

Purchase Specification Document for Off-Grid Rural EV Charger with Bioheat

Author: Matt Horne

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File Name: Purchase Specification for Off-Grid Rural EV Charger with Bioheat

Project lead: Matt Horne

Sign-off:

| Role | Name | Date | Signature |
|--------------------|-------------|------|-----------|
| Chairman and CTO | Chris Mann | | |
| Principal Engineer | Ed Gleadowe | | |

Overview

This Specification is provided for purchases to be made using funding from the European Regional Development Fund, as part of the Off-Grid Rural EV Charger with Bioheat project.

Estimated Budget

The estimated price range for this purchase is expected to be >£200k.

Deliverables

The system must have a lead time less than 6 months from the receipt of order. The price to include delivery to site, commissioning and user training.

Technical specification

The following requirements should be met:

Table 1 – Technical requirements for gas genset

| Requirement | Description |
|-------------|--|
| 1 | The system will have a prime power rating >250 kVA. |
| 2 | The system will be wired for 231/400 VAC three phase, 50 Hz. |
| 3 | The system will be compatible with gaseous methane as the fuel. |
| 4 | The system will provide a boost power capability of >300 kVA using a battery and inverter system. |
| 5 | The system will be compliant to all applicable operational regulations within the UK and EU. |
| 6 | The system will have an operational life >20,000 hrs. |
| 7 | The system will be compatible with dynamic load management. |
| 8 | The system will be integrated and packaged in a contained envelope with dimensions similar to a 20 ft ISO container. |
| 9 | The system will be mobile. |
| 10 | During operation, the noise generated from the system will not exceed 80 dBA. |

Tender Scoring Criteria

As well as the comparison of price and lead time for delivery of the product, the following criteria are to be used to select a successful tender.

Table 2: Tender selection criteria

| Criteria | Low Performance (1pt.) | Medium Performance (2pts.) | High Performance (3pts.) |
|--|--|--|--|
| Compliance against the technical requirements defined in Table 1 | Compliant to less than 50% of the technical requirements | Compliant to less than 80% of the technical requirements | Compliant to 80% or more of the technical. |
| Ease of use | Manual operation required frequently | Manual operation required infrequently (ie. Start stop, alarm reset) | No manual operation required (can be integrated with remote control) |

| | | | |
|---|--|--|--|
| | | | management system) |
| Frequency and degree of Maintenance | High turnover of consumable parts, long yearly downtime | Minimal consumables, long to medium yearly down time | Minimal to no consumables, short yearly downtime |
| Compatibility with power management/load shedding | Cannot be actively managed, process interruption not possible | Can be interrupted safely or actively managed in step power reduction/increase | Can actively manage power consumption in continuously variable reduction/increase. |
| Siting and size requirements | Large distributed plant, no ingress protection on individual equipment parts | Integrated skid or package, possibly minor ingress protection | Compact package with ingress protection for outdoor use. |