

Project Management Plan

XX Holdings Solar Installation

Leanne Phillips
Project Manager
Electrical Sensations

Distribution List

Name	Position	Signature	Date
<i>Ian XX</i>	<i>CFO, XX</i>		
<i>Rob XX</i>	<i>Grounds Manager, XX</i>		
<i>Nigel Phillips</i>	<i>Director Electrical Sensations</i>		
<i>Leanne Phillips</i>	<i>Project Manager Electrical Sensations</i>		

Version Control

Revision #	Change Description	Approval Date	Author

Project Registration

Project Name	XX Holdings Solar Installation
Project #	21145
Creation Date	2 Oct 2021
Sponsor/Client	XX
Project Manager	Leanne Phillips, Electrical Sensations

2. Scope Management

2.1. Deliverables

Stage 1 – Pre-Installation

At the completion of Stage 1, the installation project will be ready to commence

Stage 2 - Installation

At the completion of Stage 2, the panels and inverter will be installed and connected to the switchboard, the switchboard will be upgraded, the “before” Power Quality baseline will be determined and the

Stage 3 – Commissioning & testing

At the completion of Stage 3, the installation will be tested and commissioned and ready for REPQ testing and sign off. The system is deemed to be “capable of producing power” at the completion of Stage 3.

Stage 4 – Finalisation

At the completion of Stage 4, the REPQ testing and sign has been completed, the PQ testing has been done, Ergon have installed solar meters & the system has been turned on.

2.2. Inclusions

280 x LG 350W NeON2 Solar panels, 100kW Fronius Eco 3 phase inverter, upgraded switchboard with 4 spare poles in the bus bar, network protection relay installed beside the main switchboard, inverter monitoring set up through schools WiFi network.

2.3. Exclusions

Ergon application and meter change over fees are excluded from the pricing in this project.

The commissioning of a structural engineer to prepare a report as to the suitability of the roof is excluded from the pricing in this project.

2.4. Handover

The Certificate of Test, CEC Installers Checklist and REPQ report will be provided to the sponsor upon handover of the system.

3. Time Management

3.1. Schedule

Gantt chart to be prepared

<u>Stage 1 – Pre-Installation</u>	<i>Start by</i>	<i>Complete</i>
<i>Phase 1 – Submission of application form to Ergon</i>	<i>15 October</i>	<i>1 December 2021</i>
<i>Phase 2 – Receipt of Ergon approval</i>	<i>15 October</i>	<i>1 December 2021</i>
<i>Phase 3 – Ordering of stock from suppliers</i>	<i>1 December 2021</i>	<i>1 December 2021</i>
<u>Stage 2 - Installation</u>	<i>Start by</i>	<i>Complete</i>
<i>Phase 1 – Installation of mounting gear and panels on the roof (to be done after school has finished for the year to minimise the risk of children entering the work area)</i>	<i>2 December 2021</i>	<i>10 December 2021</i>
<i>Phase 2 – Installation of inverter</i>	<i>2 December 2021</i>	<i>10 December 2021</i>
<i>Phase 3 – Upgrade of the switchboard (to be done either on the weekend or early morning to minimise disruption to the school)</i>	<i>2 December 2021</i>	<i>13 December 2021</i>
<i>Phase 4 – Power Quality testing</i>	<i>13 December 2021</i>	<i>14 December 2021</i>
<i>Phase 5 – Connection of the panels and inverter to the switchboard</i>	<i>13 December 2021</i>	<i>14 December 2021</i>
<u>Stage 3 – Commissioning & testing</u>	<i>Start by</i>	<i>Complete</i>
<i>Phase 1 – Checking and taking photos</i>	<i>15 December 2021</i>	<i>15 December 2021</i>
<i>Phase 2 – Inverter commissioning</i>	<i>16 December 2021</i>	<i>16 December 2021</i>
<i>Phase 3 – Testing installation</i>	<i>17 December 2021</i>	<i>17 December 2021</i>
<u>Stage 4 - Finalisation</u>	<i>Start by</i>	<i>Complete</i>
<i>Phase 1 – RE PQ testing and sign off</i>	<i>20 December 2021</i>	<i>20 December 2021</i>
<i>Phase 2 – Power Quality testing</i>	<i>17 December 2021</i>	<i>20 December 2021</i>
<i>Phase 3 – Submission of EWR to Ergon</i>	<i>21 December 2021</i>	<i>21 December 2021</i>
<i>Phase 4 – Ergon changing meters over and turning the system on</i>	<i>30 December 2021</i>	<i>30 December 2021</i>

4. Cost Management

4.1. Budget

Electrical Sensations requires \$xx including GST for this project including materials and labour costs.

4.2. Estimating methodology

The above figure has been developed using indicative pricing obtained from suppliers and performance (in terms of time) on past similar project.

4.3. Confidence level

The confidence level in the accuracy of the budget figure is high.

4.4. Contingency

Contingency funds will be needed in case Ergon require any extra work at the time of changing over the meter; if materials are damaged by our employees (e.g: dropping a panel); or if there are extended periods of wet weather that require extra hire time for height safety equipment.

4.5. Source of Funds

The funds needed by Electrical Sensations will be obtained from the bank overdraft facility (the costs of which have been included in the budget above).

4.6. Cash Flow

NOTE that invoices will be due and payable within 7 days of date of issue.

10% of the project price is required upon receipt of Ergon approval.

30% progress payment will be required upon the completion of Stage 2.

The balance will be payable upon final completion and sign off of the project.

All suppliers provide 30 day EOM accounts. The products will be ordered in December and payable in January. By that time, all invoices from XX will have been paid.

5. Human Resource Management

5.1. Stakeholders

XX Holdings (Project Sponsor)

- Ian XX (CFO)
- Rob XX (Grounds Manager)

Electrical Sensations (Project Management company)

- Nigel Phillips (Director & CEC installer on site)
- Leanne Phillips (Project Manager)

Green Deal (STC broker)

- Grace XX (broker representative)

Ergon (Electricity authority/supplier)

John XX (major connections team manager)

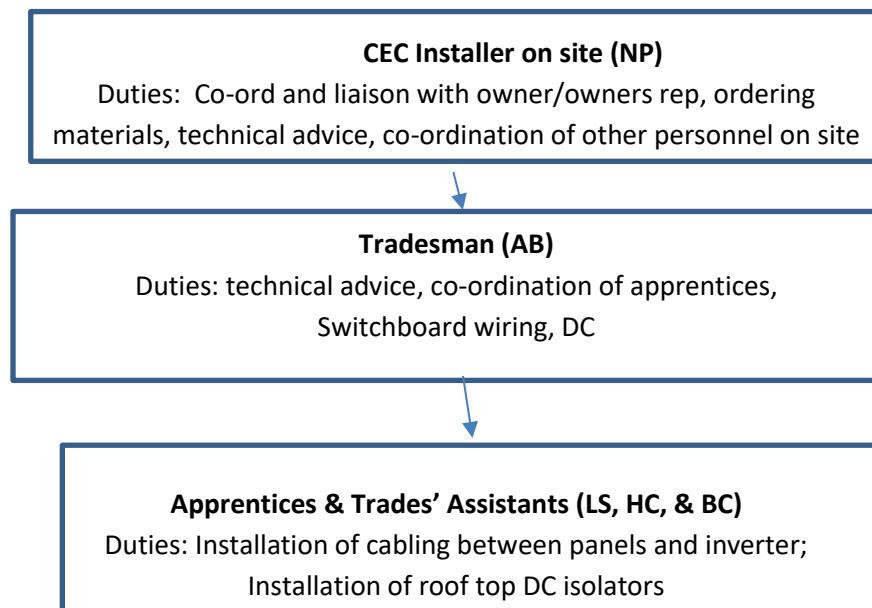
5.2. Resource Capability

Electrical Sensations has sufficient staff to carry out this project in accordance with the time frame in 3.1.

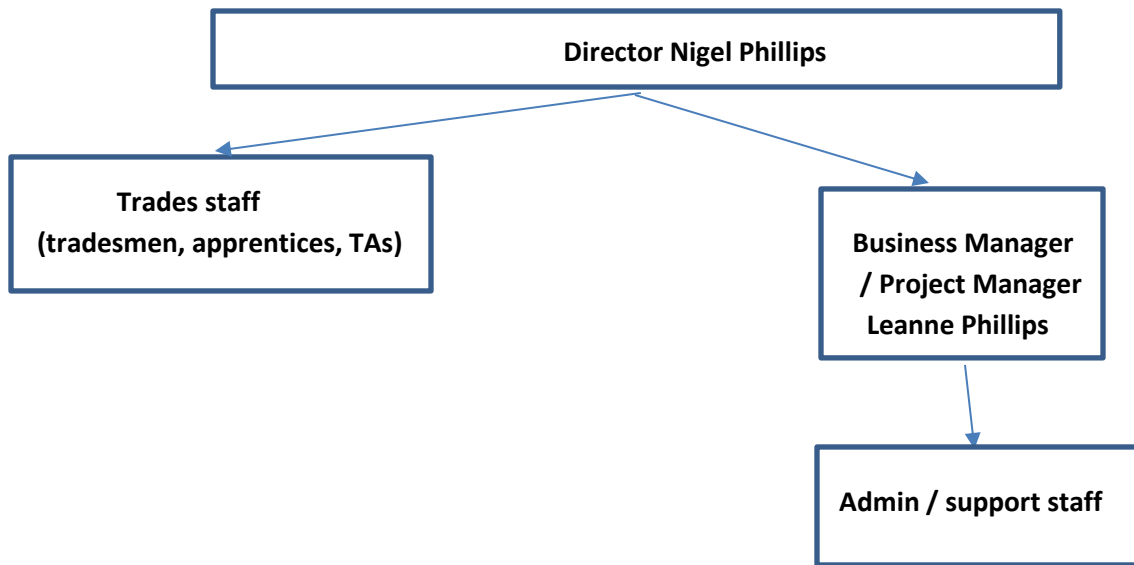
6. Communications Management

6.1. Organisational Structure

On site:



Electrical Sensations:



6.2. Escalation

Conflicts and disputes are to be reported to Project Manager Leanne Phillips in the first instance. Depending on the nature and severity of the conflict, mediation may be arranged or informal conversations with both parties

7. Procurement and Contracts Management

Suppliers will be chosen based on the following criteria:

- *Past performance for providing products within required time frames.*
- *Price.*
- *Ability to deliver products to XX site at XX St Toowoomba.*
- *After sales support*

8. Risk Management

8.1. Constraints

Most of the project work is outside, in the elements.

8.2. Assumptions

Weather will be mostly fine.

Scissor lifts will be available when needed.

XX staff will ensure that access to the work area is restricted from the public (including students, parents, and other staff).

8.3. Potential Issues

Unfavourable weather – outside and roof work will be carried out first.

Product availability – Allocate a back-up supplier

Delivery delays – Organize with Toowoomba Carrying Company to be back-up delivery company if necessary.

9. Quality Management

The installation of the panels and inverter will be carried out in accordance with the Clean Energy Council Guidelines for Grid-Connected Solar Installations.

The inverter installation will also comply with AS41777.

The switchboard work will comply with current Australian Standards and the Energy Australia Electricity Connection and Metering Manual (ECMM).

The installation work will be checked, reviewed, and assess at no greater than 4 hourly intervals, by the CEC accredited installer on site.

The work carried out in the switchboard will reviewed at no greater than 2 hourly intervals.

Checklists will be utilised for checking compliance.

Photos will be taken at least twice daily, of the work carried out for CEC/CER evidence.

Authorisation

Approval

☐ Approved

☐ Postponed

☐ Cancelled

☐ Review

Sign off

Name	Role	Signature	Date
Ian XX	CFO, XX		
Rob XX	Grounds Manager, XX		
Nigel Phillips	Director Electrical Sensations		
Leanne Phillips	Project Manager Electrical Sensations		