

Executive Summary

Siemens has implemented Navigator Analytics,utilizing Fault Detection and Diagnostics(FDD) methodology, to monitor:

1. Fresh Air Handling Unit
2. Chilled Water System
3. Boilers

Navigator Monitors system parameters and compares them to a set of rules to track when the components of each system are not operating as intended and provide facility improvement measures.

Below table summarizes, Key Performance Monitoring through Digital Services.

Navigator detects abnormalities with equipment, sensors, or controls that cause sub-optimal performance and identifies issues before an alarm conditioner equipment failure occurs. Timely identification and correction of faults will increase equipment reliability,save energy and extend the life of equipment.

Navigator Analytics can help find faults, energy saving potentials and analyze the performance of existing and new equipment and control strategies.

KPI Summary

Comfort	100%
Hygiene	100%
Availability	95.4%

Fault Summary

Total Alerts	74
Enriched Tickets	43
Open Tickets	4.7%
Closed Tickets	95.3%

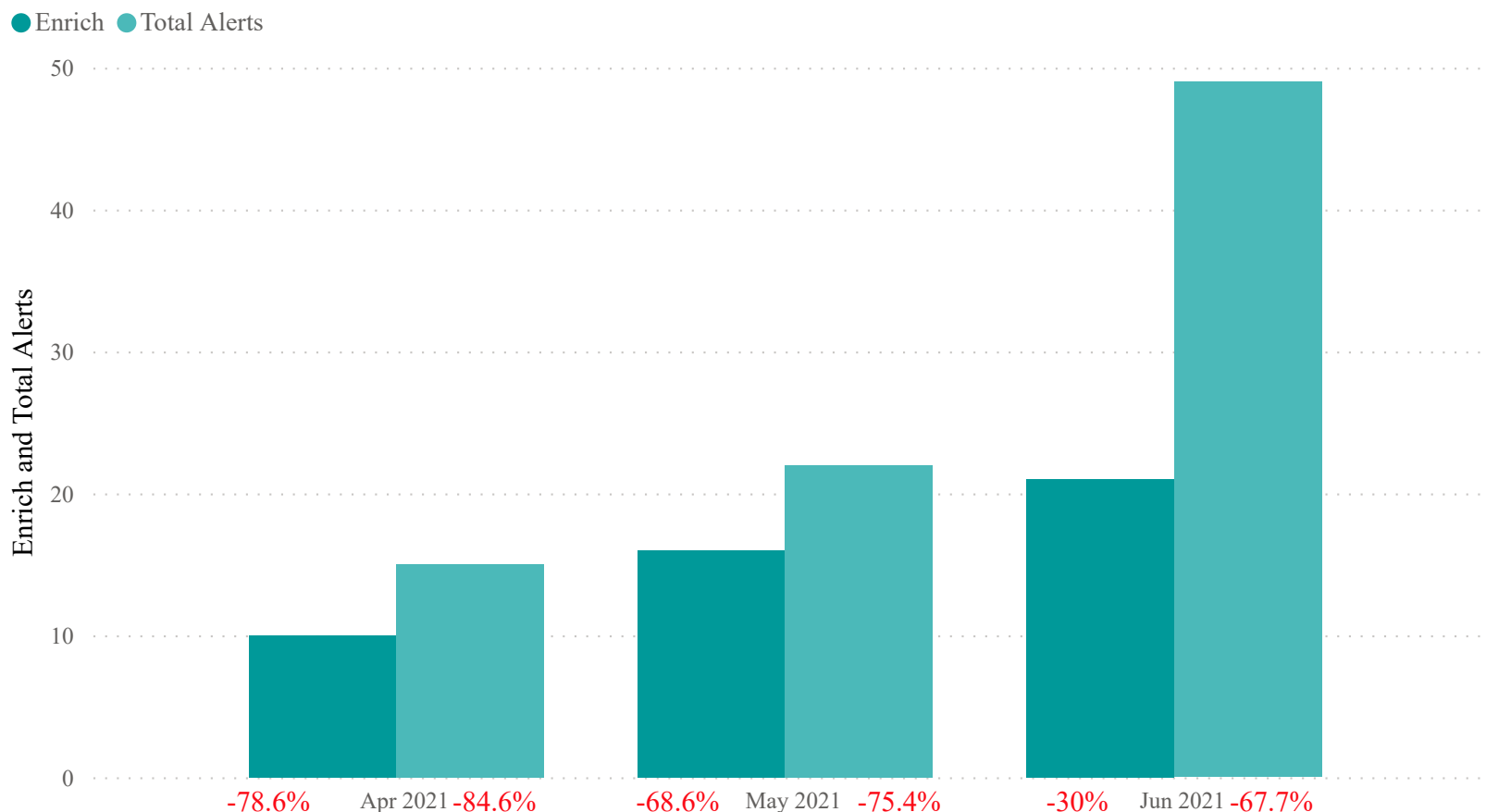
Equipments Configured

Equipments Configured	82
Total Points Monitored	1434
Building Connected	8

Cost Savings

AED11,002

Enriched Tickets and Total Alerts



Total Alerts:

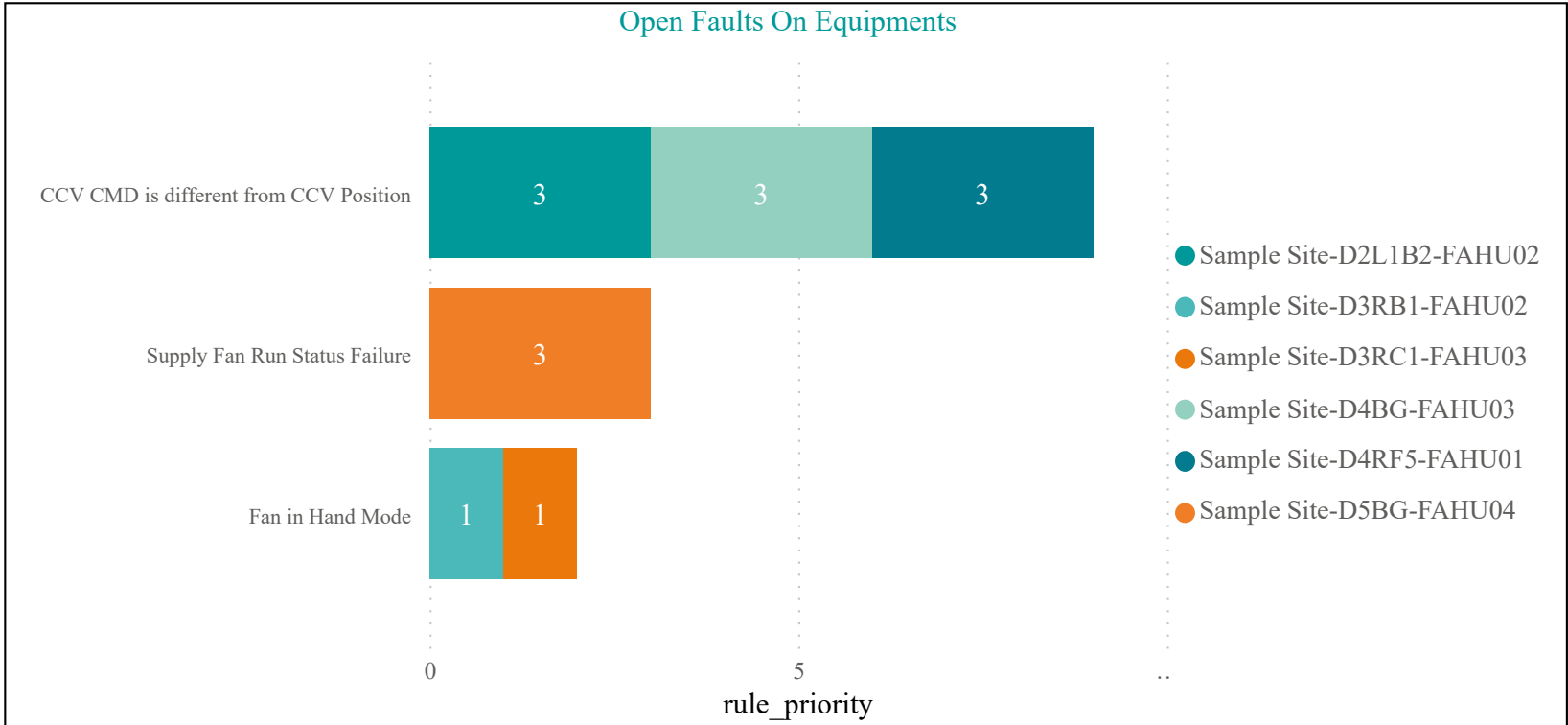
Total Alerts are the faults coming form connected source. Connected source shall be CAFM system hot and cold calls/BMS Alarms/Navigator FDDs. These alerts are taken to identify root cause of the problem.

Enriched Tickets:

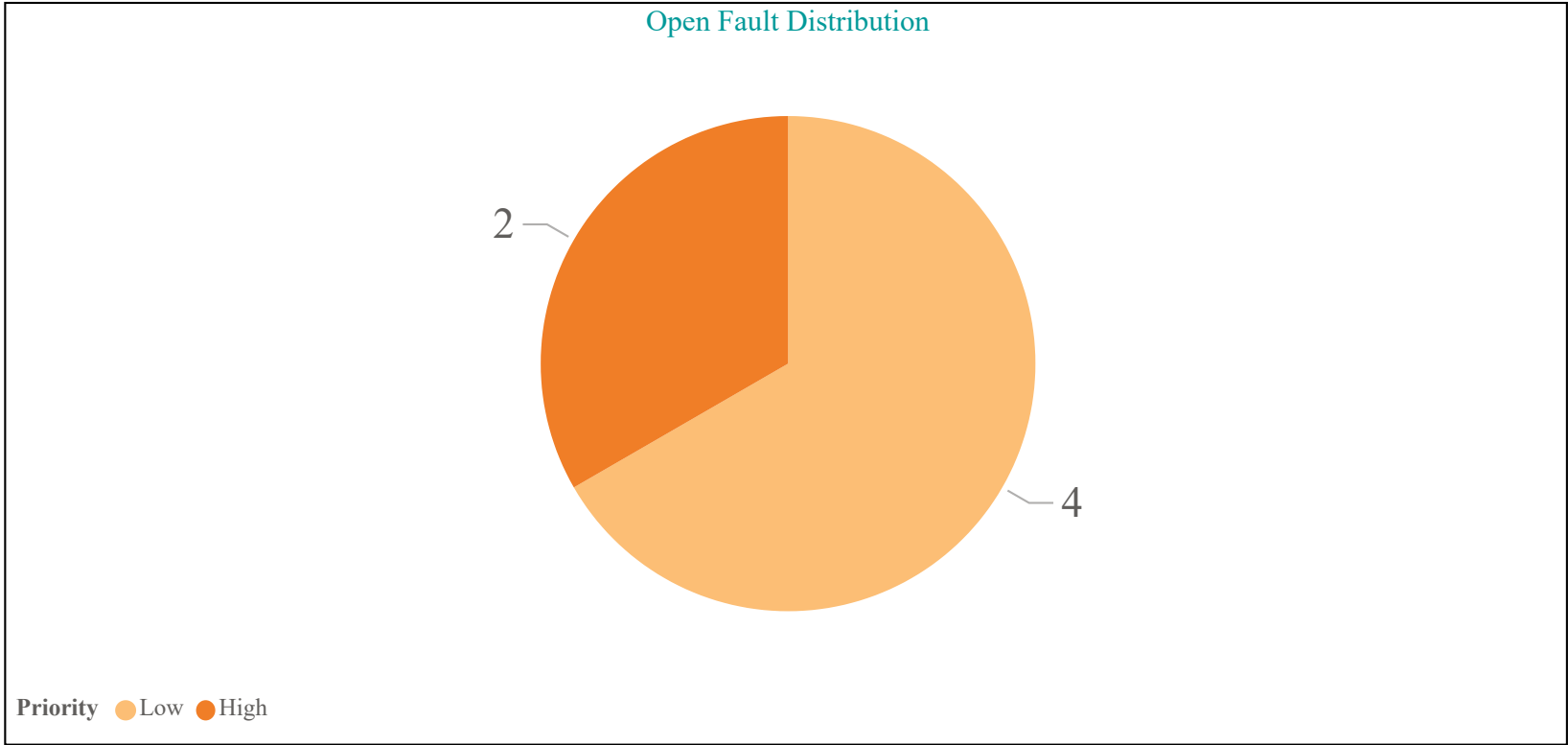
Enriched Tickets are processed reults from connected source. Root cause of faults are translated into enriched tickets. Enriched tickets are pushed through automatic emails.

A monthly meeting is scheduled with FM team to understand any field related issues for rectification of faults. Monthly percentage reduction of faults with respect to baseline is highlighted in the graph above

Open Faults On Equipments



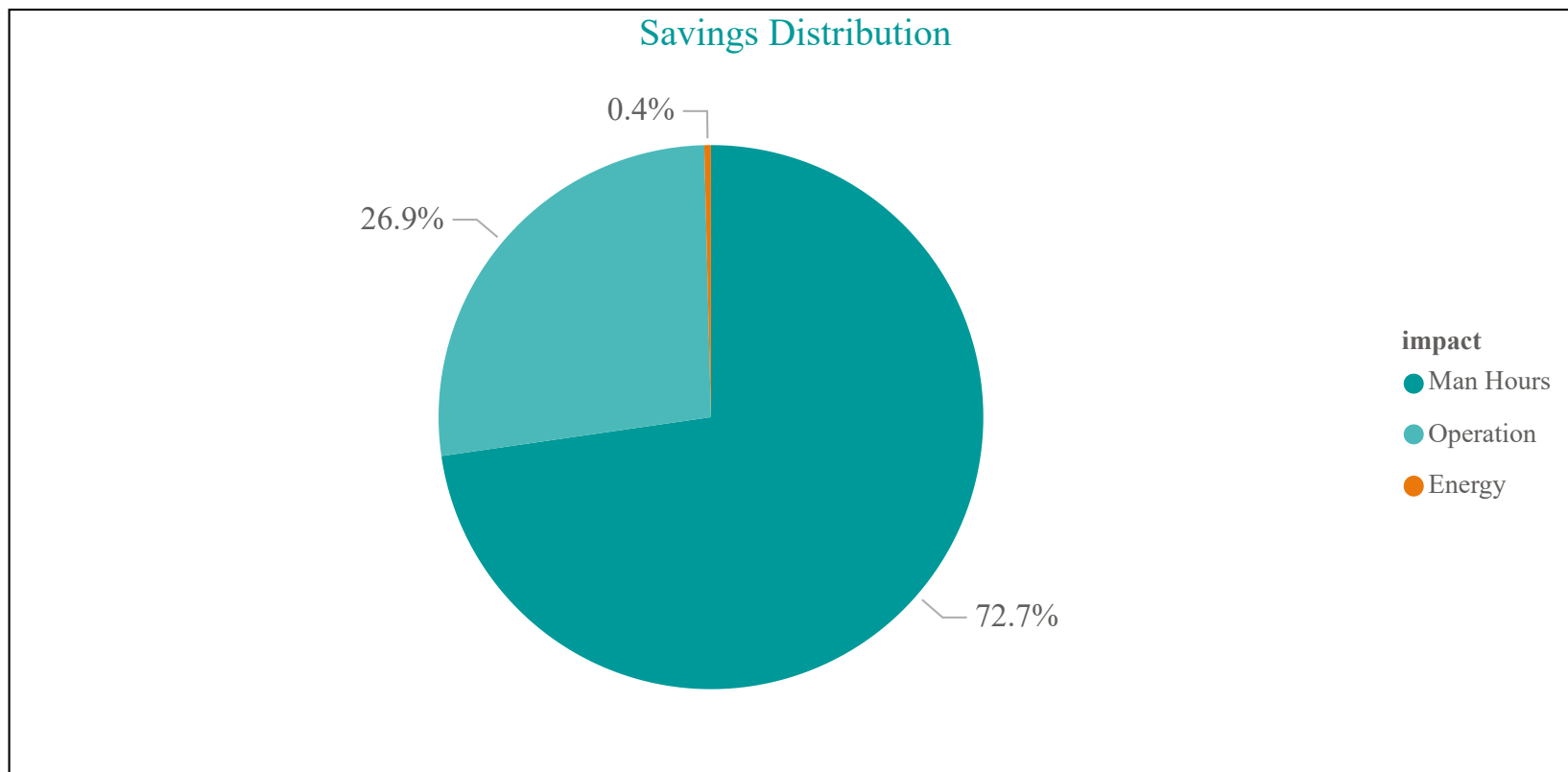
Open Fault Distribution



1 - FAHU Supply Fan Status Failure has occurred. It is observed that supply fan is command to ON and there is no status confirmation from differential pressure transmitter. It is recommended to check differential pressure switch and replace if required.

2 - FAHU are operated at hand mode. It is recommended to operate at auto mode. Blower identified as faulty and FM team has submitted for Capex approval

3 - FAHU Cooling Valve Command is different from Cooling Valve feedback. It is recommended to check cooling valve command and feedback cables



impact	savings
Energy	AED43.00
Man Hours	AED8,000.00
Operation	AED2,959.00
Total	AED11,002.00

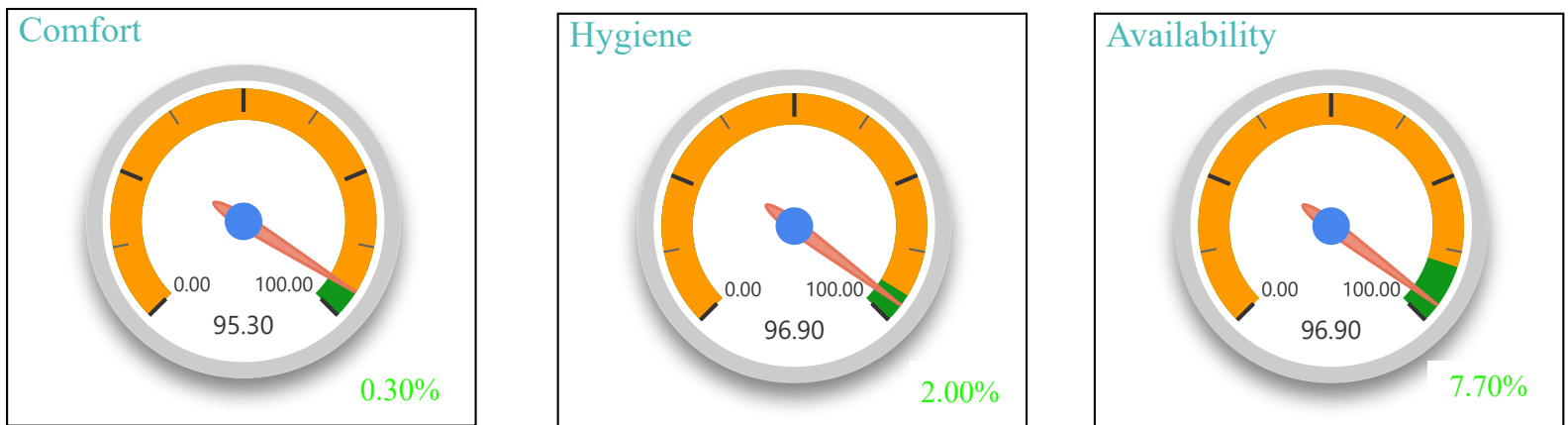
Energy Savings: Energy savings are computed based on pro-active notification which resulted in avoided energy cost

Man Hour Savings: Man hour savings are a result of time saved in identifying a fault from the site

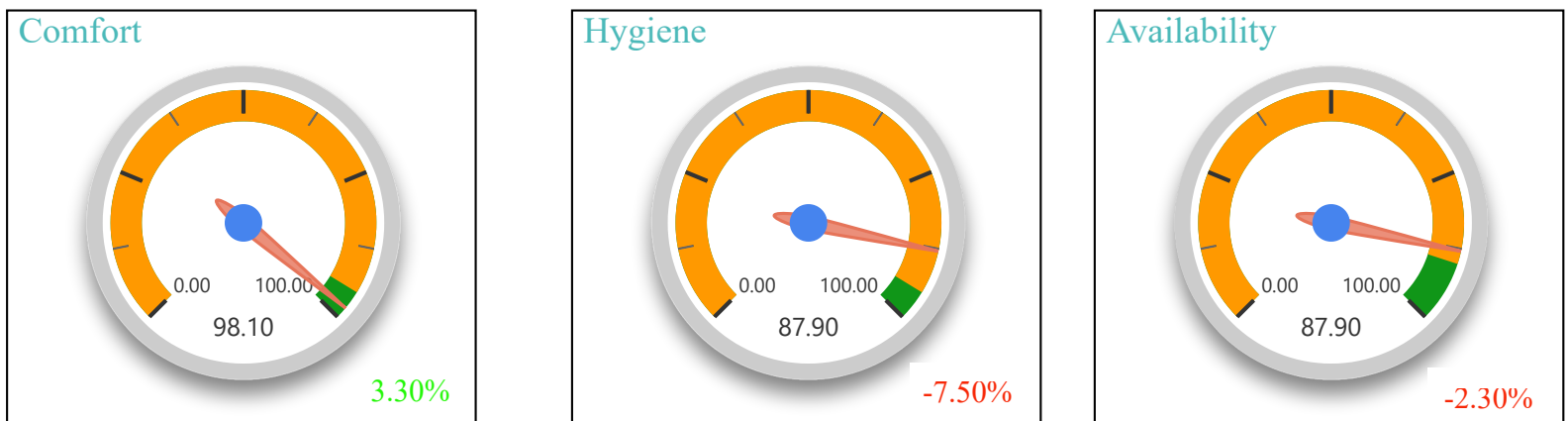
Operation Savings: Operation savings are avoided energy cost by notifying operator with an abnormal operation of equipment

Productivity: Abrupt space condition affects productivity and avoidance cost from productive labour hours are listed

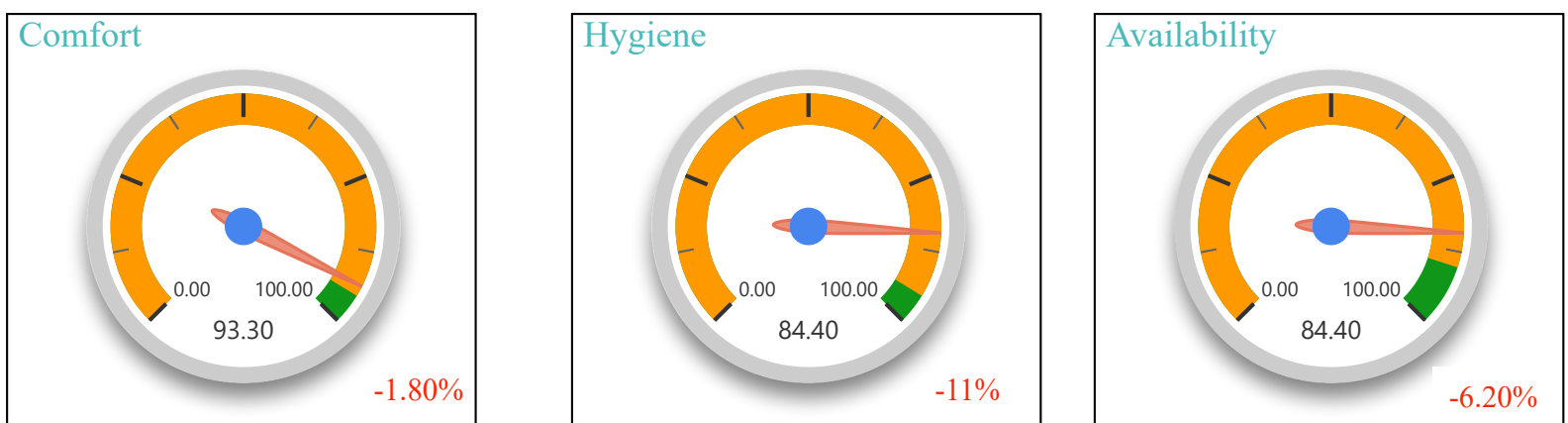
Apr 2021



May 2021



Jun 2021



Comfort Monitoring: Comfort determines how the building comfort is maintained during monitoring period. Comfort is expected to be maintained between 23+/-2 Deg Celsius during operating hours. Percentage of hour, the monitored space maintained in comfort temperature is displayed in the graph

Energy Monitoring: Potential energy reduction that could be obtained from connected equipment is highlighted. Energy savings from the connected equipment shall be obtained through better control strategy, energy retrofit, best operating practices. More details of Energy FIMs will be highlighted in detail section of report

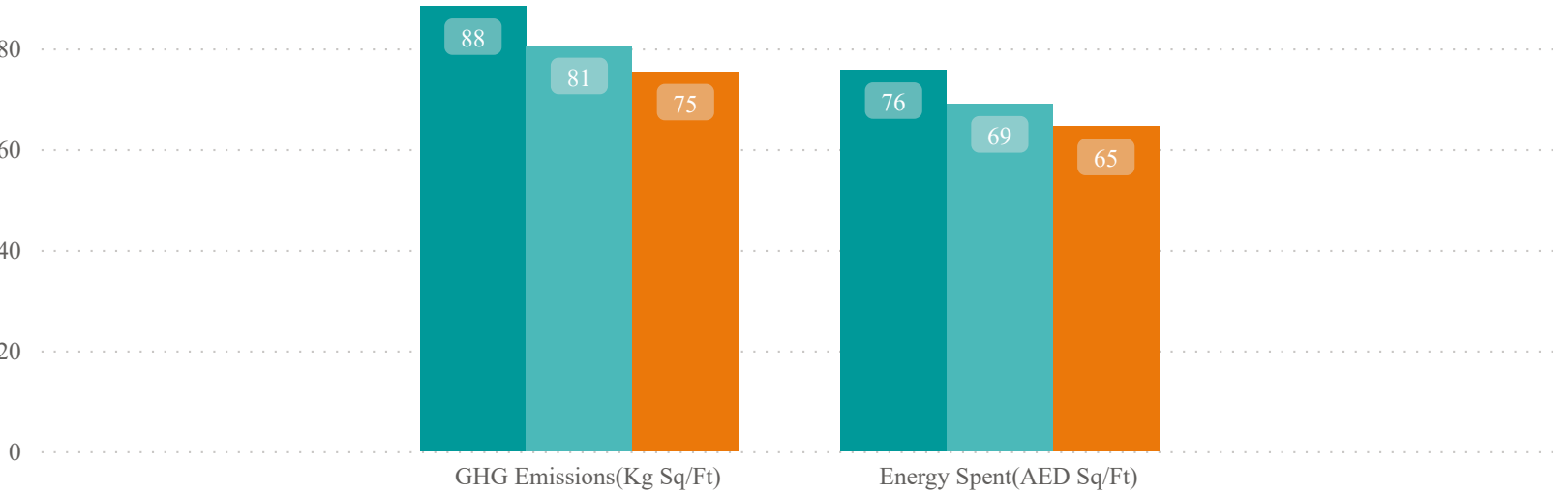
Hygiene Monitoring: Hygiene determines how the building CO2/ indoor air quality level is maintained during monitoring period. Indoor air quality is expected to be maintained within 1100pm during building operating hours. Percentage of hour, Indoor Air Quality on monitored space is displayed in the graph

Available Monitoring: Availability determines how monitored equipment are operated free from faulty. A faulty equipment leads to poor performance, comfort issues, reduced lifecycle and increased maintenance cost. Percentage of hour, monitored equipment free from fault is displayed in the graph

KPI Overview

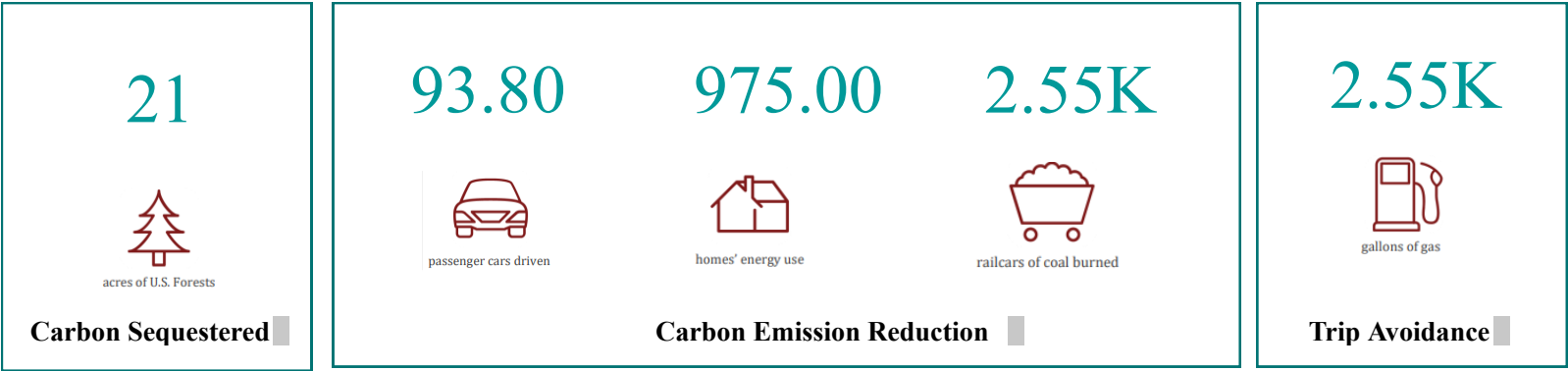
Your building is currently 446,077 Sq.Ft. with a total energy spend of \$4,492,300 and a cost of ownership of \$6,332,300 a year

● Baseline ● Current ● Median



Measuring your Building’s Carbon Footprint

The current CO2 emissions versus baseline emissions yields these changes:



Owning and Operating Cost



Energy Savings Distribution

Current Savings : 3,33,750
Potential Savings : 2,22,500
(Median)