POWER SUPPLY MONITORING SYSTEM TRAINING MANUAL V1.0

Ibadan Electricity Distribution Company

STATISTICAL DASHBOARD

IBEDC

INTERRUPTION READING

READING REPORT

TABLE OF CONTENTS

Introduction

Today, technology is evolving at an increasingly fast pace. As a business owner, it is important to keep up with technological advances to remain profitable and efficient. IBEDC as an organization is adopting technology to improve efficiency in its internal operations and processes.

A power supply management System (also called "PSMS") is a robust application designed to help plan, monitor, and for energy management. The application is designed to enable employees t o carry out their daily operations like Interruption reading, Hours of interruption, reading reports, and energy management amongst other functions.

Psms Manager will help IBEDC as a business to :

1. Increase the reliability of its operations due to analytics-based capacity planning and KPI monitoring.
2. Improve quality management and regulatory compliance due to standardized operational processes and visibility into operational workflows.
3. Mitigate operational risks due and to improved operations monitoring, availability of tools to raise alerts on operational issues and then collaborate on their resolution.
4. Reduce reporting latency due to automated collation and analysis of operational data.
5. Improve productivity and collaboration of employees involved in field operations due to automated requests and communication tools.

For proper understanding of the PSMS environment, the diagram below shows the PSMS dashboard after login. Each module of the application is detailed on the left-hand side of the dashboard. Navigation within the application is easy and user friendly.

FEEDER MONITORING DASHBOARD

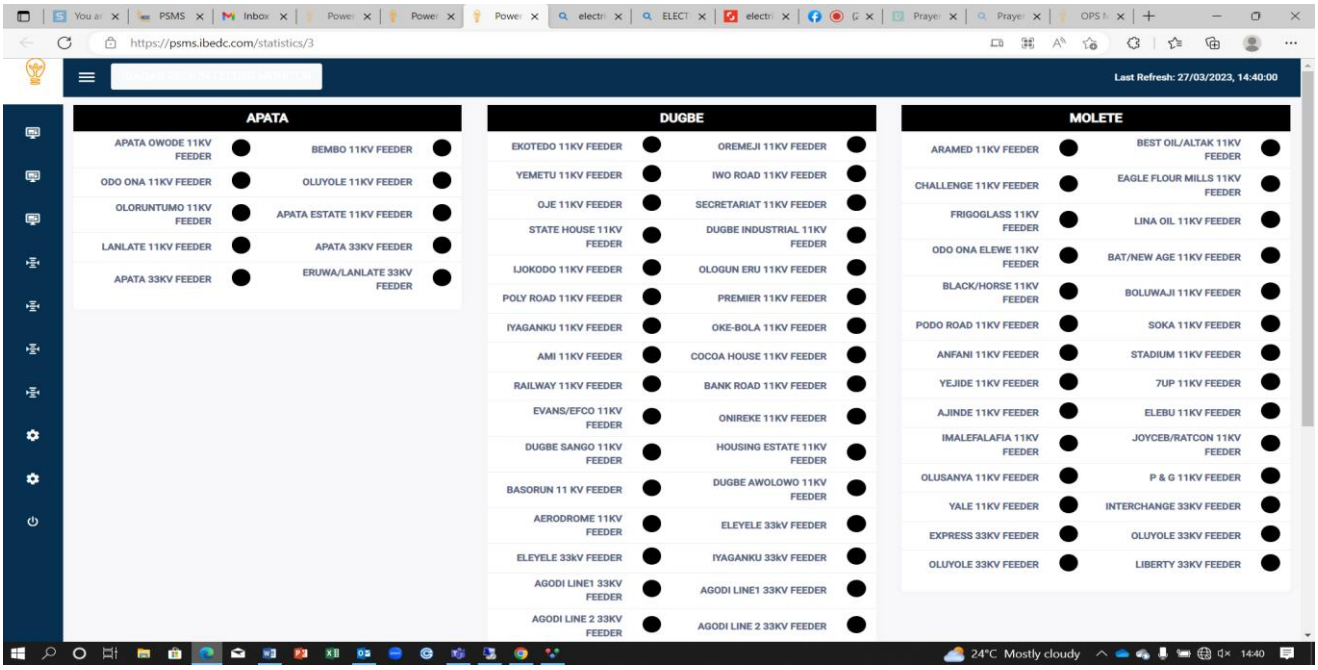
The dashboard gives the statistical information of all the feeders in a region chosen.

The following steps are to be taken to get a feeder statistical information:

1. On the Menu, Click on **Dashboard**

   On Mobile

On Web

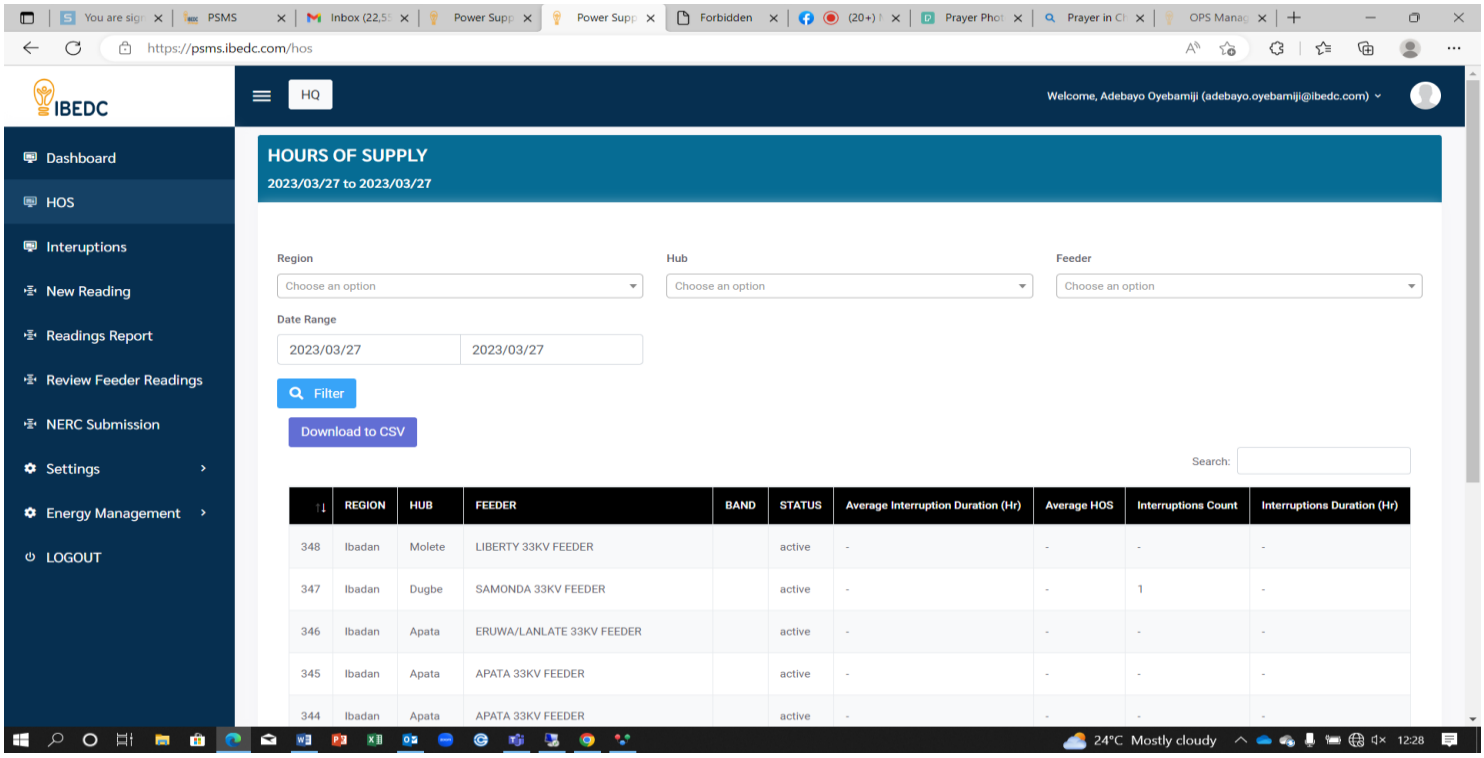


2. Click on the feeder

The feeder list is for you to record your hourly reading while the record interruption is for you to record interruption both planned and unplanned.

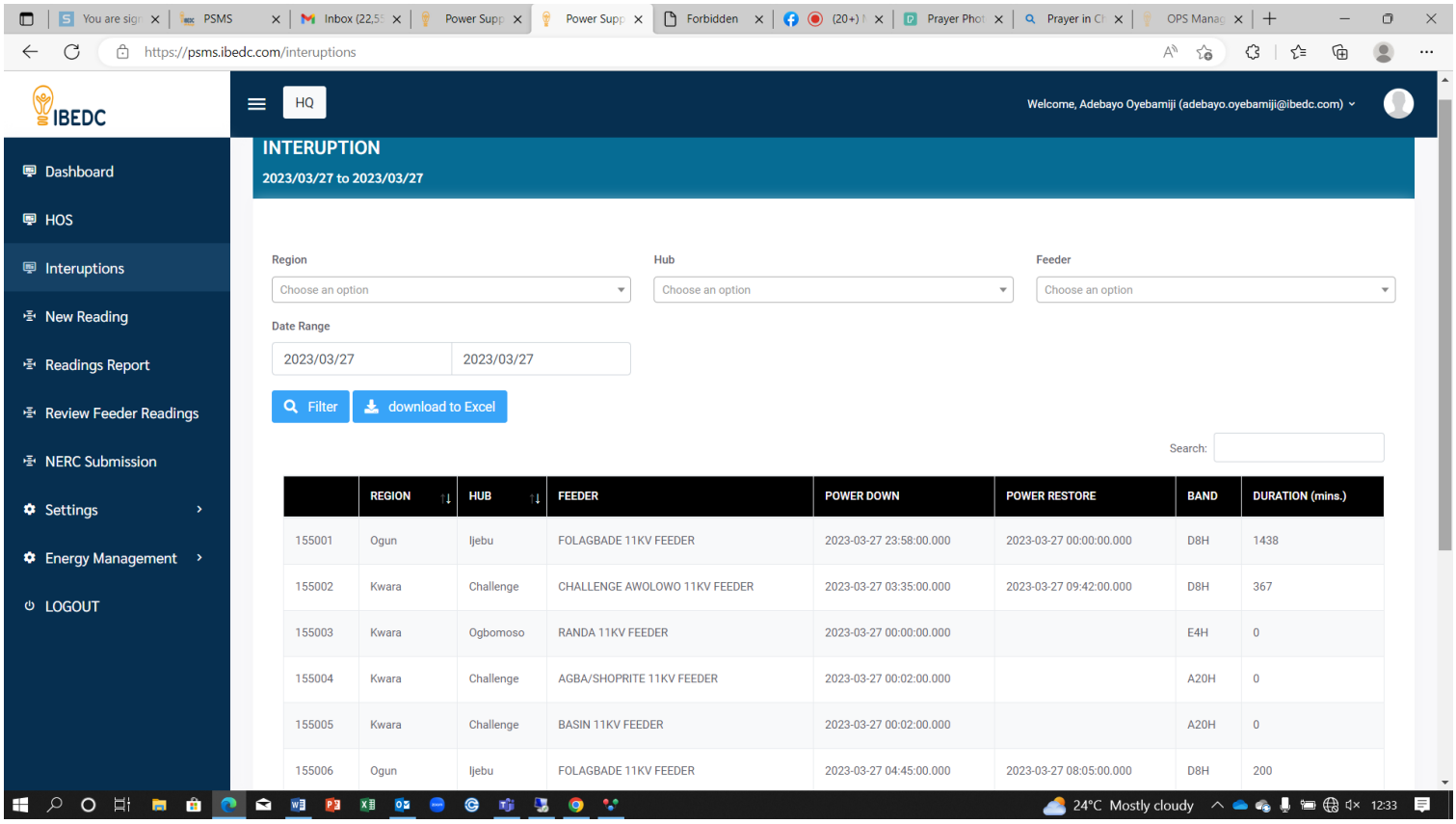
When you want to record hourly readings for a certain feeder, select that feeder in the list of feeders on your dashboard.

HOS MODULES



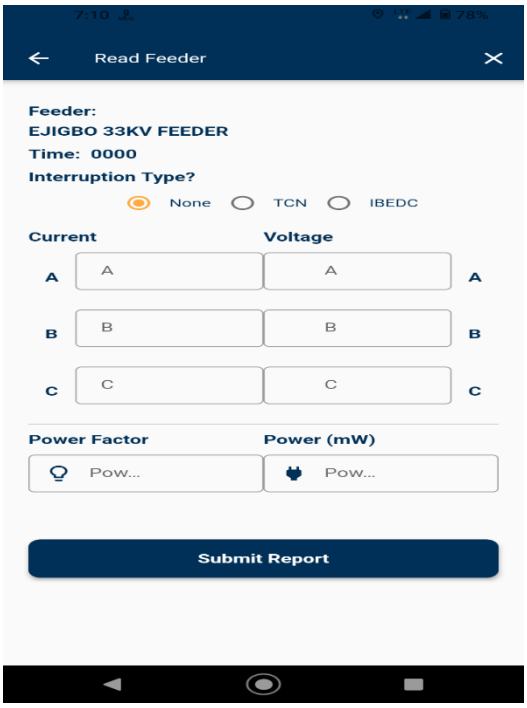
The HOS module shows the information of each feeder: It shows the region and business hub where the feeders belong, it also shows the information on the Interruption count, the Average hours of supply, and the duration at which the interruption occurs.

INTERRUPTION MODULE



The Interruption modules give a report of the feeders with their respective bands and the time at which it is not energized(Interruption) and the time it is restored(power restored), the calculation of the duration in minutes is gotten from the differences in hours of interruption(power down) and when it is energized (power restored).

NEW READING MODULE

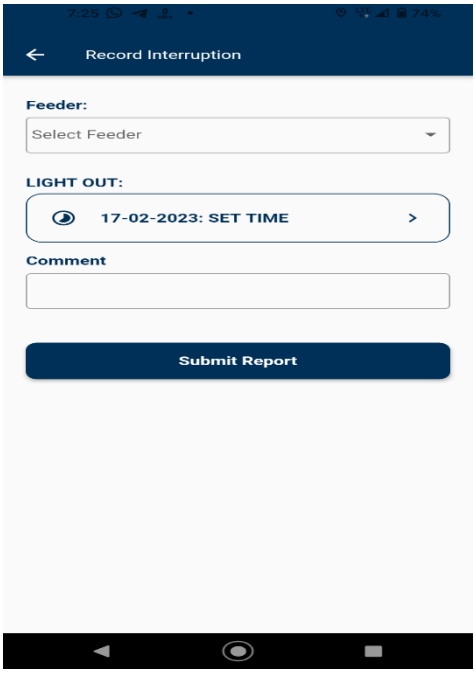


PSMS captures readings from Ami Database and as well takes manual readings entered by the DSO.
Interruption type: Select if it's None, TCN, or IBEDC

When no interruption on the feeder selects None, if there is, select if the outage is from TCN or IBEDC.

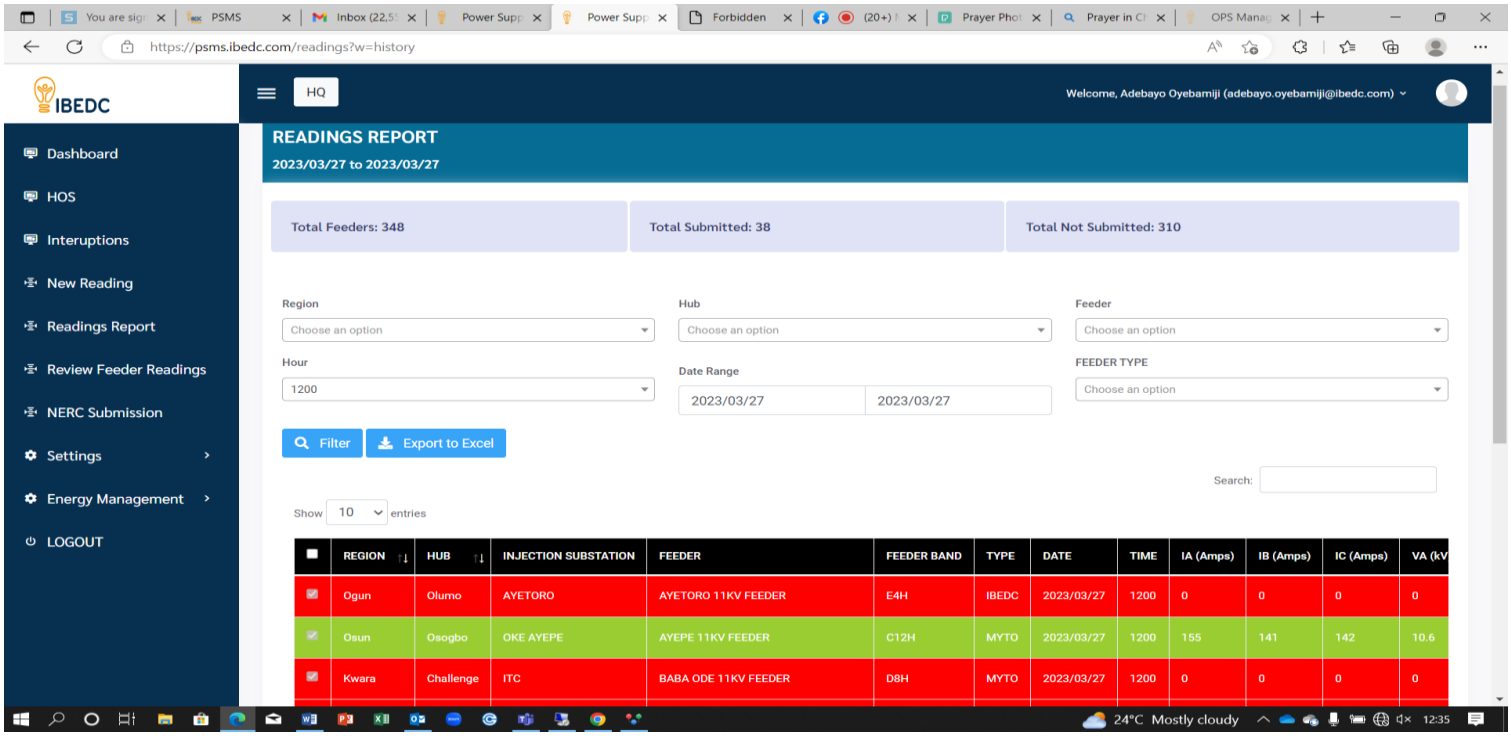
1. Current & Voltage: If the light is available input the current and voltage reading, when light is not available, after selecting the interruption type in bullet 1 above, you will not be able to select the current but you can still input Voltage.
2. Power factor: Input your power factor too. Then submit the report.

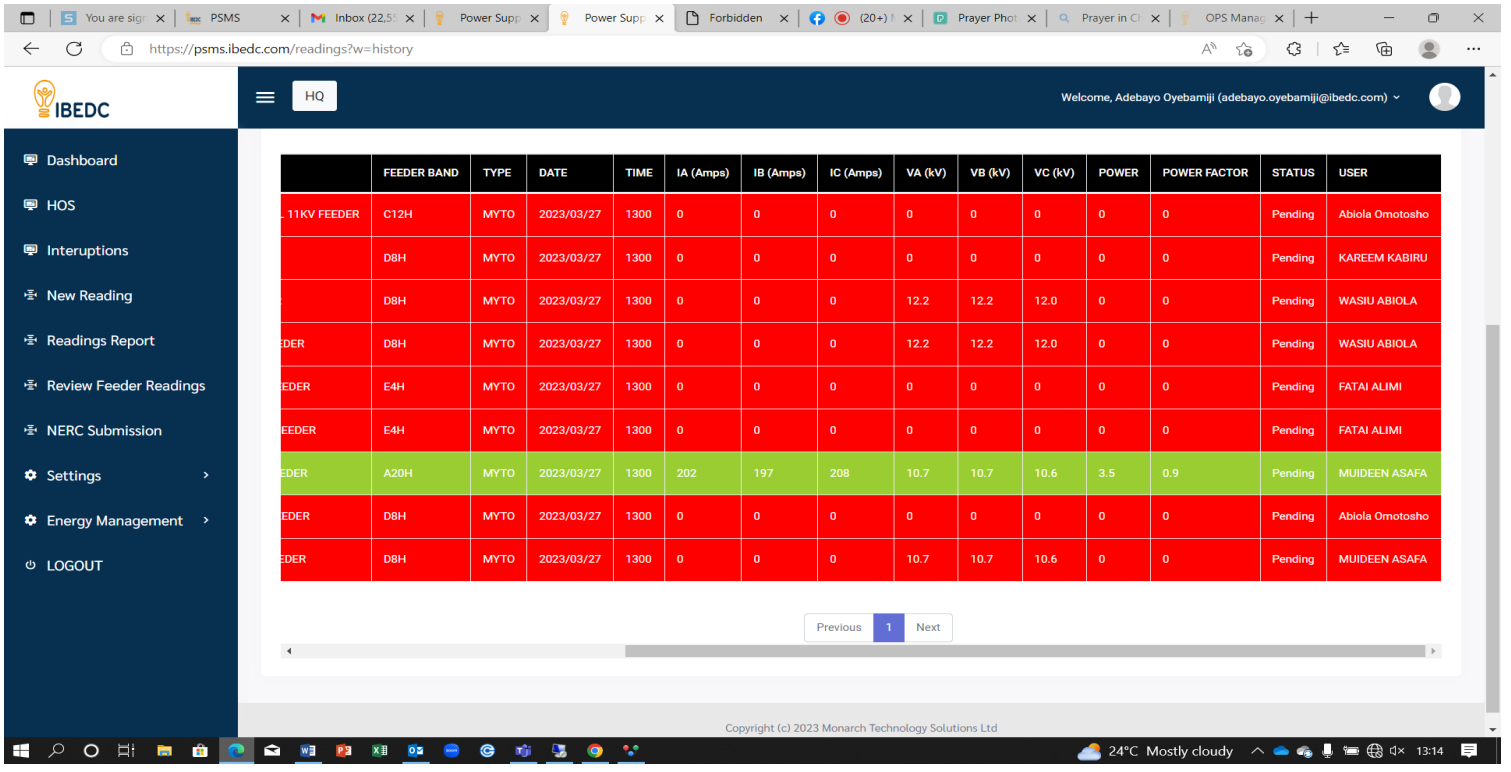
Record Interruption: You can record interruption any time of the day, when you click on record interruption, the display will be like the image below



Then select the feeder type, input the time the light out occurred, and when the light is restored input the time the light is restored.

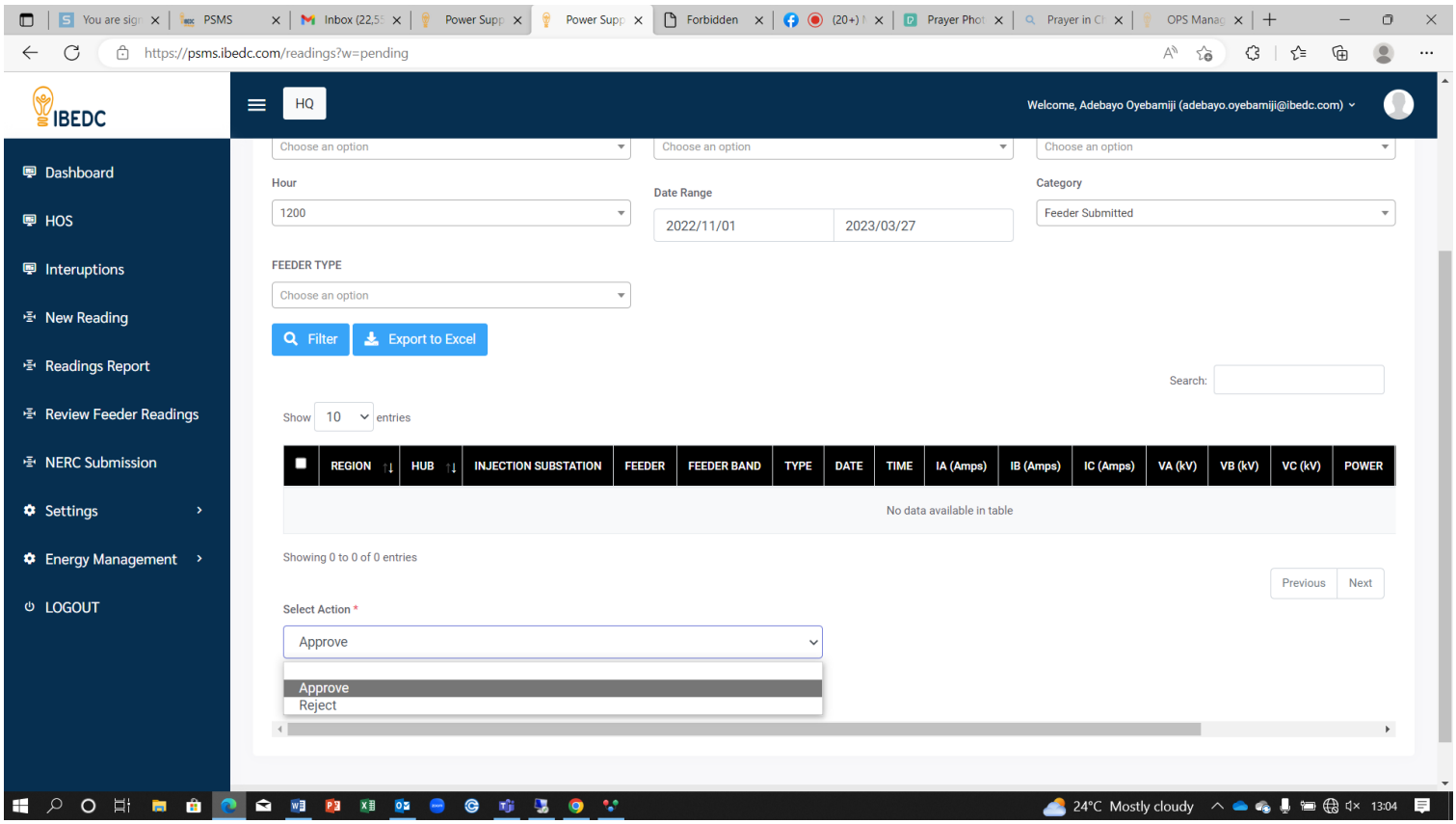
READINGS REPORT





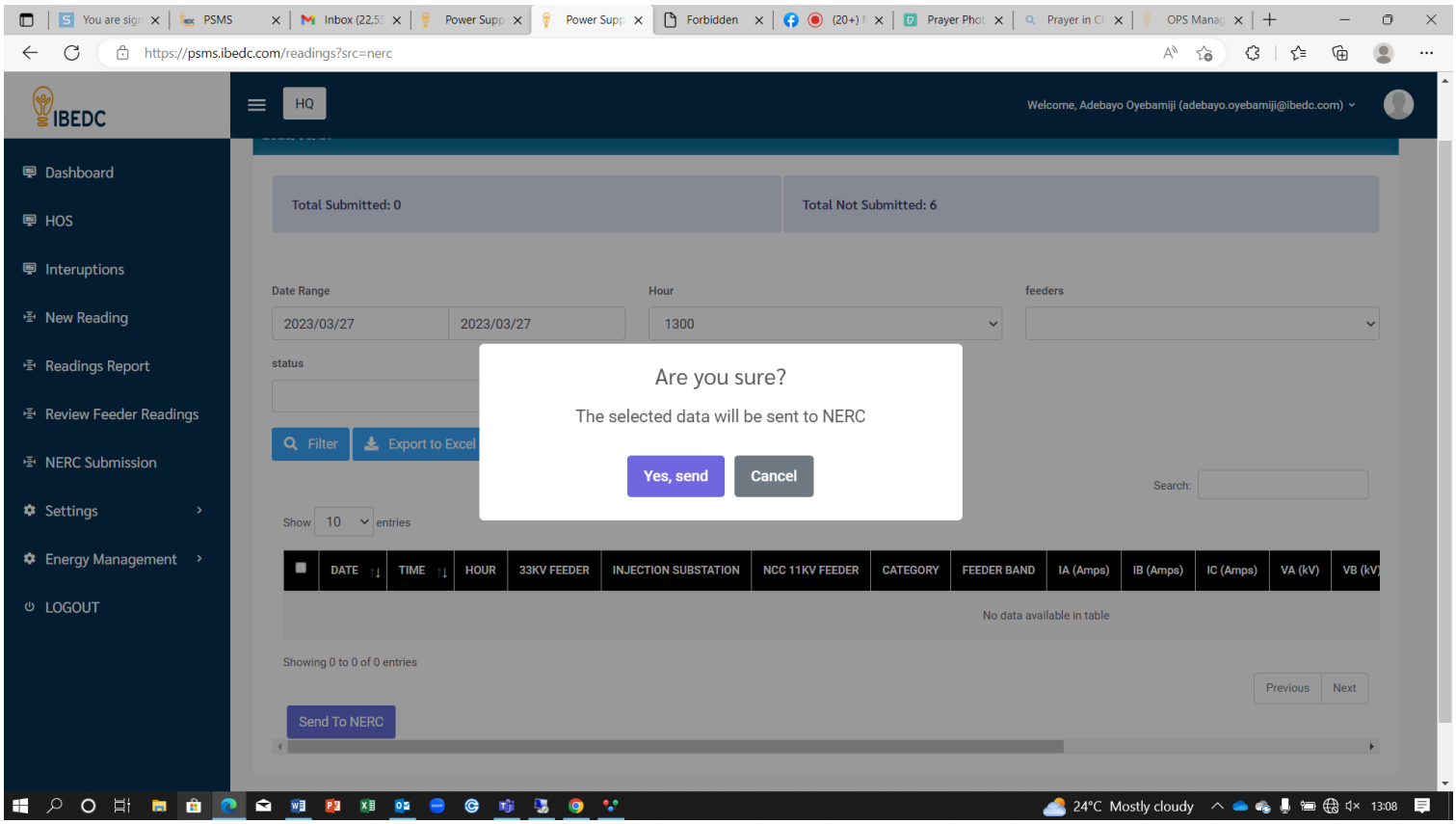
The report gives details information about the feeder: The colour bands signify if the feeder is energized or not, for example, the green colour on Ayepe 11kv feeder signifies that the feeder is currently having a supply with its corresponding current and voltage readings while the red colour bands signify that the feeders are not currently receiving supplies.

REVIEW FEEDER READINGS



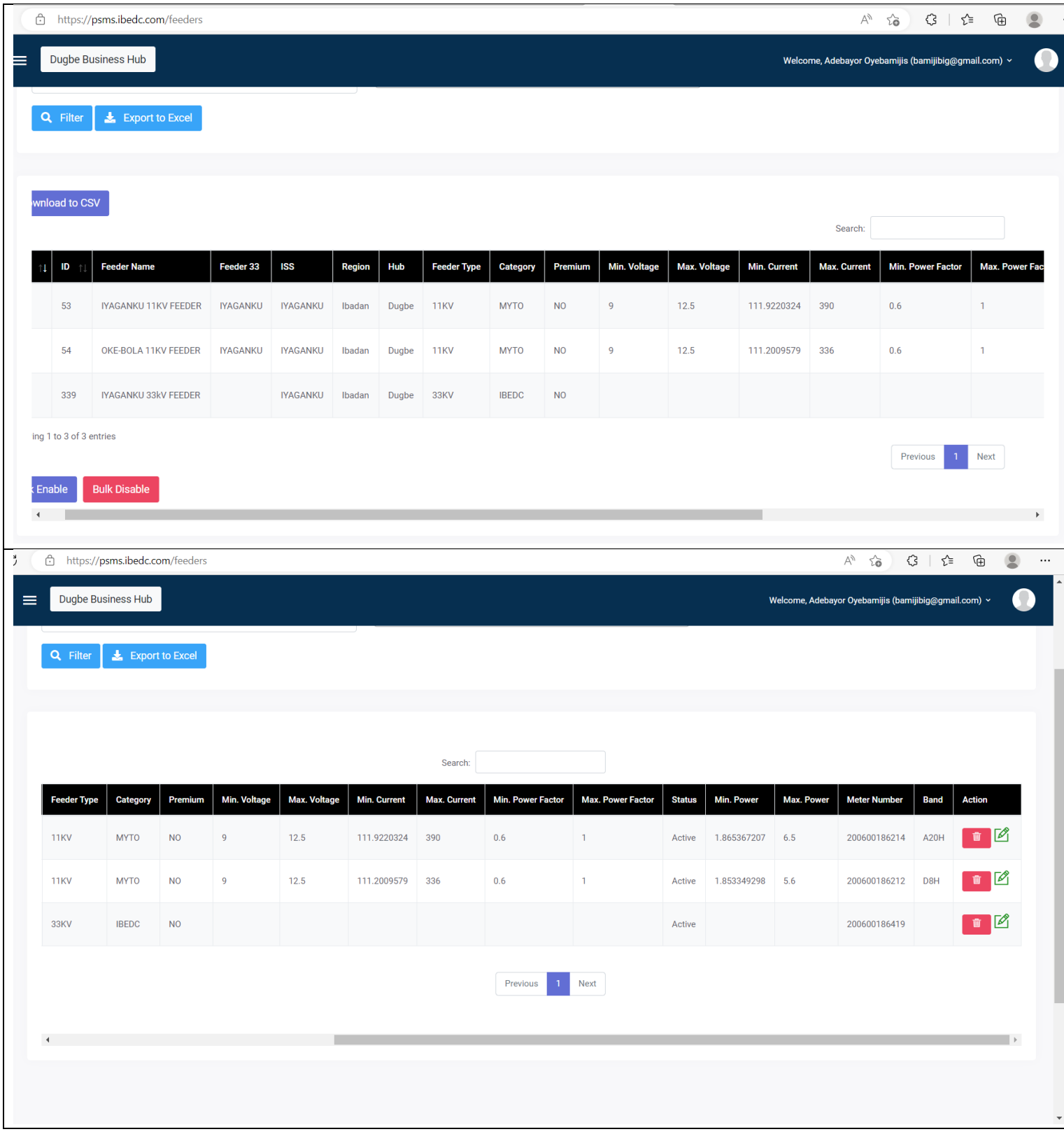
The feeder reading which shows the details of the data captures from AMI and from DSO is then reviewed and approved firstly by the BHM and then by the Dispatch from the Head office.

NERC SUBMISSION

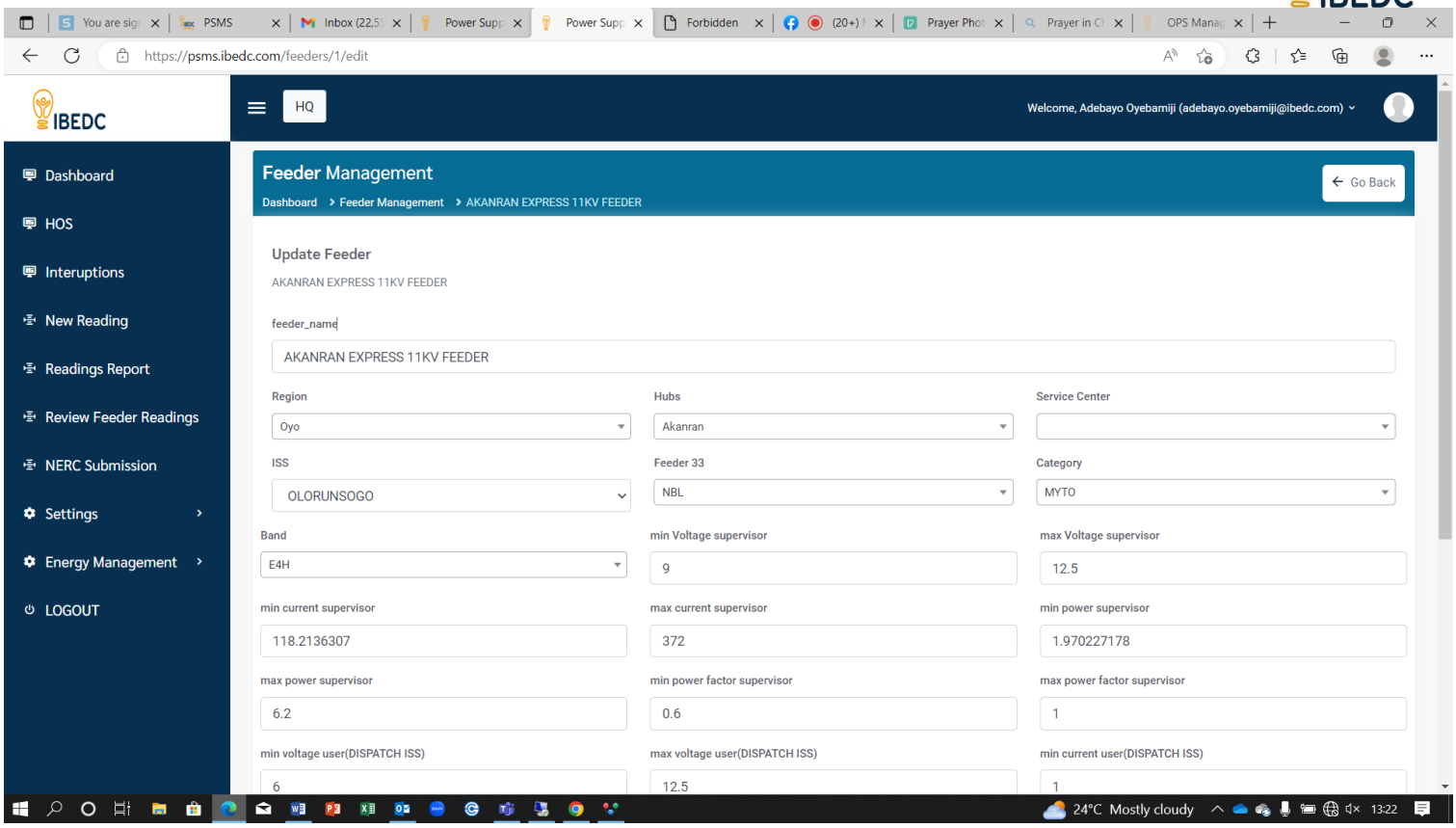


The Feeder information reviewed and approved by the Business hub manager and the dispatch officer at head office is then been sent to the NERC regulatory from this module. A click on send to NERC prompt the user to confirm if it is to be sent or cancel.

Energy Management Module



The Feeder energy management modules give detailed reports on feeders, information such as feeder type, category, minimum voltage and current, maximum voltage and current, minimum and maximum power factor, meter number, and bands. The click on the green pencil icon shows below image:



This shows where the feeder is been tied to region, hubs, and ISS as well as the properties of the feeder.