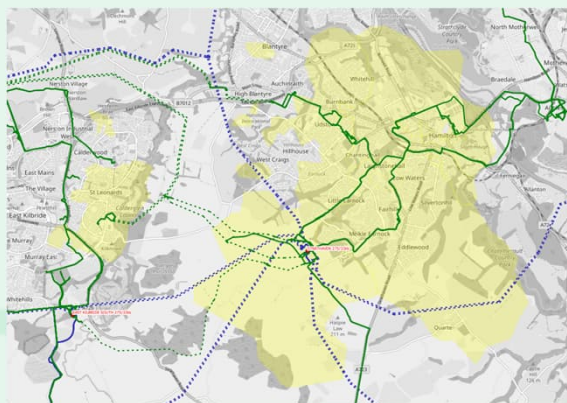
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Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					

Strathaven GSP Fault Level Mitigation



Reinforce without flexibility



The Strathaven demand groups supply ca. 34,000 customers and is geographically located in the Lanarkshire region of SP Distribution (SPD) licence area. The GSP supplies five 11kV primary substations: Burnbank, Hamilton, Leonards Chapel, Neilsland and Strathaven

Constraint

FAULT LEVEL

The peak make and RMS Break fault level at the Strathaven GSP 33kV switchboard exceeds the network design limit. During RIIO-T2 preparation we worked collaboratively with SP Transmission to undertake a whole system approach to identify the most economic and efficient solution. It was identified that a reduction in fault levels to a value less than the network design rating can only be achieved with transmission works.

Decision

Reinforce without flexibility

SPT will replace the 120MVA SGT1 transformer with a 90MVA 275/33kV unit. The new higher impedance transformer, when in parallel with SGT2 will lower the fault infeed from the transmission system to a value less than the system design limit.

Justification for decision

Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product

N/A

Constraint season(s)

Year round

Guide price

Competition closed

Reinforcement timescale

Complete



Flexibility not required

Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location as this would not resolve fault level constraints.

Technical Appraisal

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Last updated: 30/04/26

Flexibility position at March 2025	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					