galooli power

User Manual

ZON PRO X

Table of Contents

1.Introduction 3
2.What's New in ZON Pro X 3
3.System Requirements 4
4.Installation 4
5.Login 6
6.New Overview Interface 6
6.1 Dashboard Toolbar 7
6.2 Exporting Graphs 8
6.3 Raw Data View 12
7.Power Dashboards 14
7.1 Introduction 14
7.2 Solution Availability Dashboard 15
7.3 Generator Fuel 17
7.4 Power Usage 19
7.5 Hybrid Health / Solar Health 21
7.6 Tower Integrity 23
8.Report User Interface 24
9. Enhanced Search Feature 27

1. Introduction

ZON Pro X is the newest version of Galooli's reporting with brand new features and capabilities. Galooli always takes care to provide solutions which will help lower our customer's OPEX and costs. ZON Pro X is unique in offering a high-end solution to track, monitor and review your assets in real time and provide all the data required to make the right decisions at the right time.

2. What's New in ZON Pro X

The following features have been added to ZON Pro X:

- Easy login access
- New dashboards focusing on lowering operational costs and increasing asset performance
- Enhanced reporting system allowing for quick and effective reports configuration
- Smart search mechanism with easy to use search filtering options
- Online update with no need to re login to the system
- New and sleek design including new map and system panels
- Faster and more secure system

3. System Requirements

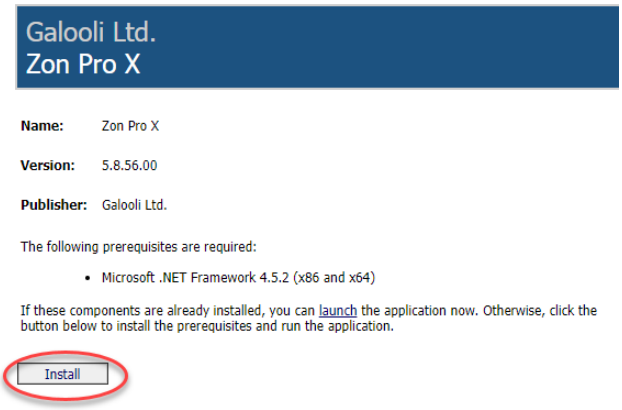
System Requirements	Operating System Requirements
Processor: Multicore Intel/AMD Processor	Windows: Windows 7 SP1 and up
Memory: RAM – 2 GB or higher At least 1GB free space	.NET Framework Version 4.7 and up Oracle JAVA latest update Internet Explorer 11

4. Installation

The installation file for ZON Pro X can be found at the following link:

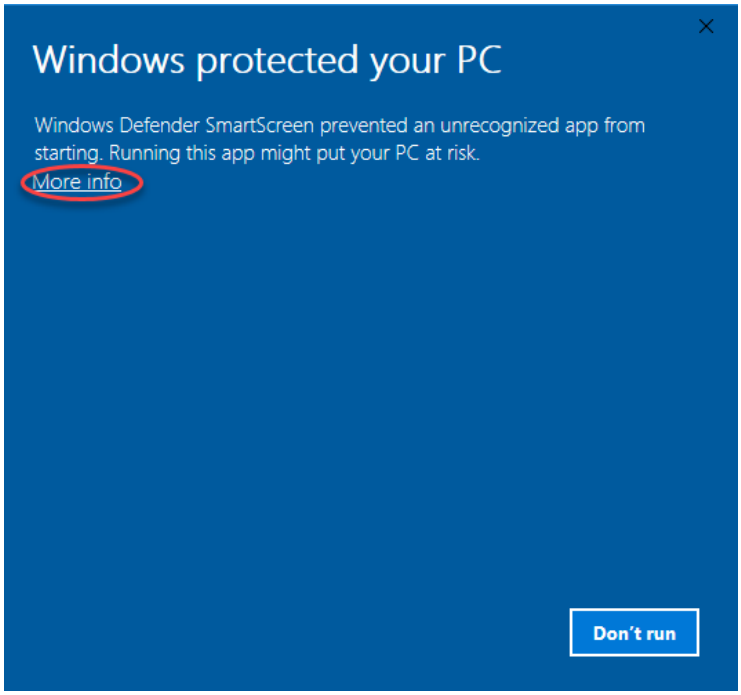
https://zon.galooli-systems.com/zonProX/

Clicking on the link will open the installation landing page.

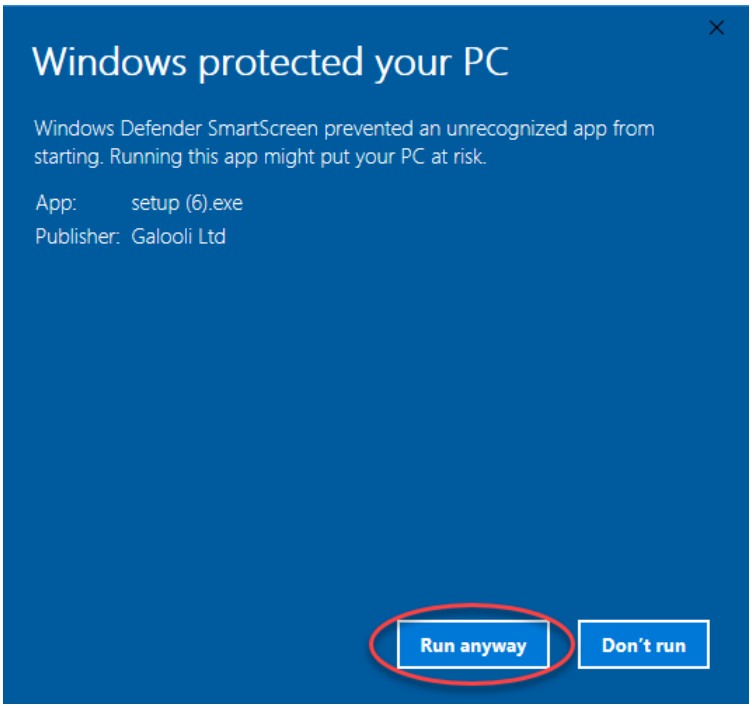


Click install and the setup file will begin downloading. Once completed, click on the file and the installation file will begin.

Please note, in some cases Windows Defender will issue a warning message prior to completing the installation. In these cases, click “More Info” in the message window.



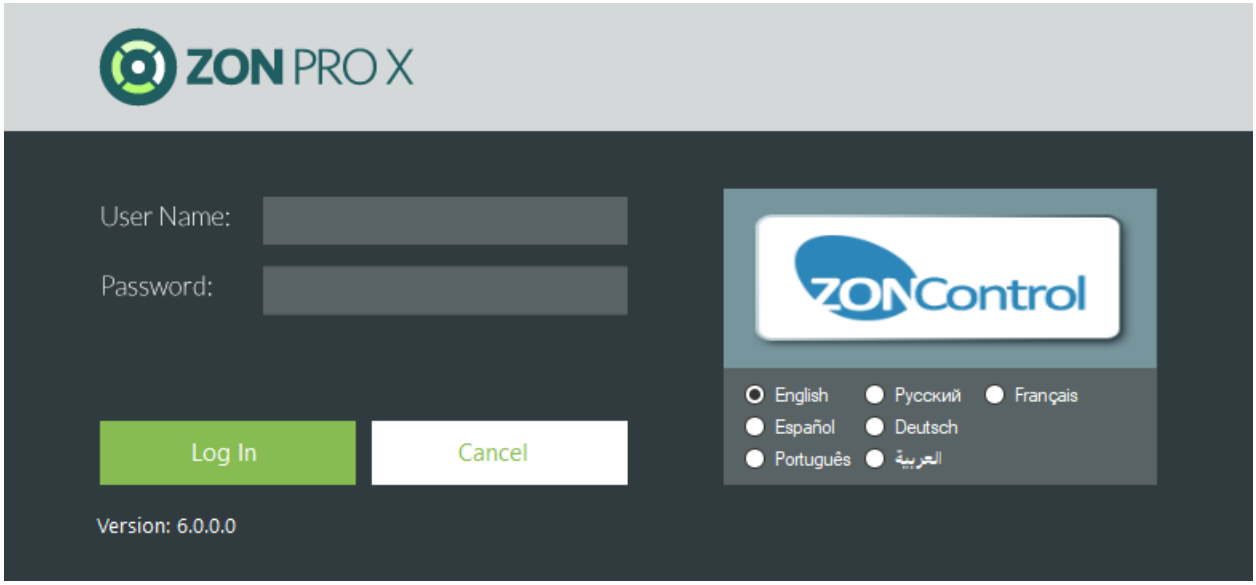
The message will then indicate the app came from Galooli LTD. Click on Run Anyway at the bottom of the message to complete the installation.



5. Login

The login screen has been adjusted to offer a simplified login process.

To login, enter the username and password as provided by the system administrator.



Select the preferred language and click Log In to complete the login process or Cancel to abort the process

6. New Overview Interface

The Overview display has been completely overhauled and replaced with detailed dashboards providing vital information on the organization's costs, expenses and behavior of the assets.

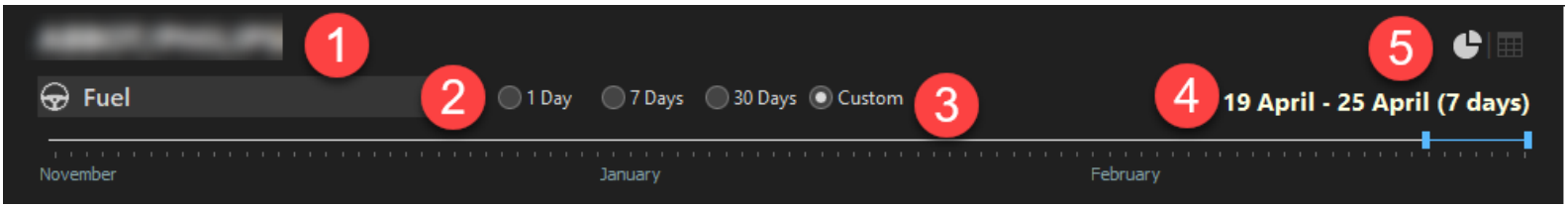
The overview dashboard contains 6 dashboards. The dashboards are as follows:

1. Availability Dashboard
2. Generator Fuel Dashboard
3. Hybrid Health Dashboard
4. Power Usage Dashboard
5. Solar Health Dashboard
6. Tower Integrity Dashboard

6.1 Dashboard Toolbar

The dashboard toolbar works identically for all dashboards and allows the user to select the desired dashboard, timeframe and display type.

The toolbar appears at the top of each dashboard and displays the following settings:



1 Name of Organization/Fleet/Group/Unit as selected in the navigation pane. To move between assets, select a different asset from the navigation pane.

2 Dashboard type – Refer to section 6.3 & 6.4 for detailed descriptions of each dashboard. ZON Pro X remembers the last dashboard accessed by the user and will display it first.

3 Time Intervals – Select between 1, 7 or 30 days. Time frames are customizable by using the custom time slider.

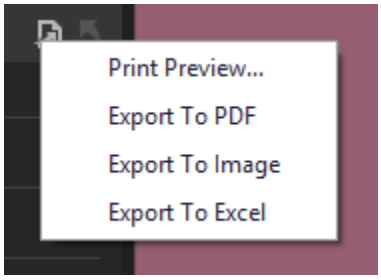
4 Custom Time Slider – Users can customize the timeframe of the dashboard by sliding both cursors to their desired start and end dates. Users may select up to 6 months from the current date. If a user selects a specific interval, the slider is automatically updated to reflect the selected interval. The user may then select to change the interval based on their preferences.

5 Display Mode – User may view the information in graphical view (default) or raw data tables (refer to section 6.3 for more details on raw data tables)

6.2 Exporting Graphs

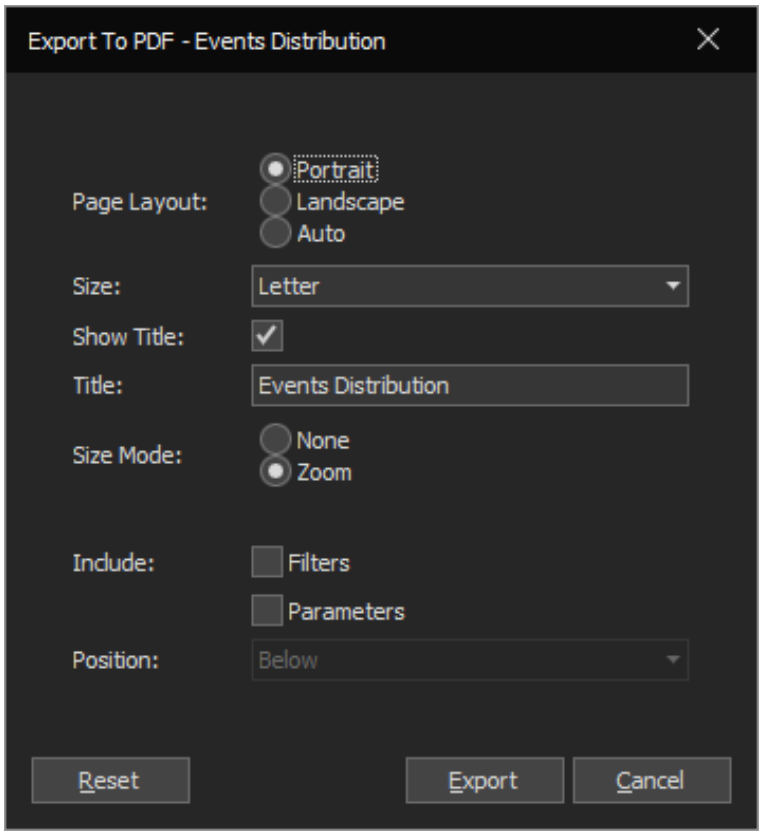
Every graph in the dashboard can be exported to either PDF, Excel, image or sent to print. To export a graph, click on the image which appears at the top right of each graph.

Clicking on the image will open the export dropdown where the user can select their preferred method of import.



Export to PDF

Clicking on Export to PDF will open the PDF export window



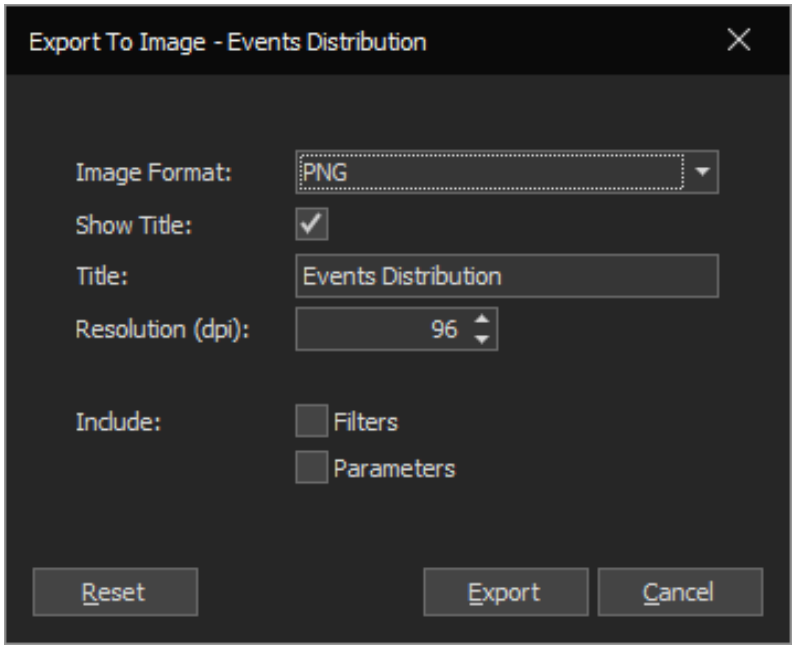
Action	Description
Page Layout	Select between Portrait, Landscape or automatic selection depending on size of graph
Size	Choose the size of the page
Show Title	Choose if the title should appear in the PDF
Title	Provide a title for the graph

Size Mode	Select if the graph should appear in normal size or should it be zoomed in
Include	Choose if filters and parameters should appear in the page
Position	Select what should be the position of the graph in the page

Select export to complete the process or cancel to abort. Select Reset to reset the settings.

Export to Image

Clicking on Export to Image will open the Image export window



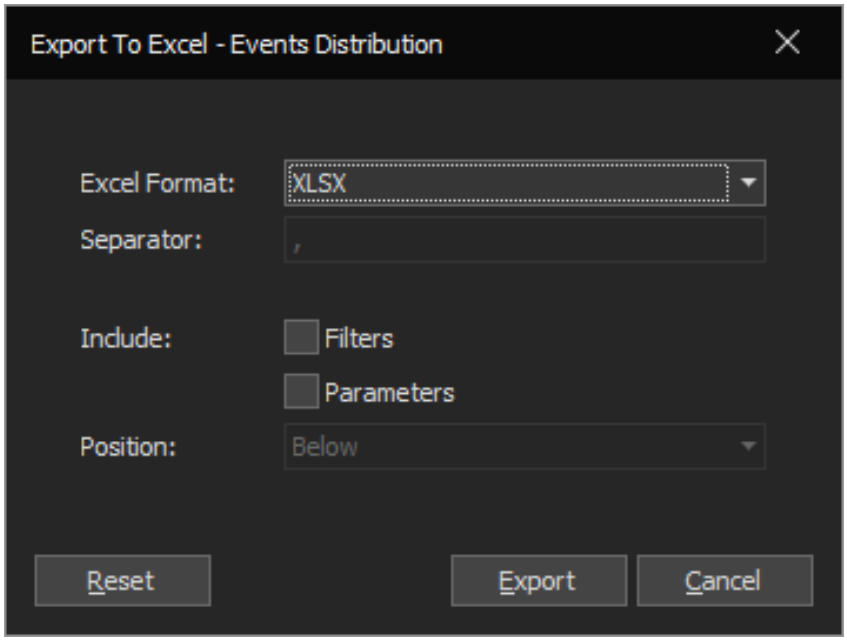
Action	Description
Image Format	Choose the format of the image
Show Title	Choose if the title should appear in the image
Title	Provide a title for the graph

Resolution (dpi)	Choose the resolution of the image
Include	Choose if filters and parameters should appear in the page

Select Export to complete the process or Cancel to abort. Select Reset to reset the settings.

Export to Excel

Clicking on Export to Excel will open the Excel export window.

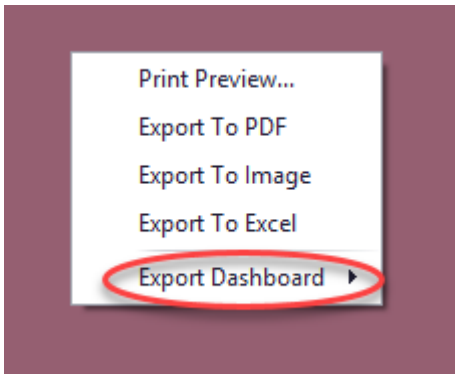


Action	Description

Excel Format	Choose which excel format should be exported (XLSX, XLS, CSV)
Separator	Select which delimiter should be used for column separation
Include	Choose if filters and parameters should appear in the page
Position	Select the position of the graph in the Excel sheet

Select export to complete the process or cancel to abort. Select Reset to reset the settings.

Users may also export the entire dashboard by right clicking anywhere on the dashboard.



6.3 Raw Data View

Each dashboard can be displayed using the raw data view. The raw data is displayed in tables and provides the same data appearing in the graph view. To switch between views, click on the icon at the top left of the dashboard. To switch back to graph view, click on the icon at the top left of the dashboard.

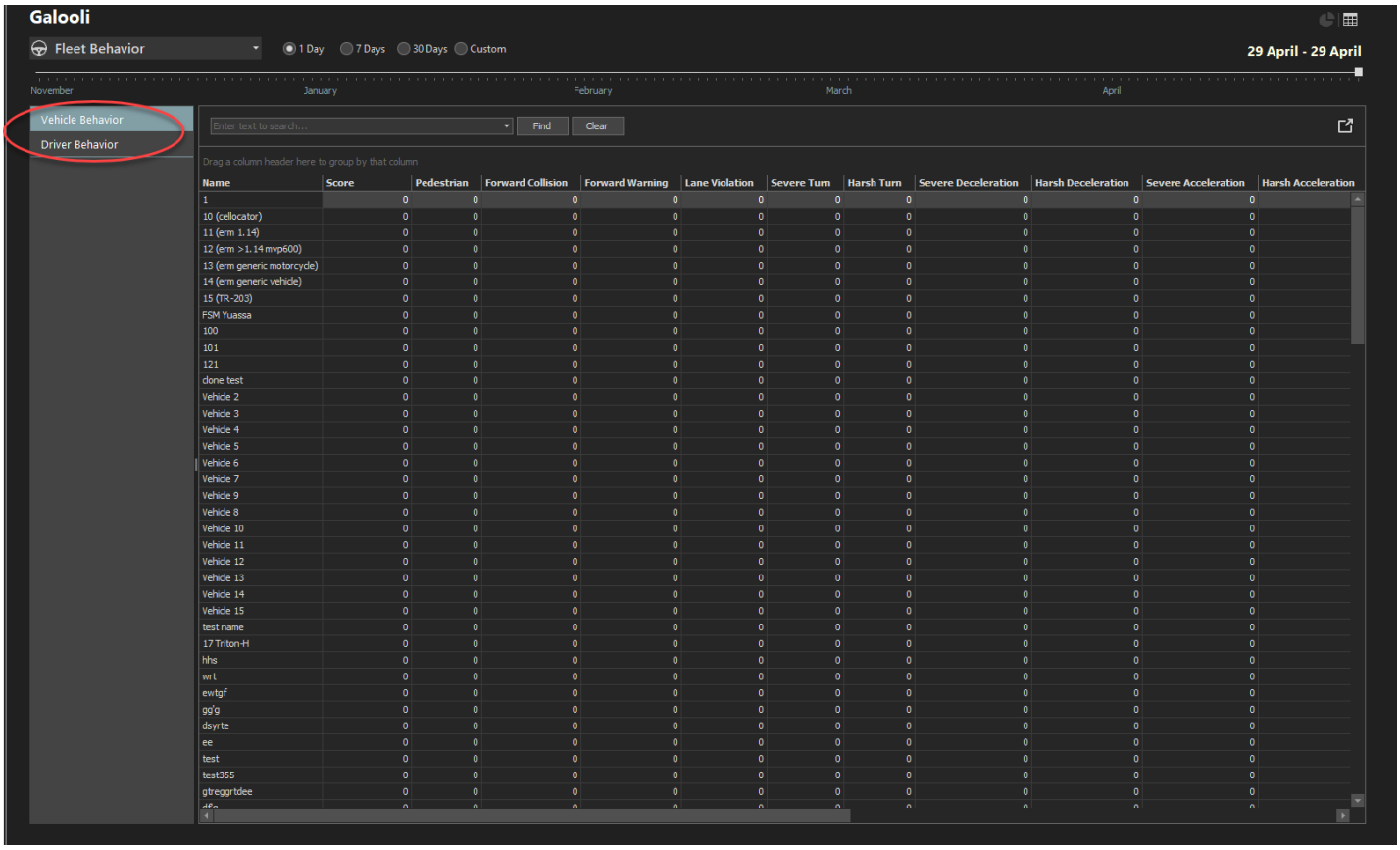
Several dashboards offer alternating views of the report as follows:

Fleet Behavior – User may alternate between Vehicle Behavior and Driver Behavior

Vehicle Behavior – User may alternate between Vehicle Behavior, Group Behavior & Fleet Behavior

Availability – User may alternate between Summary Report & Assets Report

Alternating between reports can be done by selecting the desired report in the left navigation



Name	Score	Pedestrian	Forward Collision	Forward Warning	Lane Violation	Severe Turn	Harsh Turn	Severe Deceleration	Harsh Deceleration	Severe Acceleration	Harsh Acceleration
1	0	0	0	0	0	0	0	0	0	0	
10 (cellocator)	0	0	0	0	0	0	0	0	0	0	
11 (erm 1.14)	0	0	0	0	0	0	0	0	0	0	
12 (erm >1.14 mvp600)	0	0	0	0	0	0	0	0	0	0	
13 (erm generic motorcycle)	0	0	0	0	0	0	0	0	0	0	
14 (erm generic vehicle)	0	0	0	0	0	0	0	0	0	0	
15 (TR-203)	0	0	0	0	0	0	0	0	0	0	
FSM Yuassa	0	0	0	0	0	0	0	0	0	0	
100	0	0	0	0	0	0	0	0	0	0	
101	0	0	0	0	0	0	0	0	0	0	
121	0	0	0	0	0	0	0	0	0	0	
done test	0	0	0	0	0	0	0	0	0	0	
Vehicle 2	0	0	0	0	0	0	0	0	0	0	
Vehicle 3	0	0	0	0	0	0	0	0	0	0	
Vehicle 4	0	0	0	0	0	0	0	0	0	0	
Vehicle 5	0	0	0	0	0	0	0	0	0	0	
Vehicle 6	0	0	0	0	0	0	0	0	0	0	
Vehicle 7	0	0	0	0	0	0	0	0	0	0	
Vehicle 9	0	0	0	0	0	0	0	0	0	0	
Vehicle 8	0	0	0	0	0	0	0	0	0	0	
Vehicle 10	0	0	0	0	0	0	0	0	0	0	
Vehicle 11	0	0	0	0	0	0	0	0	0	0	
Vehicle 12	0	0	0	0	0	0	0	0	0	0	
Vehicle 13	0	0	0	0	0	0	0	0	0	0	
Vehicle 14	0	0	0	0	0	0	0	0	0	0	
Vehicle 15	0	0	0	0	0	0	0	0	0	0	
test name	0	0	0	0	0	0	0	0	0	0	
17 Triton-H	0	0	0	0	0	0	0	0	0	0	
hhs	0	0	0	0	0	0	0	0	0	0	
wrt	0	0	0	0	0	0	0	0	0	0	
ewtgf	0	0	0	0	0	0	0	0	0	0	
gg'g	0	0	0	0	0	0	0	0	0	0	
dsyrte	0	0	0	0	0	0	0	0	0	0	
ee	0	0	0	0	0	0	0	0	0	0	
test	0	0	0	0	0	0	0	0	0	0	
test355	0	0	0	0	0	0	0	0	0	0	
gtreggrtdee	0	0	0	0	0	0	0	0	0	0	

7. Power Dashboards

7.1 Introduction

Power dashboards provide information regarding stationary units and sites.

To provide relevant and accurate data of the site's energy costs and OPEX, Power dashboards are based on cost assumptions which are calculated using the following parameters:

1. Fuel costs
2. Generator maintenance costs
3. Grid Kwh costs
4. Battery costs

Costs can be customized per the user's preference. To customize costs, please contact Galooli support.

7.2 Solution Availability Dashboard

Solution Availability dashboard provides information on the availability of the user's power units. Most of the data is presented in real time and provides an overview of the user's units and provides an interface to identify issues when needed.

1 **Units Real Time Availability** - Availability of units (Connected/ Disconnected) in real time. This chart doesn't consider the selected time period. But rather indicates how many units are connected or disconnected during the time of running the report.

2 **Units Details** – Details of the units presented in graph #1. Clicking on a pie in graph #1 will display the items indicated in the pie. Therefore, clicking on Connected pie will display only the connected units in the table. Clicking on Disconnected pie will display only the disconnected units.

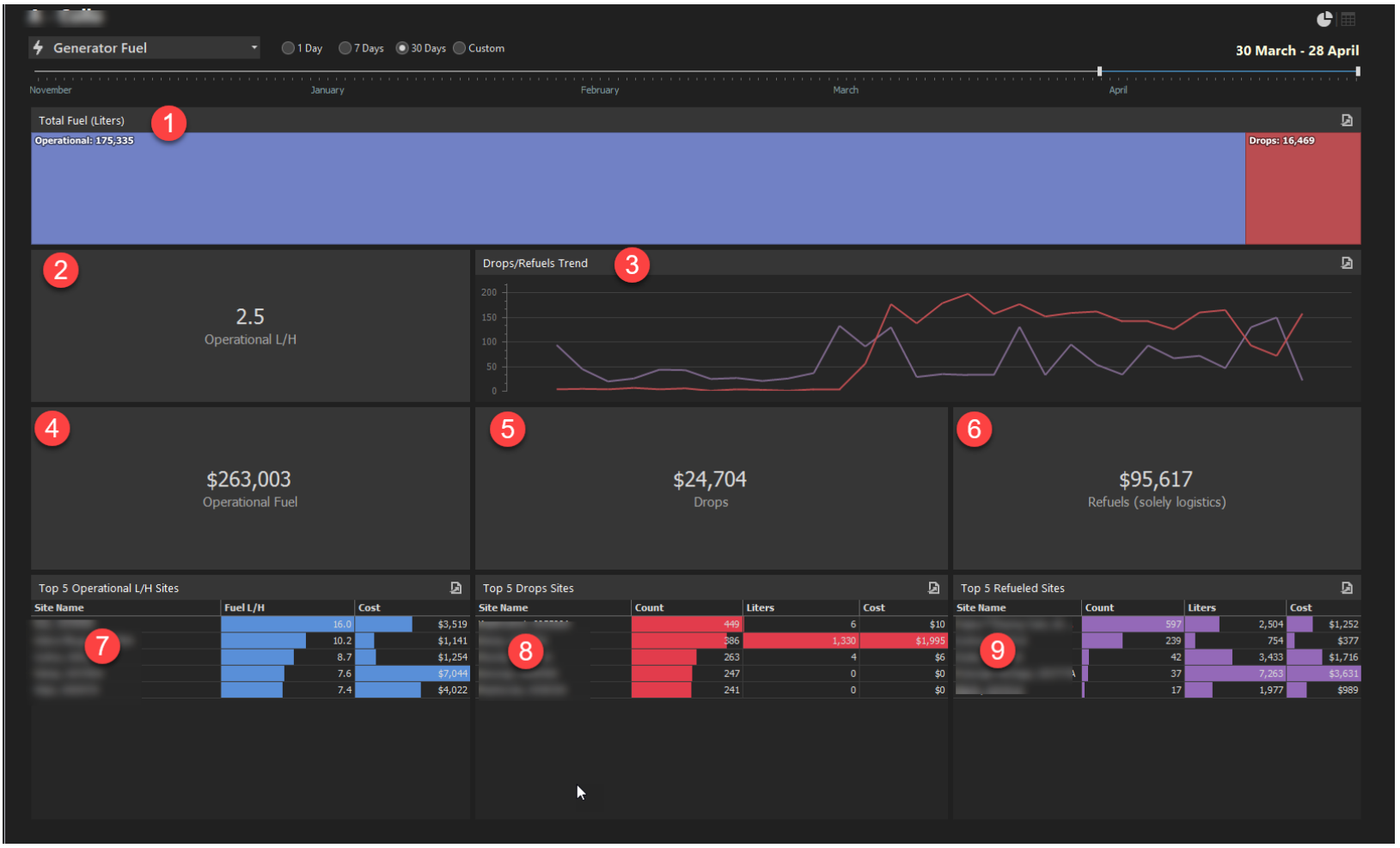
3 **Run Hours Availability** – Availability of running generators in real time. This chart doesn't consider the selected time period. But rather indicates how many units are connected or disconnected during the time of running the report.

4 **Fuel Availability** - Availability of fuel data in real time. This chart doesn't consider the selected time period. But rather indicates how many units are connected or disconnected during the time of running the report.

5 **Availability Trend** – Details the overall availability of all units on a daily basis. This graph allows the user to identify trends or issues with the availability of the assets over longer periods of time.

7.3 Generator Fuel

Fuel is one of the main components of a properly functioning generator and fuel management is key when an operation is utilizing generators as part of their power layout. Proper fuel management can both lower costs and OPEX and help ensure the proper ongoing functionality of the operation. Generator Fuel dashboard provides information on the fuel operations costs including drops and refuelling which can indicate operational issues. All data in the graphs are based on the selected organization, fleet, group or unit during the requested time period.



1 **Total Fuel (Liters)** – Indicates the total amount of fuel consumed. Consumption is divided into operational consumption (normal fuel consumption due to usage) and drops (fuel consumption when unit is in status “On”). High fuel drops might indicate mechanical issues or fuel theft.

2 **Operation L/H** – Indicates the average amount of fuel consumed in liters per hour. High fuel consumption per hour might indicate an issue with the unit.

3 **Drop/Refuels Trend** – Indicates the total amount of daily fuel consumption. The graph shows 2 lines, operational and fuel drops. High amounts of fuel drops compared to operational fuel consumption might indicate an issue with the units.

4 **Operational Fuel** – Indicates the total costs of operational fuel. The cost is calculated by multiplying the fuel rate by the amount of fuel consumed.

5 **Drops** - Indicates the total costs of fuel drops. The cost is calculated by multiplying the fuel rate by the amount of fuel consumed.

6 **Refuels (Solely Logistics)** - Indicates the total costs of refuelling by the selected asset per the requested time period. The cost is calculated by multiplying the fuel rate by the amount of fuel consumed.

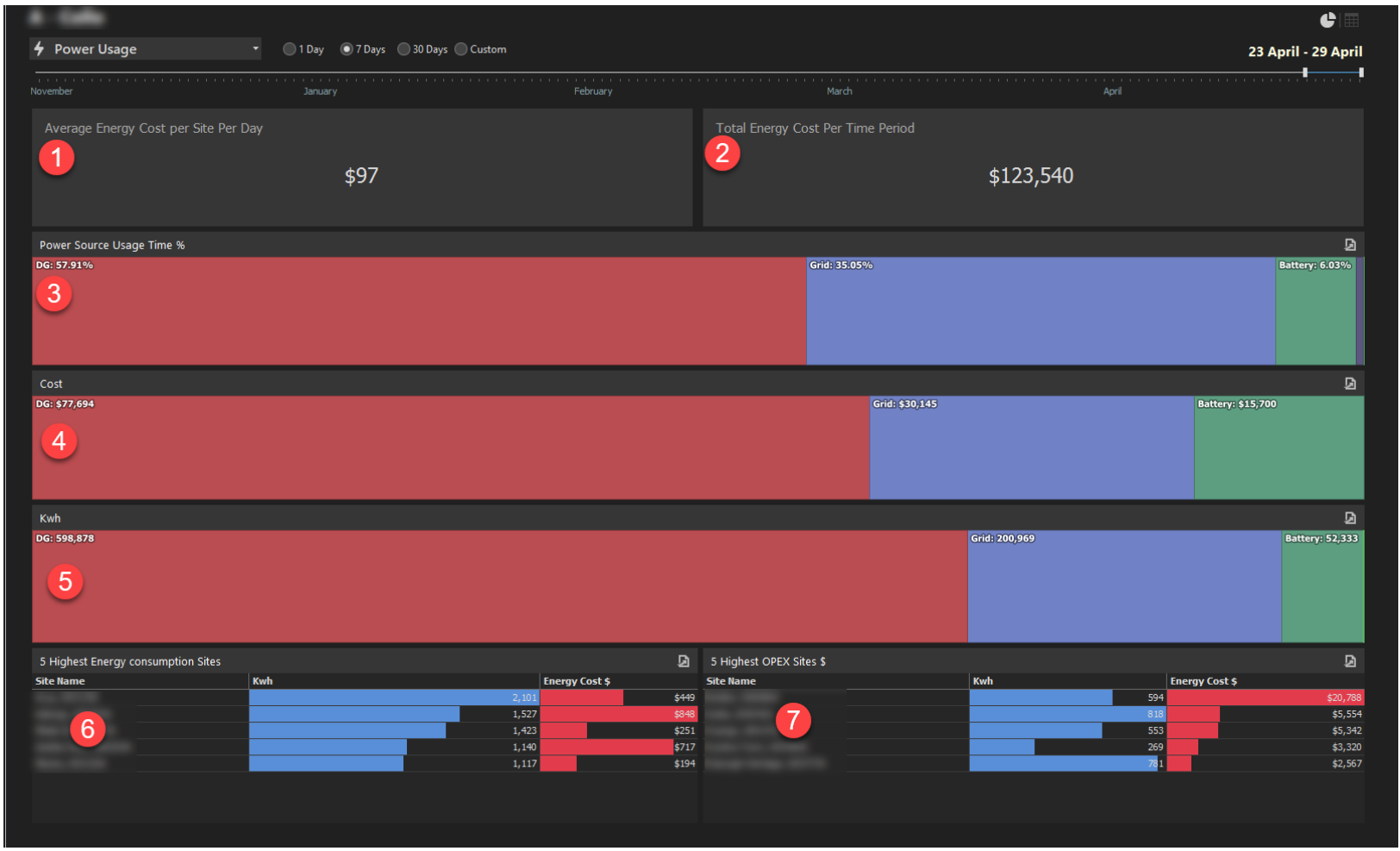
7 **Top 5 Operational L/H Sites** – Indicates the 5 sites with the highest operational fuel consumption. Matching the fuel consumption with their costs can help identify sites with high consumption and low costs vs sites with low consumption and high costs.

8 **Top 5 Drops Sites** – Indicates the 5 sites with the highest amount of fuel drops.

9 **Top 5 Refuelled Sites** – Indicates the 5 sites with the highest amount of refuelling.

7.4 Power Usage

The power usage dashboard provides information on the overall cost, OPEX and power usage of the user's selected sites including a breakdown of the site's power sources. All data in the graphs are based on the selected organization, fleet, group or unit during the requested time period.



1 **Avg Energy Cost per Site per Day** – Average cost of energy per site per day. This can help indicate if the costs are as planned and expected or if they are higher or lower than planned.

2 **Total Energy Cost per Time Period** – Total cost of energy for all sites for the entire selected time period. This can help indicate if the costs are as planned and expected or if they are higher or lower than planned.

3 **Power Source Usage Time %** - Breakdown of power consumption over all sites during the selected time period. Breakdown includes generator, grid, battery and other sources of power.

4 **Cost -** Breakdown of cost over all sites during the selected time period. Breakdown includes generator, grid, battery and other sources of power. (Cost figures are based on Power cost assumptions which can be found in section 8.1)

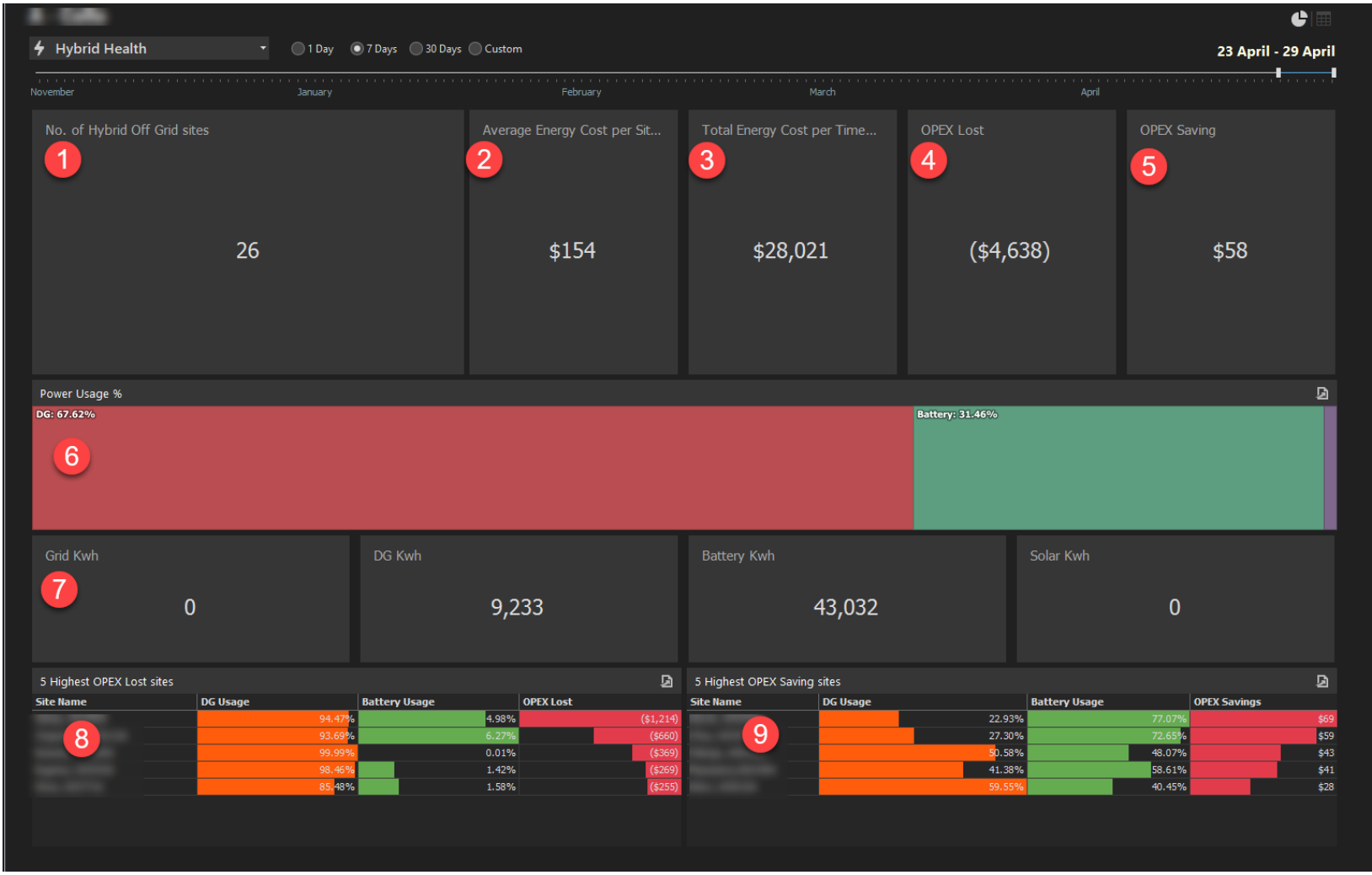
5 **Kwh** - Breakdown of Kwh over all sites during the selected time period. Breakdown includes generator, grid, battery and other sources of power.

6 **5 Highest Energy Consumption Sites** – Indicates the 5 sites which are consuming the most amount of energy. High energy consumption may indicate issues with the site or issues with the power layout such as depending on too much generator energy which incurs high fuel costs.

7 **5 Highest OPEX Sites $ -** Indicates the 5 sites with the highest energy costs. Comparing the energy output with the costs might indicate high costs per energy output.

7.5 Hybrid Health / Solar Health

The hybrid health dashboard focuses on hybrid telecom sites which splits the generator and battery energy half/half. Solar dashboards focus on sites running on solar power in addition to battery and generators as power sources. In these type of sites, monitoring the power and fuel consumption of the energy sources is key for the continuous operation of the site as well as keeping the sites cost efficient. Both dashboards are identical in terms of their functionality.



1 **No. of Hybrid Off Grid/ Solar Sites** – No. of sites with hybrid or solar layout

2 **Average Energy Cost per Site –** Average cost of energy upkeep per each site during the selected time period.

3 **Total Energy Cost per Time Period** - Total cost of energy upkeep for all selected sites during the selected time period.

4 **OPEX Lost** - Money not saved due to generator workload higher than planned. Once the workload is higher than planned, we can consider OPEX lost based on the difference between the actual generator workload and the planned expected costs.

5 **OPEX Saving** – Money saved due to generator workload lower than planned. Once the workload is lower than planned, we can consider OPEX saved based on the difference between the actual generator workload and the planned expected costs.

6 **Power Usage %** - Indicates the average spread of power usage within the sites. The size of the graph helps display which power source is being utilized in average the most.

7 **Grid Kwh** – Indicates the Kwh in average per power source.

8 **5 Highest OPEX List Sites** – Indicates the 5 sites which lost the most amount of OPEX during the selected time period. The graph is divided into 3 sections:

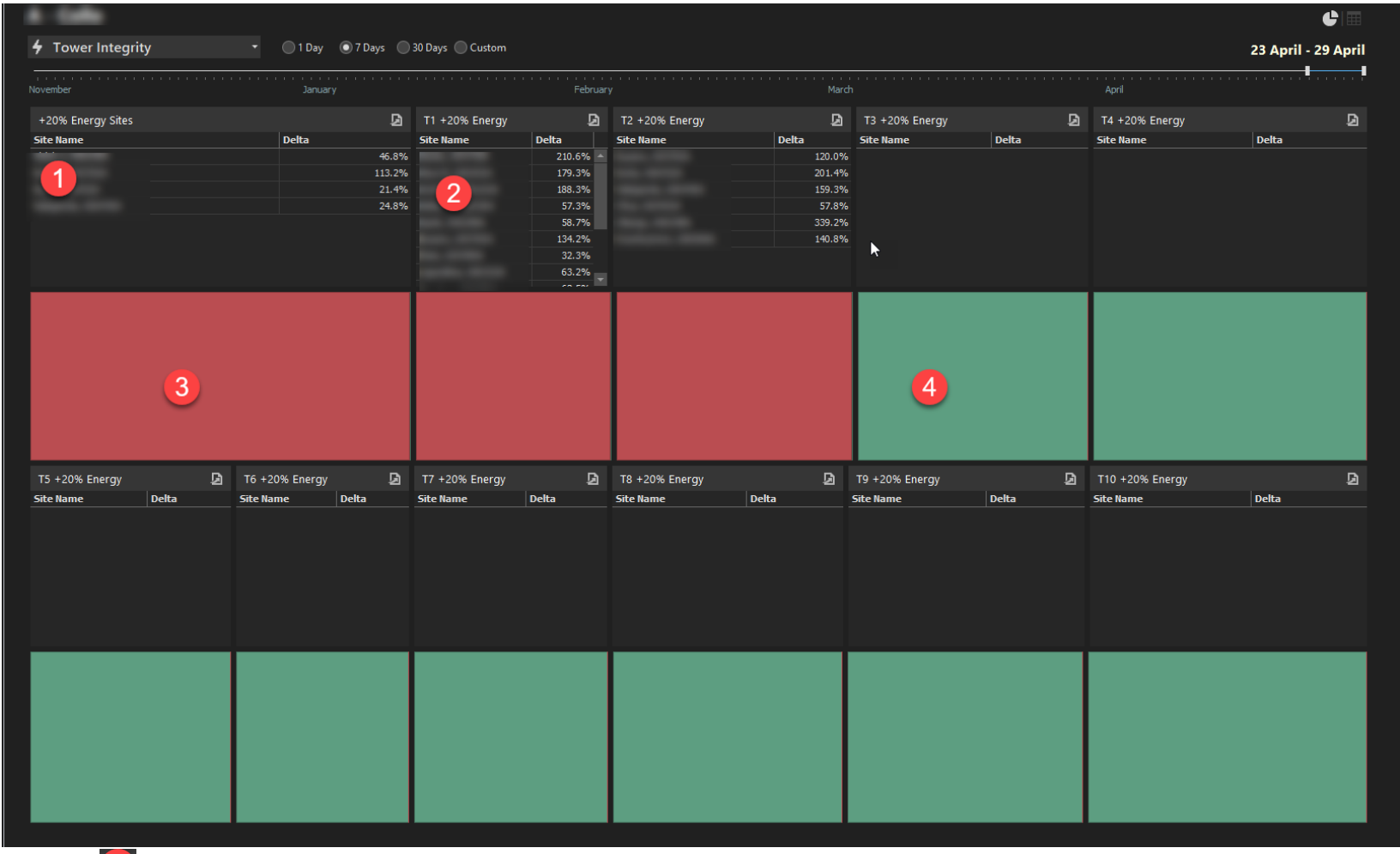
1. DG Usage – Percentage of generator power used by site during the selected time period.
2. Battery Usage – Percentage of battery power used by site during the selected time period.
3. OPEX Lost – Amount of OPEX lost as a result of power costs. This reflects the money lost as the actual generator workload was higher than the planned expected costs.

9 **5 Highest OPEX Saving Sites** - – Indicates the 5 sites which saved the most amount of OPEX during the selected time period. Users may use this information to inspect their power policy and make changes to the power layout accordingly. The graph is divided into 3 sections:

1. DG Usage – Percentage of generator power used by site during the selected time period.
2. Battery Usage – Percentage of battery power used by site during the selected time period.
3. OPEX Savings – Amount of OPEX saved as a result of effective power management. This reflects savings due to the actual generator workload being lower than the planned expected costs.

7.6 Tower Integrity

Dashboard presents a list of sites & tenants which have more than 20% energy consumption compared to the average consumption during the selected time period. The dashboard is effective as a monitoring and alert tool for multiple site management.



1 List of sites which consumed over 20% of their power during the last day of the selected time period.

2 List of tenants which consumed over 20% of their power during the last day of the selected time period.

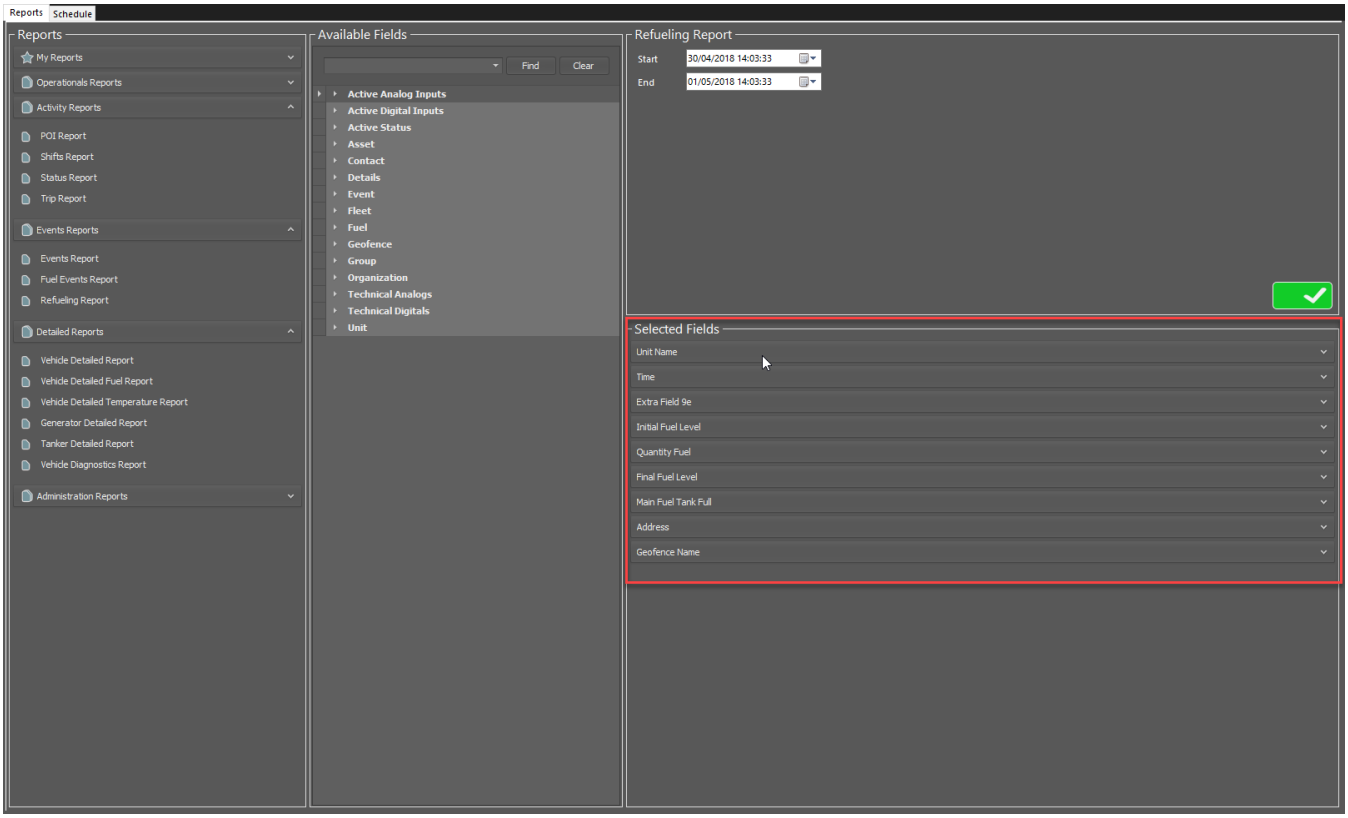
3 Red box below the list indicates there are sites/tenants which consumed over 20% of their power during the last day of the selected time period.

4 Green box below the list indicates there are sites/tenants which consumed less than 20% of their power during the last day of the selected time period.

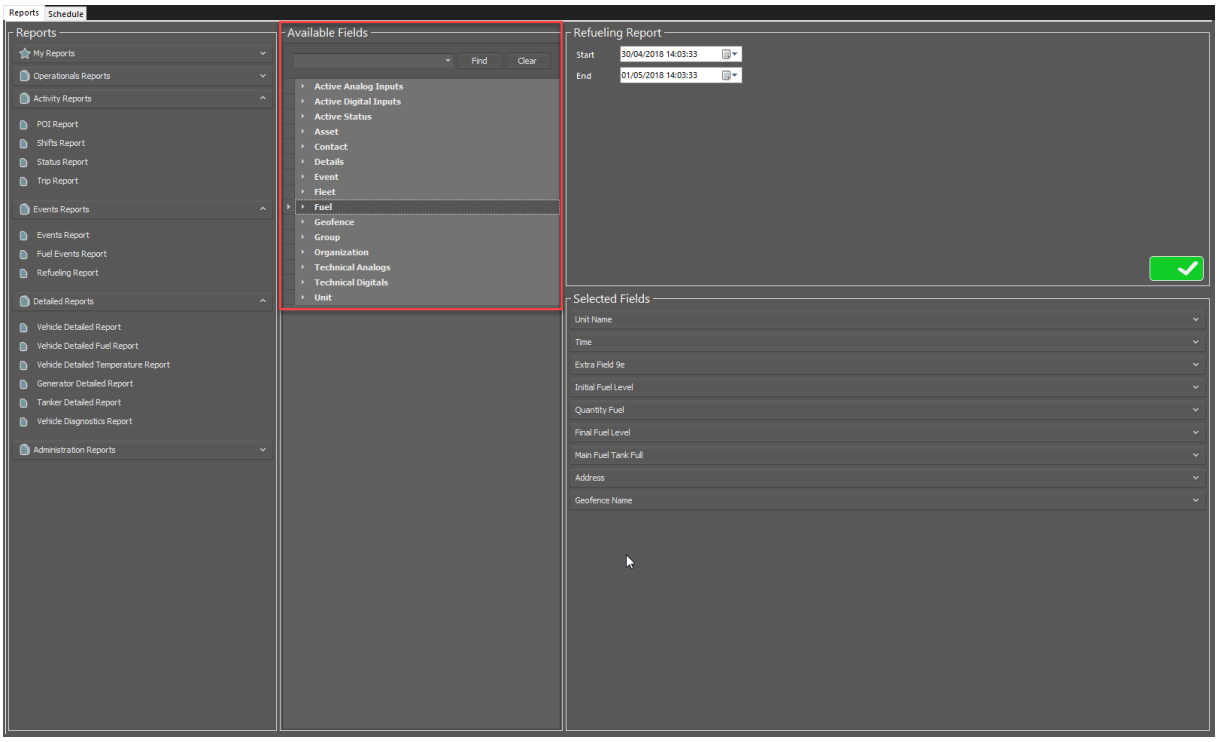
8. Report User Interface

Reports are a key feature of the ZON Pro X and a crucial part of monitoring an organization's operations. ZON Pro X offers a large selection of reports intended to provide on-going data of key aspects of the operation with flexible customization options to ensure the user receives the data most relevant to them.

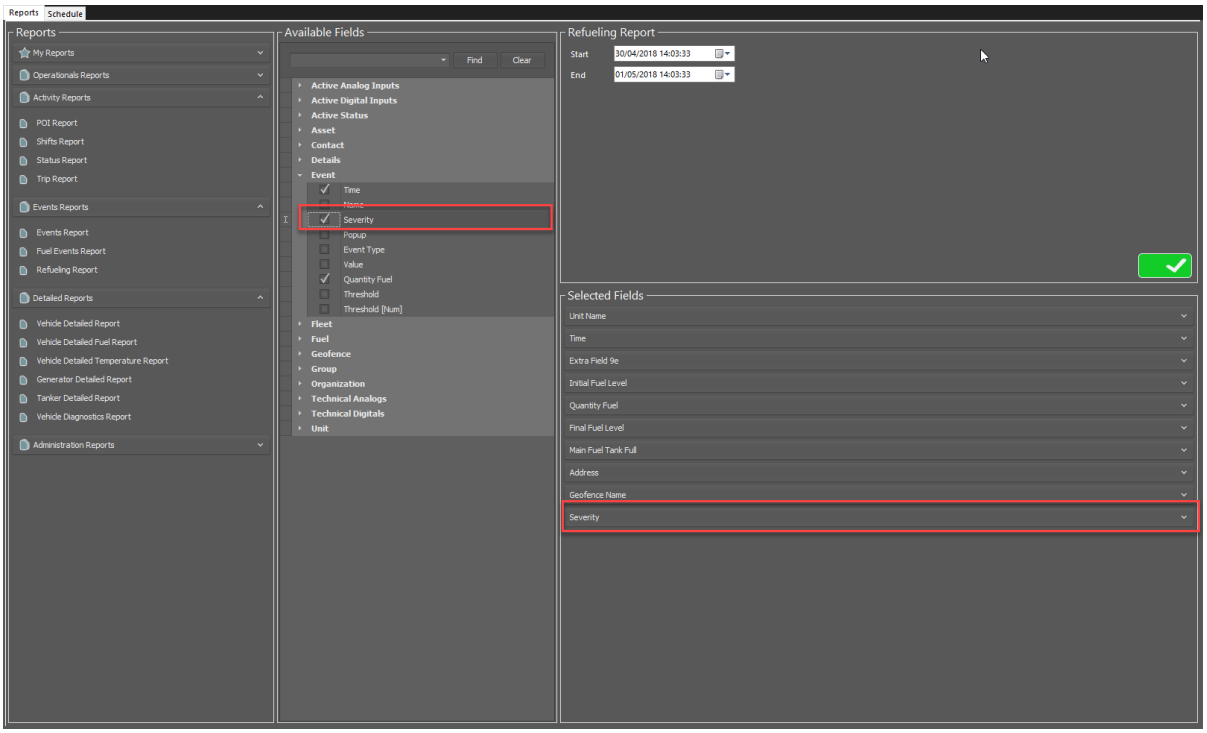
To make customization as simple as possible, the report interface went through several key changes from the previous versions. Each report contains a list of fields prior to running the report. This allows for the user to gain an understanding of what information will be available for them.



In addition to the selected fields which are pre-configured, the user can either add or remove fields for a completely customized report. Upon selecting a report, all relevant fields will appear in the second column of the dashboard titled "Additional Fields".



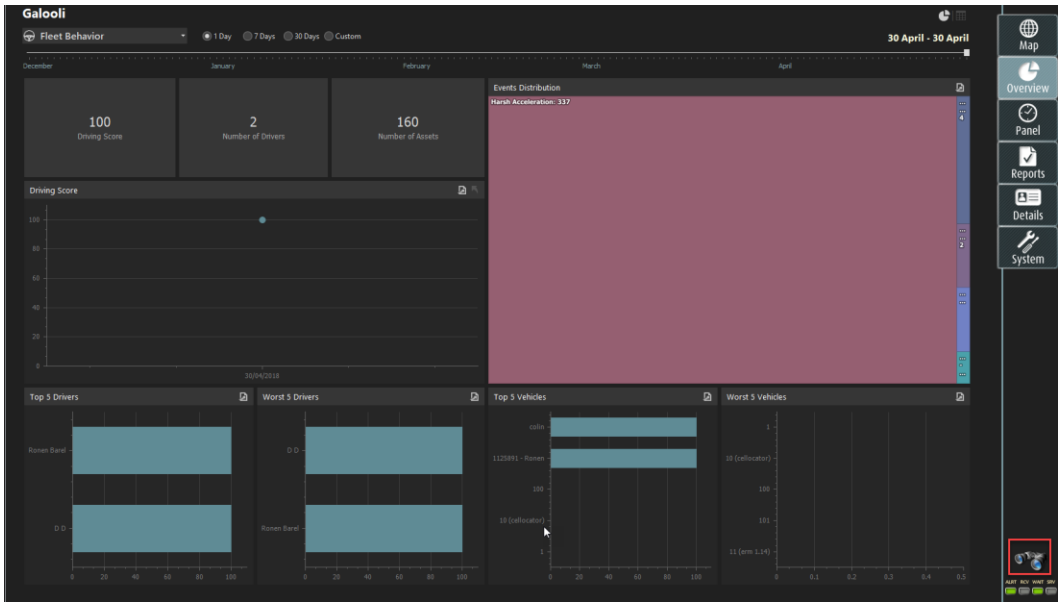
To add a field, either search for the desired category, click on it and a list of fields belonging to the category will open. Click on the checkbox next to the selected field. The field will be added to the list of Selected fields and will be added to the report once run. Users may also use the search field at the top to search for the desired field.


Reports
Schedule
Reports
My Reports
Operationals Reports
Activity Reports
POI Report
Shifts Report
Status Report
Trip Report
Events Reports
Events Report
Fuel Events Report
Refueling Report
Detailed Reports
Vehicle Detailed Report
Vehicle Detailed Fuel Report
Vehicle Detailed Temperature Report
Generator Detailed Report
Tanker Detailed Report
Vehicle Diagnostics Report
Administration Reports
Available Fields
Find
Clear
Active Analog Inputs
Active Digital Inputs
Active Status
Asset
Contact
Details
Event
Time
Name
Severity
Popup
Event Type
Value
Quantity Fuel
Threshold
Threshold [Num]
Fleet
Fuel
Geofence
Group
Organization
Technical Analogs
Technical Digitals
Unit
Refueling Report
Start
30/04/2018 14:03:33
End
01/05/2018 14:03:33
Selected Fields
Unit Name
Time
Extra Field 9e
Initial Fuel Level
Quantity Fuel
Final Fuel Level
Main Fuel Tank Full
Address
Geofence Name
Severity

9. Enhanced Search Feature

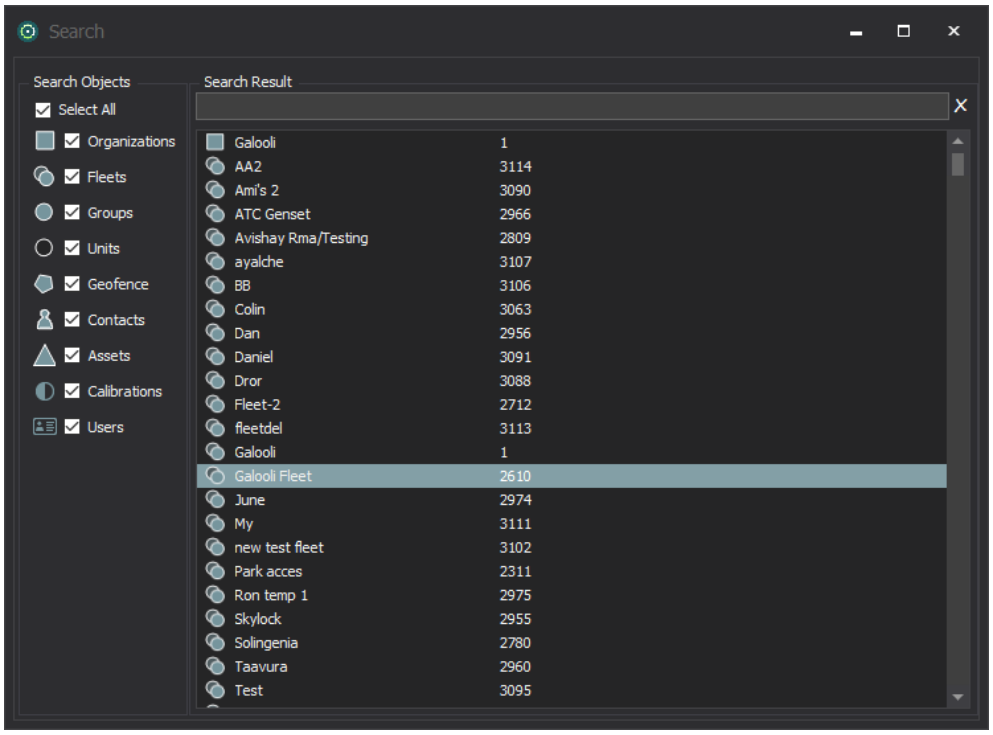
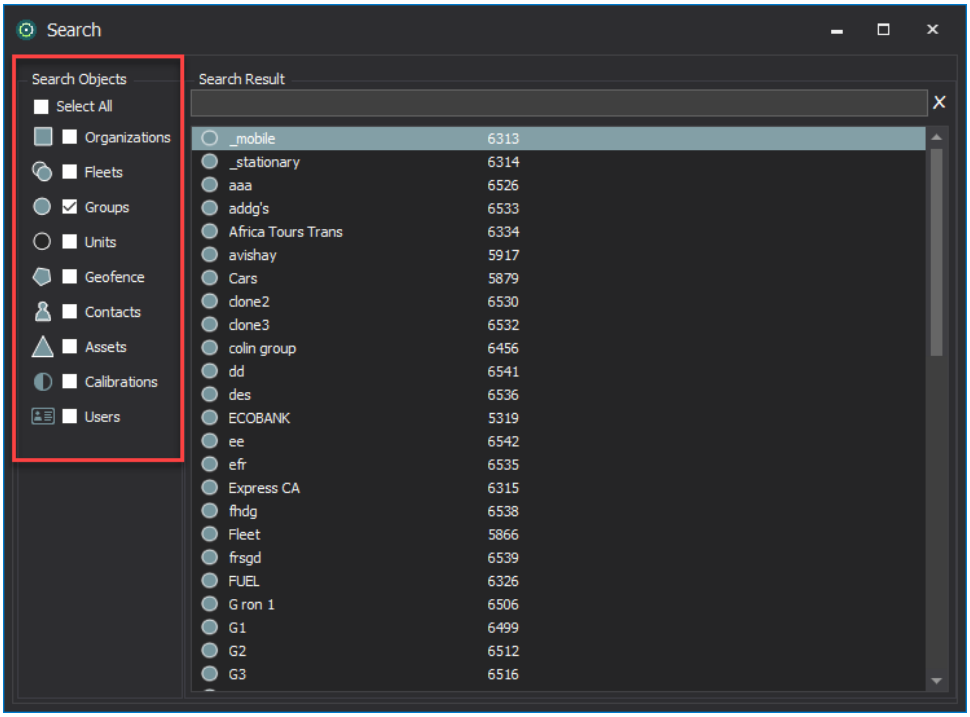
The search feature in ZON Pro X was enhanced and adjusted to allow for a quick and easy experience for the user.

To activate the search option, click on the binoculars icon at the bottom right of the page. This icon will appear in every page of ZON Pro.



The search window will appear displaying all searchable objects in the organization

Users may either perform a search on all objects or select objects from a specific category. To select from a specific category, uncheck “Select All” from the Search Objects column. This will remove all checkmarks from all categories.



Select the desired category. This will show only results from the selected category. Conducting a search will present results only from the selected category.