

## Procurement Strategy & Specification

### FE1510 Electrical Condition & Generation Survey

#### *Procurement & Commercial Services*



## DOCUMENT CONTROL

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## **Background**

At Salisbury District Hospital (SDH), Salisbury NHS Foundation Trust provides a range of clinical care, which includes general acute and emergency services, to approximately 225,000 people in Wiltshire, Dorset and Hampshire. Specialist services, such as burns, plastic surgery, cleft lip and palate, genetics and rehabilitation, extend to a much wider population of more than three million people. Trust staff provide outpatient clinics in other locations in Dorset and Hampshire. Specialist staff hold outreach clinics in hospitals within the Wessex area and, in total, the Trust employed 3,890 staff at 30 September 2014. This includes full and part-time staff.

## **This Procurement**

### **Electrical Survey / Health Check & Load Monitoring at SFT**

#### **Brief:**

Salisbury District Hospital (SFT) is supplied by 2 x 11KV sources (known as Homington & Petersfinger) which are owned and managed by SSEPD. These supplies feed 7 x LV Subs (see Table A) which supply various areas of the hospital, the majority of these supplies are backed up by Standby Generation (see table B) with are configured and run as 'island mode'. The buildings and therefore infrastructure is of varying age, and some of the switchgear and generation is 25+ years old.

The hospital is split into three distinct areas;

- SDH North
- SDH Central
- SDH South

The majority of the acute / clinical services are located in SDH North, some services, such as Maternity, NICU and Day Surgery are located in SDH Central. The Southern area of the site is mainly support services / admin areas, with the exception of the Hospice (Palliative Care).

A survey is required of the following:

**SDH Sub 1 - MAIN INTAKE**

**Location: (SDH South & Central)**

Electrical survey – consisting of;

- Condition surveys/obsolescence to include Standby Generation (Table B)
- Review of system resilience and single point of failure analysis.
- Protection application reviews
- Installation safety issues – e.g. earthing
- Advice on the effective use of condition based monitoring.

Power Quality/Load Survey:

- Installation of a power quality meter at a suitable point the in the LV switchboard (to be connected to metering unit CT and Voltage references on existing meters).
- Measurement and recording of all electrical parameters (Volts, Amps PF etc)
- Monitoring and capture of harmonics to the 51st
- Removal of monitoring equipment (after 1 week monitoring)
- G5/4 Compliance report and the voltage level

**SDH Sub 2**

**Location: Accommodation**

- Survey required of LV Pillar feeding accommodation Blocks 93, 94 & 95 – known as Compton Grovley & Langley.
- Future plans – not known
- Risks - age / condition of feeder pillars
- HTM's – n/a

**SDH Sub 3**

**Location: SDH Central**

Electrical survey – consisting of

- Condition surveys/obsolescence to include Standby Generation (Table B)
- Review of system resilience and single point of failure analysis.
- Protection application reviews
- Installation safety issues – e.g. earthing
- Advice on the effective use of condition based monitoring.

Power Quality/Load Survey

- Installation of a power quality meter at a suitable point the in the LV switchboard (to be connected to metering unit CT and Voltage references on existing meters).
- Measurement and recording of all electrical parameters (Volts, Amps PF etc)
- Monitoring and capture of harmonics to the 51st
- Removal of monitoring equipment (after 1 week monitoring)
- G5/4 Compliance report and the voltage level

**SDH Sub 4**

**Location: SDH Central**

Electrical survey – consisting of

- Condition surveys/obsolescence to include Standby Generation (Table B)
- Review of system resilience and single point of failure analysis.
- Protection application reviews
- Installation safety issues – e.g. earthing
- Advice on the effective use of condition based monitoring.
- Advice on the expansion of this area, the area is subject to some proposed development to include an expansion of Maternity in 2017/18.

Power Quality/Load Survey

- Installation of a power quality meter at a suitable point the in the LV switchboard (to be connected to metering unit CT and Voltage references on existing meters).
- Measurement and recording of all electrical parameters (Volts, Amps PF etc)
- Monitoring and capture of harmonics to the 51st
- Removal of monitoring equipment (after 1 week monitoring)
- G5/4 Compliance report and the voltage level

**SDH Subs 5a + 5b**

**Location: SDH North**

Electrical survey – consisting of

- Condition surveys/obsolescence to include Standby Generation (Table B)
- Review of system resilience and single point of failure analysis.
- Protection application reviews
- Installation safety issues – e.g. earthing
- Advice on the effective use of condition based monitoring.

Power Quality/Load Survey

- Installation of a power quality meter at a suitable point the in the LV switchboard (to be connected to metering unit CT and Voltage references on existing meters).
- Measurement and recording of all electrical parameters (Volts, Amps PF etc)
- Monitoring and capture of harmonics to the 51st
- Removal of monitoring equipment (after 1 week monitoring)
- G5/4 Compliance report and the voltage level

**SDH Sub 6**

**Location: SDH North**

Electrical survey – consisting of

- Condition surveys/obsolescence to include Standby Generation (Table B)
- Review of system resilience and single point of failure analysis.
- Protection application reviews
- Installation safety issues – e.g. earthing
- Advice on the effective use of condition based monitoring.

Power Quality/Load Survey

- Installation of a power quality meter at a suitable point the in the LV switchboard (to be connected to metering unit CT and Voltage references on existing meters).
- Measurement and recording of all electrical parameters (Volts, Amps PF etc)
- Monitoring and capture of harmonics to the 51st
- Removal of monitoring equipment (after 1 week monitoring)
- G5/4 Compliance report and the voltage level

**SDH Sub 7**

**Location: (SDH North)**

- Future plans – not known
- Risks – no standby generation?
- No survey required?

**Table A**

	LV Sub	Location	Approx. number of outgoing ways, including sub-distribution.
1	Main Intake (LV 1)	Block 14	30 (LV 1) + 6 (Blk 8) + 30 (SC) = 66
2	Residences (LV 2)	External	6 from feeder pillar
3	Spinal Unit (LV 3)	Block 99	25 + 15 + 5 + 10 = 55
4	Central (LV 4)	Block 05	40 + 20 + 20 = 80
5	SDH North (LV 5a)	Level 2 Sector 13	20 + 20 + 20 + 20 = 80
6	SDH North (LV 5b)	Level 2 Sector 13	20 + 20 + 20 + 20 = 80
7	A & E (LV 6)	Level 2 Sector 0	20 + 12 + 12 + 12 = 56

**Table B**

Standby Generators				
Prime Mover Manufacturer	Continuous Rated Output (KVA)	Location	Qty	Max Set Load (KW)
Perkins	500	A & E – Sub 6	2	800
Rolls Royce	506.2	Level 2 – Subs 5a + 5b	2	809.9
Rolls Royce	250	Spinal Unit – Sub 3	1	200
N/K	250	Day Surgery – Sub 4	1	200
Cummins	250	Main Intake – Sub 1	1	200
Scania	150	Block 47 – Sub 1	1	100

### **Summary**

A report is required that can be presented to the Trusts senior management, listing the current risks, and the risk with the existing equipment (switchgear, ACB's, changeover panels and generation) in the next 15 – 20 years.

This should be presented in a format that clearly identifies the current risk(s) and the potential investment required in the next 1 - 5 years.

A particular focus should be drawn to the areas of the site that are the key / acute sections of the hospital, and the areas that may be subject to capital development (Maternity Expansion) in the near future (2017 to 2020).

Therefore the main focus of the report, and survey should Subs LV4, LV5a + 5b and LV6.

### **Procurement Process & Timetable**

Advertised via Contracts Finder	Thursday 8 <sup>th</sup> December 2016
Last day for Clarification Questions	Tuesday 3 <sup>rd</sup> January 2017
Completed responses required	Monday 9 <sup>th</sup> January 2017 at 12:00

This Opportunity is being advertised via the Cabinet Office Contracts Finder Website. All required documents are published via that Portal and are freely available. **Salisbury NHS Foundation Trust uses the Bravo NHS Portal for advertising opportunities and managing supplier responses. All bidder participation must be via this Portal, and we do not accept quotations, clarification questions, or other communications outside of the Portal.**

If you wish to respond to a published opportunity :

Go to [https://nhs.bravosolution.co.uk/nhs\\_collaborative/web/login.html](https://nhs.bravosolution.co.uk/nhs_collaborative/web/login.html)

Register as a supplier, if you are not already registered with Bravo Health. Complete the quick registration process – this will only need to be done the first time you use Bravo Health.

Click on “Current Opportunities”

Select the Opportunity you are interested in, and view the attached documents.

To participate, click on [Login or Register to Participate](#) and follow the instructions.

**ALL BIDDERS must comply fully with the Trust’s Suppliers Code of Conduct** which is published as part of the tender documentation on the Bravo portal. **BIDDERS MUST NOT** make direct contact with any Trust staff member, or engaged consultancy, without going via SFT Procurement & Commercial Services, who’s email is [tenders@salisbury.nhs.uk](mailto:tenders@salisbury.nhs.uk). The Trust reserves the right to exclude bids where this process has not been followed.