Test Plan for Controller software

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Revision

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Revision

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| **Date** | **Version** | **Description** | **Author** |
| 01/07/2018 | 1.0 | Created | Vlad First |
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1.0 Introduction

**1.1 Purpose**

This document describes the testing strategy for Controller software (Controller)

**1.2 Scope**

|  |  |
| --- | --- |
| General scope | **Contactor management** |

Supported elements

|  |  |
| --- | --- |
| Supported elements | - Controller;  - Powerwall;  - Grid;  - Home;  - Solar panel; |

Network Setup

|  |  |
| --- | --- |
| Grid requirement | * Voltage 110v; * Power of current – 2A; |
| Weather requirement | * From -40C/-40F to 80C/176F; |
| Solar panel requirement | * The total power of solar panel has to be more than maximum House consumption; * Type of solar panels – * Power of Solar panels – |
| Powerwall requirement | * The total capacity of Powerwall - |

2.0 Testing Strategy

2.1 Unit Testing

|  |  |
| --- | --- |
| Definition | Dynamic agnails-Code coverage will be used to judge the comprehensiveness of the testing effort;  Static analysis – PMD, Check Style, Find bug |
| Owner | SDET |
| Frameworks | * TestNG; * Hamcrest; |
| Execution | Jenkins |
| Scheduling | After every pushing source cote to repository (into the master brunch) |
| Reports type | Allure, Shurefire |
| Reports reviver | PM;  Developers; |

2.2 System Testing

|  |  |
| --- | --- |
| Definition | Dynamic agnails-Code coverage will be used to judge the comprehensiveness of the testing effort;  Static analysis – PMD, Check Style, Find bug |
| Owner | SDET |
| Frameworks | * TestNG; * Hamcrest; |
| Execution | Jenkins |
| Scheduling | After every pushing source cote to repository (into the master brunch) |
| Reports type | Allure, Shurefire |
| Reports reviver | PM;  Developers; |

2.3 Integration testing

|  |  |
| --- | --- |
| Definition | Dynamic agnails-Code coverage will be used to judge the comprehensiveness of the testing effort;  Static analysis – PMD, Check Style, Find bug |
| Owner | SDET |
| Frameworks | * TestNG; * Hamcrest; |
| Execution | Jenkins |
| Scheduling | After every pushing source cote to repository (into the master brunch) |
| Reports type | Allure, Shurefire |
| Reports reviver | PM;  Developers; |

2.4 Regression testing

|  |  |
| --- | --- |
| Definition | Dynamic agnails-Code coverage will be used to judge the comprehensiveness of the testing effort;  Static analysis – PMD, Check Style, Find bug |
| Owner | SDET |
| Frameworks | * TestNG; * Hamcrest; |
| Execution | Jenkins |
| Scheduling | After every pushing source cote to repository (into the master brunch) |
| Reports type | Allure, Shurefire |
| Reports reviver | PM;  Developers; |

2.5 Function testing

|  |  |
| --- | --- |
| Definition | Dynamic agnails-Code coverage will be used to judge the comprehensiveness of the testing effort;  Static analysis – PMD, Check Style, Find bug |
| Owner | SDET |
| Frameworks | * TestNG; * Hamcrest; |
| Execution | Jenkins |
| Scheduling | After every pushing source cote to repository (into the master brunch) |
| Reports type | Allure, Shurefire |
| Reports reviver | PM;  Developers; |

2.6 Stress/Performance Testing

|  |  |
| --- | --- |
| Definition | Dynamic agnails-Code coverage will be used to judge the comprehensiveness of the testing effort;  Static analysis – PMD, Check Style, Find bug |
| Owner | SDET |
| Frameworks | * TestNG; * Hamcrest; |
| Execution | Jenkins |
| Scheduling | After every pushing source cote to repository (into the master brunch) |
| Reports type | Allure, Shurefire |
| Reports reviver | PM;  Developers; |

2.7 Acceptance Testing

|  |  |
| --- | --- |
| Definition | Dynamic agnails-Code coverage will be used to judge the comprehensiveness of the testing effort;  Static analysis – PMD, Check Style, Find bug |
| Owner | SDET |
| Frameworks | * TestNG; * Hamcrest; |
| Execution | Jenkins |
| Scheduling | After every pushing source cote to repository (into the master brunch) |
| Reports type | Allure, Shurefire |
| Reports reviver | PM;  Developers; |

3.0 Hardware requirements

TBD

4.0 Control Procedures

TBD

5.0 Features to be tested

- Charging of Powerwall;

- Discharging of Powerwall;

- Work of Powerwall with battery level less then 10%;

- Outage power in grid;

- Performance of contactor`s work;

6.0 Features not to be tested

TBD

7.0 Resources/Roles & Responsibilities

TBD

8.0 Schedules

TBD

9.0 Dependencies

TBD

10.0 Risk/Assumptions

TBD

11.0 Tools

TBD

12.0 Approvals

TBD

13.0 Appendices

TBD