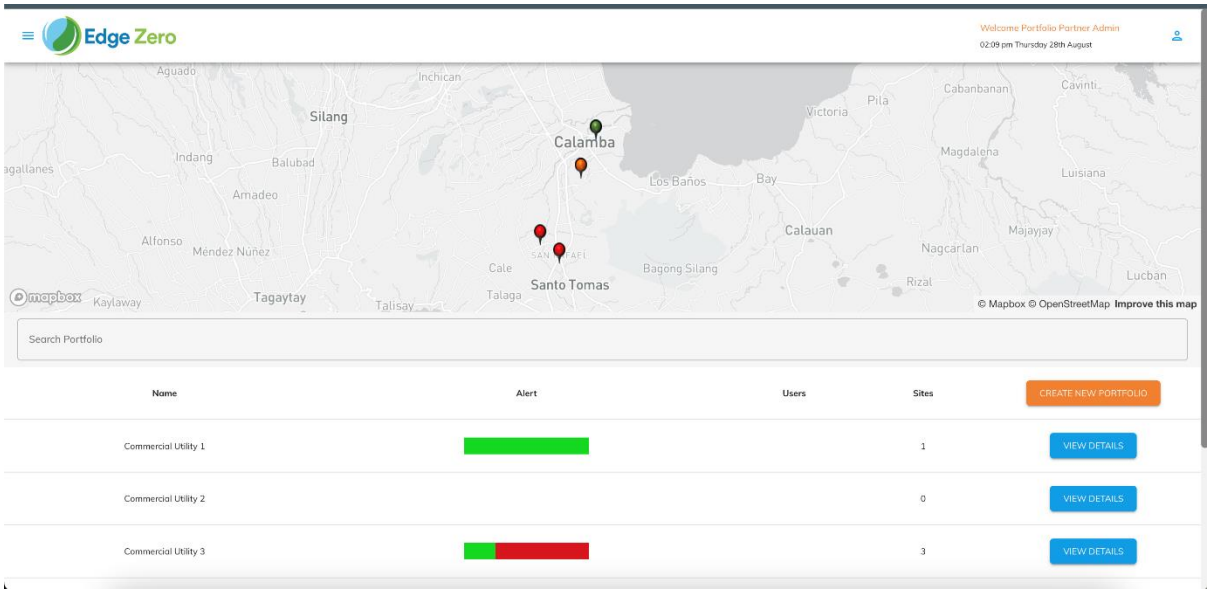
Commercial Portal V3.4.0

Tabel of Contents

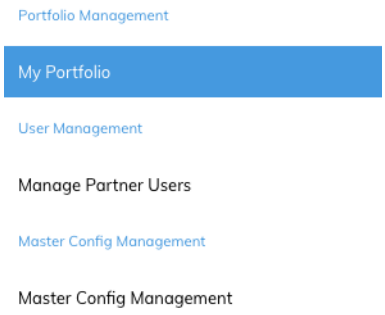
Portfolio Management



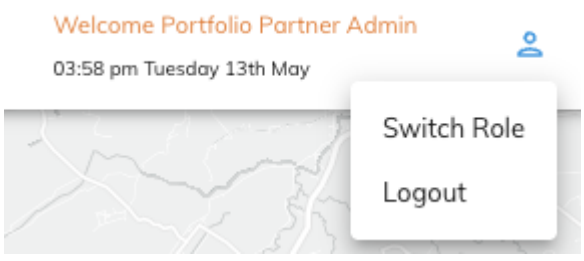
My Portfolio components

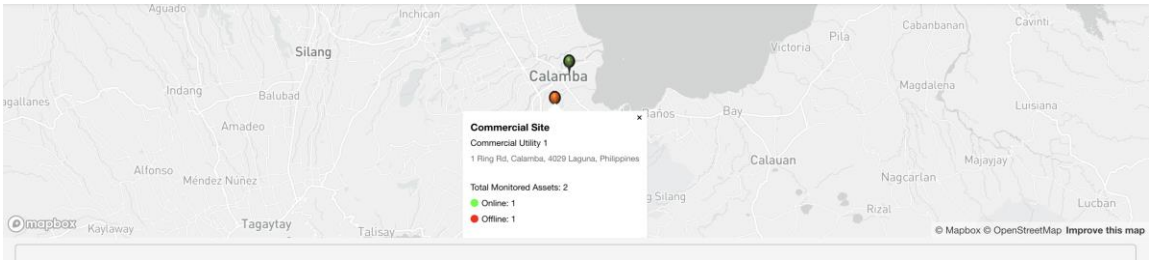
1. The 3-bar icon opens the main menu for navigating the platform.

   The menu has 2 main sections.
   - **Portfolio Management** – Viewing of Portfolio, Creating of Portfolio.
   - **Master Config Management – Managing of Portfolio Configuration**



2. Role Information & Switch the role – If user may have multiple roles, switch to another role.

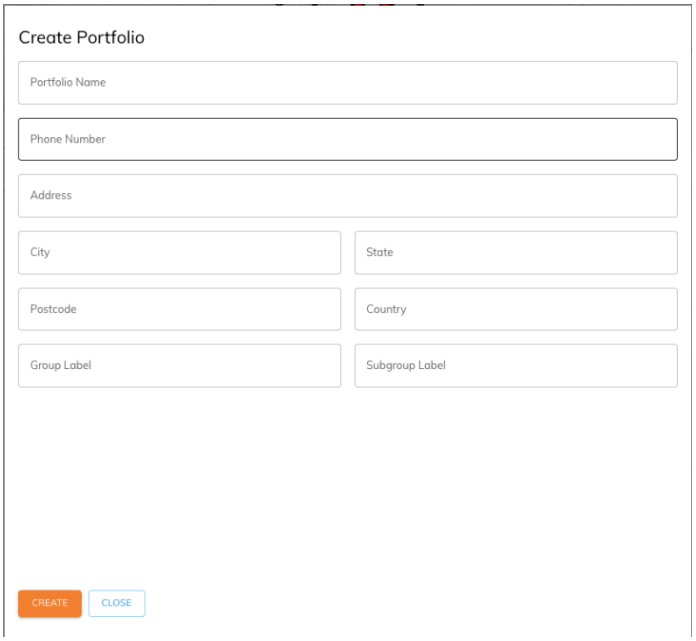


3. 

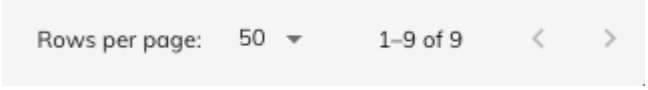
Map pins – displays the location where the site is located and which portfolio the site belongs to as well as the number of monitored assets installed on the site. The marker is based on the following criteria:
Green Marker – All monitored assets on the site are online.
Red Marker – All monitored assets on the site are offline.
Orange Marker – Mixed offline & online monitored assets.

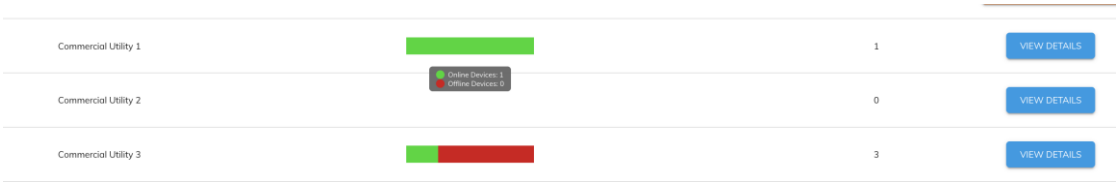
4. Create New Portfolio

- Portfolio Name
- Phone Number
- Address
- City, State, Postcode, Country
- Group Label, Subgroup Label: ‘Group Label’ & ‘Subgroup Label’ refers to the label to be displayed on tier 1 & tier 2 selection (To be removed once the new installer app is deployed)



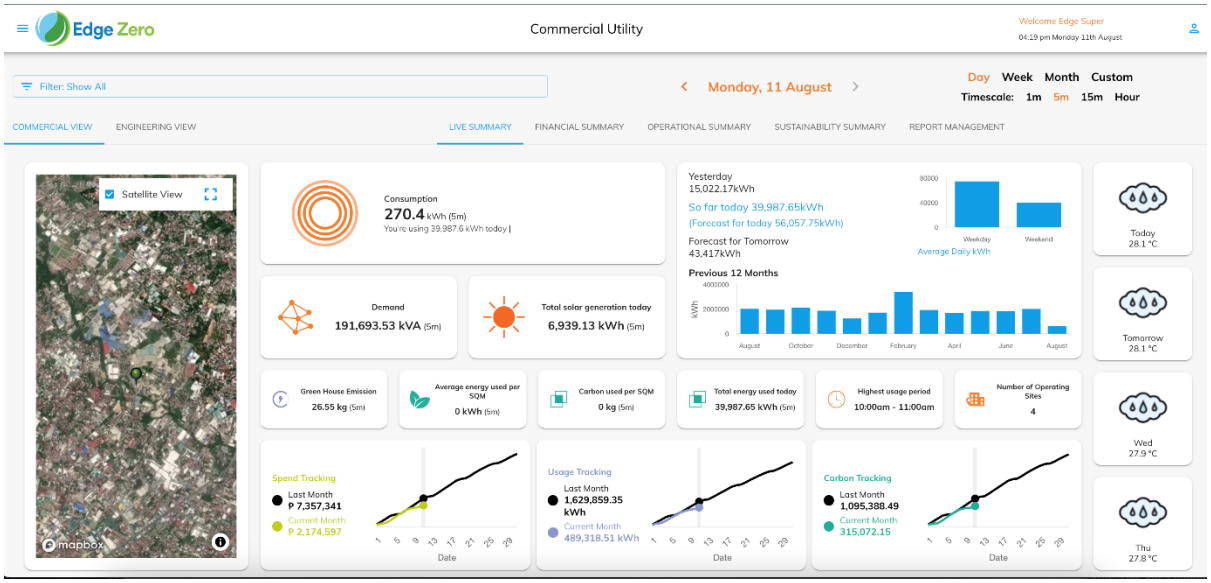
5. Pagination
   - List page is paginated and can support 100 portfolios per page.



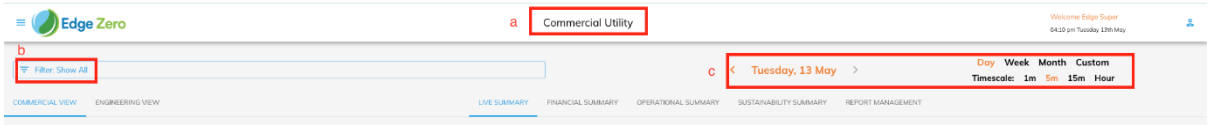
6. 

Alert bar - Show online/offline monitored devices count with colours (Online – green, Offline – red)

7. View Details
   - View Details button– Open to view details selected portfolio into new tab.



Portfolio Details Page

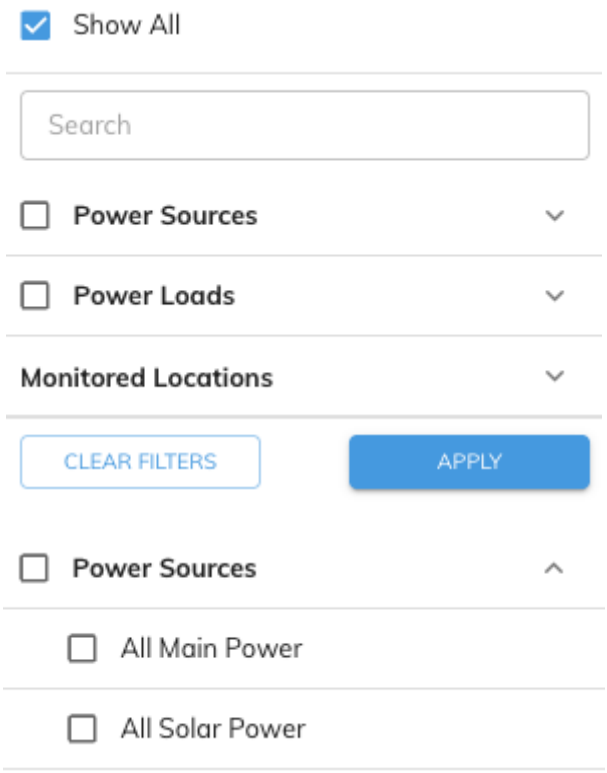


1. Portfolio Details Header

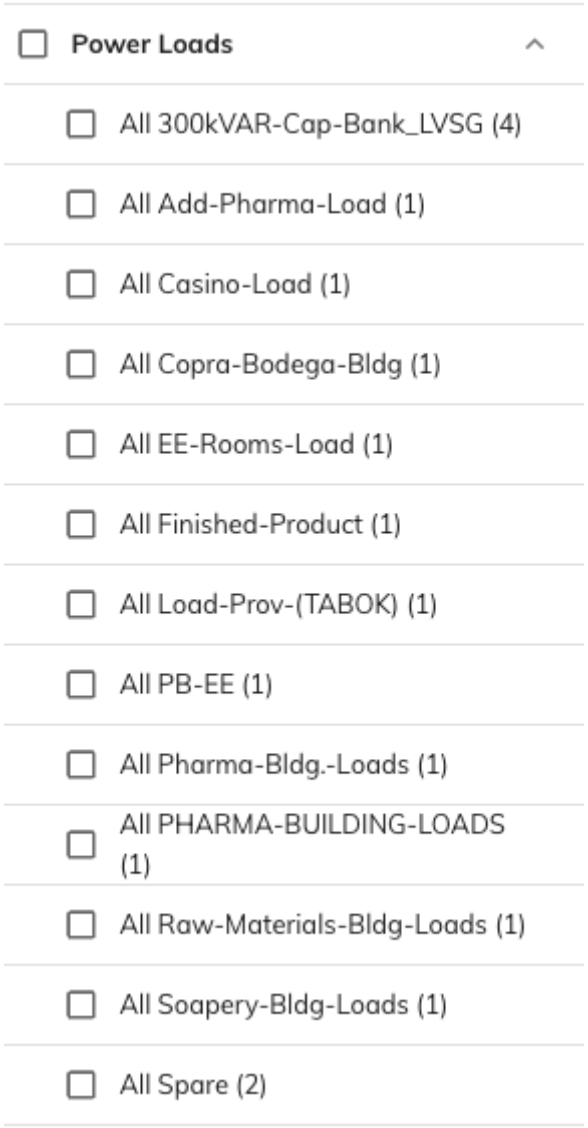
a. Portfolio Name

b. Site Tree

This feature allows you to tailor your data views to focus on the information most relevant to your needs. You can filter and organize data based on power source, power load, or monitored locations.

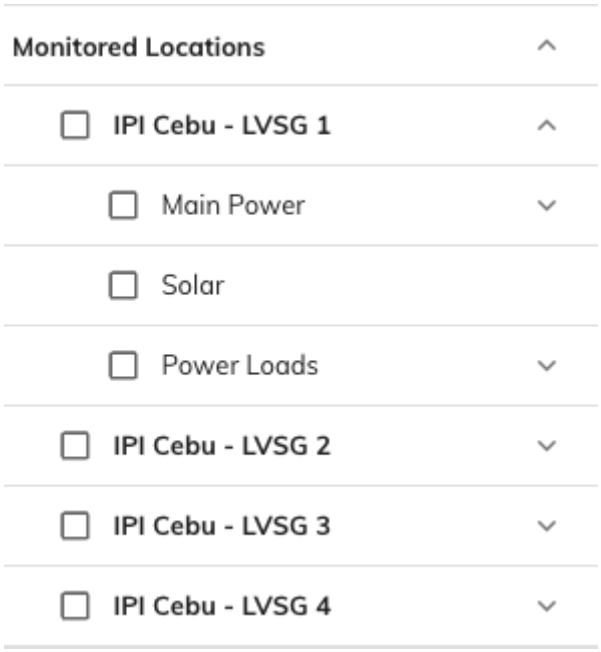


By selecting Power Sources, it will select all main power & solar power installed on Portfolio.
You can choose to view data from just the "Main Power," just the "Solar Power" or both by selecting the corresponding option(s).
To see a combined view of all power consumption, regardless of whether it's from the grid or solar panels, ensure both "Main Power" and "Solar Power" are selected under the Power Source filter.



By selecting "Power Loads" option, it will select all loads installed on Portfolio.

Select the specific power load(s) you want to view. You can choose one or multiple loads to customize your data view.



Monitored Locations contains the sites attached to the Portfolio

You can filter the data to view information from specific sites within your Portfolio. You can choose one or multiple monitored locations to customize your data view

c. Date Selection, Granularity

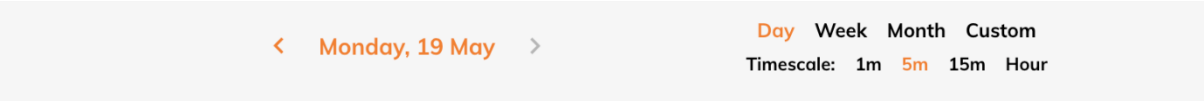
This allows you to specify the time period for which you want to view data. You can view data by day, week, month or by custom date range

The **Granularity** setting allows you to control the level of detail shown in your data view. By adjusting the granularity, you can see data aggregated in different time intervals (1m, 5m, 15m & hour).

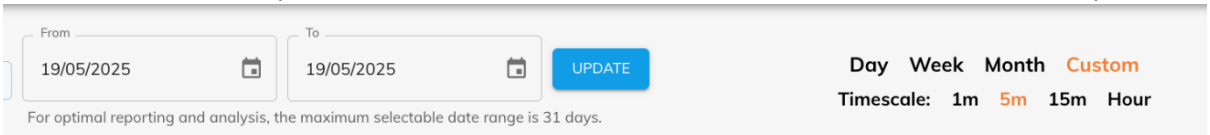
However, it's important to note that some granularity options are disabled or unavailable depending on the date range the user have selected.

date range < 7 = 1m is disabled

date range <= 31 = 1m & 15m are disabled



Custom allows user to directly enter dates into designated fields. When using a custom date range, ensure that the period between chosen to start and end date does not exceed 31 days.



2. Details component

The Tabs are split into two:

Commercial View: This view is designed to provide insights and data relevant for business and operational stakeholders. It might present data in a more summarized or financially-oriented manner. The customization options within this view will allow you to filter and analyze data based on aspects important for commercial analysis.

Engineering View: This view offers a more detailed and technical perspective on the data, catering to the needs of engineers and technical users. It might provide access to more granular data and specific technical parameters. The customization options here will allow for in-depth technical analysis of the power data.

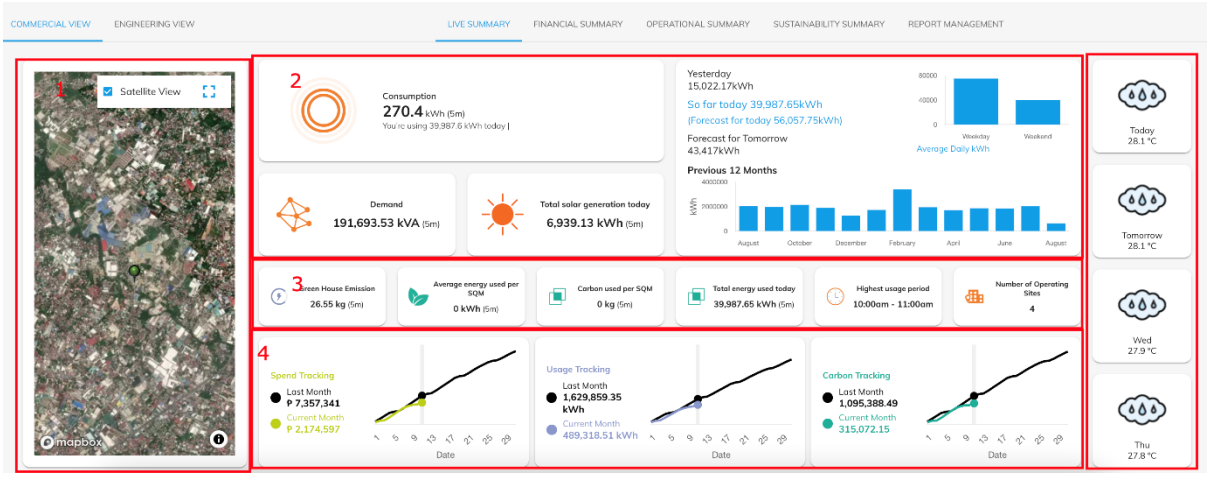
To switch between these views and their respective customization options, simply click on the corresponding tab at the top of the data customization interface:

a. Commercial View

This view provides a business-oriented perspective on your data and is further divided into the following five tabs: Live Summary, Financial Summary, Operational Summary, Sustainability Summary & Report Management

- Live Summary

This tab offers near real-time overview of key commercial metrics

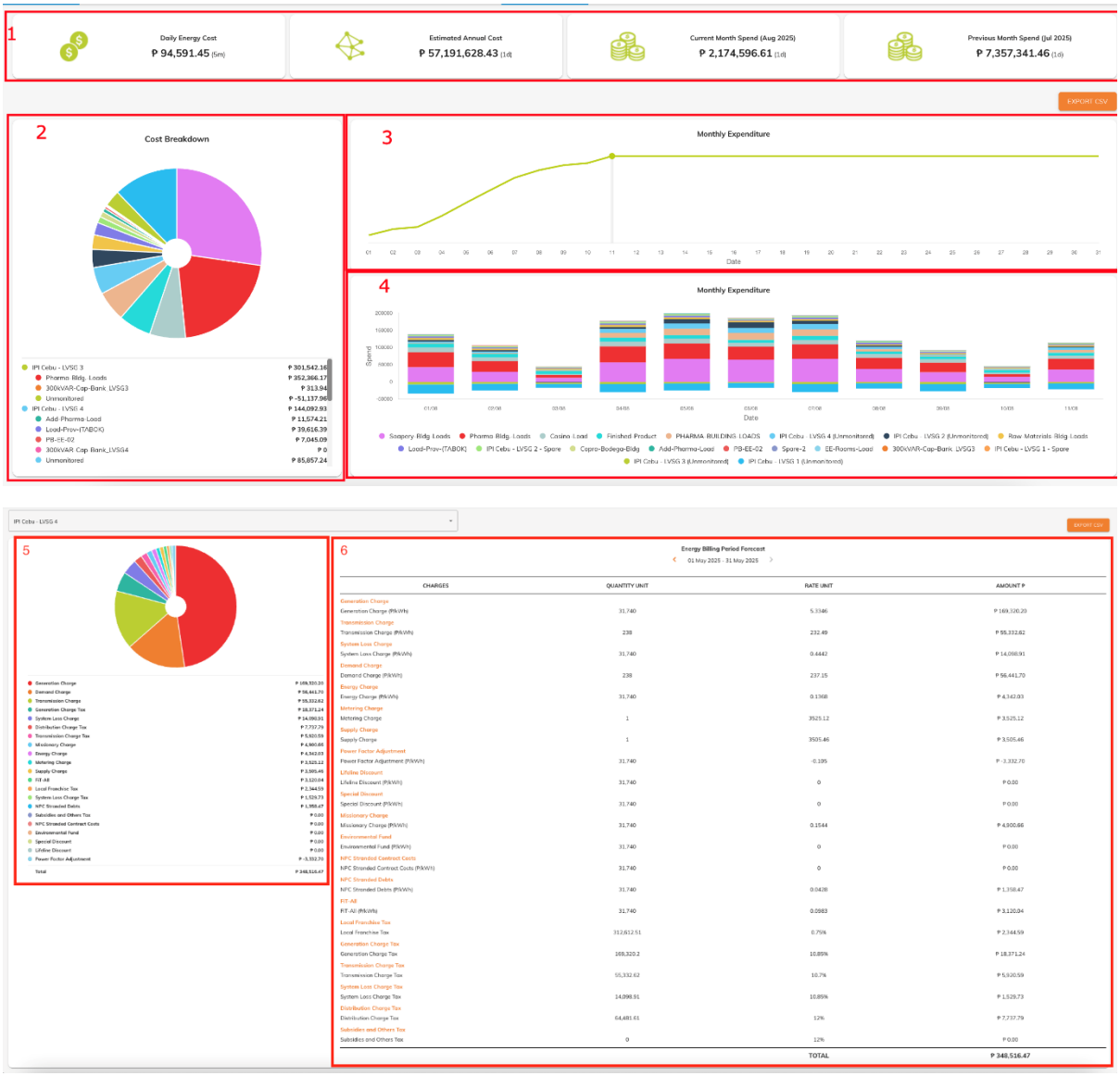


1. Satellite Map
2. Consumption Details – This shows the current day consumption based on selected filter. It also includes the consumption for the past year and forecasted consumption based on previous consumption records.
3. More Card Details - This includes helpful data based on the current day.
4. Spend, Usage & Carbon Tracking - This tracks your generation charge cost, energy usage, and carbon emissions by comparing the data from the last full month with the data from the current month.
   Note: Spend Tracking will only show if there's generation charge setup on financial config summary.
5. Weather details – This shows the 4-day weather forecast based on selected location.

- Financial Summary

This tab focuses on the financial aspects of your power data

Note: The data shown here is based on financial configuration setup on Master Configuration



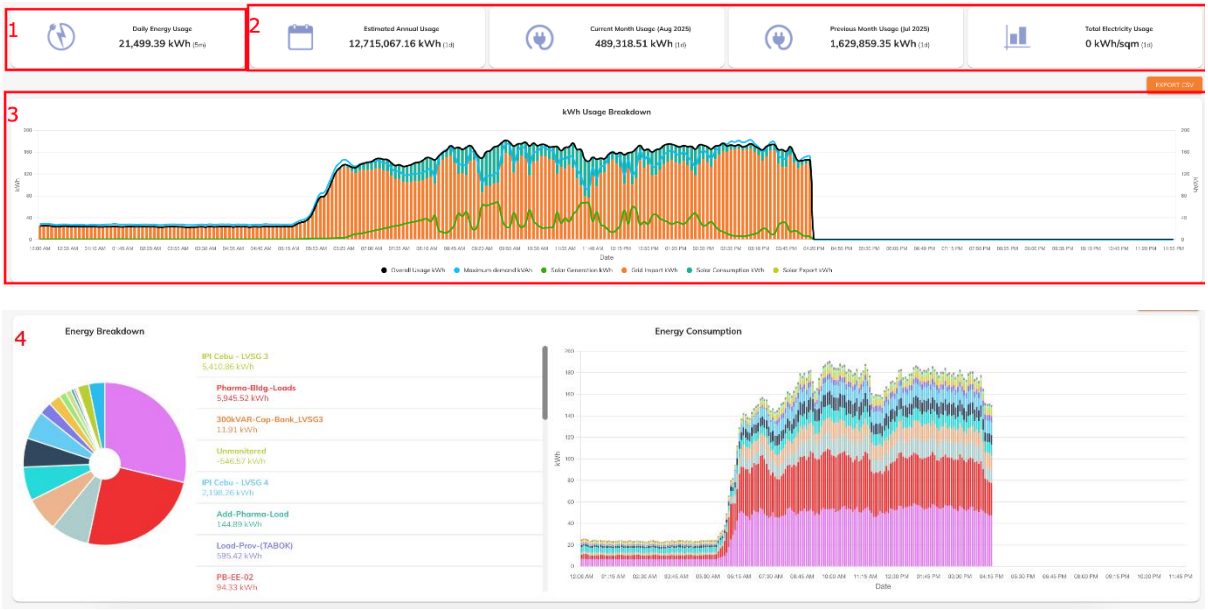
1. Financial Card Summary
   1a. Daily Energy Cost – This shows the total generation charge cost based on selected date from the date range (the title updates depending on the range selected – Day, Week (Weekly Energy Cost), Month (Monthly Energy Cost))
   1b. Estimated Annual Cost – This shows the forecast annual cost based on previous cost.
   1c. Current Month Spend – This shows the current month total generation charge cost
   1d. Previous Month Spend - This shows the previous month total generation charge cost
2. Cost Breakdown – This shows the overall cost distribution per load, per main source or per monitored location depending on the current selected filter. The

cost breakdown reflects the data based on the month of current applied date range. (e.g. If current date selected is April 30, the cost breakdown shows the data for the whole month of April)

3. Monthly Expenditure – Cost Tracking – This shows how overall cost accumulates day by day from the beginning to the end of the month
4. Bill Breakdown – This shows the daily cost distribution per load, per main source or per monitored location depending on the current selected filter.
5. Energy Billing Period Forecast – This shows a breakdown of the estimated costs for the current or forecasted billing period, showing how the total cost is distributed across different billing elements. The billing element is based on the financial config summary setup per monitored location.

- Operational Summary

This tab provides a comprehensive overview of energy consumption patterns and usage metrics. It shows how and when energy is being used across all monitored locations and sources.



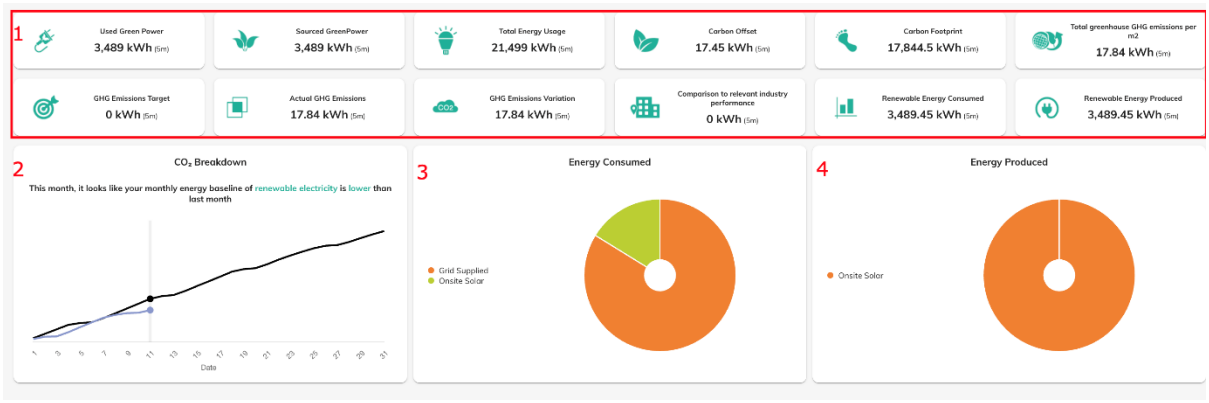
1. Energy Usage - This shows the total usage based on selected date from the date range (the title updates depending on the range selected – Day, Week (Weekly Energy Usage), Month (Monthly Energy Usage)
2. Usage Summary Card
   2a. Estimated Annual Usage– This shows the forecast annual usage based on previous usage records.
   2b. Current Month Usage– This shows the current month total usage
   2c. Previous Month Usage- This shows the previous month total usage
   2d. Total Electricity Usage – This shows the consumption per SQM of all selected location
3. kWh Usage Breakdown – This shows the usage breakdown based on the selected date range & selected granularity. The chart contains the following data:

Grid Import – Total amount of electricity that has been imported from the main power grid
Maximum Demand
Solar Generation – Total amount of solar power generated
Solar Consumption – Total amount of solar power consumed
Solar Export – Total amount of excess from solar power
Overall Usage – Total amount of energy consumed across all sources

4. Energy Breakdown & consumption – This shows the usage breakdown based on the selected date range & selected granularity. It shows the usage distribution per load, per main source or per monitored location depending on the current selected filter.

- Sustainability Summary

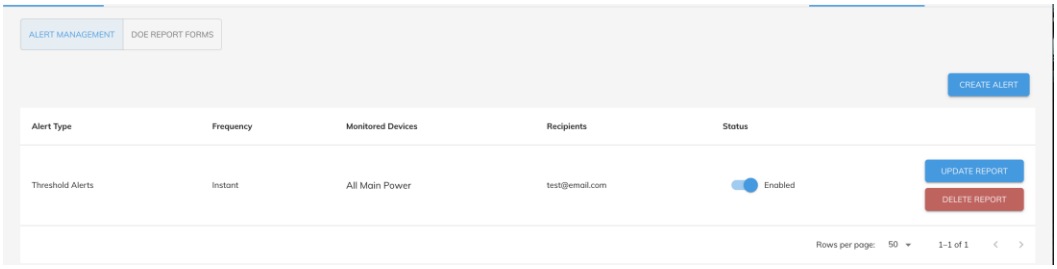
This dedicated tab focuses on providing insights into the environmental impact of energy consumption.



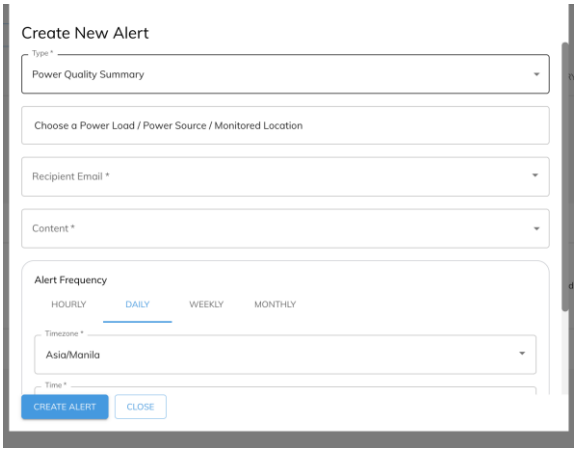
1. Summary of sustainability
2. CO2 Breakdown – This provides a direct comparison of estimated carbon emissions for the current month to date versus the total carbon emissions for the entire previous month.
3. Energy Consumed - This provides the proportion of total energy consumption that comes from different power sources during the currently selected date range
4. Energy Produced – This provides the proportion of total energy produced that comes from different renewable power sources during the selected date range.

- Report Management – Alert Management

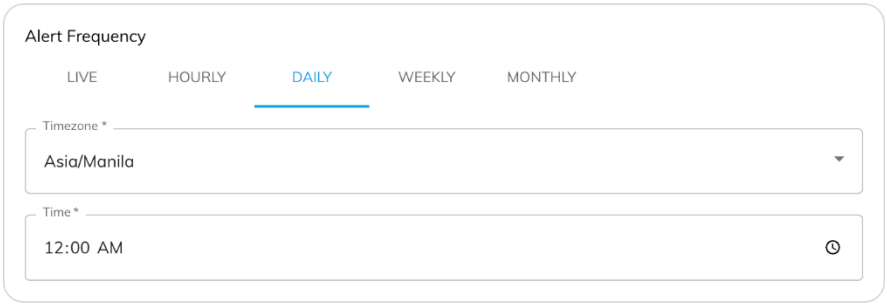
This tab provides user capability to setup alerts based on set criteria or send a power quality report based on set frequency and parameters.



1. Create Alert - allows user to create new alert. Creation of alert consists of the following fields:



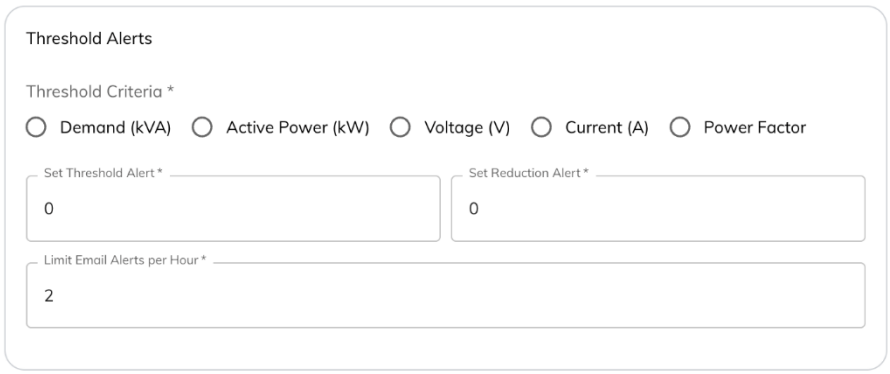
a. Type – There are 3 types of alerts a user can select:
    1. Power Quality Summary – send power quality data based on given frequency
    2. Events – send alerts whenever an event is triggered
    3. Threshold Alerts – send alerts whenever a given parameter has exceeded or fallen below the set threshold
b. Choose Power Load/Power Source/Monitored Location – select which devices/metering points to monitor.
c. Recipient Email – Email where the alerts will be sent. User can set multiple recipients. A user can select from the given list of partner & portfolio admin users or input a valid email address.
d. Content – The format type of the content. Currently only CSV is the option.
e. Alert Frequency – For Power Quality Summary & Events – allow user to set the frequency of alert notifications.
   Note: For Events, the user has an option to set the frequency to Live to allows user to receive the alert in real-time.



f. Threshold Alerts – If the user selects Threshold Alerts, the user can configure the threshold

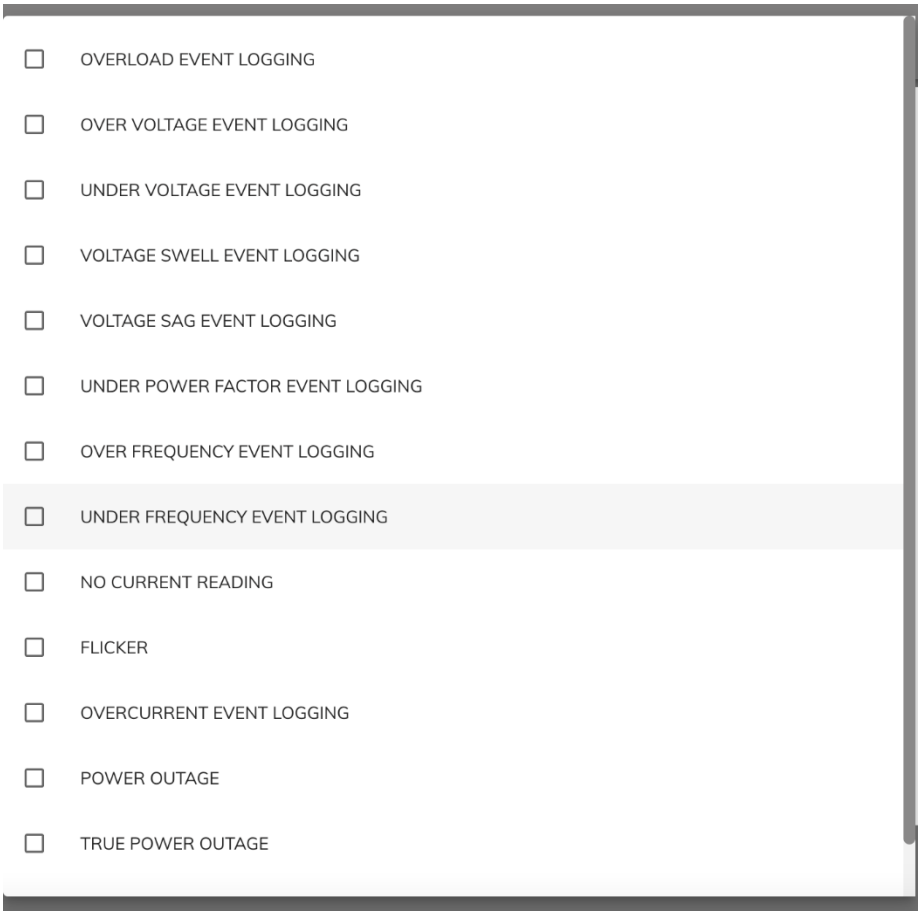
Set Threshold Alert – sends alert if the criteria's value exceeded the given threshold alert value

Set Reduction Alert – sends alert if the criteria's value fallen below the given reduction alert

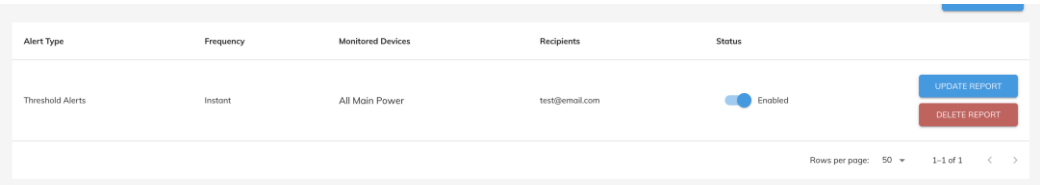


g. Power Quality Content – If the user selects Power Quality Summary, the user can select which power quality data to be included on the alert.

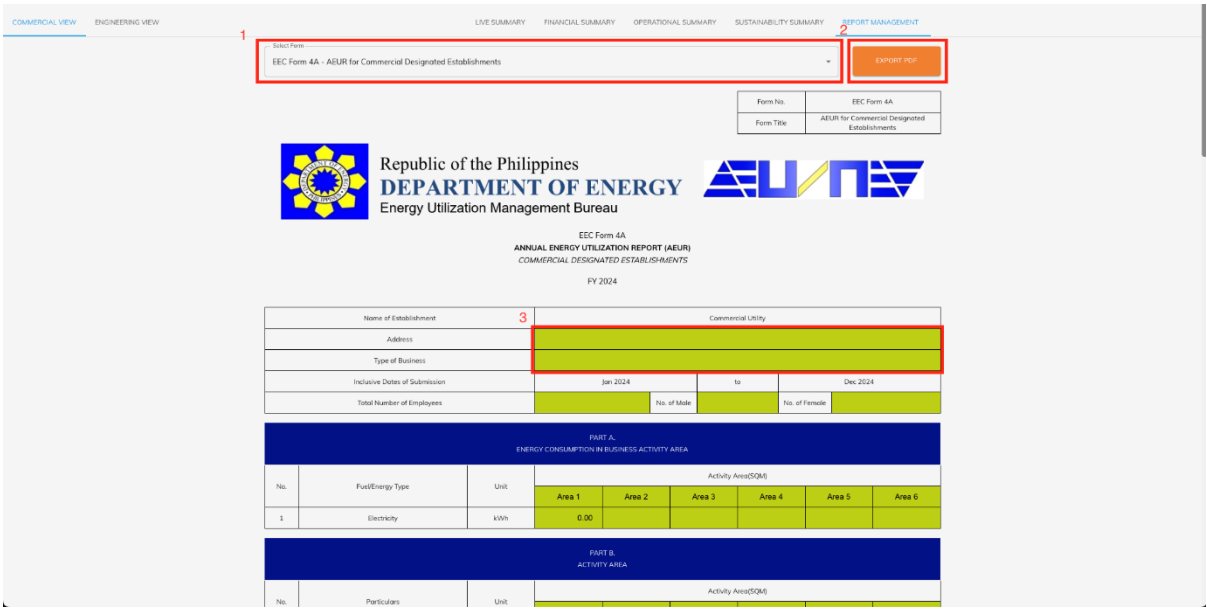
h. Event Triggers – If the user selects Events, the user can select which events the alert will trigger



2. Alert List – This contains the list of alerts that are created. The user can enable or disable the alert from sending an email by toggling the enabled button on status column. They can also update the alert details like the recipients and alert frequency by clicking the **UPDATE REPORT.**



- Report Management – DOE Report Forms



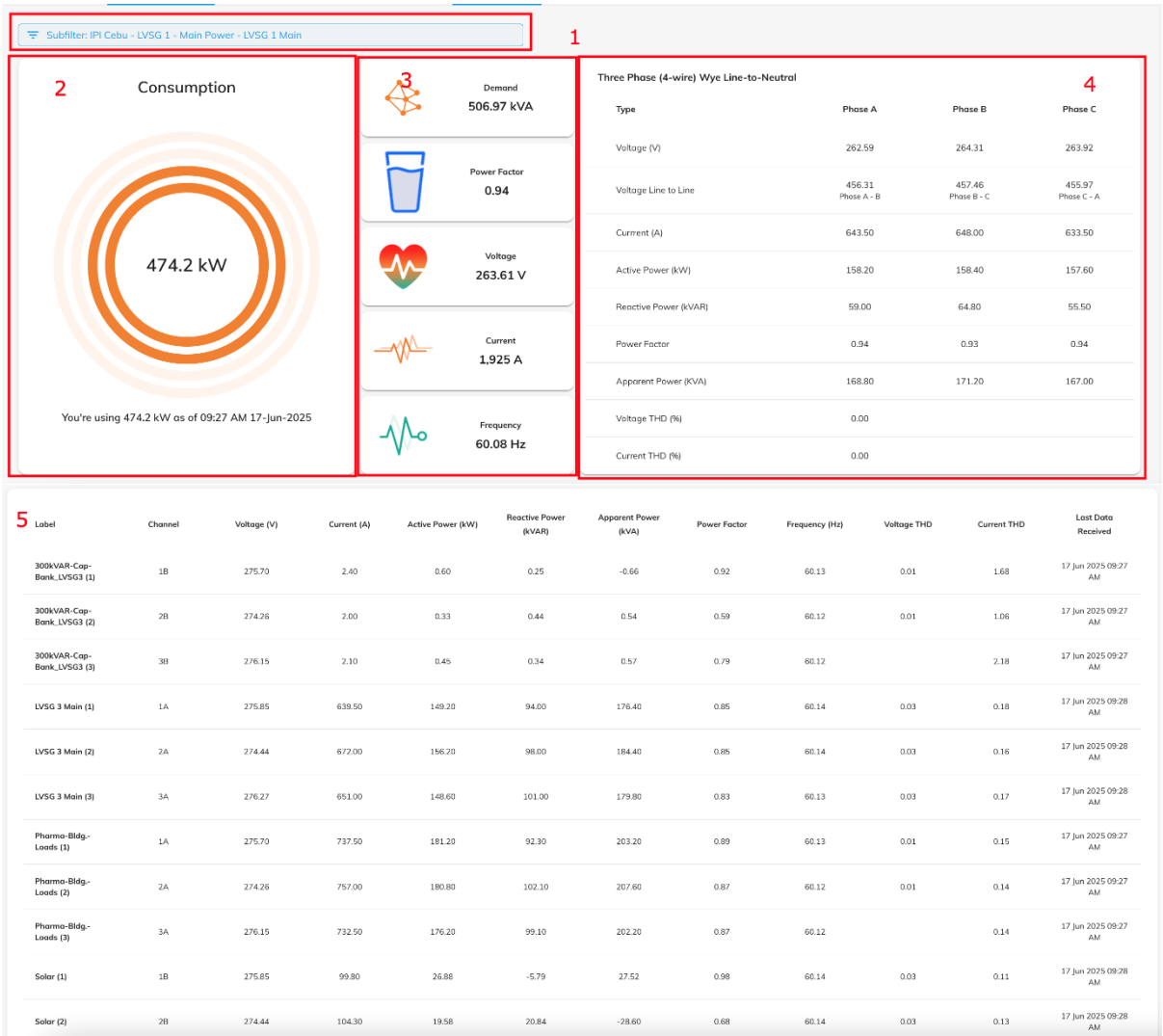
1. Select 3 different forms.
2. Generate export report as PDF file.
3. Green input field is editable.

b. *Engineering View*

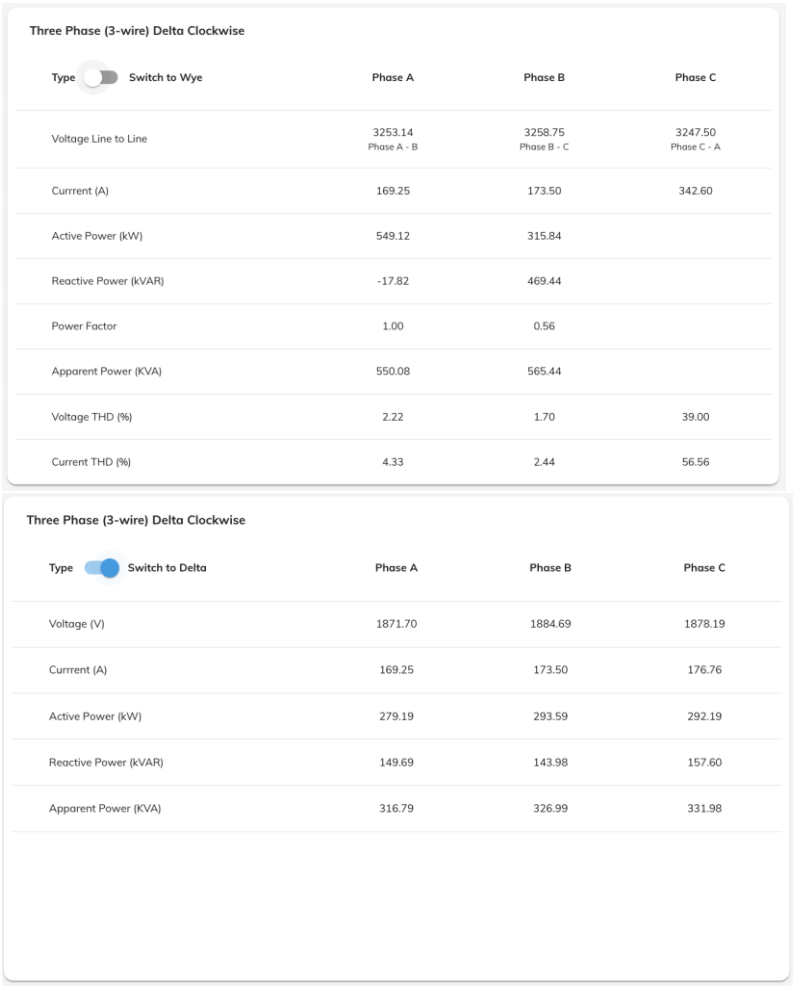
This view offers a more detailed and technical perspective on the data, catering to the needs of engineers and technical users and is further divided into 5 tabs: Live Summary, Loading Profile, PQ Analysis, Harmonics Analysis and Voltage Summary.

- Live Summary

  This tab offers real-time view based on selected filter.



1. Subfilter – If multiple devices are selected on the current filter, subfilter is enabled to select a specific device live data.
2. Live consumption - shows the overall live consumption based on selected filter.
3. Live card – shows the live Demand, Power Factor, Voltage, Current & Frequency.
   Note: Voltage & Current are unavailable if there are 2 or more devices selected.
4. Live Table – shows the live data by individual phase.
   Note: Table is unavailable if there are 2 or more devices selected.



Three Phase (3-wire) Delta Clockwise

Type: Switch to Wye	Phase A	Phase B	Phase C
Voltage Line to Line	3253.14 Phase A - B	3258.75 Phase B - C	3247.50 Phase C - A
Currrent (A)	169.25	173.50	342.60
Active Power (kW)	549.12	315.84	
Reactive Power (kVAR)	-17.82	469.44	
Power Factor	1.00	0.56	
Apparent Power (KVA)	550.08	565.44	
Voltage THD (%)	2.22	1.70	39.00
Current THD (%)	4.33	2.44	56.56

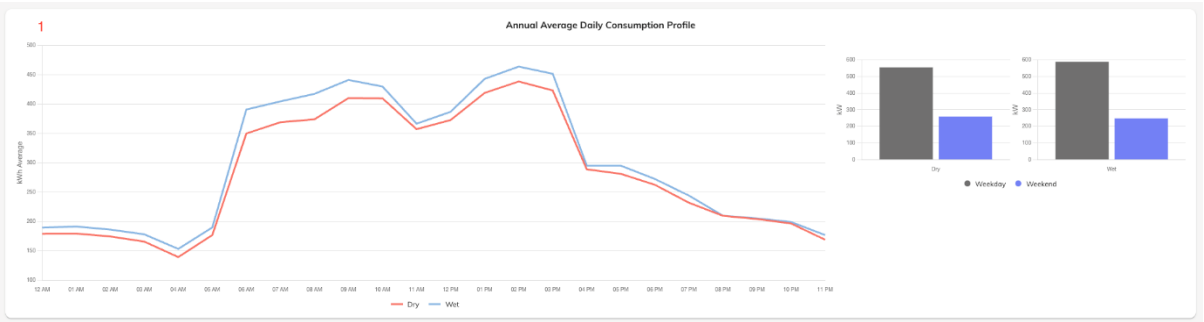
Three Phase (3-wire) Delta Clockwise

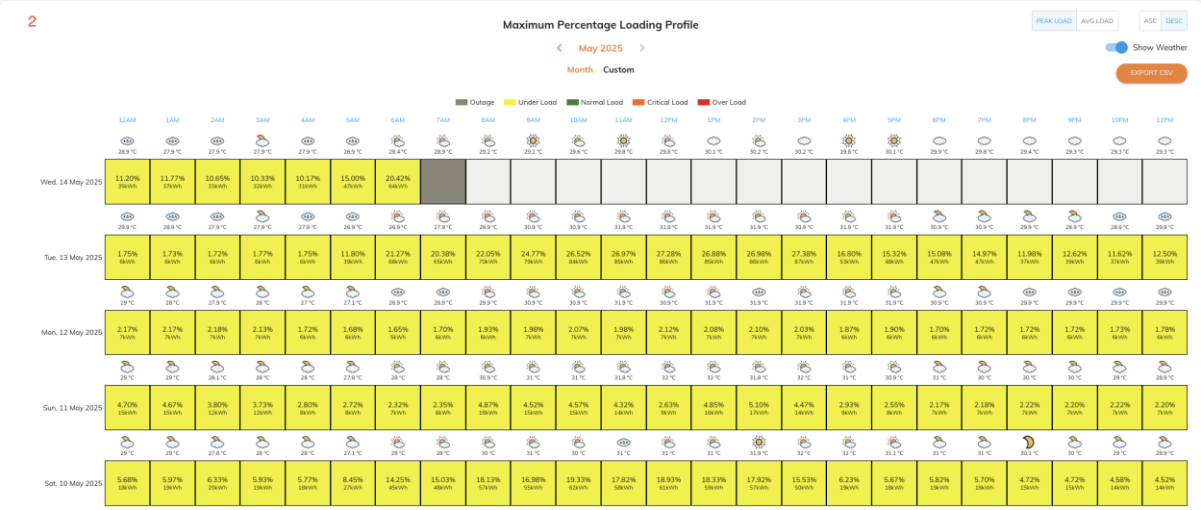
Type: Switch to Delta	Phase A	Phase B	Phase C
Voltage (V)	1871.70	1884.69	1878.19
Currrent (A)	169.25	173.50	176.76
Active Power (kW)	279.19	293.59	292.19
Reactive Power (kVAR)	149.69	143.98	157.60
Apparent Power (KVA)	316.79	326.99	331.98

Note: For Devices configured as Three Phase (3-wire) Delta Clockwise and Three Phase (3-wire) Delta Counter Clockwise, user can switch the live table view from delta view to wye view.

5. Live Load Table – shows the last received data for each device channel of selected filter.

- Loading Profile





1. Annual Average Daily Consumption Profile

This provides an overview of average energy consumption patterns throughout a typical day, broken down by both hour and season.

2. Maximum Percentage Loading Profile

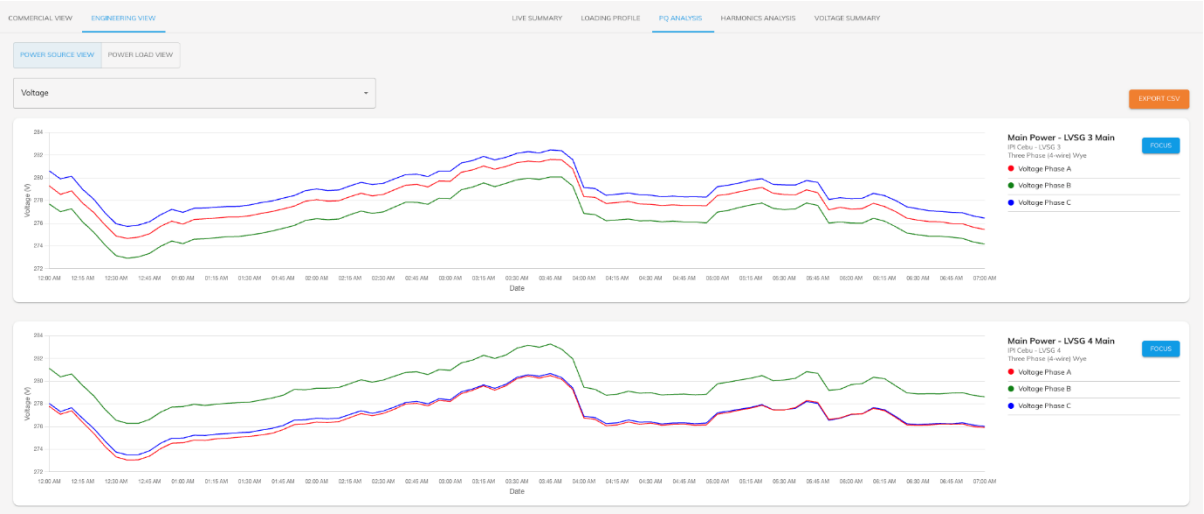
This provides insights into system's load characteristics by displaying both the peak and average percentage loading for each hour of the day. This helps to understand how close the energy consumption gets to system's capacity and the typical load levels throughout the day.

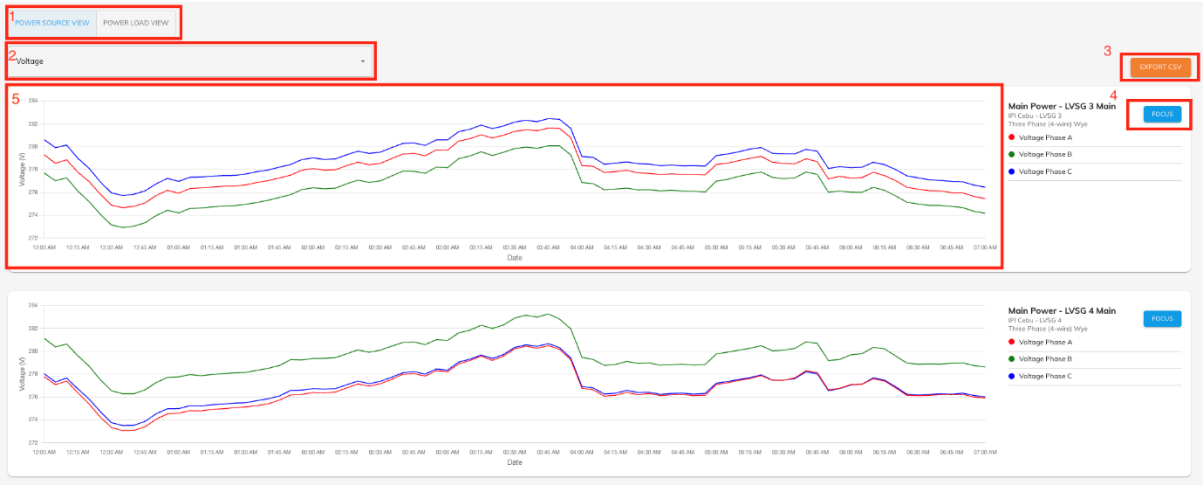
By clicking the "Show Weather" option, you can view the historical weather information on an hourly basis, potentially correlating them with the energy consumption.

- PQ Analysis

This tab provides in-depth insights into the electrical performance of devices and systems. It presents critical and non-critical data related to the quality of the power they are receiving and

utilizing, allowing to assess the operational health and efficiency.

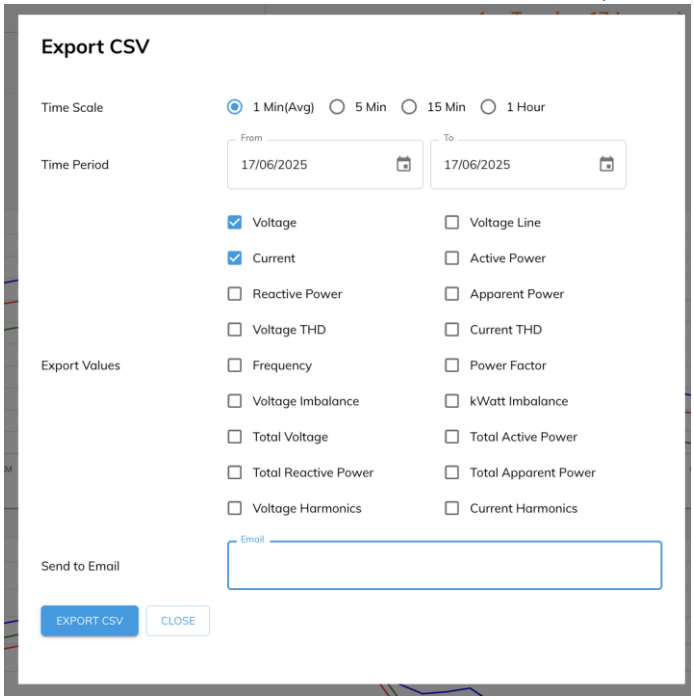




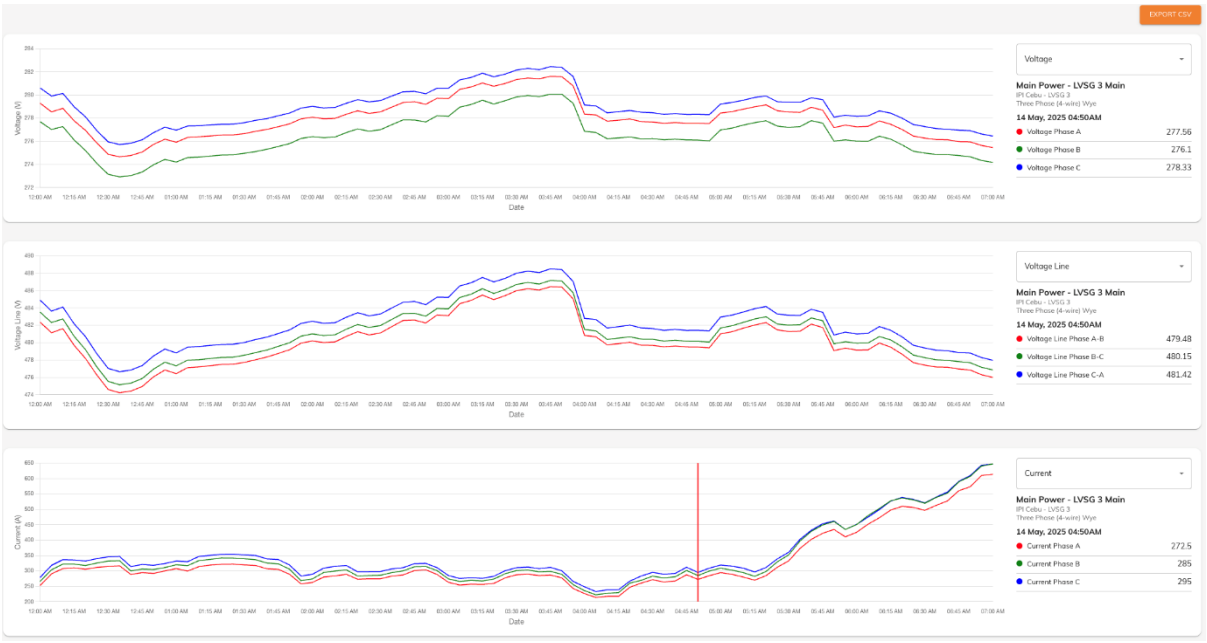
1. Switch Tab between power source and power load view
2. Dropdown selection between parameters like voltage, current, etc

3. Export graph data into CSV format based on selected parameter

   If viewing a single power source/power load, user can customize the granularity, date range and power quality data. This allows the user to export data outside of the date limit. The data will be sent to the email provided in the form.



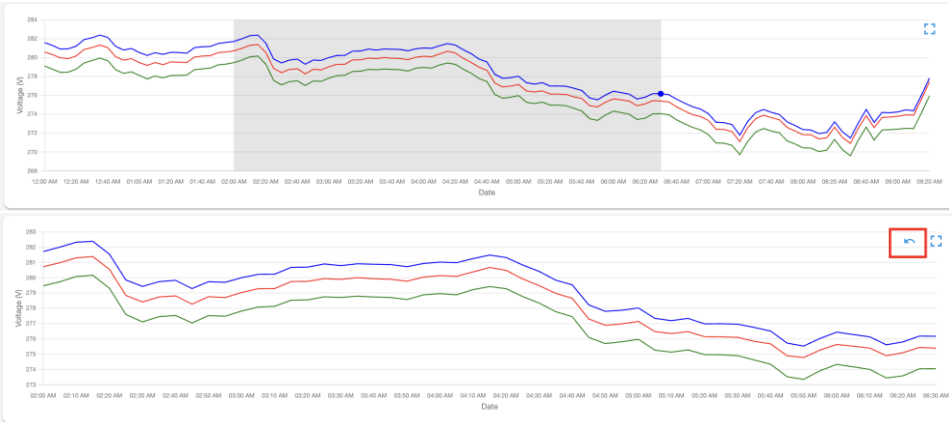
4. Focus one power source / power load to show details



Graph for focus one power source / power load

5. Graph – It shows the historical data based on selected parameter. Data displayed is based on selected date range & granularity.

Clicking the fullscreen icon, sets the graphs into full screen



Zooming In on Data (Drag to Select Range) - To focus on a specific period, user can click and drag mouse horizontally across the chart. The chart will update to display only the data within the selected date range.

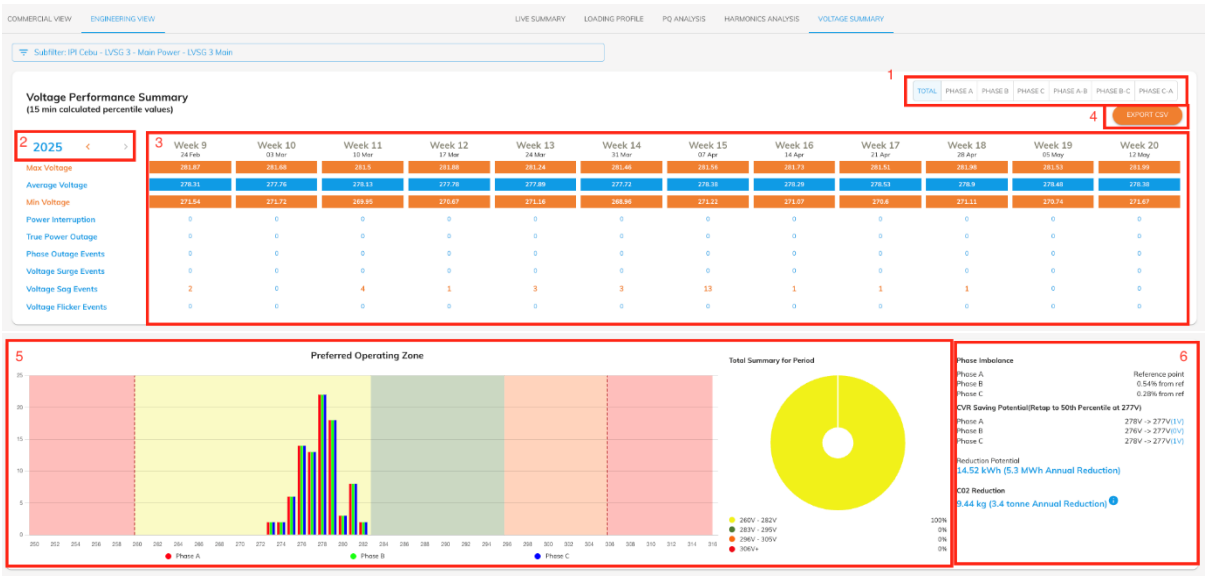
By clicking the Return Icon will reset the chart to original date range.

- Harmonics Analysis

This tab provides a detailed analysis of **harmonics** present in electrical system's voltage and current waveforms.

1. Active and reactive power are balanced across phases, showing stable import consumption with proper 120° phase separation and increasing trend.
2. FTT analysis for both voltage and current

- Voltage Summary



1. Switch toggle between each phase
2. Year selection
3. Weekly voltage summary data
4. Export voltage data into CSV format
5. Voltage value graph for each phase
6. Voltage Optimization and Energy Saving Potential Summary

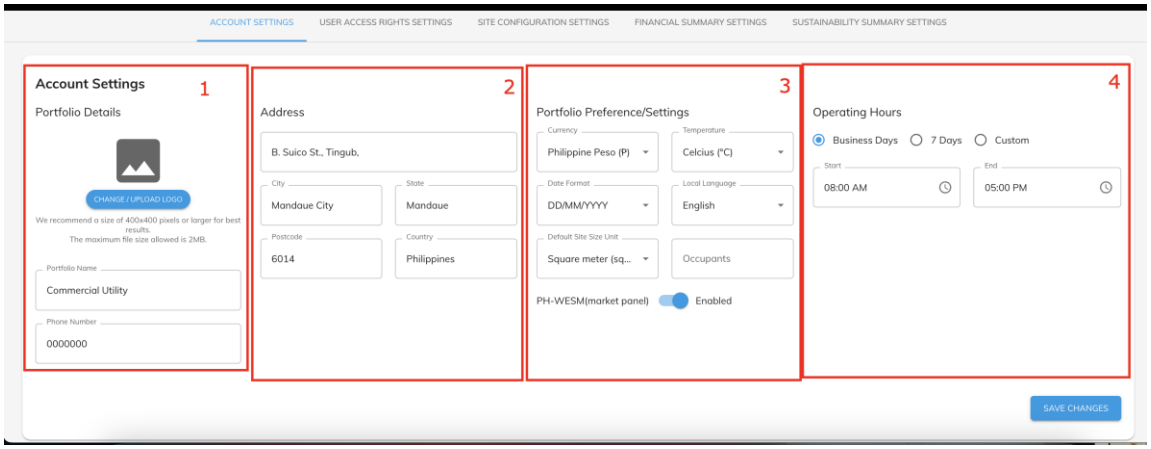
Master configuration

The "Master Configuration" section serves as the central hub for managing all aspects of Portfolio. Here, administrative users can define and adjust the fundamental settings that govern how the portfolio operates and structured.

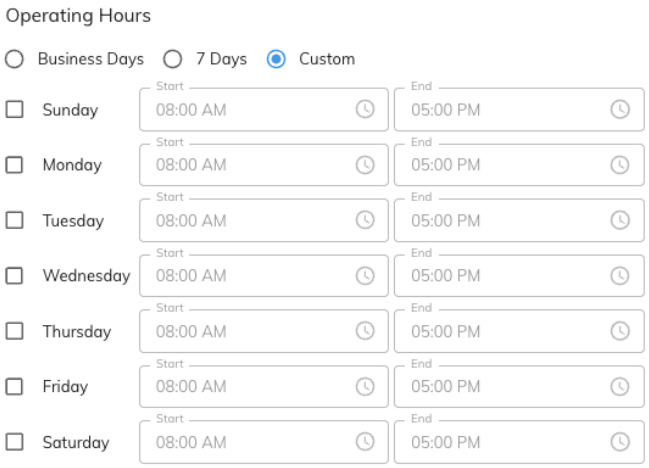
1. Portfolio Selection Header

2. Details Component

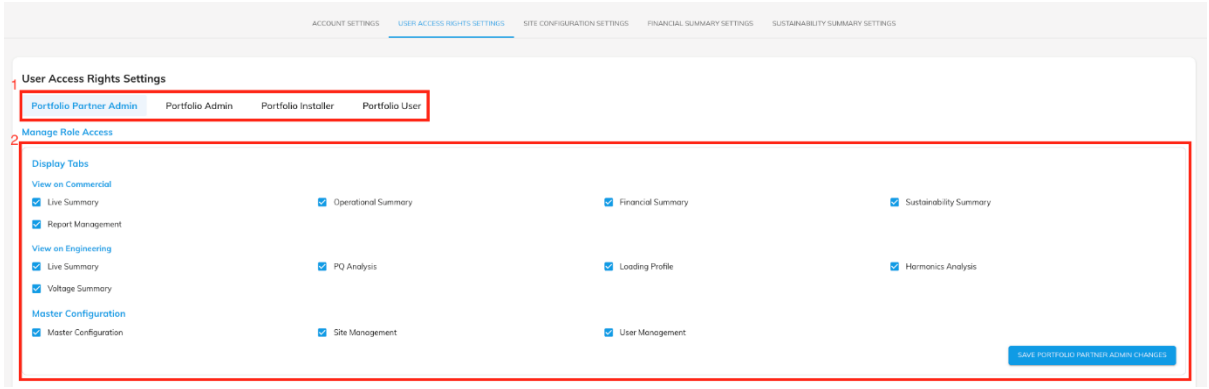
a. Account Settings

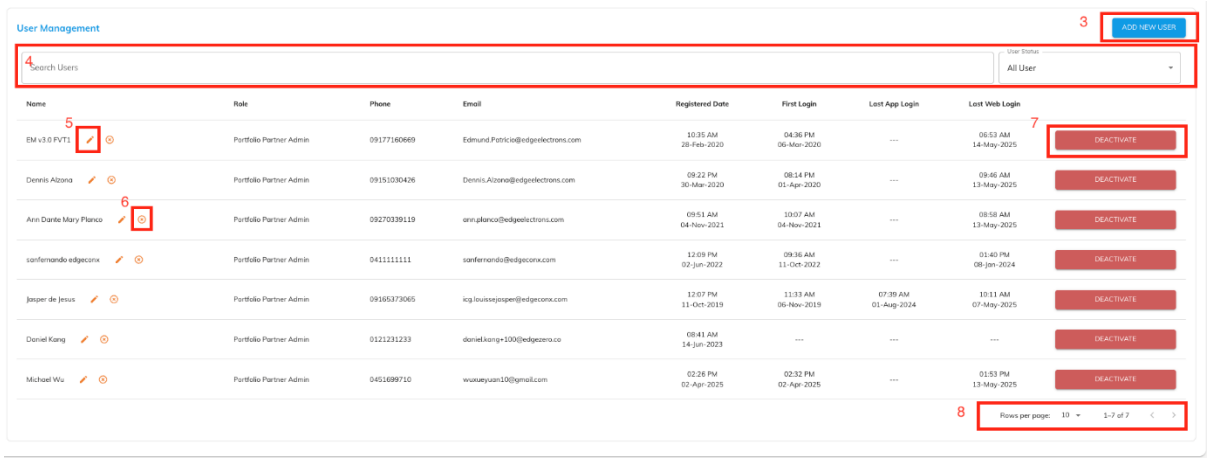


1. Portfolio details settings - including logo, name and phone number
2. Portfolio address settings – including street address, city, state, postcode and country
3. Portfolio preference settings – including currency, temperature, etc
4. Operating hours settings – including business hours, 7 days and custom

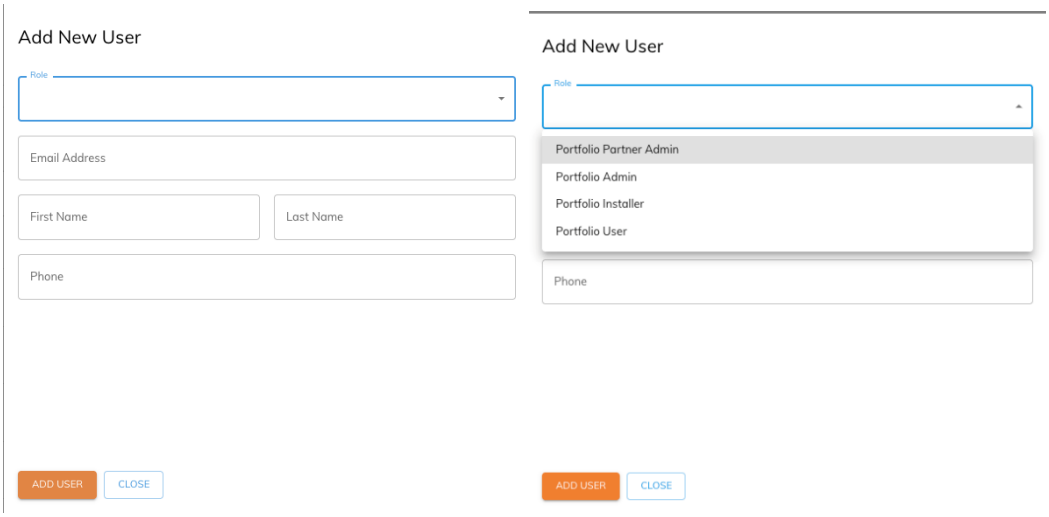


b. User access rights settings

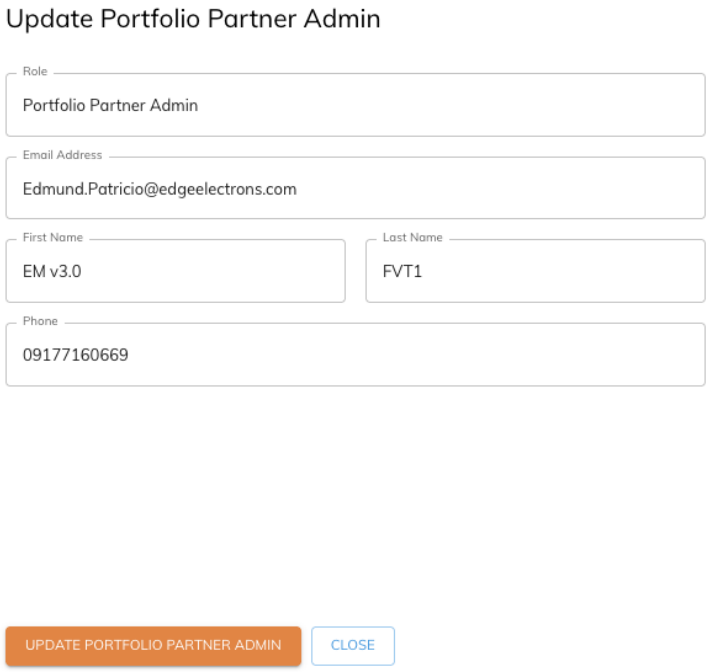




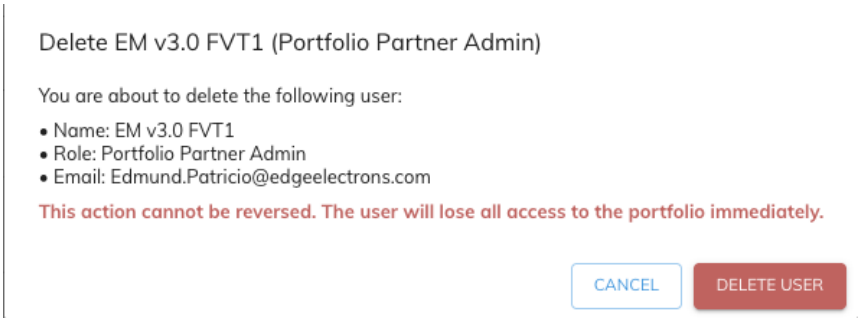
1. Control which tabs or pages are visible based on the logged-in user's role.
2. Each user role has a predefined set of permissions that determine which UI sections (tabs/pages) they can access or view.
3. Add user



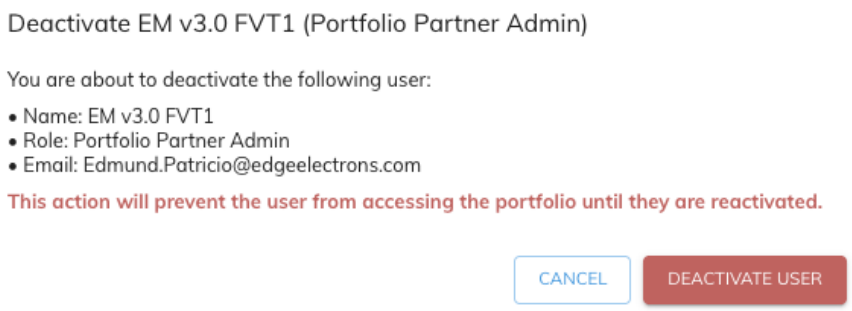
4. Seach and filter user
5. Update user



6. Delete user

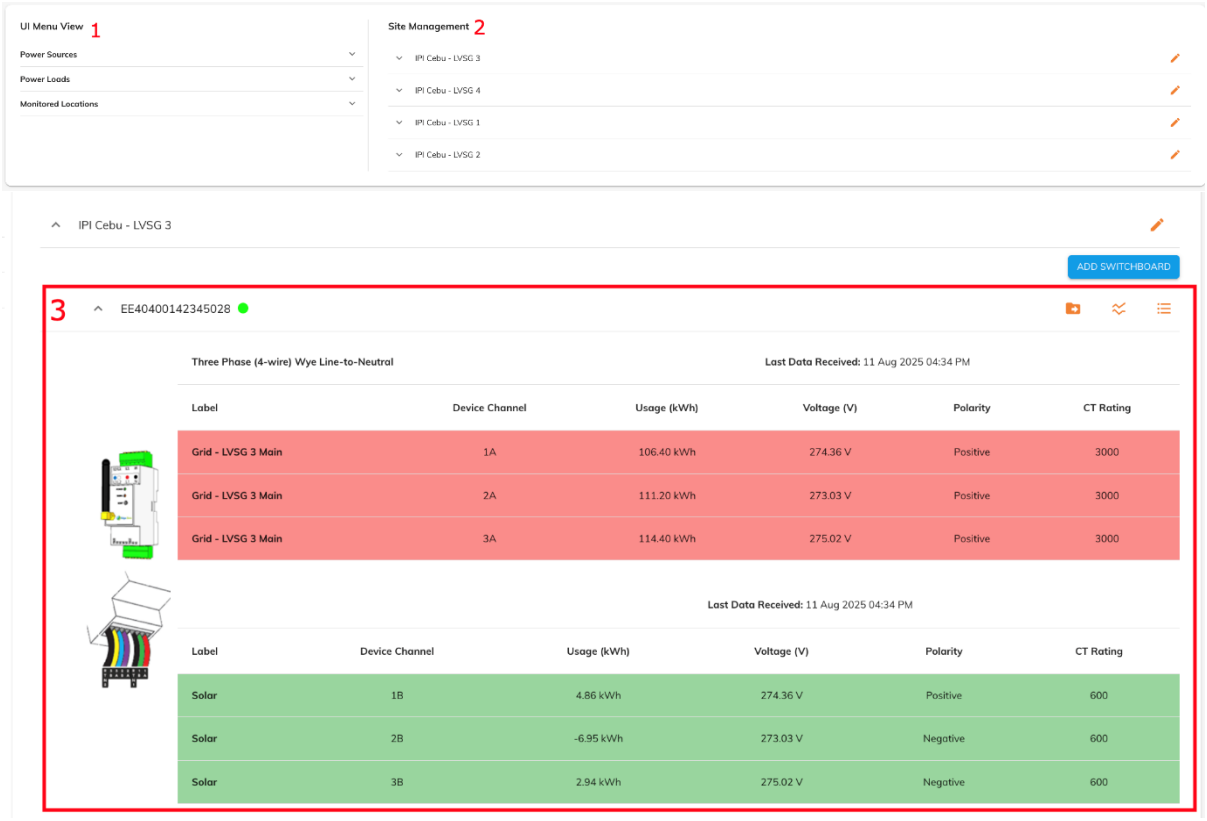


7. Deactivate user



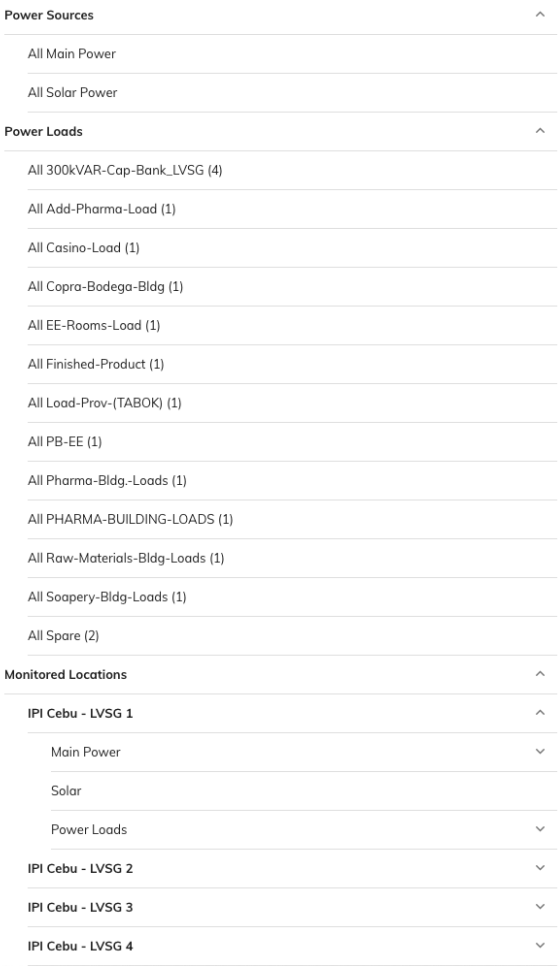
8. Pagination controls

c. Site configuration settings

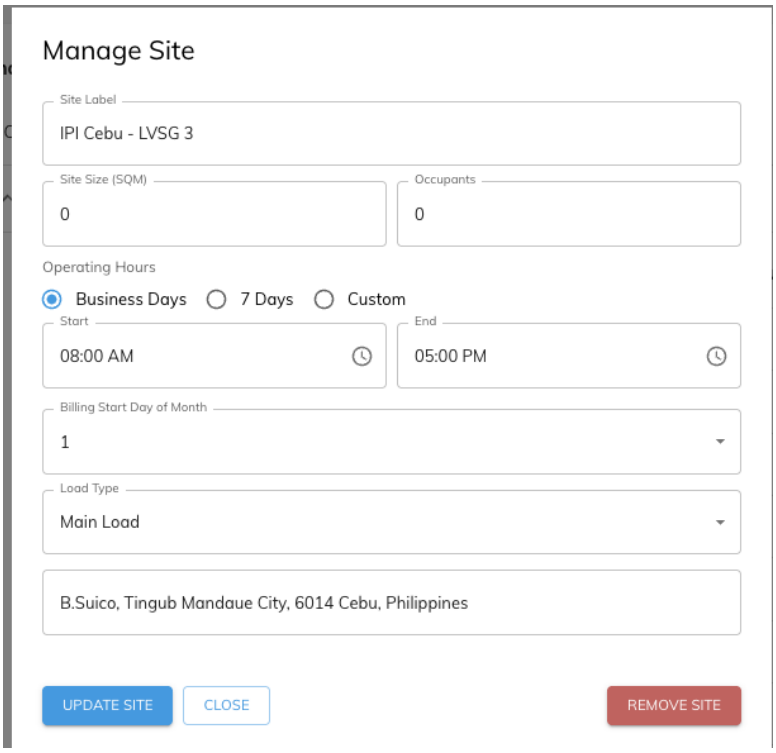


1. UI Menu View – This provides a visual representation of how the monitored locations are organized within the portfolio for filtering purposes. This structure is directly derived from the way the devices have been configured in the system.

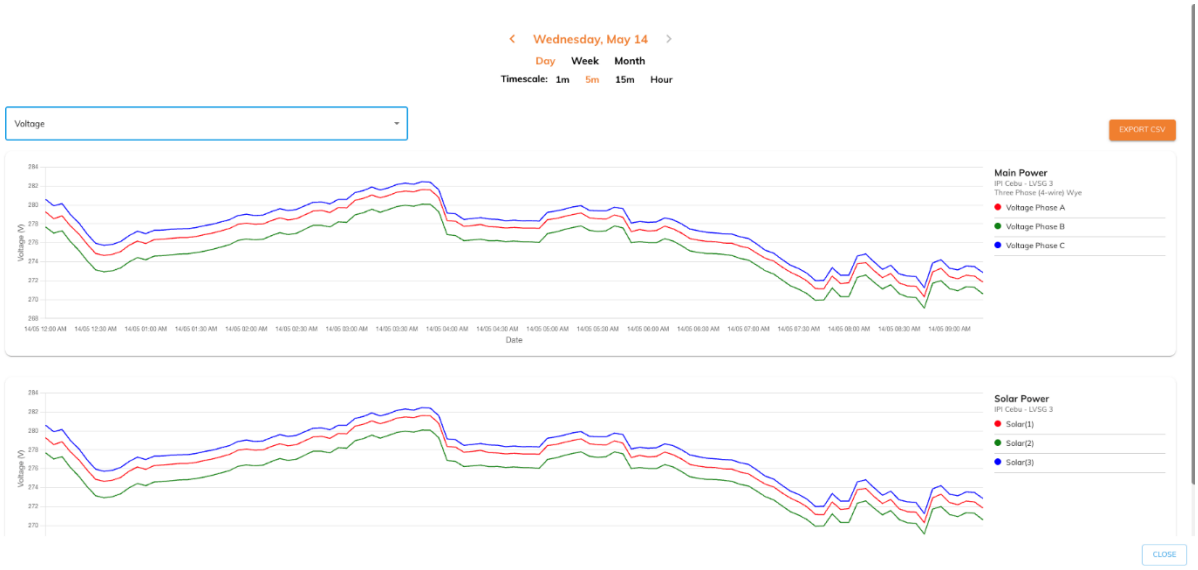
2. Site Listing – This provides list of all the sites/monitored location currently defined within the portfolio. By clicking the dropdown beside the site label, it will show all devices installed on the site.
3. Device Channels – By clicking the device dropdown, it will show the last received data of the device, and the labels set for each channel.
4. Update site – By clicking the pencil icon, allows user to manage the details of the site. On Site Management, you can manage the site's own operating hours, site size, occupants, address and start of the billing month.



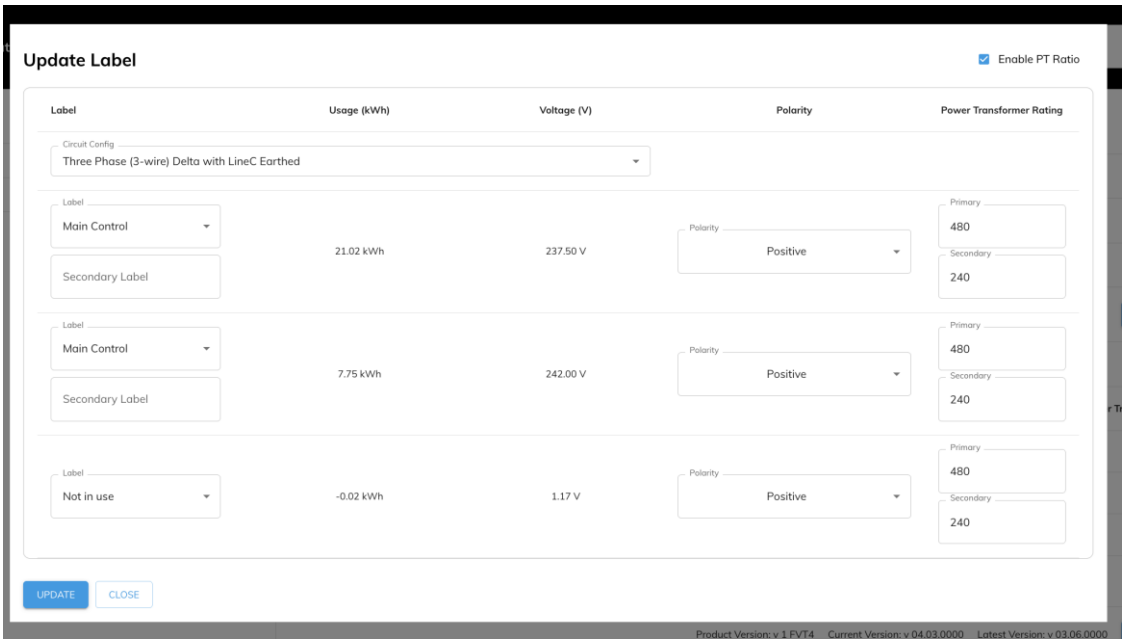
5. Move Device to Different site – It allows the user to transfer a device to a different site within the same portfolio. This is used for correcting wrong installation, if the device is installed on a wrong site.

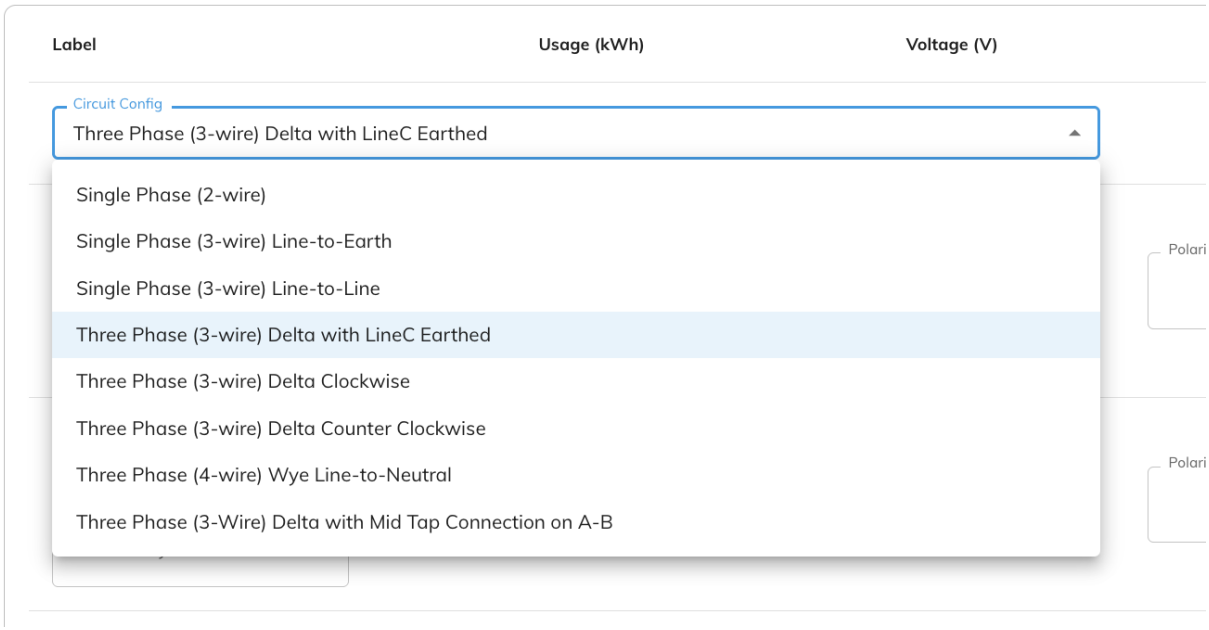


6. Device Power Quality Analysis – It allows the user to directly view the historical power quality of the device similar with Power Quality Analysis Tab on Portfolio Details.

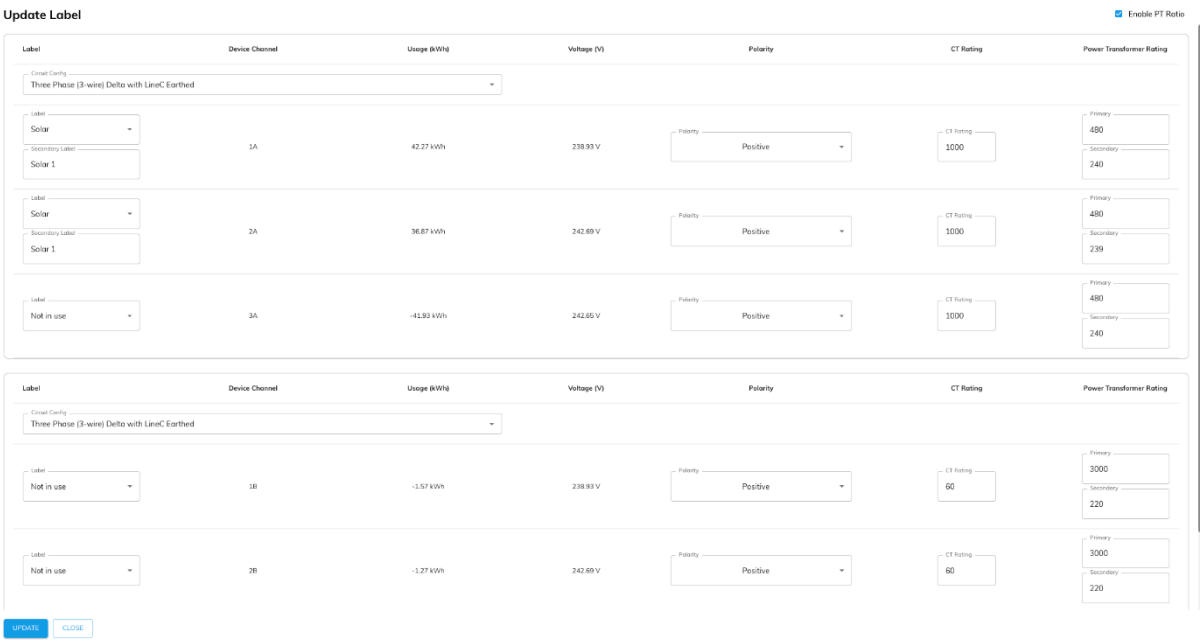


7. Update device channel – It allow the user to configure the device channel as well as update the device circuit config, channel's polarity, PT Ratio & CT Rating.

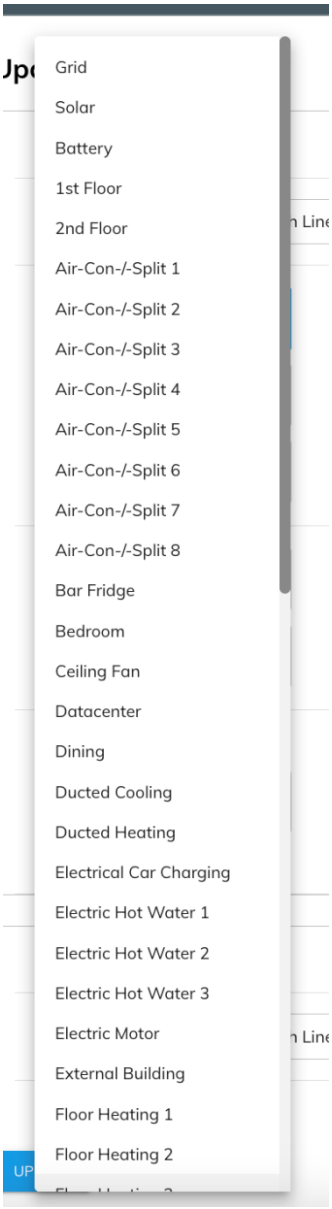




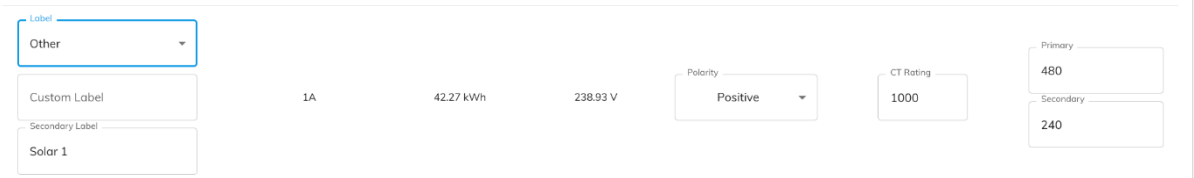
List of Circuit Configuration



For Edge Monitor with 6 channels, user can set a separate circuit configuration for 1A-3A and 1B-3B



User can set the label based on predefined labels.
Grid, Solar & Battery are used to set a channel as a Power Source,
Not In Use for unused channels
and the rest are Power Load



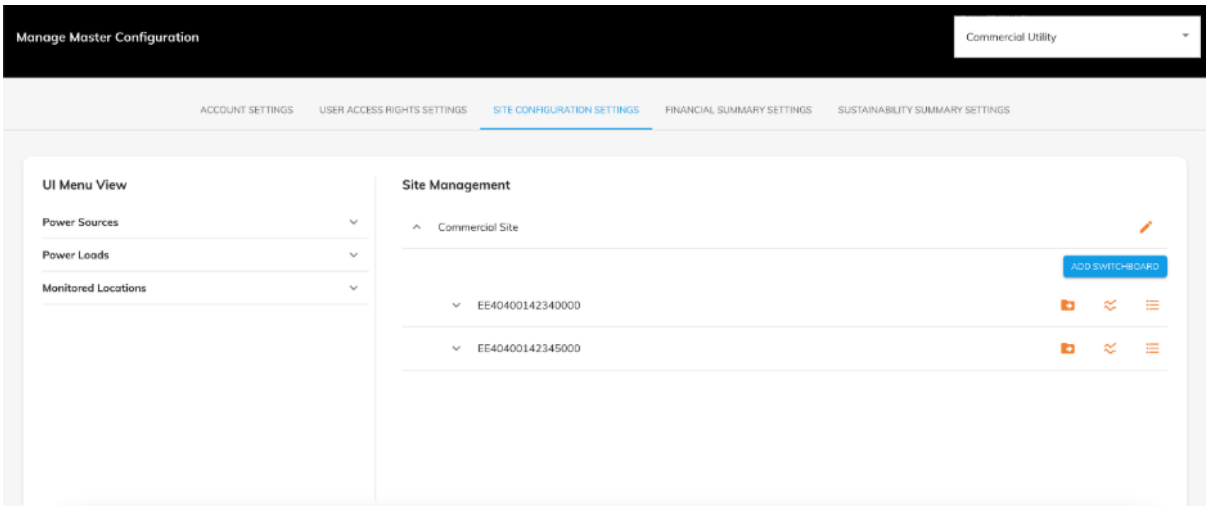
If user want to set a custom label, the user can select **Other** to set the custom label.

To better differentiate between multiple similar power sources at the same site, user can assign a **Secondary Label** to the channel. Make sure that connected channels have similar secondary label.

Switchboard Management

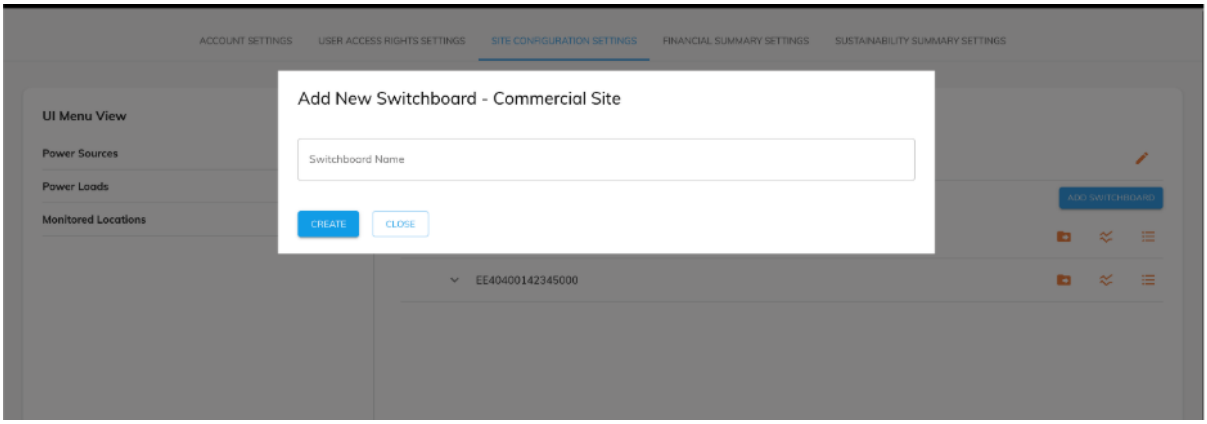
Switchboard Management allows you to group and manage multiple metering points across the site, ensuring the power loads are connected to their designated power sources to ensure reliability on energy usage.

Switchboard Manage can be managed on Master Configuration under Site Configuration Setting Tab



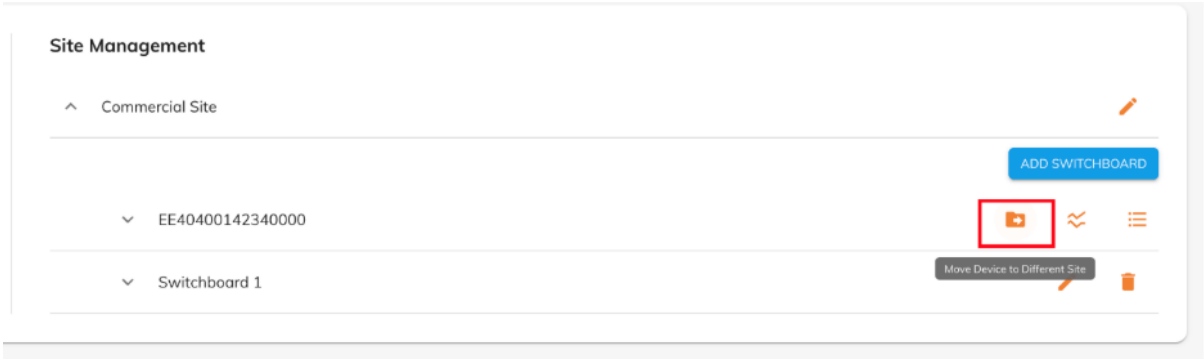
i) CREATING A SWITCHBOARD

To create a Switchboard, click" ADD SWITCHBOARD" button under the site or under another switchboard where you want to create a switchboard. A dialog box will open. In the designated field, enter the Name you wish to give your new switchboard and click CREATE



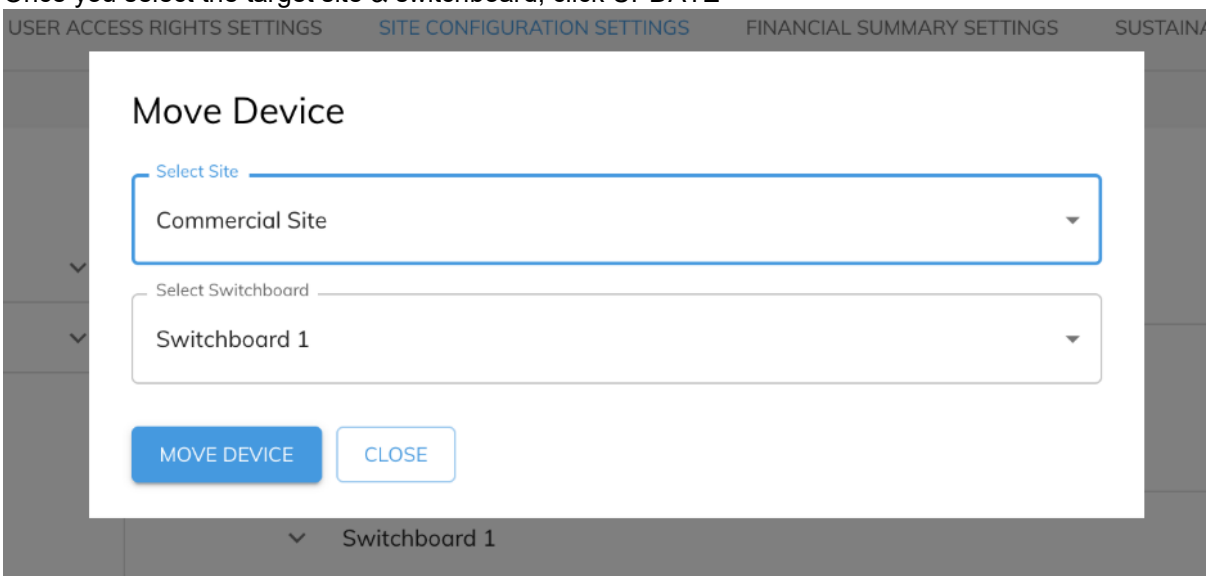
ii) MOVING DEVICE TO A SWITCHBOARD

After a switchboard is created, you can now move the device to their designated switchboard. On the Device, click the first icon (Move Device)

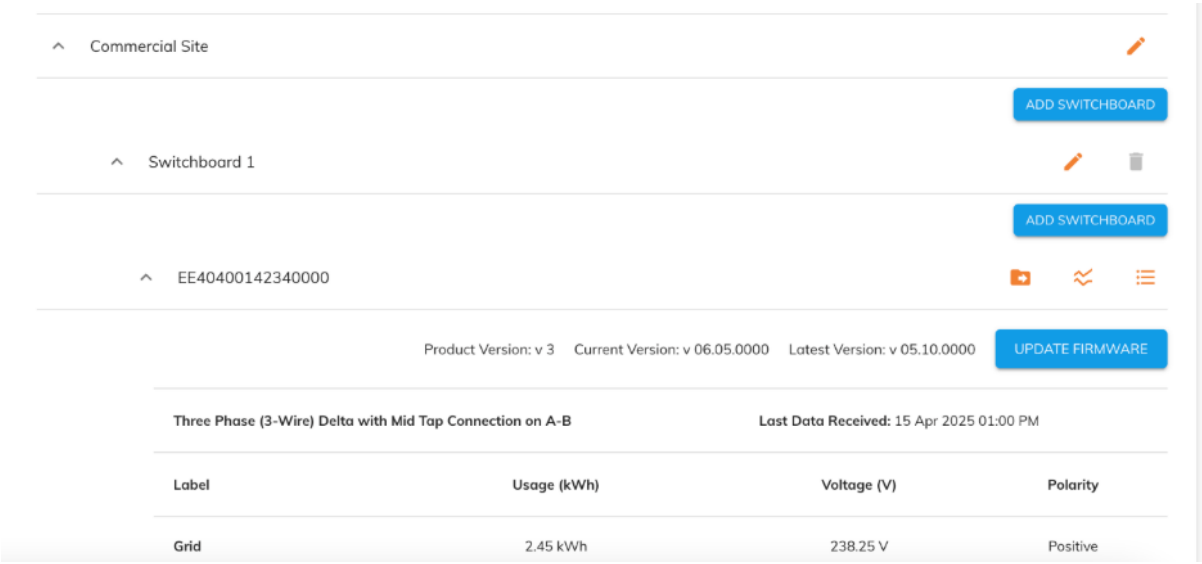


A dialog box will open with two dropdown fields.
Select Site - Choose the site where the target switchboard is located
Select Switchboard - After selecting the site, choose the specific switchboard within that site to which you want to move the device.
If a site doesn't have switchboard added yet, Select Switchboard field is not available

Once you select the target site & switchboard, click UPDATE

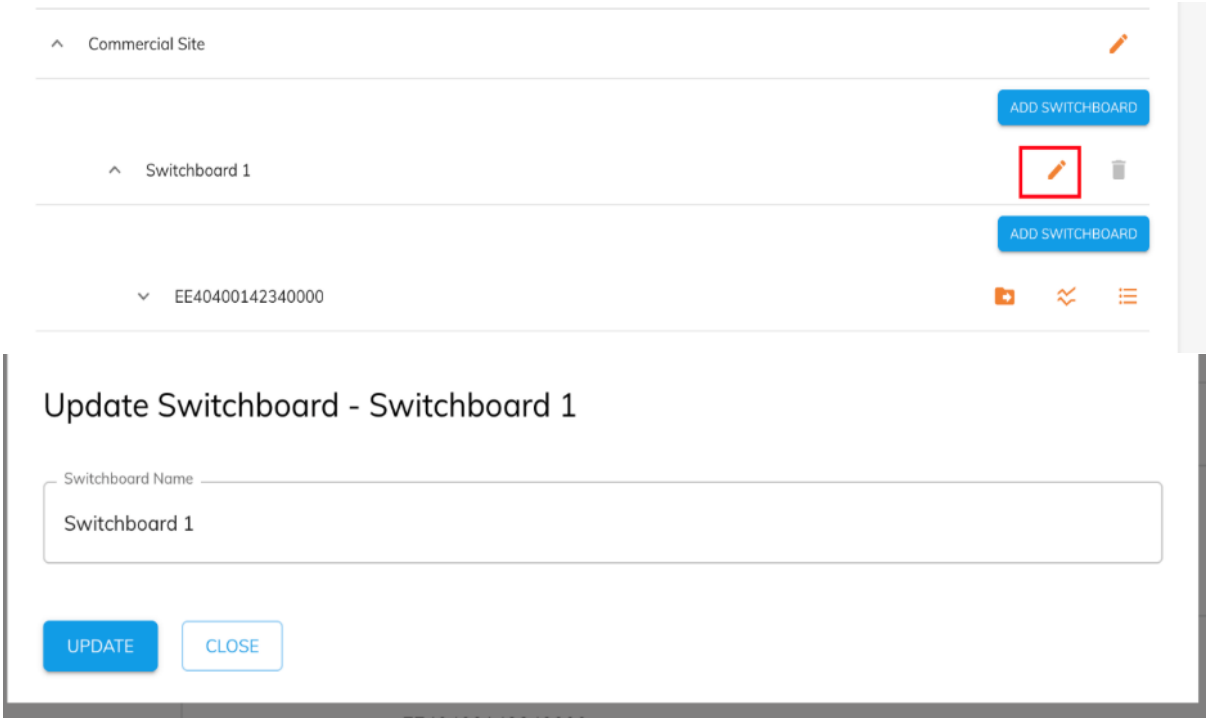


If success, the device will now be located to the selected site & switchboard



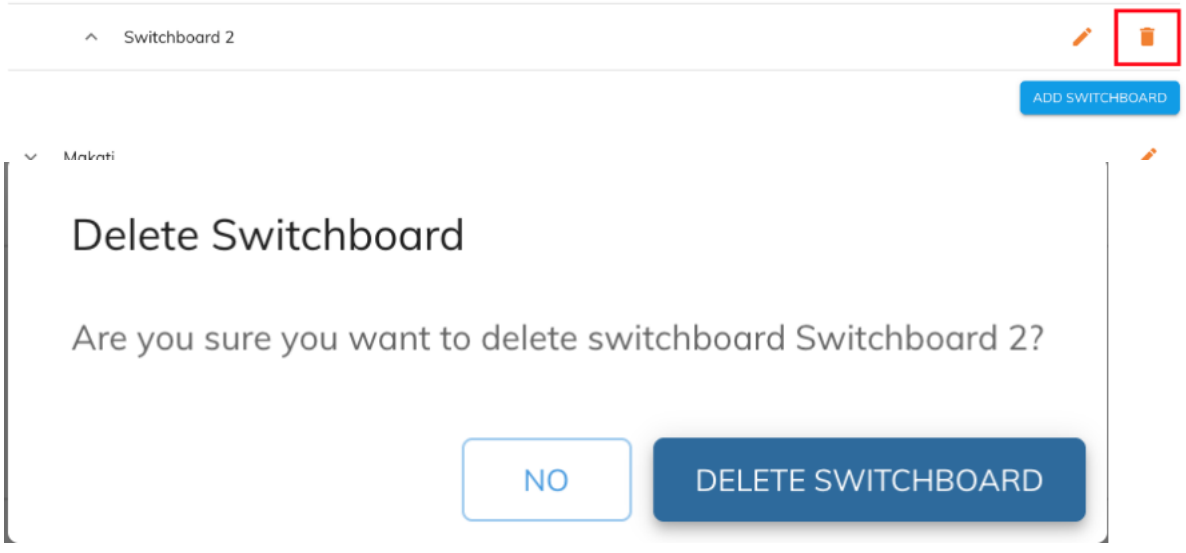
iii) UPDATE SWITCHBOARD

You can update the switchboard name by clicking the pencil icon and enter the new switchboard name.



iv) DELETE SWITCHBOARD

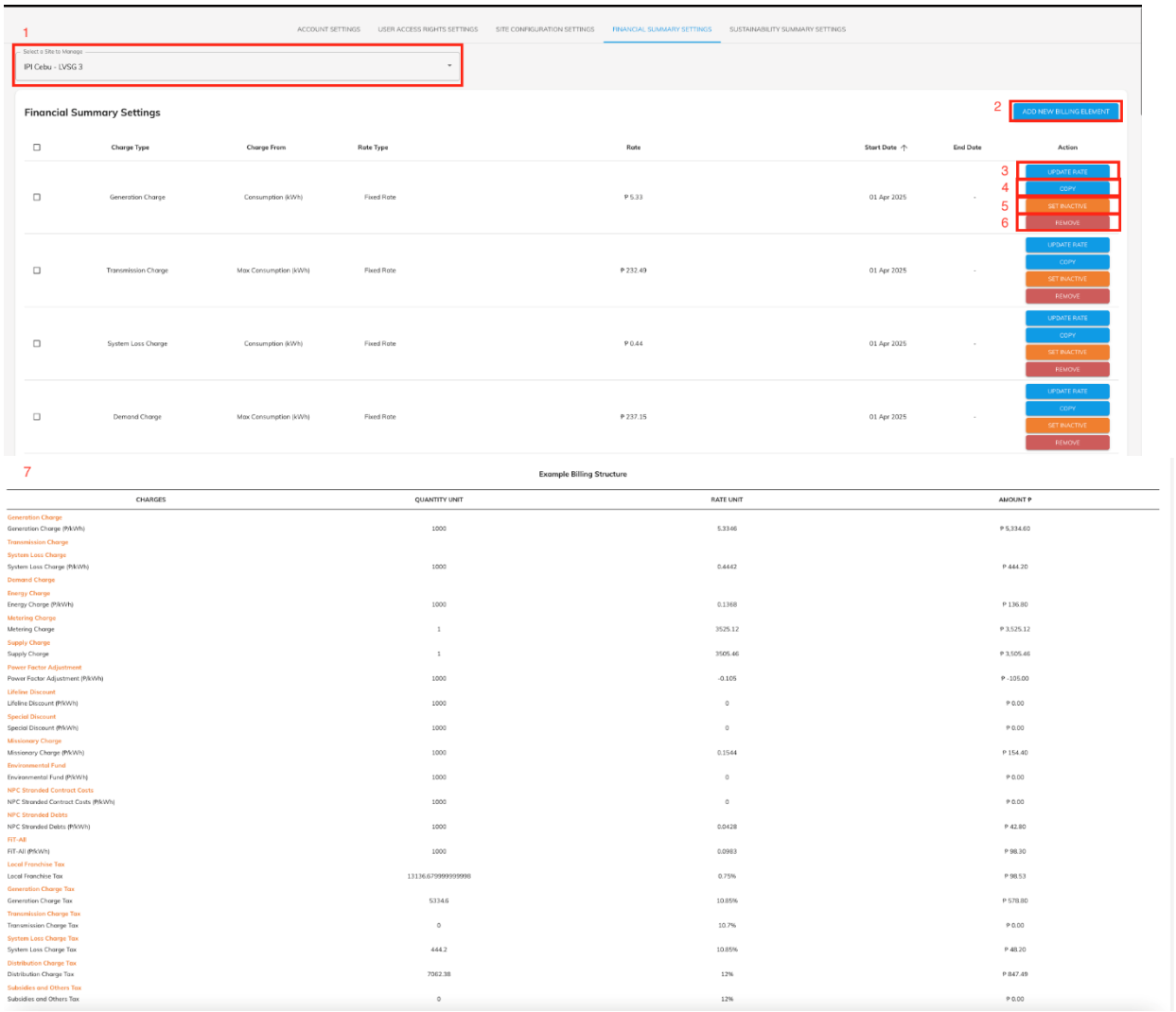
You can delete the switchboard by clicking the trash icon which will trigger a confirmation popup to ensure you genuinely wish to proceed with the deletion.



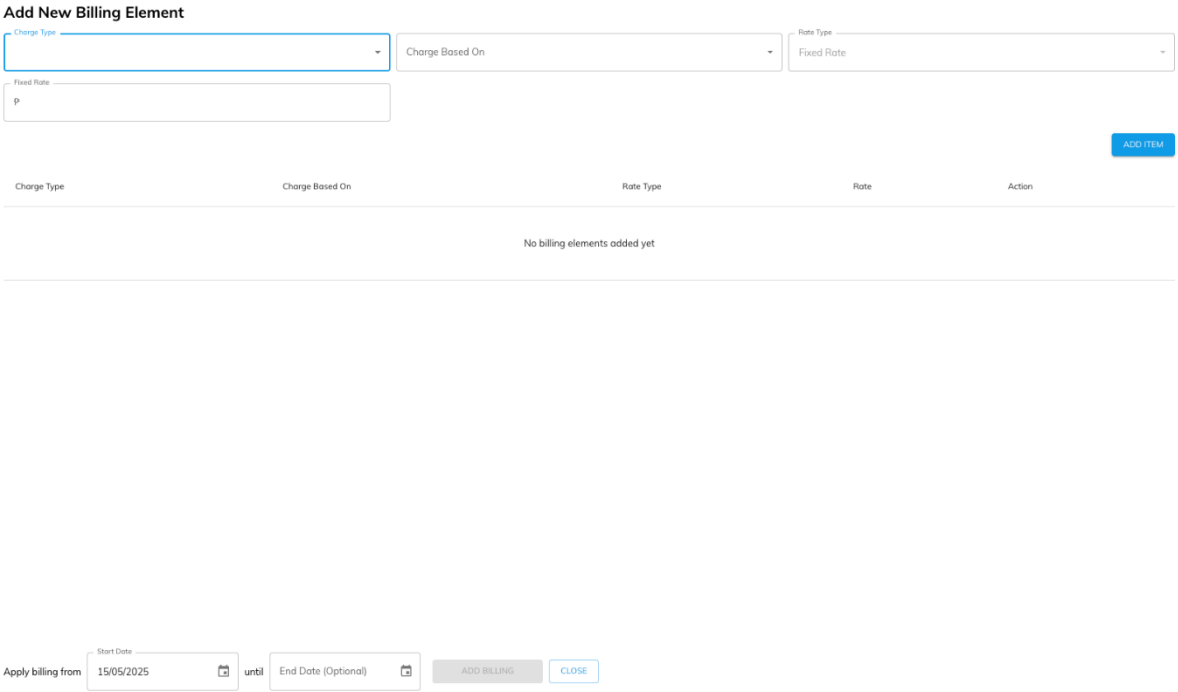
Note: The delete icon is disabled if there are any devices currently managed by that switchboard. Please move all devices to another switchboard before attempting to delete the switchboard.

d. Financial Summary Settings

This tab allows user to **configure how the energy costs are broken down**, mirroring the structure of a typical electrical bill.

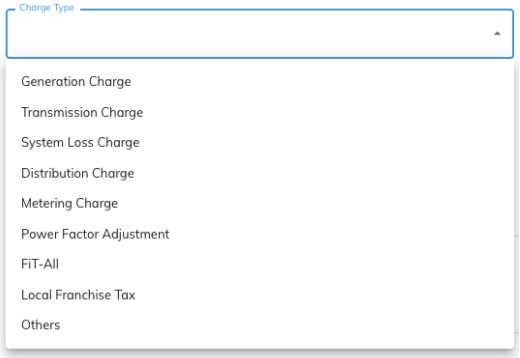


1. Site Selection – each site has its own separate billing structure.



2. Add New Billing Element – allows user to create a new billing element. The Billing Element consists of the following fields:

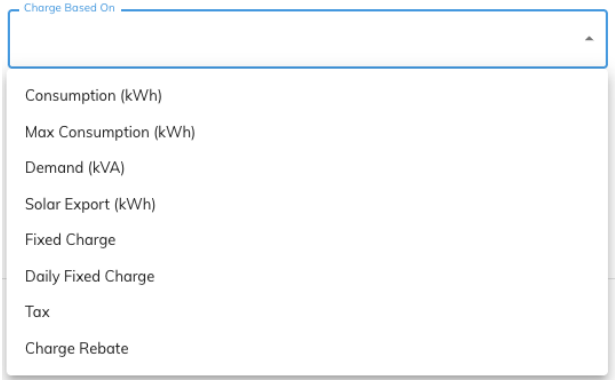
a. Charge Type – The name of the Billing Element. Selecting Others allows user to define a custom charge type.



b. Charge Based On – where the charge will be based on. User can select from the following:

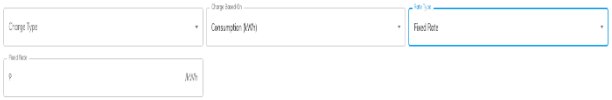
Consumption – charge based on overall site's grid import
Max Consumption – charge based on the highest hourly site's grid import
Demand – charge based on demand
Solar Export – deduction based on excess solar
Fixed Charge
Daily Fixed Charge
Tax –charges based on overall billing or specific billing element

Charge Rebate – deduction based on fixed rate or based on overall billing



c. Rate Type – allows the user to set the type of rate. Except consumption & demand, all other charges can only select Fixed Rate. The user can select from the following rate types:

Fixed Rate – rate is consistent for each unit of energy consumed



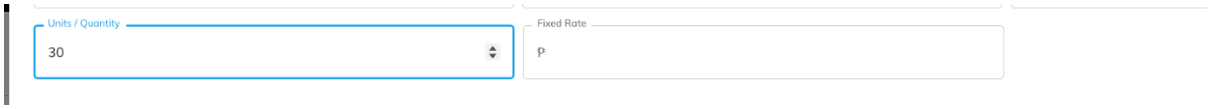
Peak/Offpeak Rate – rate varies depending on the time of the day. User can set the range of peak & offpeak hour.

Peak/Shoulder/Offpeak Rate – rate varies depending on the time of the day. User can set the range of peak, shoulder & offpeak hour.

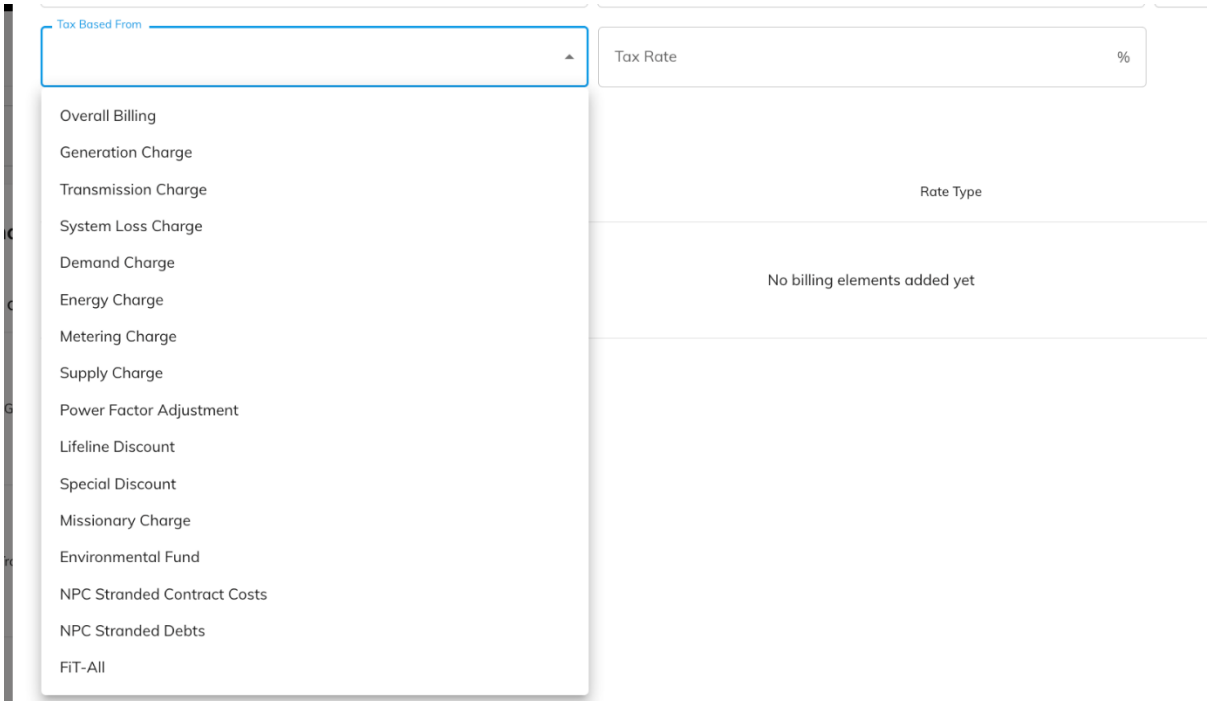
Weekday/Weekend Rate – user can customize the rate by weekday & weekend. User can also set a different rate type for weekday & weekend.

Advanced Rate – For more control on the rate, user can set a specific rate type per day.

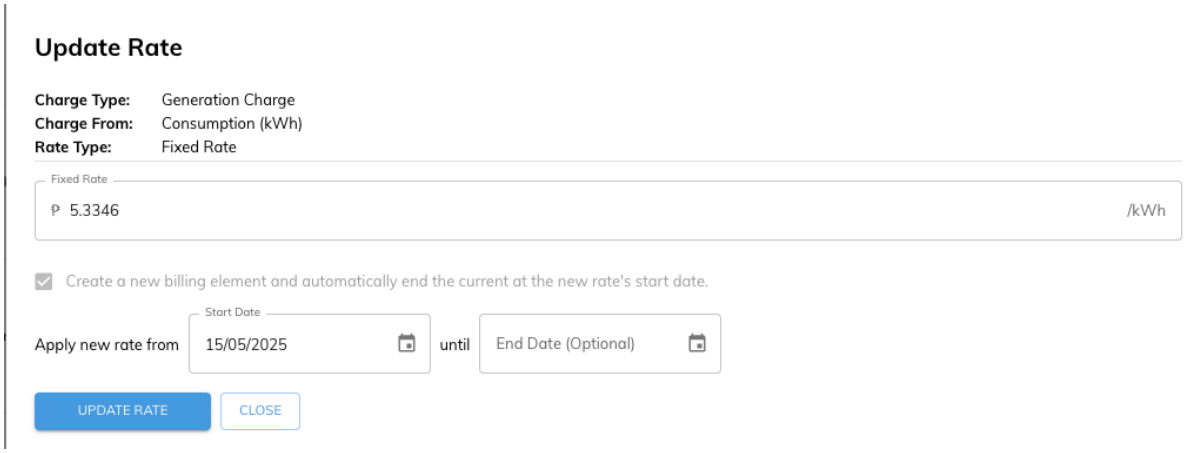
d. Unit/Quantity – For Fixed Charge, the user can set the unit. On Billing, the unit/quantity will be multiplied to the set rate.



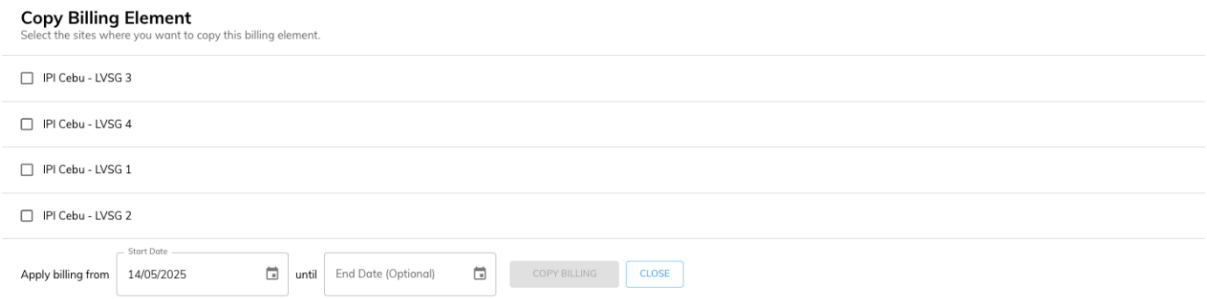
e. Tax Based From – For Tax, The user can select from the dropdown the specific billing element on which the user want the tax to be calculated. The system will then apply the configured tax rate to the cost of this selected element. User can select also the overall billing which covers the overall billing.



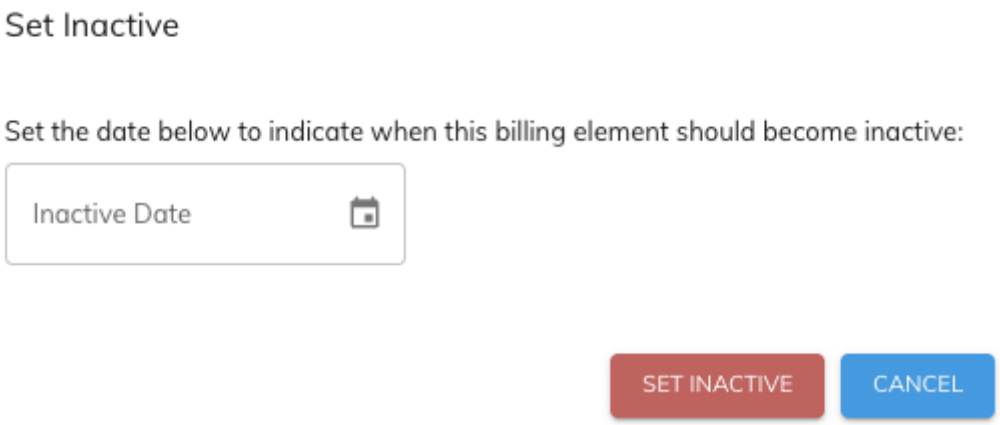
3. Update rate for selected charge type



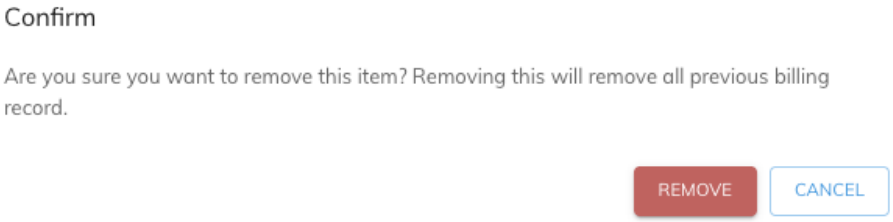
2. Copy Existing Billing Element – Allows the user to copy specified billing element to other sites within the same portfolio



3. Set inactive date for the billing element – Allows the user to set the end date of selected billing element.

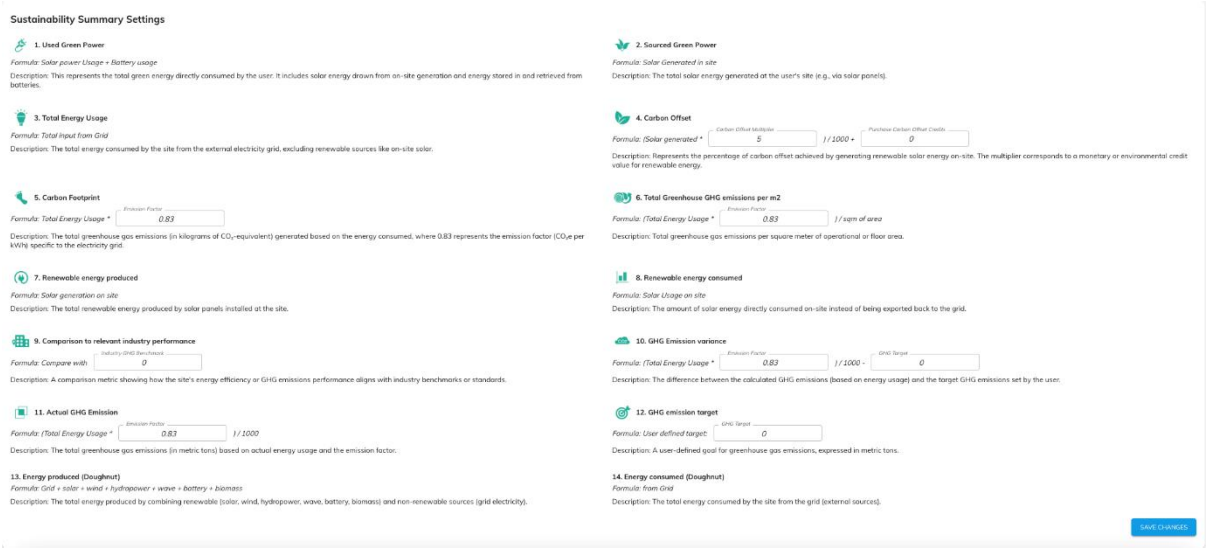


4. Remove Billing Element – Allows the user to completely remove the billing element



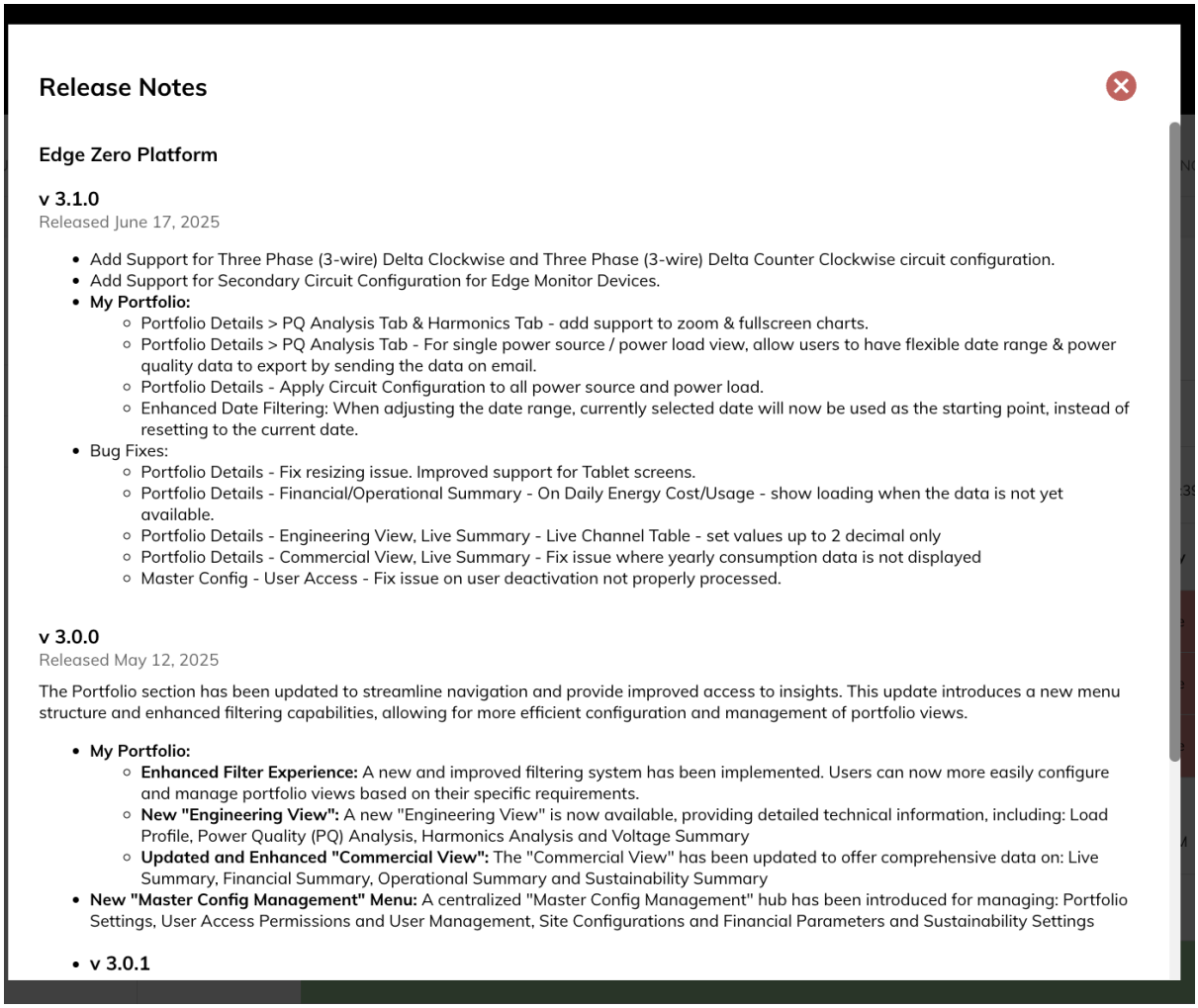
5. Example billing structure – Allows the user to view a sample billing structure for the current billing month based on the created billing elements. It shows th

e. Sustainability Summary Settings



Release Management

Release notes and version update lists



Release Notes

Edge Zero Platform

v 3.1.0
Released June 17, 2025

- Add Support for Three Phase (3-wire) Delta Clockwise and Three Phase (3-wire) Delta Counter Clockwise circuit configuration.
- Add Support for Secondary Circuit Configuration for Edge Monitor Devices.
- **My Portfolio:**
  - Portfolio Details > PQ Analysis Tab & Harmonics Tab - add support to zoom & fullscreen charts.
  - Portfolio Details > PQ Analysis Tab - For single power source / power load view, allow users to have flexible date range & power quality data to export by sending the data on email.
  - Portfolio Details - Apply Circuit Configuration to all power source and power load.
  - Enhanced Date Filtering: When adjusting the date range, currently selected date will now be used as the starting point, instead of resetting to the current date.
- Bug Fixes:
  - Portfolio Details - Fix resizing issue. Improved support for Tablet screens.
  - Portfolio Details - Financial/Operational Summary - On Daily Energy Cost/Usage - show loading when the data is not yet available.
  - Portfolio Details - Engineering View, Live Summary - Live Channel Table - set values up to 2 decimal only
  - Portfolio Details - Commercial View, Live Summary - Fix issue where yearly consumption data is not displayed
  - Master Config - User Access - Fix issue on user deactivation not properly processed.

v 3.0.0
Released May 12, 2025

The Portfolio section has been updated to streamline navigation and provide improved access to insights. This update introduces a new menu structure and enhanced filtering capabilities, allowing for more efficient configuration and management of portfolio views.

- **My Portfolio:**
  - **Enhanced Filter Experience:** A new and improved filtering system has been implemented. Users can now more easily configure and manage portfolio views based on their specific requirements.
  - **New "Engineering View":** A new "Engineering View" is now available, providing detailed technical information, including: Load Profile, Power Quality (PQ) Analysis, Harmonics Analysis and Voltage Summary
  - **Updated and Enhanced "Commercial View":** The "Commercial View" has been updated to offer comprehensive data on: Live Summary, Financial Summary, Operational Summary and Sustainability Summary
- **New "Master Config Management" Menu:** A centralized "Master Config Management" hub has been introduced for managing: Portfolio Settings, User Access Permissions and User Management, Site Configurations and Financial Parameters and Sustainability Settings

- **v 3.0.1**