

Item	Value	
Use Case	Manage Device	
Summary	All the functionalities in controlling and managing the electricity consumption monitoring device.	
Actor	Subscriber	
Precondition	The device must be powered and connected to the internet. The subscriber must have access to a computer with a browser installed that is connected to the internet. The subscriber must have a user profile and the device must be registered with the subscriber. The subscriber must be logged in.	
Base Flow	Actor	System
	1. <i>Access Main Control Panel</i>	2. <i>Display Main Control Panel</i>
	3. <i>Access Devices Panel</i>	4. <i>Display Devices Panel</i>
	5. <i>Select Device</i>	6. <i>Display actions to perform</i>
	7. <i>Select an action to perform</i>	8. <i>Display configurations that can be added by Subscriber</i>
	9. <i>Add configurations</i>	10. <i>Validate and apply configurations</i>
		11. <i>Notify Subscriber that the action has been successfully completed</i>
Alternative Flow	<ol style="list-style-type: none"> 1. Base Flow 1 - Access Main Control Panel <ol style="list-style-type: none"> a. System does not display Main Control Panel or displays an error b. Make sure that the computer has an internet connection and uses a compatible browser c. Base Flow 1 2. Base Flow 1 - Access Main Control Panel <ol style="list-style-type: none"> a. System displays Main Control Panel but there are no available devices b. Make sure that Device has been registered with the system c. Base Flow 1 3. Base Flow 5 - Access <i>Devices Panel</i> <ol style="list-style-type: none"> a. System notifies that Device is offline b. Make sure that Device is plugged in and has access to internet c. Base Flow 1 4. Base Flow 9 - Adds various configurations and apply them <ol style="list-style-type: none"> a. Subscriber enters invalid configurations b. Notify subscriber that the configurations are invalid and the task could not be performed c. Base Flow 9 5. Base Flow 10 - Apply the provided configurations <ol style="list-style-type: none"> a. An error occurs making it impossible to apply the configurations b. Notify subscriber that the action could not be performed c. Base Flow 9 	
Comments	<p>The process can be cancelled at any point in Base Flow 1 - 10 - before the system has performed the action. Compatible browsers:</p> <ul style="list-style-type: none"> ● Chrome Version 49 or newer 	

Item	Value	
Use Case	Monitor Electricity Consumption	
Summary	The action of monitoring current electricity consumption of the plugged in Consumer	
Actor	Subscriber	
Precondition	The device must be powered and connected to the internet. The subscriber must have access to a computer with a browser installed that is connected to the internet. The subscriber must have a user profile and the device must be registered with the subscriber. A consumer must exist and be plugged into the device. The subscriber must be logged in.	
Base Flow	Actor	System
	1. Access <i>Main Control Panel</i>	2. Display <i>Main Control Panel</i>
	3. Access <i>Electricity Monitoring</i>	4. Display <i>Electricity Monitoring</i>
	5. Select devices	6. Display data for the selected device
	7. Change refresh rate	8. Display data for the selected device
	9. Change interval	10. Data updates accordingly
Alternative Flow	<ol style="list-style-type: none">Base Flow 1 - Access Main Control Panel<ol style="list-style-type: none">System does not display Main Control Panel or displays an errorMake sure that the computer has an internet connection and uses a compatible browserBase Flow 1Base Flow 1 - Access Main Control Panel<ol style="list-style-type: none">System displays Main Control Panel but there are no available devicesMake sure that Device has been registered with the systemBase Flow 1Base Flow 5 - Access <i>Electricity Monitoring</i><ol style="list-style-type: none">System notifies that Device is offlineMake sure that Device is plugged in and has access to internetBase Flow 1Base Flow 5 - Displays Monitor Electricity Consumption View<ol style="list-style-type: none">No Consumption Data is displayedMake sure that Consumer is plugged into Device and is turned ONBase Flow 5	
Comments	The process can be cancelled at any point. Compatible browsers: <ul style="list-style-type: none">Chrome Version 49 or newer	

Item	Value	
Use Case	Generate Consumption Reports	
Summary	Generating consumption reports over a period per device/devices	
Actor	Subscriber	
Precondition	The subscriber must have access to a computer with a browser installed that is connected to the internet. The subscriber must have a user profile. There must be data from which to generate the report. The subscriber must be logged in.	
Base Flow	Actor	System
	1. Access <i>Main Control Panel</i>	2. Display <i>Main Control Panel</i>
	3. Access <i>Reports Panel</i>	4. Display <i>Reports Panel</i>
	5. Select <i>Compare Devices</i>	6. Display <i>Compare Devices</i>
	7. Select devices and periods	8. Generate report
	9. Select <i>Compare Periods</i>	10. Display <i>Compare Periods</i>
	11. Select devices and periods	12. Generate report
	13. Select <i>Define Reports</i>	14. Display <i>Define Reports</i>
	15. Enter reports configurations	16. Validate entered information
	17. Enable reports	18. Create reports based on configurations
Alternative Flow	<ol style="list-style-type: none"> 1. Base Flow 1 - Access Main Control Panel <ol style="list-style-type: none"> a. System does not display Main Control Panel or displays an error b. Make sure that the computer has an internet connection and uses a compatible browser c. Base Flow 1 2. Base Flow 17 - Applies the selected configurations <ol style="list-style-type: none"> a. The selected configurations are not valid b. Notify subscriber that the configurations are invalid and the task could not be performed c. Base Flow 5 3. Base Flow 18 - Generates a report with the provided configurations <ol style="list-style-type: none"> a. An error occurs making it impossible to generate the report b. Notify subscriber that the action could not be performed c. Base Flow 5 	
Comments	The process can be cancelled at any point in Base Flow 1 - 8 - before the system has performed the action. Compatible browsers: <ul style="list-style-type: none"> ● Chrome Version 49 or newer 	

Item	Value
Use Case	Manage Devices
Summary	Provides functionality to edit, delete, update or reset devices
Actor	Administrator
Precondition	The administrator must have access to the Google Cloud console.
Base Flow	Not relevant
Alternative Flow	Not relevant

Item	Value	
Use Case	Visualize Historical Consumption	
Summary	Provides the functionality of viewing past electricity consumption data per device/devices	
Actor	Subscriber	
Precondition	The subscriber must have access to a computer with a browser installed that is connected to the internet. The subscriber must have a user profile and a device must have been registered with the user and collected data. The subscriber must be logged in.	
Base Flow	Actor	System
	1. Access <i>Main Control Panel</i>	2. Display <i>Main Control Panel</i>
	3. Select <i>View Historical Consumption</i>	4. Display <i>View Historical Consumption</i>
	5. Select devices	6. Display consumption for the available period
	7. Change time interval	8. Adjust the display of electricity consumption to match the selected time interval
	9. Remove <i>Device</i>	10. Display empty view
Alternative Flow	1. Base Flow 1 - Access Main Control Panel <ol style="list-style-type: none"> System does not display Main Control Panel or displays an error Make sure that the computer has an internet connection and uses a compatible browser Base Flow 1 2. Base Flow 5 - Select option to add a device <ol style="list-style-type: none"> No available devices are present Make sure that the devices have been registered with the system Base Flow 1 3. Base Flow 7 - Change the time interval <ol style="list-style-type: none"> No data in that interval Notify subscriber that there is not information about electricity consumption in the selected period Base Flow 9 4. Base Flow 9 - Remove Device <ol style="list-style-type: none"> No current Devices selected Notify subscriber that there are no devices to be removed Base Flow 5 	
Comments	The process can be cancelled at any point in Base Flow 1 - 12 - before the system has performed the action. Compatible browsers: <ul style="list-style-type: none"> Chrome Version 49 or newer 	
Comments	This functionality is done through Google Cloud and will be described in Administration Guide	

Item	Value
Use Case	Manage User Profiles
Summary	Provides functionality to edit, delete or reset a user profile
Actor	Administrator
Precondition	The administrator must have access to the Google Firebase console.
Base Flow	Not relevant
Alternative Flow	Not relevant
Comments	This functionality is done through Google Firebase and will be described in Administration Guide

Item	Value	
Use Case	Register/Login Subscriber	
Summary	Provides functionality to create/login user profiles.	
Actor	Subscriber	
Precondition	The subscriber must have access to a computer with a browser installed that is connected to the internet.	
Base Flow	Actor	System
	1. Access web-application	2. Display <i>Login/Register Page</i>
	3. Enter the registration data	4. Validate registration data
	5. Select <i>Register Action</i>	6. Register subscriber
	7. Apply registration	8. Register new user into the system and redirect to <i>Main Control Panel</i>
	9. Enter login data	10. Validate login data
	11. Select <i>Login Action</i>	12. Login subscriber and redirect to <i>Main Control Panel</i>
Alternative Flow	<div>1. Base Flow 1 - Access Web application<ul style="list-style-type: none">a. System does not display login/register page or displays an errorb. Make sure that the computer has an internet connection and uses a compatible browserc. Base Flow 1</div> <div>2. Base Flow 4/10 - Validate user data<ul style="list-style-type: none">a. Invalid user datab. Notify subscriber that the provided that is not validc. Base Flow 5</div> <div>3. Base Flow 8 - Register new user into the system<ul style="list-style-type: none">a. Could not register the userb. Notify subscriber that the task could not be performedc. Base Flow 5</div>	
Comments	The process can be cancelled at any point. Compatible browsers: <ul style="list-style-type: none">● Chrome Version 49 or newer	