# Release 2

Delivery date: Week 13 (October 24) Total Story Points: 61

**Release Description**

The second release focuses on implementing advanced functionality to achieve more accurate results, and allowing users to save, submit and check actual data readings to ensure that the results of the calculator are accurate.

## Shade Impact

This story deals with allowing the user to specify how much shade is likely to impact the system. This helps to ensure the calculator can provide an accurate estimation of the power generated.

|  |  |  |
| --- | --- | --- |
| Story ID | Story Title: Shade Impact | Story Points |
| 14 | As a Potential Purchaser I want to be able to choose between a variety of panel specifications so that I can determine the one best for my situation. | **5** |
|  | Story Point Sub-Total: | **5** |

## Inverter Choice

This story deals with allowing the user to choose an inverter for the system. Each inverter has a cost and lifetime, as well as an efficiency of conversion rate.

|  |  |  |
| --- | --- | --- |
| Story ID | Story Title: Inverter Choice | Story Points |
| 43 | As a potential customer I want to be able to choose between a variety of inverters so that I can choose the one most effective for the panel setup. | **7** |
|  | Story Point Sub-Total: | **12** |

## Repair/Maintenance Costs

This story deals with allowing the user to specify how much shade is likely to impact the system. This helps to ensure the calculator can provide an accurate estimation of the power generated.

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| --- | --- | --- |
| Story ID | Story Title: Shade Impact | Story Points |
| 23 | As a potential customer I want to be able to choose between a variety of inverters so that I can choose the one most effective for the panel setup. | **6** |
|  | Story Point Sub-Total: | **18** |

## Area Rebates

This story deals with allowing the user to specify their area and choose between a selection of potential rebates.

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| --- | --- | --- |
| Story ID | Story Title: Panel Rebates | Story Points |
| 30 | As a **Sales Person**  I want to be able to view potential rebates based on location, so I can accurately provide quotes to clients. | **4** |
|  | Story Point Sub-Total: | **22** |

## Power Generation Breakdown

This story deals with allowing the user to view electricity generation in areas less than a year. It allows them to go further and see month-by-month breakdowns of how the electricity is generated over shorter periods.

|  |  |  |
| --- | --- | --- |
| Story ID | Story Title: Power Generation Breakdown | Story Points |
| 15 | As an **Existing Owner** I want to see the expected breakdown of power generation over a specified period, so that I can determine when the system is likely to generate most of its power. | **5** |
|  | Story Point Sub-Total: | **27** |

## Power Boundaries

This story deals with having the system provide appropriate upper and lower bounds for expected power generation. This is done to ensure that the user understands the potential variance in the results.

|  |  |  |
| --- | --- | --- |
| Story ID | Story Title: Power Bounds | Story Points |
| 27 | As a **Potential Purchaser** I want to see the possible upper and lower bounds of power generation, so that I can see the potential day-to-day variation of the system. | **5** |
|  | Story Point Sub-Total: | **32** |

## Printable Information Sheets

This story deals with allowing users to generate a printable sheet. The printable sheet will have no additional display sheet, and tries to compact all the applicable results into a single page.

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| --- | --- | --- |
| Story ID | Story Title: Printable Information Sheets | Story Points |
| 34 | As a Sales Employee I want to be able to generate printable results sheets so that I can hand to clients in a compact manner. | **5** |
|  | Story Point Sub-Total: | **37** |

## User Logins

This story deals with allowing users to log in to the system with a unique name/password and retrieve previously calculated results, or use settings previously input.

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| --- | --- | --- |
| Story ID | Story Title: User Logins | Story Points |
| 44 | As an existing user I would like to be able to log in to the system and have it store my unique settings and calculations. | **6** |
|  | Story Point Sub-Total: | **43** |

## Panel Data Submission

This story deals with allowing existing users to send in their *actual* panel data and have it stored on record. This means that users will be able to view expected and actual results.

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| --- | --- | --- |
| Story ID | Story Title: Panel Data Submission | Story Points |
| 25 | As an **Existing Owner** I want to have the option to submit my actual panel electricity generation values to assist other people with purchases. | **6** |
|  | Story Point Sub-Total: | **49** |

## Panel Data Comparison

This story deals with allowing existing users to send in their *actual* panel data and have it stored on record. This means that users will be able to view expected and actual results.

|  |  |  |
| --- | --- | --- |
| Story ID | Story Title: Panel Data Comparison | Story Points |
| 26 | As an **Existing Owner** I want to view panel outputs for all users who live near me, so that I can determine if my results are similar to theirs. | **7** |
|  | Story Point Sub-Total: | **56** |

# Iteration One Plan

**Shade Impact (Story ID. 14).**

**Pre-Requisites:** None

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 1 | Research the effect of shade on the system and how it should be  measured. | 4 Hours | - |
| 2 | Create an algorithm to determine the new power output of the system based on the shade values specified. | 6 Hours | - |
| 3 | Add an input field to the calculator page to allow for the user to enter their desired shade level. | 2 Hours | - |
| 4 | Link the input field to the algorithm to fully integrate it into the system. | 2 Hours | - |
|  | Story Points: 5 Total Hours: | 14 Hours |  |

**Inverter Choice (Story ID. 43).**

Pre-Requisites: None

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 1 | Research the effect of different inverters and how they affect the  output of the system. | 4 Hours | - |
| 2 | Create an algorithm to determine the new power output of the system based on the inverter specified. | 6 Hours | - |
| 3 | Add an input field to the calculator page to allow for the user to enter their desired inverter. | 2 Hours | - |
| 4 | Link the input field to the algorithm to fully integrate it into the system. | 2 Hours | - |
|  | Story Points: 7 Total Hours: | 14 Hours |  |

**Repair and Maintenance Costs (Story ID. 23).**

Pre-Requisites: None

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 1 | Research the various common costs associated with operation of a  solar panel system, such as inverter replacement. | 4 Hours | - |
| 2 | Create an algorithm to consider the effect of these costs on the output savings of the system. | 4 Hours | - |
| 3 | Create a separate output section in the results page to clearly show the user how the repair and maintenance costs of the system effect its returns. | 2 Hours | - |
|  | Story Points: 4 Total Hours: | 10 Hours |  |

**Area Rebates (Story ID. 30).**

Pre-Requisites: None

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 1 | Research the various common rebates and the effects that they have  on the cost of the system. | 4 Hours | - |
| 2 | Create an algorithm to consider the chosen rebates on the cost of the system and how they affect continual operation and results. | 3 Hours | - |
| 3 | Create an input section to allow users to check which rebates they wish to consider in their calculations. | 2 Hours | - |
|  | Story Points: 4 Total Hours: | 9 Hours |  |

**Power Generation Breakdown (Story ID. 10).**

Pre-Requisites: None

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 1 | Research the various expected gains from the system each day over a  one year period. | 2 Hours | - |
| 2 | Create an algorithm to sum the results between two particular days in the year to generate the necessary bounds of power. | 2 Hours | - |
| 3 | Create a link on each year of the table which links to a month-by-month breakdown for the specified year. | 3 Hours | - |
|  | Story Points: 5 Total Hours: | 7 Hours |  |

**Power Generation Breakdown (Story ID. 15).**

Pre-Requisites: None

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 1 | Research the various expected gains from the system each day over a  one year period. | 2 Hours | - |
| 2 | Create an algorithm to sum the results between two particular days in the year to generate the necessary bounds of power. | 2 Hours | - |
| 3 | Create a link on each year of the table which links to a month-by-month breakdown for the specified year. | 3 Hours | - |
|  | Story Points: 5 Total Hours: | 7 Hours |  |

**Power Boundaries (Story ID. 27).**

Pre-Requisites: None

|  |  |  |  |
| --- | --- | --- | --- |
| Task ID | Task Description | Estimate | Taken |
| 1 | Research the potential variance in the system due to whether or  other factors. | 3 Hours | - |
| 2 | Create an algorithm which determines both an upper and lower bound of power generation based on the given inputs to provide a range of potential power values. | 4 Hours | - |
| 3 | Modify the graphs to show both the upper and lower bounds for all values specified. | 5 Hours | - |
|  | Story Points: 5 Total Hours: | 12 Hours |  |