



Green Power Pty Ltd

SURGE Stage 3 Development and Production Support Project

Project Management Plan

Document Control

Document Control Register	C:\
Document Location	ABC Services Pty Ltd
Document Serial Number	1
Document File Name	SURGEPC3.doc
Document Version	1.0
Document Owner	SURGE Development Support Manager
Change Authorisation	SURGE Project Director

Front Matter

Copyright Notice:

Copyright _ Micro Planning International Pty Ltd. A.C.N. 010 748 124

This document contains information provided by Micro Planning International Pty Ltd under a sub-licence agreement executed with Micro Planning International Ltd.

Copyright - Mr. Raphael M. Dua A.C.N. 007 082 537

This document contains information provided by Mr. Raphael M. Dua under a sub-licence agreement executed with Micro Planning International Pty Ltd

Confidentiality of information

This document is the property of ABC Services Pty Ltd. and contains confidential information to be disclosed only to persons authorised by ABC Services Pty Ltd. to receive this information. Unauthorised disclosure of this document or the information that it contains may render a person liable for prosecution under the Crimes Act and the Corporations Law.

Table of Contents

Project Charter	1
Front Matter	2
Copyright Notice:	2
Confidentiality of information	2
Table of Contents	3
1.0 Introduction	5
2.0 Executive Summary	6
2.1 Project Purpose	6
2.2 Approach	6
2.3 Key Deliverables	6
2.4 Resource Requirements	7
Full Time	7
2.4.2 Part Time	7
3.0 Project Scope	8
3.1 Project Goals, Objectives and Related Deliverables	8
3.2 Project Logical Scope	9
3.2.1 Relevance to Strategic Scope	9
3.2.2 Targeted User Group	9
3.2.3 Technical Scope	9
3.3 Scope Inclusions	9
3.4 Scope Exclusion	9
4.1 Dependencies on Other Projects	10
4.2 Projects Dependent Upon This Project	10
5.0 Project Management Approach	11
5.1 Risk Management Approach	11
5.1.1 Risk Categories	11
5.2 Risk Questions by Planned Phase	11
5.2.1 Requirements Phase	11
5.2.2 Design Phase	12
5.2.3 Code and Unit Test	12
5.2.4 Integration and Test Phase	13
5.2.5 Communication Team Compatibility and Motivation	13
5.3 Risk Mitigation Approach	13
5.3.1 Types of Risk and Mitigation Strategies	13
5.3.2 Analysis of the Impact of Software Risk	14
5.3.3 Green Power Pty Ltd and ABC Working Together to Manage Software Risks	14
5.4 Risk Mitigation Strategies	15
5.4.1 Software Testing	15
5.4.2 Software Inspection	15
5.4.3 Intellectual Reviews	15
5.4.4 Compliance Verification	15
5.5 Measuring Quality Risk	15
5.5.1 Reporting Results	15
5.5.2 Quality Costing	15
5.5.3 Conclusion	15
5.6 Issue Management Approach	15
5.6.1 Issue Management Principles	15
5.6.2 Issue Logging	16
5.6.3 Issue Monitoring	16
5.6.4 Issue Escalation Procedure	16
5.7 Knowledge Co-ordination Approach	16
5.7.1 Repository Management Approach	16
5.8 Quality Management Approach	16

5.8.1	Establishing Acceptable Quality.....	16
5.8.2	Quality Controls.....	17
5.8.3	Quality Assurance	17
5.9	Scope Management Approach	17
5.9.1	Scope Control	17
5.9.2	Change Control	18
5.9.2.1	Contingency	18
6.0	Project Organisation	19
6.1	Project Management and Control Structure	19
6.1.1	Strategic Management.....	19
7.0	Project Plan Summary.....	20
7.1	Project Budget.....	20
7.1.1	Operating Expenditure Summary.....	20
	Sub Total.....	20
7.1.2	Capital Expenditure Summary	20
7.1.2	Estimating Contingency.....	20
7.1.3	Project Work Plan.....	20
8.0	Project Assumptions.....	21
9.0	Glossary.....	21
10.0	Version Commentary	21
10.1	Version 1.0.....	21
11.0	Budget.....	21
	Original GREEN Budget.....	21
	Contingency	21
Appendix A	Project Plan.....	22
A.1	Work Breakdown Structure.....	22
A.1.1	Sub-Project	22
A.1.2	Project Management	22
A.1.3	Production Support Existing System	22
A.1.4	Development and Unit Test Environment.....	22
A.1.5	System Test Environment.....	22
A.1.6	Integration and Release Environment	22
A.1.7.	Training Environment	22

1.0 Introduction

The scope of ABC's SURGE project includes the planning, design, development, testing, and transition of the SURGE power recognition software package. This software will meet or exceed organizational software standards and additional requirements established in the project management plan.

The scope of this project also includes completion of all documentation, manuals, and training aids to be used in conjunction with the software. Project completion will occur when the software and documentation package has been successfully executed and transitioned to Green Power's manufacturing group for production.

All SURGE project work will be performed internally and no portion of this project will be outsourced.

The scope of this project does not include any changes in requirements to standard operating systems to run the software, software updates or revisions.

2.0 Executive Summary

2.1 Project Purpose

This document defines the scope, objectives and overall approach to the implementation of Stage 3 Development and a Production Support program for the SURGE application supplied to Green Power Pty Ltd. It contains the information require to initiate the project, including the high level project plans, budget and recommended approach to project organising and resourcing.

Stage 3 will establish and support the ongoing development of the SURGE Application as well continuing production support team to comply with warranty obligations under the contract number 931061

Project deliverables are planned to be consistent with the needs of the approach agreed with Green Power Pty Ltd Management in conjunction with ABC Management. The estimated budget for this project is \$3.1 million. The project requires resources from ABC 1500 person days, and Green Power of 100 person days

The primary deliverables for this stage are:

1. Documented procedures to enable production support to manage problems that may arise during the warranty period
2. Documented procedures to manage the Production platform
3. Establish service level agreements with the specified third party vendors

2.2 Approach

This project will be managed using the ABC Saratoga methodology and MPI Project Management software

2.3 Key Deliverables

Deliverable	Estimated Completion
SURGE Software Warranty	11 Jun 2014
SURGE Documented procedures to enable production support to manage problems that may arise during the warranty period	
SURGE Documented procedures to manage the Production platform	
SURGE Establish service level agreements with the specified third party vendors	

2.4 Resource Requirements

Full Time

Resource	Required Time	Source	Estimated Duration
ABC Project Director	30%	ABC	
Technical Team Leader	100%		
Project Manager	100	ABC	
Quality Assurance & Risk Manager	30	ABC	
Applications Developer (1)	100	ABC	
Database Administrator	100	ABC	
Applications Developer (2)	100	ABC	
Business Analysts	60%	ABC	

2.4.2 Part Time

Resource	Required Time	Source	Estimated Duration
Production Support Manager	33%	ABC	80 days
Applications Developer	50%	ABC	75 days
Database Administrator	50%	ABC	75 days

3.0 Project Scope

3.1 Project Goals, Objectives and Related Deliverables

Goal	Objectives	Related Deliverable	WBS Reference Number

3.2 Project Logical Scope

3.2.1 Relevance to Strategic Scope

The Production Support Warranty Period project will provide minimal support for the warranty period of the SURGE Etc, by providing an integrated infrastructure support function. It will not have sufficient resources to take advantage of any development that may be discovered during this period. Future business opportunities will be severely compromised.

3.2.2 Targeted User Group

The targeted User groups for the project are Green Power marketing staff at Green 'A'.

3.2.3 Technical Scope

The project will establish basic support facilities for the users by identifying and correcting any problems that may arise during the warranty period

3.3 Scope Inclusions

WBS Ref	Deliverable	Definition	Due Date
SURGE 51	Warranty Production Support		11Jun14

3.4 Scope Exclusion

The project does not include any of the following:

- 1.

4.0 Related Projects

4.1 Dependencies on Other Projects

SURGE Application Development

4.2 Projects Dependent upon This Project

None

5.0 Project Management Approach

5.1 Risk Management Approach

Risk Category	Specific Risk	Management Strategy
Business Project Schedule or Priority Changes		

5.1.1 Risk Categories

The following categories will be included in the Risk Management Plan:

- • Application Support Definition
- • Production Support Definition
- • Changes in Business Strategic Directions
- • Political Influences
 - • Local
 - • National
 - • International
- • Enterprise Model Variations
- • Effective Implementation Strategy for Remote Locations
- • Hardware and Software Performance
- • Remote Area Hardware and Software Support
- • Key Resources Availability
- • Project Introduced Technology
- • Project Definition
- • Software Package Integration
- • Software Language Documentation
- • Software Package Selection
- • Software Integration Complexity

5.2 Risk Questions by Planned Phase

5.2.1 Requirements Phase

5.2.1.1 Stability and Completeness

Have all the requirements been fully defined and completed to the stakeholders satisfaction and thus will not be liable to further change

5.2.1.2 Clarity

Do the requirements make sense and do all the stakeholders have a clear understanding of them

5.2.1.3 Feasibility

Are any of the requirements difficult to implement? Are there any leading edge technological requirements, which could cause delays?

5.2.1.4 Tracking

Does the project plan show the requirements plainly throughout the design, cSurgeg and testing phases?

5.2.2 Design Phase

- 1 Functionality
- 2 Difficulty
- 3 Interfaces
- 4 Performance
- 5 Quality
- 6 Testability
- 7 Hardware Constraints
- 8 Software Reuse

5.2.3 Code and Unit Test

- 1 Feasibility
- 2 Surge /Implementation
- 3 Testing

5.2.4 Integration and Test Phase

- 1 Environment
 - Hardware
 - Software
- 2 Products
- 3 System
- 4 Maintainability
- 5 Specifications

5.2.5 Communication Team Compatibility and Motivation

- 1 Communications
- 2 Compatibility of Team
- 3 Motivation

5.3 Risk Mitigation Approach

In order to minimise the amount of time in preparing the Risk Management Plan, the following processes will be followed when identify and evaluating risk:

- Identification
- Analysis
- Priorities
- Plan Risk Reduction
- Execute
- Evaluate
- Document

5.3.1 Types of Risk and Mitigation Strategies

- Speculative versus Static Risks
- External Risks

- Unpredictable
- Predictable, but uncertain
- Political
- Internal Risks
 - Financial
 - Scheduling
 - Technical
 - Legal
 - Political
- Most Common Software Risks
- Most Serious Software Risks
- Risk Factors that resist change
- Risk Factors associated with COTS

5.3.2 Analysis of the Impact of Software Risk

- Classify Risks
 - Acceptable
 - Unacceptable
 - Factors relating to project's size
 - Factors relating to project complexity
 - Factors relating to personnel problems
- Weighting Risk Factors
- Methodologies for Assessing Financial Risk
 - Return on Investment
 - Net Present Value
 - Return on Assets
 - Economic Value Added
 - Expected Value
- Tools for Analysing Risk
 - Work Breakdown Structure (WBS)
 - PERT Analysis
 - Gantt Charts
 - Resource Scheduling
 - Resource Histograms
 - Schedule Tracking
 - Performance Baseline Measurement
 - Cost Control Criteria
 - Cost Profiles
 - Cost Pies
 - Prototyping

5.3.3 Green Power Pty Ltd and ABC Working Together to Manage Software Risks

- Developing and Implementing Development Model
- Developing and Implementing Integrated System Architecture
- Developing and Implementing Life Cycle Risk Management Plan
- Containment of Development Risks
 - Implement Proven Software
 - Implement Proven Strategies
- Address Operations and Maintenance Risks

- Australia
- Classify Prototyping Techniques
- Verify and Validate Software Requirements and Design Specification
- Establish an Green Power Pty Ltd Corporate Software Risk Management Program
- Establish Metrics For Availability, Reliability and Supportability Linked to Each Business Process

5.4 Risk Mitigation Strategies

5.4.1 Software Testing

5.4.2 Software Inspection

5.4.3 Intellectual Reviews

5.4.4 Compliance Verification

5.5 Measuring Quality Risk

5.5.1 Reporting Results

5.5.2 Quality Costing

5.5.3 Conclusion

Quality Management and Assurance will be able to demonstrate a one to one correlation between business activities and deliverables/ product quality improvement. This is predicated on the following typical tasks being performed:-

- Prediction of Defect Potential
- Prediction of Defect Rectification Efficiency
- Prediction of Quality Levels of Software
- Measuring Defect Volumes and Severity
- Ensuring the Defect Rectification Techniques Function
- Perform Tests and Validation of Results
- Measure and Calibrate Defect Rectification Efficiency Levels

5.6 Issue Management Approach

5.6.1 Issue Management Principles

Intra project Issue Management will be performed in accordance with issue management procedures and principles issued by ABC.

Inter project Issue Management will be performed in accordance with issue management procedures and principles issued by the Project Office.

5.6.2 Issue Logging

All issues, which affect, or have the potential to affect, progress or the successful outcome of the project will be recorded on an Issue Worksheet and logged in the Project Issue Log. Both of these will reside in the Project Control file, which is controlled by the Project Administrator.

5.6.3 Issue Monitoring

Outstanding Issues will be monitored on a weekly frequency.

5.6.4 Issue Escalation Procedure

Outstanding issues, which have not been resolved within the required time frame, will be escalated. The levels of escalation are defined in the following table.

Escalation Level	Escalated By	Escalated To	Context
1	Intra Project Issue Identifier	GREEN Project Sponsor Or GREEN Project Manager	Issues affecting the Implementation of Stage1
2	Inter Project Issue Identifier	GREEN Project Manager	Issues affecting the Implementation of Stage 1
3	Unresolved Inter Project Issue GREEN Project Manager	GREEN Steering Committee	Issues which cannot be resolved at escalation level 2

5.7 Knowledge Co-ordination Approach

5.7.1 Repository Management Approach

Where possible Stage 1 deliverables and correspondence will be delivered in Microsoft Word Version 20100 format; to the ABC document standard in force at the commencement of the Project. These documents will be supplied to the nominated Green Power Pty Ltd staff member responsible for the management of the Green Power Pty Ltd MS SharePoint Data Repository.

5.8 Quality Management Approach

5.8.1 Establishing Acceptable Quality

Acceptable levels of quality for the deliverables of this project will be determined by all of the following criteria:

- Satisfying the agreed acceptance criteria;
- Compliance with approved requirements, specifications and designs;

- Conformance with established ABC documentation standards in force at the commencement of the Project.

If each of these criteria is met, then the project will be judged to have delivered a product of acceptable quality.

5.8.2 Quality Controls

The following quality control procedures will be employed on this project in addition to the test design and acceptance criteria tests execution tasks implicit in the methodology:

5.8.2.1. Internal Project Reviews

Team member deliverables will be subject to peer review.

5.8.2.2. External Project Reviews

Project deliverables will be submitted to the Green Power Pty Ltd nominated staff member for review by independent reviewers.

5.8.2.3. Inter-Project Briefings

Briefing sessions will be conducted with the personnel engaged in the Stage 1 project and the Green Power Pty Ltd nominated staff, with the project teams to ensure a common understanding of the scope of Stage 1 and the project deliverables.

5.8.2.4. Review Controls

All reviews (internal and external) will be controlled to ensure that they are conducted in an objective manner, and that the results are acted upon. The controls to be applied to reviews comprise:

- Explicit definition of the criteria against which the deliverable will be reviewed;
- Formal records of the review criteria, reviewer and reviewer's comments;
 - Feedback to the reviewer regarding the outcome of the review comments (eg. Accepted and implemented, alternative solution proposed, challenged and transferred to the issue log).

5.8.3 Quality Assurance

Quality Assurance is the process by which the project can judge to be enforcing appropriate controls and procedures, which prevent sub-standard or faulty deliverables. The process adopted for this process comprises:

- Adoption of a formal ,structured methodology (ie Method/1 and ABC Saratoga SM001)
- External review of the project plan to determine compliance with AS2443 and AS4817:2006 and satisfactory quality control points;
- The provision of a reporting channel between GREEN POWER PTY LTD and ABC Stage 1 Project team

5.9 Scope Management Approach

5.9.1 Scope Control

The scope of the project will be controlled via the following means;

- The Project Management Plan shall define the Project Charter which will contain a definition of included scope and excluded scope;
- Unauthorised increases or decreases in scope will be detected through regular monitoring of team tasks relative to the project plan, and scheduled internal and external reviews;
- Approved changes to project scope will be applied through formal change control procedures.

5.9.2 Change Control

Changes in project scope will be controlled by formal Change Control procedures issued by the GREEN POWER PTY LTD nominated staff members. This will be affected in the following way:

- Potential increases or decreases in scope (either requested or detected) will be recorded on a project Change Request and logged in the Change Control Log;
- All new Change Requests will be assessed to determine the impact of the change, both in terms of budget and time;
- Only duly authorised Change Requests will be implemented. See Section 6.2 Key Roles and Accountabilities for appropriate authority.

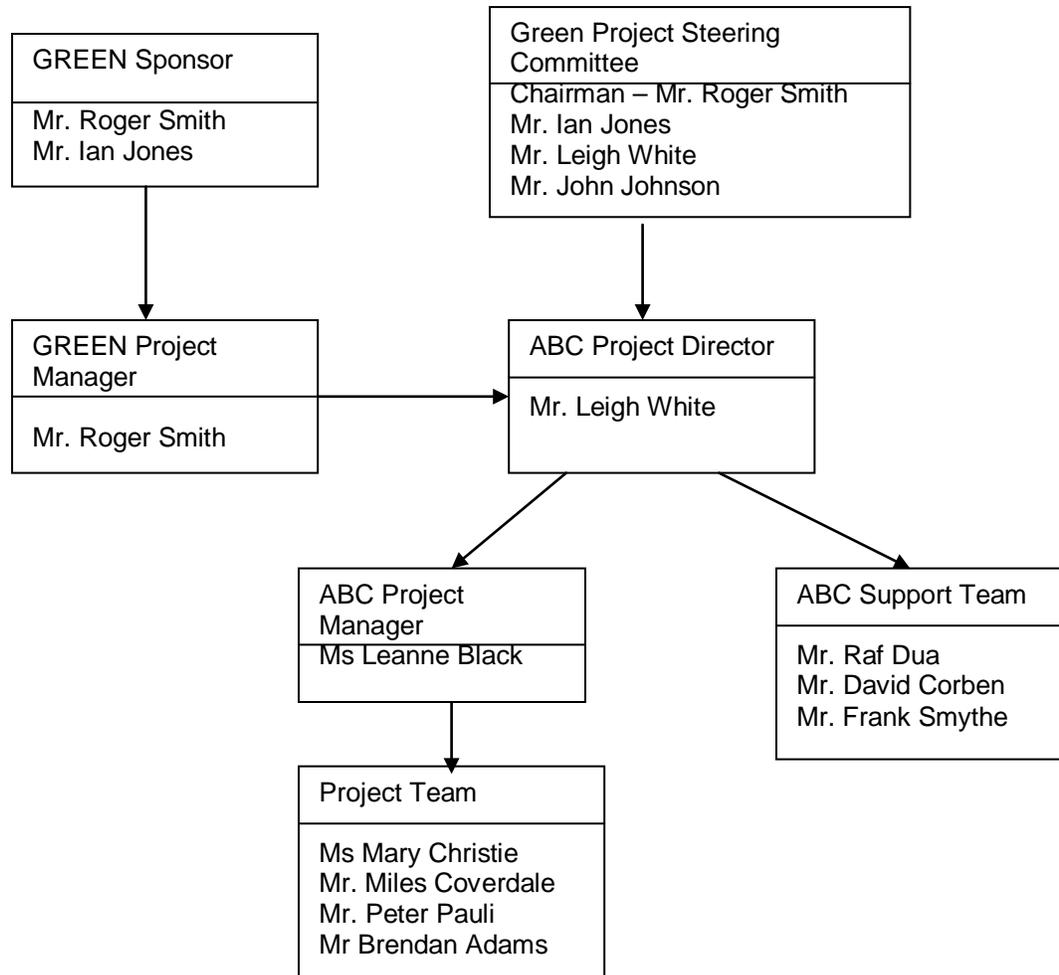
5.9.2.1 Contingency

The ABC Project Manager may vary the cost within the planned contingency at his discretion. Associated Change Requests will be raised and authorised by the ABC Project Manager

6.0 Project Organisation

6.1 Project Management and Control Structure

6.1.1 Strategic Management



6.2 Key Roles

Role	Accountability	Authority
Manager GREEN	<ul style="list-style-type: none"> Charter Sign Off – Project Sponsor Change Request Authority (Not Including Contingency) 	Scope and Budget
Project Steering Committee	<ul style="list-style-type: none"> Confirm By Review That Project Contributes to GREEN Strategic Business Directions To Assist Resolution of any Issues Arising 	
ABC Project Director	<ul style="list-style-type: none"> Project Management Change Request Authorisation in Respect of Contingency Resolution of Minor Issues 	Project Charter

8.0 Project Assumptions

Assumption	Description

9.0 Glossary

10.0 Version Commentary

This section summarises changes that have been made to the Project Charter in each version and explains why each change was made

10.1 Version 1.0

Initial Version of document
Status: Draft and Uncontrolled

11.0 Budget

Original GREEN Budget

Contingency

Appendix A Project Plan

A.1 Work Breakdown Structure

A.1.1 Sub-Project

A.1.2 Project Management

A.1.3 Production Support Existing System

A.1.4 Development and Unit Test Environment

A.1.5 System Test Environment

A.1.6 Integration and Release Environment

A.1.7. Training Environment