

SPD GSP Reinforcement Schemes			
Name of Scheme/Programme	<i>SPD GSP Reinforcement Schemes</i>		
Primary Investment Driver	<i>Load – Fault Level Capacity</i>		
Scheme reference/ mechanism or category	<i>SPT20069</i> <i>SPT20070</i> <i>SPT20071</i> <i>SPT20072</i> <i>SPT20076</i> <i>SPT200101</i> <i>SPT200102</i>		
Output references/type	-		
Cost	<ul style="list-style-type: none"> • £6.080m – total project costs <ul style="list-style-type: none"> ○ SPD funded – £6.080m ○ SPT20069 – £0.768m ○ SPT20070 – £0.857m ○ SPT20071 – £0.758m ○ SPT20072 – £0.828m ○ SPT20076 – £0.647m ○ SPT200101 – £1.279m ○ SPT200102 – £0.942m 		
Delivery Year	<i>RIIO T2</i>		
Reporting Table	<i>B0.7 Load Master Data</i> <i>B4.2a Scheme Summary</i> <i>B4.5 Scheme Asset Data</i> <i>B4.5a Scheme Asset Data</i>		
Outputs included in RIIO T1 Business Plan	<i>No</i>		
Spend apportionment (£m)	T1	T2	T3
	0.000	6.080	0.000

Issue Date	Issue No	Amendment Details
December 2019	Issue 1	First issue of document

1. **INTRODUCTION**

We have worked with SPD as part of the Whole System engineering assessment to identify sites that will potentially require fault level mitigation or load related reinforcement in the RIIO-T2/ED-1/2 period. This paper provides a summary of the proposed sites included within the submission.

2. **DUNFERMLINE GSP – SPT20069**

2.1 **Existing System**

Due to an increase in both demand and embedded generation, the fault levels at Dunfermline GSP are approaching the installed switchgear's fault level design rating. In addition, the health index is approaching HI5 indicating end of life and requiring replacement.

The Dunfermline 33kV switchboard is used to feed four Primary substations: Calais, Longannet, Nethertown and Townhill. The interconnection is available to Inverkeithing via two 33kV circuits.

As a result of this SPD are undertaking works to replace the 33kV switchboard. SPT portion of works will require the installation of 33kV single core cables within the substation from the existing transformer units to the new 33kV switchboard.

The cost of these works is £0.768m which will be fully funded by SPD.

3. **GLENNISTON GSP – SPT20070**

3.1 **Existing System**

Due to an increase in both demand and embedded generation, the fault levels at Glenniston GSP currently exceed the installed switchgear's fault level design rating. In addition, the health index of the majority of the installed switchgear at the GSP has reached HI5 indicating end of life and requiring replacement.

The Glenniston 33kV switchboard is used to feed four Primary substations: Burntisland, Cluny Road, Linton Lane and Raith. Interconnection is available to Westfield via two 33kV circuits, Inverkeithing via one 33kV circuit and Redhouse via one 33kV circuit.

As a result of this SPD are undertaking works to replace the 33kV switchboard. SPT portion of works will require the installation of 33kV single core cables within the substation from the existing transformer units to the new 33kV switchboard.

The cost of these works is £0.857m which will be fully funded by SPD.

4. GORGIE GSP – SPT20071

4.1 Existing System

Due to an increase in demand, the fault levels at Gorgie GSP are approaching the installed switchgear's fault level design rating. In addition, the health index of the installed switchgear at the GSP is approaching HI5 indicating end of life and requiring replacement.

The Gorgie 33kV switchboard is used to feed three Primary substations: Gorgie, N.B. Distillery and S&N Breweries Viewforth. Interconnection is available to Sighthill via one 33kV circuit and Dewar Place via one 33kV circuit.

As a result of this SPD are undertaking works to replace the 33kV switchboard. SPT portion of works will require the installation of 33kV single core cables within the substation from the existing transformer units to the new 33kV switchboard.

The cost of these works is £0.758m which will be fully funded by SPD.

5. TELFORD ROAD GSP – SPT20072

5.1 Existing System

Due to an increase in both demand and embedded generation, the fault levels at Telford Road GSP are approaching the installed switchgear's fault level design rating. In addition, the health index of the majority of the installed switchgear at the GSP has reached HI5 indicating end of life and requiring replacement.

The Telford Road 33kV switchboard is used to feed four Primary substations: Granton Park Avenue, Muirhouse Bank, Pennywell Road and Telford Road. Interconnection is available to Sighthill via two 33kV circuits and Shrubhill via one 33kV circuit.

As a result of this SPD are undertaking works to replace the 33kV switchboard. SPT portion of works will require the installation of 33kV single core cables within the substation from the existing transformer units to the new 33kV switchboard.

The cost of these works is £0.828m which will be fully funded by SPD.

6. HAGGS ROAD GSP – SPT20076

6.1 Existing System

Due to an increase in demand, the fault levels at Haggs Rd GSP are approaching the installed switchgear's fault level design rating. In addition, the health index of both GSP are approaching HI5 indicating end of life and requiring replacement.

The Hags Road GSP 33kV switchboard is used to feed four Primary substations: Hags Road, Langside, Westfield Ave and Burnfield. The interconnection is available to Giffnock GSP via two 33kV circuits.

As a result of this SPD are undertaking works to replace the 33kV switchboard. SPT portion of works will require the installation of 33kV single core cables within the substation from the existing transformer units to the new 33kV switchboard.

The cost of these works is £0.647m which will be fully funded by SPD.

7. KAIMES GSP – SPT200101

7.1 Existing System

Due to an increase in both demand and embedded generation, the fault levels at Kaimes GSP are approaching the installed switchgear's fault level design rating. In addition, the health index of both sides of the GSP are approaching HI4 and HI5 indicating end of life and requiring replacement.

The Kaimes 'A' 33kV switchboard is used to feed four primary substations, Little France, Poltonhall, Lugton and Kings Buildings, with interconnection to Portobello GSP via two 33kV circuits. The Kaimes 'B' 33kV switchboard is used to feed seven primary substations, Bush Estate, Frogston RD East New, Burghlee, Penicuik, Loanstone, West Linton and Kingsland, with interconnection with Whitehouse GSP via two 33kV circuits.

As a result of this SPD are undertaking works to replace the 33kV switchboard. SPT portion of works will require the installation of 33kV single core cables within the substation from the existing transformer units to the new 33kV switchboard.

The cost of these works is £1.279m which will be fully funded by SPD.

8. INVERKEITHING GSP – SPT200102

8.1 Existing System

Due to an increase in both demand and embedded generation, the fault levels at Inverkeithing GSPs are approaching the installed switchgear's fault level design rating. In addition, the health index of both GSP are approaching HI5 indicating end of life and requiring replacement.

The Inverkeithing 33kV switchboard is used to feed five Primary substations: Burnside, Calais, Castlandhill, Dalgety and Pitreavie. The interconnection is available to Dunfermline via two 33kV circuits.

As a result of this SPD are undertaking works to replace the 33kV switchboard. SPT portion of works will require the installation of 33kV single core cables within the substation from the existing transformer units to the new 33kV switchboard.

The cost of these works is £0.942m which will be fully funded by SPD.