**Release and Iteration Plans**

**Team Name: Blackout**

|  |  |  |
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Version: 2.5

Date: 10/10/12

Release Plan

# Release 1

Delivery date: **18 September 2012** Total Story Points: 38

The goals for 1st release include:

* Get familiarise with development environment
* Background research about solar calculator
* Implement basic app features

## Feature 1: Power calculation

By entering rough values such as system size (in kW), roof direction and solar irradiance levels rough the app will do a simple calculation of the energy generated for the day and display it to the user. This allows the users to know how much electricity is being generated by the solar panels.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **1** | Simple calculation of power generation | 10 |
|  | Story Point Sub-Total: | 10 |

## Feature 2: Monthly generation results

Show users the breakdowns of estimated electrical energy generated in daily, monthly

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **2** | Monthly generation results | 8 |
|  | Story Point Sub-Total: | 8 |

## Feature 3: Estimation of My Power Consumption

Users will be able to see an estimate of their power consumption base on their details (Family size,) so that they can gauge the effectiveness of solar energy before they decide to invest in solar energy.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **3** | Estimation of My Power Consumption | 4 |
|  | Story Point Sub-Total: | 4 |

## Feature 4: Solar Panel angles

Solar generation calculations to take into account roof angle (or the angle at which my solar panels are set), to give a more accurate energy generation calculation

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **4** | Solar Panel angles | 4 |
|  | Story Point Sub-Total: | 4 |

## 

## Feature 5: Savings calculation

Show saving expected to get from installing solar system

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **5** | Savings calculation | 12 |
|  | Story Point Sub-Total: | 12 |

# Release 2

Delivery date: **23 October 2012** Total Story Points: 46

The goals of the 2nd release include

* Finish background research about solar panels and store relevant date into database, which is then linked to the application.
* Equipped with more data, provide more advanced calculations and generate summaries.
* Provide more advanced features

## Feature Title 1: Locational awareness

Location determines key information such as feed-in tariffs etc.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **6** | Location awareness | 8 |
|  | Story Point Sub-Total: | 8 |

## Feature Title 2: Details display

Calculation results show users all the important information such as total savings, answer the question of is investment worth or not etc.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **7** | Details display | 4 |
|  | Story Point Sub-Total: | 4 |

## Feature Title 3: Panels and inverters

Show users a list of solar panels and inverters with useful details

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **8** | Panels and inverters | 8 |
|  | Story Point Sub-Total: | 8 |

## Feature Title 4: Similar setups

Compare system’s generation results against average generation in user’s location

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **9** | Similar Setups | 4 |
|  | Story Point Sub-Total: | 4 |

## Feature Title 5: Optimal setting

Suggest optimal setup in user’s location

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **10** | Optimal setting | 8 |
|  | Story Point Sub-Total: | 8 |

## Feature Title 6: Solar rebates

Show solar rebates expected in user’s location

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **11** | Solar rebates | 2 |
|  | Story Point Sub-Total: | 2 |

## Feature Title 7: Multiple banks

Support multiple panel clusters in calculation even if multiple sets of solar panels point to different directions

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **12** | Multiple banks | 2 |
|  | Story Point Sub-Total: | 2 |

## Feature Title 8: Return of Investment

Compare the potential profits/ROI information with a generic/standard high-interest savings account

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **22** | Creation of standard database | 2 |
|  | Story Point Sub-Total: | 2 |

## Feature Title 9: Auto detect user location

Automatically detect my location and attain location data

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **24** | Auto detect user location | 8 |
|  | Story Point Sub-Total: | 8 |

# Delivery Schedule

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Week 6  Aug. 28/29 | Week 7  Sep. 4/5 | Week 8  Sep. 11/12 | Week 9  Sep. 18/19 | Mid-Semester Break | Week 10  Oct. 2/3 | Week 11  Oct. 9/10 | Week 12  Oct. 16/17 | Week 13  Oct. 23/24 |
| Iteration 1 | | Iteration 2 | | Iteration 3 | | Iteration 4 | |
| Release 1  Sept. 18 / 19 | | | | Release 2  Oct. 23 / 24 | | | |

## Estimated Velocity: 21 Story points per Iteration

Iteration Plan

# Iteration 1

Total Story Points: 18 Total Hours: 26 29

## Current Velocity: -

## Story ID: 1 Title: Simple calculation of power generation story points: 10

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 1 | Background research and develop business logic for simple calculation | 5 | 6 |
| 2 | Create a simple class and fill it with methods that represent the formula required to achieve the most simple useful calculation: | 6 | 7 |
| 3 | Basic user interface design and implementation | 5 | 7 |
|  | Story Points: 10 Total Hours: | 16 | 20 |

## Story ID: 2 Title: Monthly generation results story points: 8

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 4 | Research the formula for monthly generation | 3 | 3 |
| 5 | Code monthly generation | 4 | 4 |
| 6 | Display monthly generation in charts | 3 | 2 |
|  | Story Points: 8 Total Hours: | 10 | 9 |

## 

## Iteration 2

Total Story Points: 20 Total Hours: 23 25

## Current Velocity: 18

## Story ID: 3 Title: Power consumption estimation story points: 4

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 7 | Research how to estimate power consumption | 2 | 2 |
| 8 | Code power estimation feature | 2 | 2 |
|  | Story Points: 4 Total Hours: | 4 | 4 |

## Story ID: 4 Title: Solar Panel angles story points: 4

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 9 | Research how angles affect solar generation | 2 | 2 |
| 10 | Implement angles selection affect power generation | 1 | 1 |
|  | Story Points: 4 Total Hours: | 3 | 3 |

## Story ID: 5 Title: Savings calculation story points: 12

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 11 | Research and develop a formula to calculate savings | 2 | 2 |
| 12 | Code the formula and implement a method to display results | 2 | 2 |
| 13 | Research and enable the ability to implement graphs into the client | 6 | 8 |
| 14 | Implement methods to create and display a chart showing accumulative cash flow in each year during panel life span | 6 | 6 |
|  | Story Points: 12 Total Hours: | 16 | 18 |

# Iteration Plan 3

Total Story Points: 24 Total Hours: 28 24

## Current Velocity: 20

## Story ID: 6 Location awareness Story Points: 8

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **15** | Implement the ability to select user's location | 4 | 4 |
| **16** | Integrate user's location into the calculation of power generated | 4 | 3 |
|  | Story Points: 8 Total Hours: | 8 | 7 |

## Story ID: 7 Details Display Story Points: 4

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **17** | Display results in a clear fashion. | 4 | 1 |
| **18** | Implement a message stating how much the user saves (or stands to lose). | 2 | 2 |
|  | Story Points: 4 Total Hours: | 6 | 3 |

## Story ID: 8 Panels and inverters Story Points: 8

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **19** | Setup a database with panels and inverters information | 4 | 6 |
| **20** | Enable the server to communicate with the database | 6 | 6 |
|  | Story Points: 8 Total Hours: | 10 | 12 |

**Story ID: 9 Similar Setups Story Points: 4**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **21** | Code the feature of display average generation of Similar system in user’s location | 4 | 2 |
|  | Story Points: 4 Total Hours: | 4 | 2 |

# Iteration 4

Total Story Points: 22 Total Hours: 18 - 12

## Current Velocity: 20

## Story ID: 10 Optimal setting Story Points: 8

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **22** | Research optimal degrees in different locations | 2 | 1 |
| **23** | Implement this optimal setup function in the code | 2 | 1 |
|  | Story Points: 8 Total Hours: | 4 | 2 |

**Story ID: 11 Solar rebates Story Points:2**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **24** | Research solar rebates in different cities | 1 | 1 |
| **25** | Code the feature of displaying solar rebates for major cities | 1 | 2 |
|  | Story Points: 2 Total Hours: | 2 | 3 |

## Story ID: 12 Multiple banks Story Points: 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **26** | Code the feature of multiple banks selection | 2 | 2 |
|  | Story Points: 2 Total Hours: | 2 | 2 |

**Story ID:13 Return of Investment Story Points:2**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **27** | Code ROI feature for solar system and bank savings | 2 | 3 |
|  | Story Points: 2 Total Hours: | 2 | 3 |

**Story ID :14 Auto detect user location Story Points: 8**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
|  |  |  |  |
| **28** | Implement google map | 4 | 5 |
| **29** | Auto detect user’s location and show it on the map | 3 | 5 |
| **30** | Auto populate data(irradiance, feed in tarrif etc) based on location | 1 | 2 |
|  | Story Points: 8 Total Hours: | 8 | 12 |