**Release and Iteration Plans**

**JOTM**

|  |  |
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Version: 2

Date: 21/08/2012

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Release Plan

# Release 1

Delivery date:  **September 18th/19th**  Total Story Points: **46**

Implement a working system which provides the basic functionalities.

## Power Generation

Implement the basic web and iOs system, for setting up the house and calculating the power generation. This provides value to the business by showing a full working system, with many of the necessary features of a solar calculator.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| 28 | House Set Up | 16 |
| 24 | Entering Location | 4 |
| 15 | Efficiency | 4 |
| 12 | Custom tariffs | 1 |
| 17 | Hours of sunlight | 2 |
| 11 | Old Panels | 1 |
|  | Story Point Sub-Total: | 28 |

## Profit Calculation

Introduce the profit calculation functions and scenario-based calculation. This provides a value to the business by allowing user to calculation the profit break even time and compare between different panel set ups.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| 3 | List of options | 4 |
| 7 | Yearly Profit | 2 |
| 29 | Time Till Profit Break Even | 2 |
| 10 | Existing Profit | 2 |
| 69 | Create Scenario | 4 |
| 5 | Edit Scenario | 1 |
| 23 | Delete Scenario | 1 |
| 8 | Power Generation | 2 |
|  | Story Point Sub-Total: | 18 |

# Release 2

Delivery date: **October 23rd/24th**  Total Story Points: **34**

This release focuses on adding more advanced options to the existing system, mainly dealing with giving the user more control over the calculations.

## Personalising

This iteration focuses on features that will make using the system more convenient for the user, it allows the user to save the scenarios in addition to emailing the results, making the user more likely to return to the calculator in the future.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **26** | Save Entry | 2 |
| **22** | Chart for displaying results | 8 |
| **2** | Power break even analysis scenario | 4 |
| **4** | Maximum Cost | 2 |
| **19** | Email Results | 4 |
|  | Story Point Sub-Total: | 20 |

## Functionality Tweaks

This iteration aims to give the user more control over the calculator, such as setting the custom tariffs and setting up multiple housing set ups, as well as improve the experience of the user.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **27** | Logo/ App image | 4 |
| **9** | Automatic locator | 2 |
| **25** | Help tips and button | 4 |
| **68** | Multiple houses | 2 |
| **32** | Save tariffs | 2 |
| **16** | Different Tariffs | 2 |
|  | Story Point Sub-Total: | 16 |

# Release 3

Delivery date: **TBA**

Total Story Points: **12**

This release finishes off the remaining stories.

## Advances Functionality

Advance functionality aims to improve the graphical UI.

|  |  |  |
| --- | --- | --- |
| **Story ID** | **Story Title** | **Story Points** |
| **30** | Optimal Panel Placement only option | 8 |
| **31** | Real time visual Alterations | 4 |
|  | Story Point Sub-Total: | 12 |

# 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 |  |  |  |

## 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |
| Iteration 1 |  |  |  |  |  |  |  |
| Release 3, 4, … |  |  |  |  |  |  |  |

## Estimated Velocity:

Iteration Plan

# Iteration 1

Total Story Points: 28 Total Hours: 97 hrs

## Current Velocity:

## 28: House Set Up

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Fields set up | 11 hrs | 15 |
| **02** | Measurement Type | 2 hrs | 2 |
| **03** | Set up rest API connector | 5 hrs | 6 |
| **04** | Enter in location | 2 hrs | 3 |
| **05** | Roof list page | 10 hrs | 12 |
| **06** | Set up local database | 3 hrs | 5 |
| **07** | Roof section set up page | 10 hrs | 12 |
| **08** | Wire | 2 hrs | 2 |
| **10** | Submit | 5 hrs | 5 |
| **11** | API fail handling | 2 hrs | 2 |
| **12** | Year KWh Usage | 3 hrs | 3 |
|  | Story Points: Total Hours: | 16  57 hrs | 67 |

## 24: Entering location

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Develop a list of countries | 2 hrs | 4 hrs |
| **02** | Add an entry for city name | 2 hr |  |
| **03** | For web and iOs interface, can use google map API to pin point location | 4 hrs |  |
| **04** | Format API results for back end (lat long) | 4 hrs | 4 hrs |
| **05** | Retrieve the lat lon information from API | 4hrs | 6hrs |
|  | Story Points: Total Hours: | 4  16 hrs |  |

## 15: Efficiency

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Research things that impact the efficiency of the system (heat, wires, inverter, panel position, etc) | 4 hours | 6 hrs |
| **02** | Retrieve temperature from API, calculate average, format and use in calculation | 4 hours | 7 hrs |
| **03** | Calculate the efficiency of each of the above items to a standard %. | 2 hours | 4 hrs |
| **04** | Use a calculation for all of the above items to return a % efficiency for the entire system. | 2 hours | 1 hr |
| **05** | Add a field to the form. | 1 hour | 1 hr |
| **06** | Send the % efficiency of the system back through the API to display in the new field | 4 hours | 2 hrs |
|  | Story Points: Total Hours: | 4  17 hours | 21 hours |

## 12: Custom Tariffs

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Modify user input interface to take input if desired | 1 hr |  |
| **02** | Modify API call to take the user input value | 2 hours |  |
|  | Story Points: Total Hours: | 2  3 hrs |  |

## 17: Hours of Sunlight

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Research API’s for returning hours of sunlight | 2 hours | 2 hrs |
| **02** | Retrieve location from front end | 1 hour | 2 hrs |
| **03** | Check database for location | 1 hour | 1 hr |
| **04** | Retrieve and format hours of sunlight from API | 3 hour | 6 hrs |
| **06** | Calculate hours of sunlight and use in energy calculation | 1 hour | 2 hrs |
|  | Story Points: Total Hours: | 2  8 hours | 13 hrs |

## 

## 11: Old Panels

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Enable to specify the age of panels in scenario set up | 2 hrs | 2hrs |
| **02** | Calculate the loss in efficiency based on panel age | 2 hours | 2 hrs |
|  | Story Points: Total Hours: | 2  4 hrs | 4 hrs |

## 

# Iteration 2

**Total Story Points: 18 Total Hours: 49**

## Current Velocity:

## 3: List of Options

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Save created scenarios on local machines | 2 hrs | 3 |
| **02** | Display saved scenarios on user interface | 8 hrs | 4 |
|  | Story Points: Total Hours: | 4  10 hrs |  |

## 

## 8: Power Generation

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Take values from API | 1 hour | 10 hrs |
| **02** | Create calculation - Java | 2 hours | 8 hrs |
| **03** | Put into JSON | 4 hours | 10 hrs |
| **04** | Send back through API | 1 hour | 6 hrs |
|  | Story Points: Total Hours: | 4  20 hours | 34 hrs |

# 

## 7: Yearly Profit

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Use tariff rates and power generation to calculate the profit per year | 8 hours | 8 hrs |
|  | Story Points: Total Hours: | 2  8 hours | 8 hrs |

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## 29: Time Till Profit Break Even

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Estimate the Yearly profit for a period of time | 1 hour |  |
| **02** | Take the cost of the system from the user | 1 hour |  |
| **03** | Calculate the time needed for profit break even | 4 hours |  |
|  | Story Points: Total Hours: | 2  6 hours |  |

## 

## 10: Existing Profit

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Take house and panel set ups | 1 hour |  |
| **02** | Take user specified duration | 1 hour |  |
| **03** | Take default or user specified tariff rates | 1 hour |  |
| **04** | Calculate estimate of the profit from the system | 2 hours |  |
| **05** | display value | 1 hour |  |
|  | Story Points: Total Hours: | 2  6 hours |  |

## 69: Create Scenario

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Allow user to create scenario based on house set up | 2 hrs | 2 |
| **02** | Add a Add button | 1 hr | 1 |
| **03** | Provide text boxes for user to input scenario parameters | 6 hrs | 8 |
| **04** | Allow user to save the freshly created scenario | 2 hrs | 2 |
|  | Story Points: Total Hours: | 4  11 hrs |  |

## 

## 5: Edit Scenario

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Add a Edit button | 1 hr | 1 |
| **02** | All values place in text boxes- java | 2 hrs | 3 |
| **03** | Add save button with on-click verification on all fields | 1 hr | 2 |
| **04** | Prompt user with a message to let them know of success or failure | 1 hr | 1 |
|  | Story Points: Total Hours: | 1  5 hrs |  |

## 

## 23: Delete Scenario

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Add a delete button to the scenario list which on click will prompt an alert warning | 1 hr | 1 |
| **02** | If the user decides to delete, remove the scenario fiom the database, and prompt another message letting them know that it has been deleted | 1 hr | 1 |
|  | Story Points: Total Hours: | 1  2 hrs |  |

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# Iteration 3

# Total Story Points: 20 Total Hours: 48

## Current Velocity:

## 2: Power Break Even Analysis Scenario

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Power break even API | 2 hours |  |
| **02** | Temperature of location | 1 hour |  |
| **03** | Hours of sunlight | 1 hour |  |
| **04** | Optimum direction | 1 hour |  |
| **05** | Calculating a panel | 4 hours |  |
| **06** | Adding more panels | 2 hour |  |
| **07** | Send back results | 2 hours |  |
|  | Story Points: Total Hours: | 4  13 hours |  |

## 

## 4: Maximum Cost

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Add maximum cost field to parameters | 1 hr |  |
| **02** | Take maximum cost from api, and automatically remove all scenarios with cost > maximum cost | 2 hours |  |
|  | Story Points: Total Hours: | 2  3 hrs |  |

## 19: Email Results

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Take the user email and link it to the result generated | 2 hours |  |
| **02** | Format the result generated to an email in the back end | 6 hours |  |
| **03** | Send email automatically on request | 2 hours |  |
|  | Story Points: Total Hours: | 4  10 hours |  |

## 26: Save Entry

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Refill form with submitted values | 3 hrs |  |
| **02** | Add a save button and save the values in cookies or on local data | 1 hr |  |
|  | Story Points: Total Hours: | 2  4 hrs |  |

## 22: Chart for Displaying Results

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Generate the image file of the chart in backend | 14 hours |  |
| **02** | Send the image to the user end | 2 hours |  |
| **03** | Display the image received on the user end | 2 hours |  |
|  | Story Points: Total Hours: | 8  18 hours |  |

# Iteration 4

# Total Story Points: 16 Total Hours: 43.5

## Current Velocity:

## 27: Logo/ App image

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Make a logo | 4 hrs |  |
| **02** | Make a title | 1.5 hrs |  |
| **03** | Make a background | 0.5 hrs |  |
|  | Story Points: Total Hours: | 4  6 hrs |  |

## 16: Different Tariffs

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Retrieve location parameter from API | 1 hour |  |
| **02** | Use location to retrieve the tariff rates from the database | 2 hours |  |
| **03** | Display the tariff rates on interface and allow user to select | 2 hours |  |
| **04** | Once, selected, lock in tariff and mark as “automatic” (avoid duplicate in database) | 1 hour |  |
|  | Story Points: Total Hours: | 2  6 hours |  |

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## 32: Save Tariffs

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | On enter of new and unique tariffs, mark as “manual” | 4 hours |  |
| **02** | When received at back end, put the new tariff rate in database | 2 hours |  |
|  | Story Points: Total Hours: | 2  6 hours |  |

## 

## 9: Automatic Locator

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | For Web interface, use IP address to locate the user | 2 hrs |  |
| **02** | For IPhone use GPS to locate the user | 3.5 hrs |  |
| **03** | If fail, notify the user and get them to add in location manually | 1 hr |  |
|  | Story Points: Total Hours: | 2  6.5 hrs |  |

## 68: Multiple Houses

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Create new page “house list” | 6 hrs |  |
| **02** | Set up house list same as scenarios and roof sections list pages | 1 hr |  |
|  | Story Points: Total Hours: | 2  7 hrs |  |

## 

## 25: Help Tips and Buttons

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Make a general info section | 8 hrs |  |
| **02** | Add “?” button to any confusing things with a pop up info | 6 hrs |  |
| **03** | Add alerts where necessary | 4 hrs |  |
| **04** | Add on screen prompts where necessary | 4 hrs |  |
|  | Story Points: Total Hours: | 2  22 hrs |  |

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# Iteration 5

# Total Story Points: 12 Total Hours: 31

## Current Velocity:

## 30: Optimal Panel Placement Only Option

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Add a front end checkbox to enable the function | 1 hour |  |
| **02** | Rearrange the panels in the scenario if box is checked | 6 hours |  |
| **03** | Relocate the panels on a roof section if the efficiency loss is too high. | 8 hours |  |
|  | Story Points: Total Hours: | 8  15 hours |  |

## 31: Real time visual Alterations

|  |  |  |  |
| --- | --- | --- | --- |
| **Task ID** | **Task Description** | **Estimate** | **Taken** |
| **01** | Remove the submit/calculate button | 2 hrs |  |
| **02** | Add event listener to each parameter box, update result whenever the value in box are changed | 8 hrs |  |
| **03** | Generate a new graph to display the result whenever the parameter is changed | 6 hrs |  |
|  | Story Points: Total Hours: | 4  16 hrs |  |

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