PRODUCT SHOWCASE / NOVEMBER 2022

Optima EV Platform

GLOBAL EV NETWORK MANAGEMENT SOLUTION

optima technology

Automated SaaS solutions powering innovation and smarter business decisions across new use cases

The March 2022 strategic plan saw Optima change demand drivers from energy data management and energy procurement, to ESG and sustainability reporting. As market trends drive the ESG reporting agenda today, new use cases are arising where additional industries can benefit from Optima's data automation capability.

ENERGY SPEND CONFIDENCE & OPTIMISATION

Manage energy usage, payments, spend, budgeting and forecasting on a single, user-friendly platform that saves time and money.

PROCUREMENT DATA SOLUTIONS

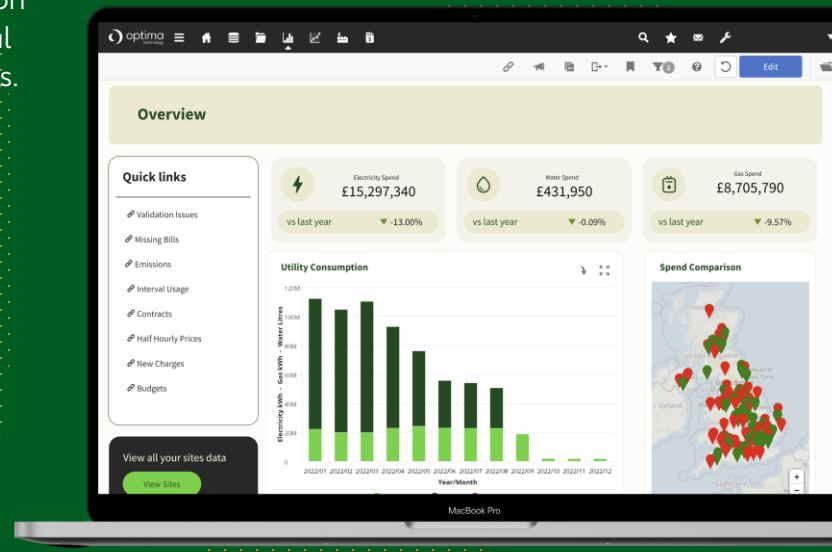
Analyse and procure the best suited energy contract from data that is validated and verified; now critical with an increasing energy market.

ACCURATE SOURCE DATA FOR SUSTAINBILITY REPORTING

Automatically calculate carbon emission performance to provide a real-world view of the organisation's carbon footprint in line with global guidelines and frameworks.

NET ZERO USE CASES – AUTOMATION FOR ENERGY-TECH SOLUTIONS

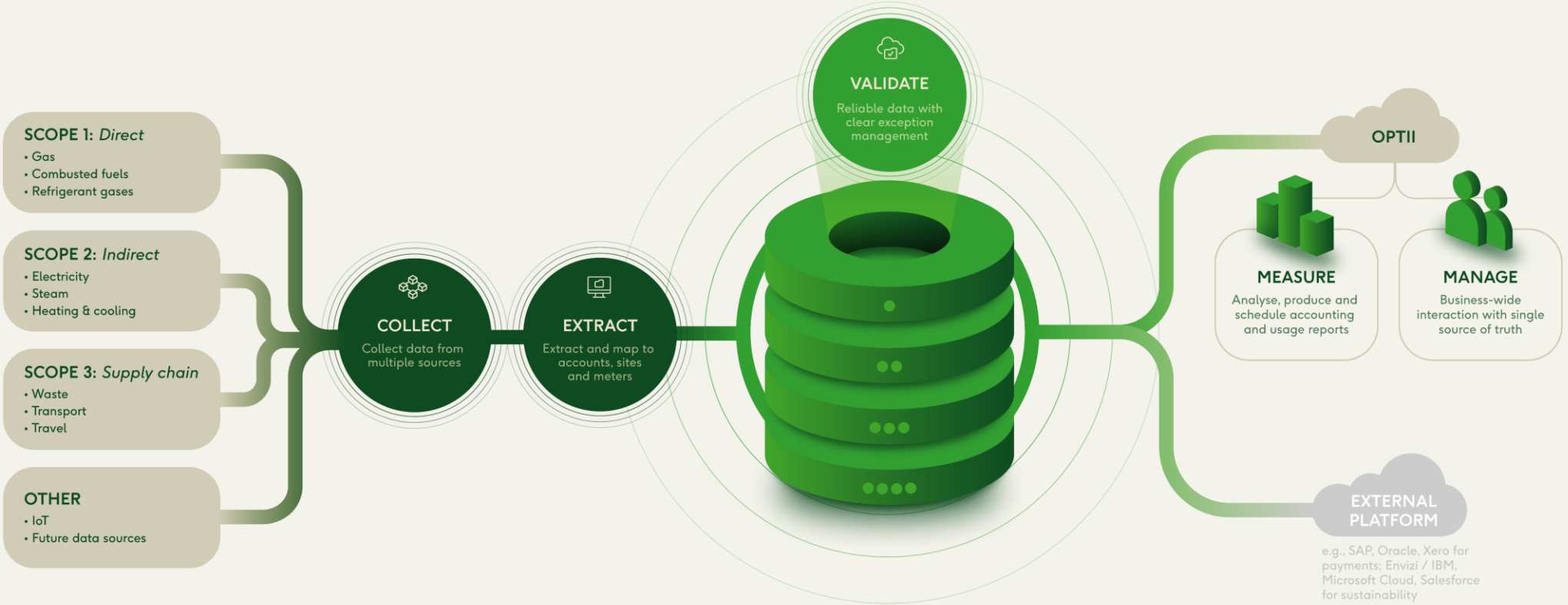
Electric Vehicles, Battery-as-a-Service, Frequency Response – global drive to electrification.



Global Optima Technology Platform

The Optima Technology Platform Differentiation:

- Software automation with highly accurate, 98% data capture
- Unique global data acquisition and validation solution
- Interactive Interface enabling business-wide cost and Net Zero tracking and optimisation



DATA ACQUISITION
Automated global data accuracy

VALIDATION
Gain spend confidence

ANALYSIS & VISUALISATION
Integrate with Optii or business ERP, via API

Unique challenge of operational and pricing complexity for EV network providers installing EV charging stations

EV CUSTOMER CHALLENGE

- Operational complexity with fast ramp-up of installation and management across countries and hardware suppliers
- Acquisition and aggregation of data
- Solve price at pump
- Manage procurement and demand side factors
- Monitor and manage margins – aggregated financial data
- Carbon rebate claims and tax concessions on EV charging
- Emissions for ESG reporting

Optima provides end-to-end EV demand side economics

Pricing and decision tools to complement other EV software

OPTIMA E2E VALUE CHAIN

- Electricity cost and consumption ($/£, kWh)
- Energy supply contract details and validation
- Time of use, other commodity structures
- Accounting payment & accrual files
- Calculated loss factors
- Carbon emission reporting

CURRENT EV SOFTWARE DATA

- Charge point utilisation (kWh, hours)
- Aggregated facility instantaneous load (kW)
- Charge point capacity (kVA)
- Aggregated facility capacity (kVA)
- Load Management

CASE STUDY / BP PULSE

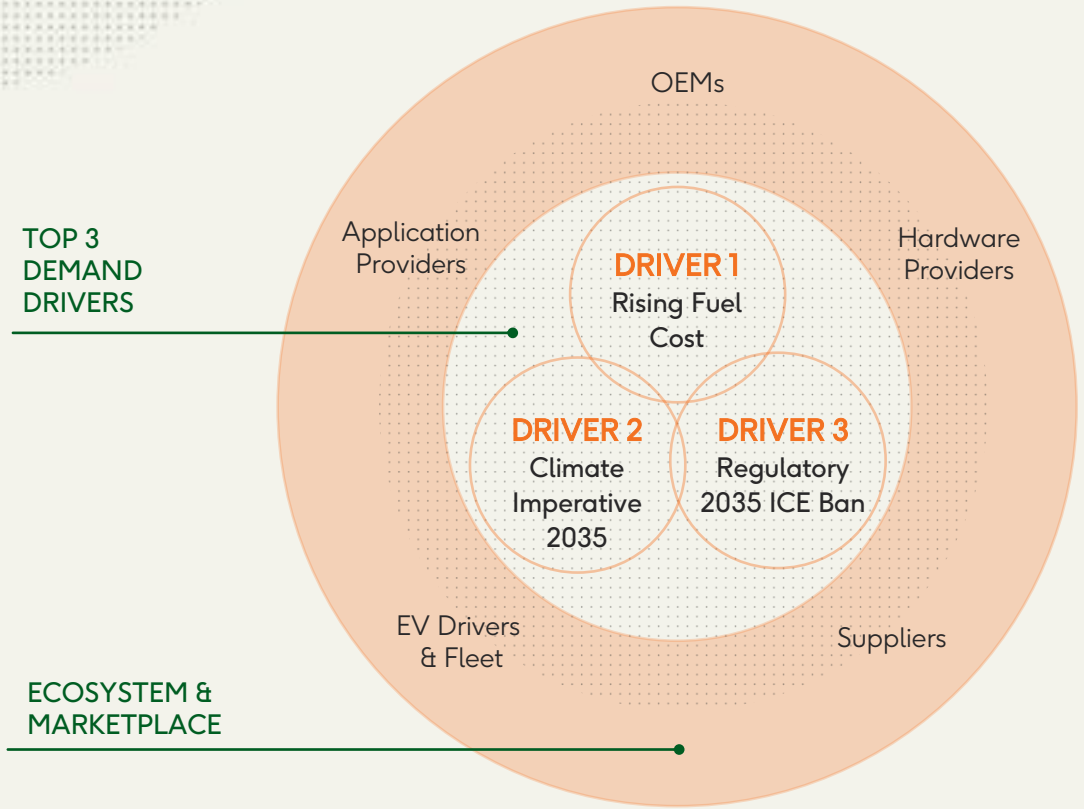
bp pulse appoints Optima Technology as technology partner for global rollout of EV charging stations

OPTIMA EV PARTNERSHIP

Following global tender process bp pulse appointed Optima as technology partner:

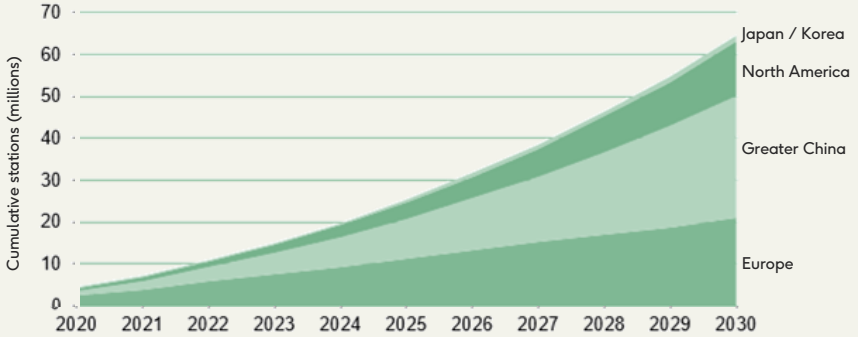
- Global Network roll-out to 17+ countries, over 3 years
- Onboarded Germany before expanding into Holland, Spain, Australia and New Zealand. Expected to roll out to France, Portugal, Poland and Austria by Spring 2023
- bp pulse has announced plans for 100,000 charge points globally, 16,700 today
- Accurate data extraction and validation solution for audit-grade results
- Central HQ energy management and reporting
- One accurate data source to manage global financial, Net Zero and tax reporting
- Commercial insights captured in near real-time

Optima's unique EV software taps into booming EV value pool with pricing and profitability solution



GLOBAL RAMP UP OF EV CHARGER VOLUMES

The global deployment of EV charging stations will increase at 31% CAGR to more than **66 million units by 2030**[1].



1 Global cumulative charging station deployment forecast: IHS Markit

POTENTIAL TOTAL ADDRESSABLE MARKET (TAM)

The global market value of electricity for EV charging is projected to grow over 20-fold in the APS, reaching approximately **USD 190 billion by 2030**[2], which is equivalent to about one-tenth of today's diesel and gasoline market value.

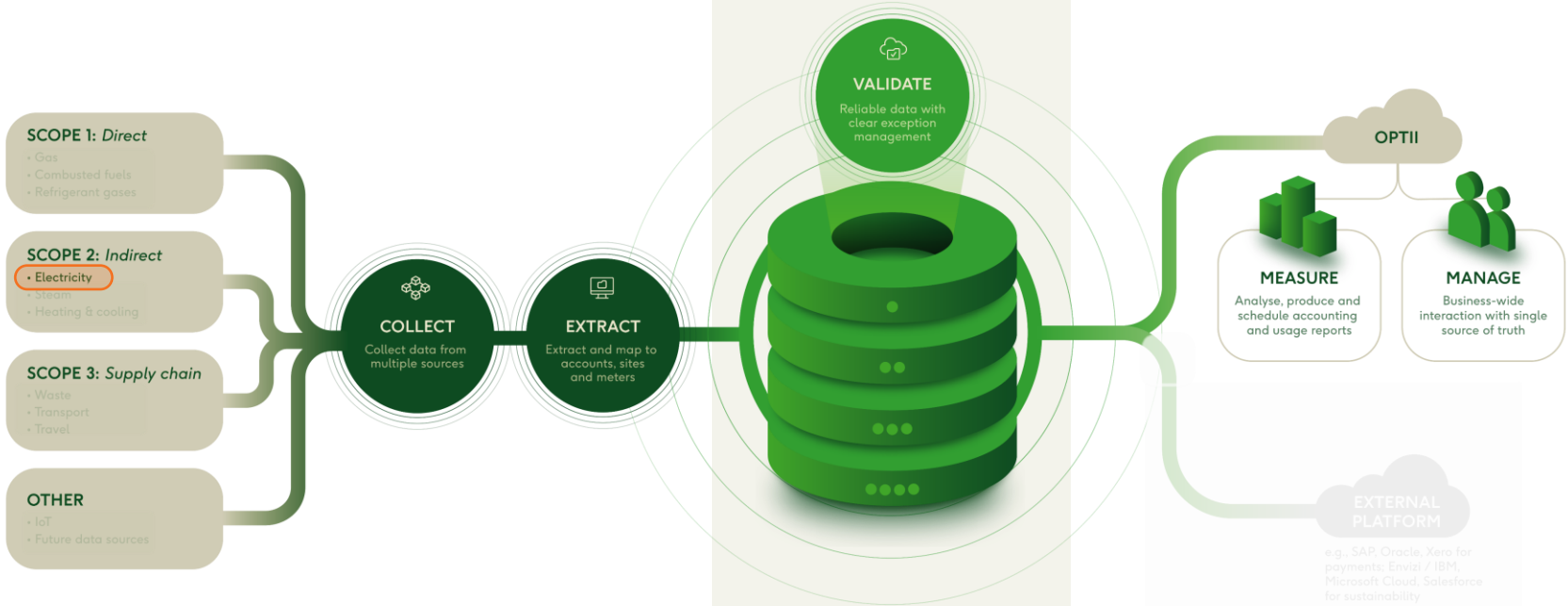
2 IEA Global EV Outlook 2022

USE CASE / LARGE UTILITY CLIENT EXAMPLE

BEFORE

- Manual collection of Electricity invoices
- Manual data entry from invoices into spreadsheets
- Human error compromising accurate reporting
- Spot checks
- Missing validation exceptions
- Third party platform
- More expensive than Optima's Optii

AFTER



BENEFITS

~30% - 40% direct subscription savings

(based on price of $3.30 per site per month for ~6.5k sites)

~$2.4M cost avoidance over 5 years with better validation and accuracy

- Overall improvements in speed, accuracy and value chain driven automation over manual effort
- Improved confidence and engagement with energy management

DATA ACQUISITION
Automated global data accuracy

VALIDATION
Gain spend confidence

ANALYSIS & VISUALISATION
Integrate with Optii or business ERP, via API

Note 1 – Benefit estimates have been determined by Bid using internal research based on a number of inputs. Direct subscription savings have been determined using client interviews and other secondary market research. Cost avoidance savings have been determined by analysing validation errors using variety of assumptions. These figures are approximate and provided on a 'non-reliance' basis.

Expanding opportunities in the Net Zero transition

1

DATA CAPTURE / AGGREGATION & HOSTING

- Digitisation of energy industry
- Audit-grade reliability
- Optima collects fiscal meter, smart meter and IoT data

2

BATTERY AS A SERVICE

- Forecast battery TAM US$1.1B globally by 2030[1]
- Large CAGR growth
- Problem being solved is:
  - Intermittent renewable supply
  - Limited grid capacity
  - Capital cost of batteries

3

SCOPE 3 EMISSIONS ANALYSIS

Targeted support of 3 largest emission categories with our unique data acquisition software:

1. Electricity & Heat
2. Transport
3. Manufacturing & Construction

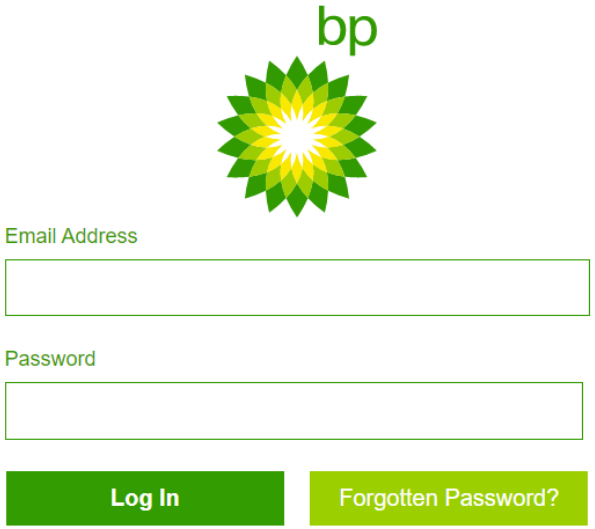
4

ELECTRIFY EVERYTHING!

- Global drive to electrification to substitute fossil fuels drives an explosion in data creation
- Optima – global data electricity specialists

1. Global Battery As A Service Market Report Source

Solution Showcase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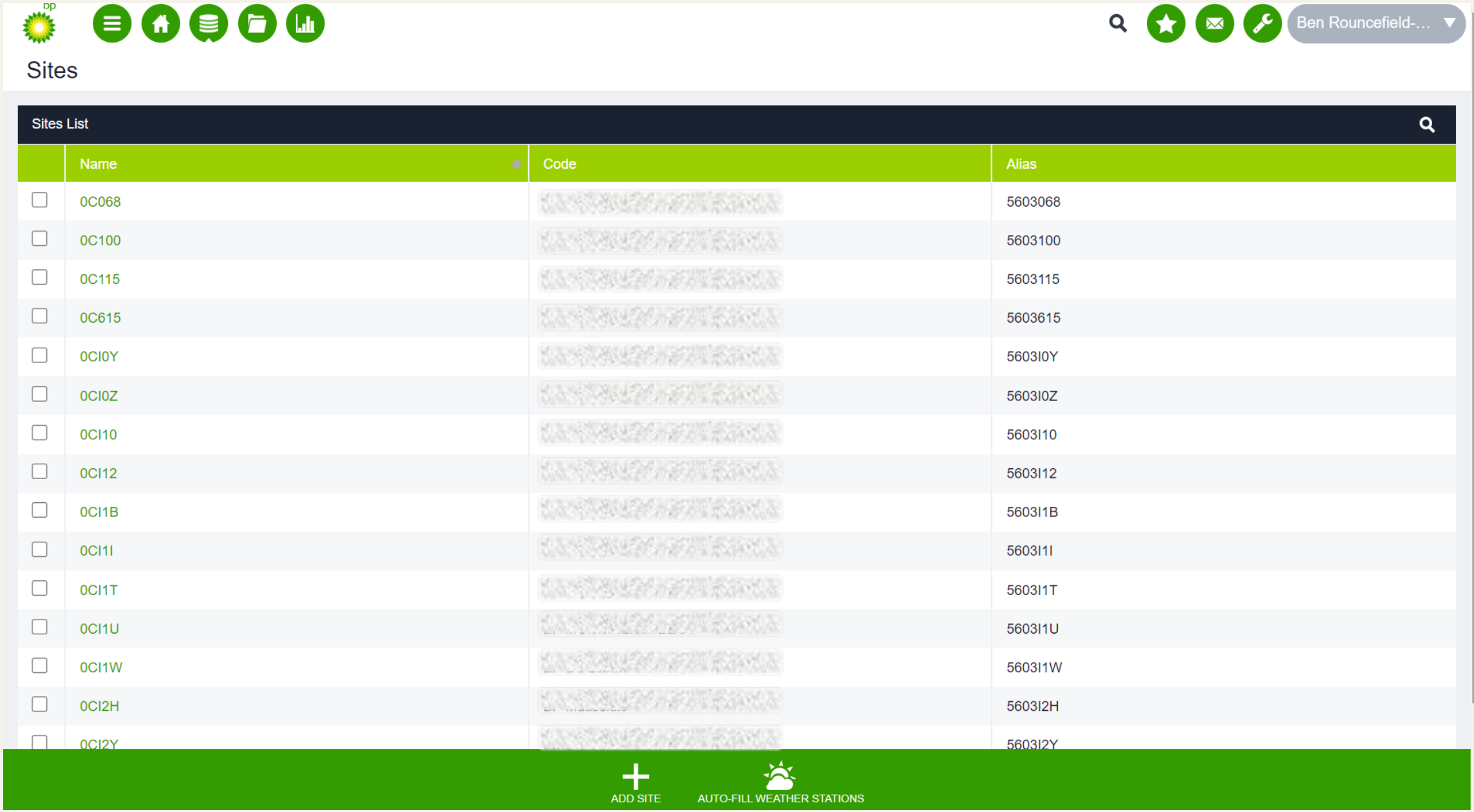
Email Address
Password
Log In
Forgotten Password?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0CI10 5603I10
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0CI1B 5603I1B
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0CI1T 5603I1T
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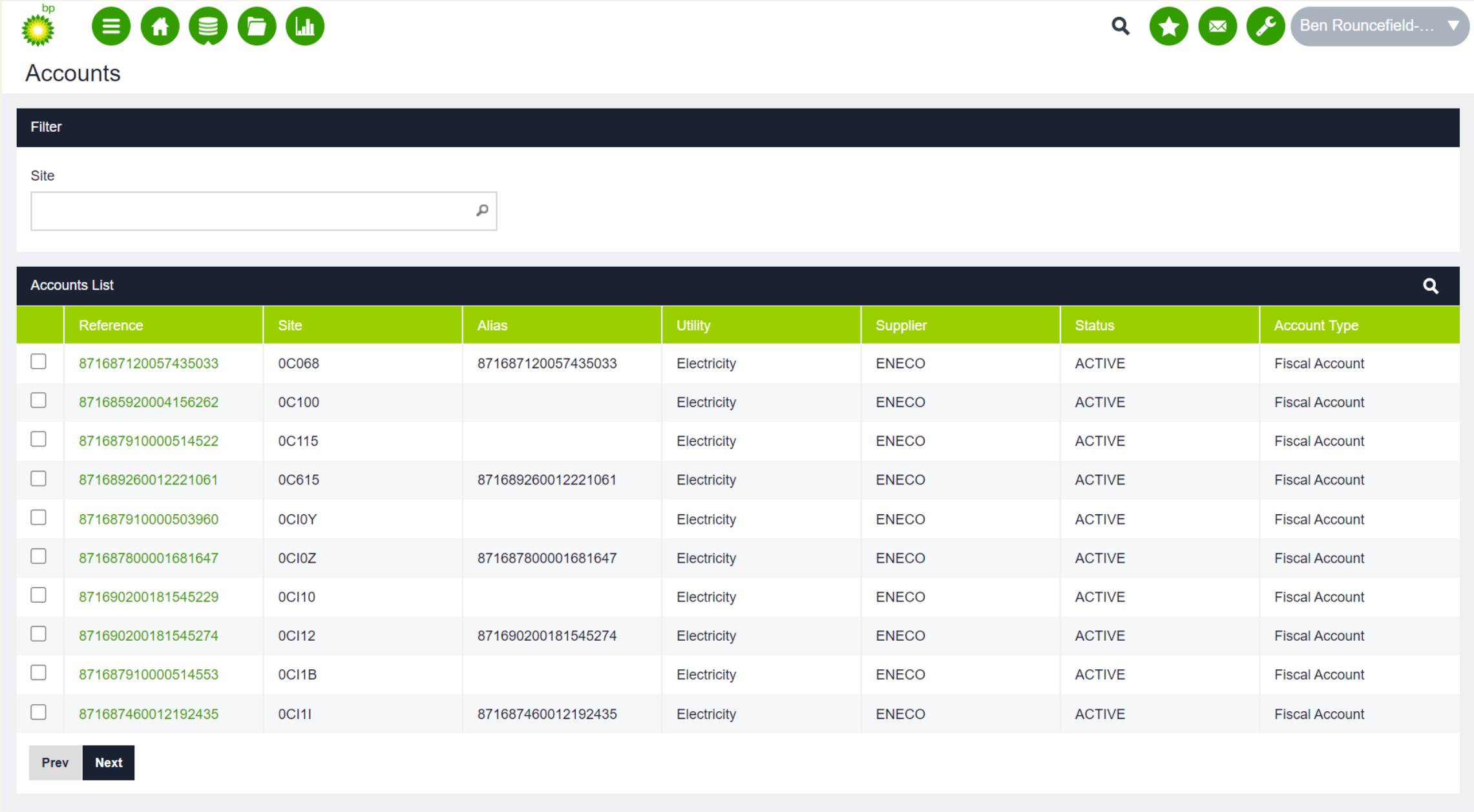
ADD SITE
AUTO-FILL WEATHER STATIONS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Utility
Supplier
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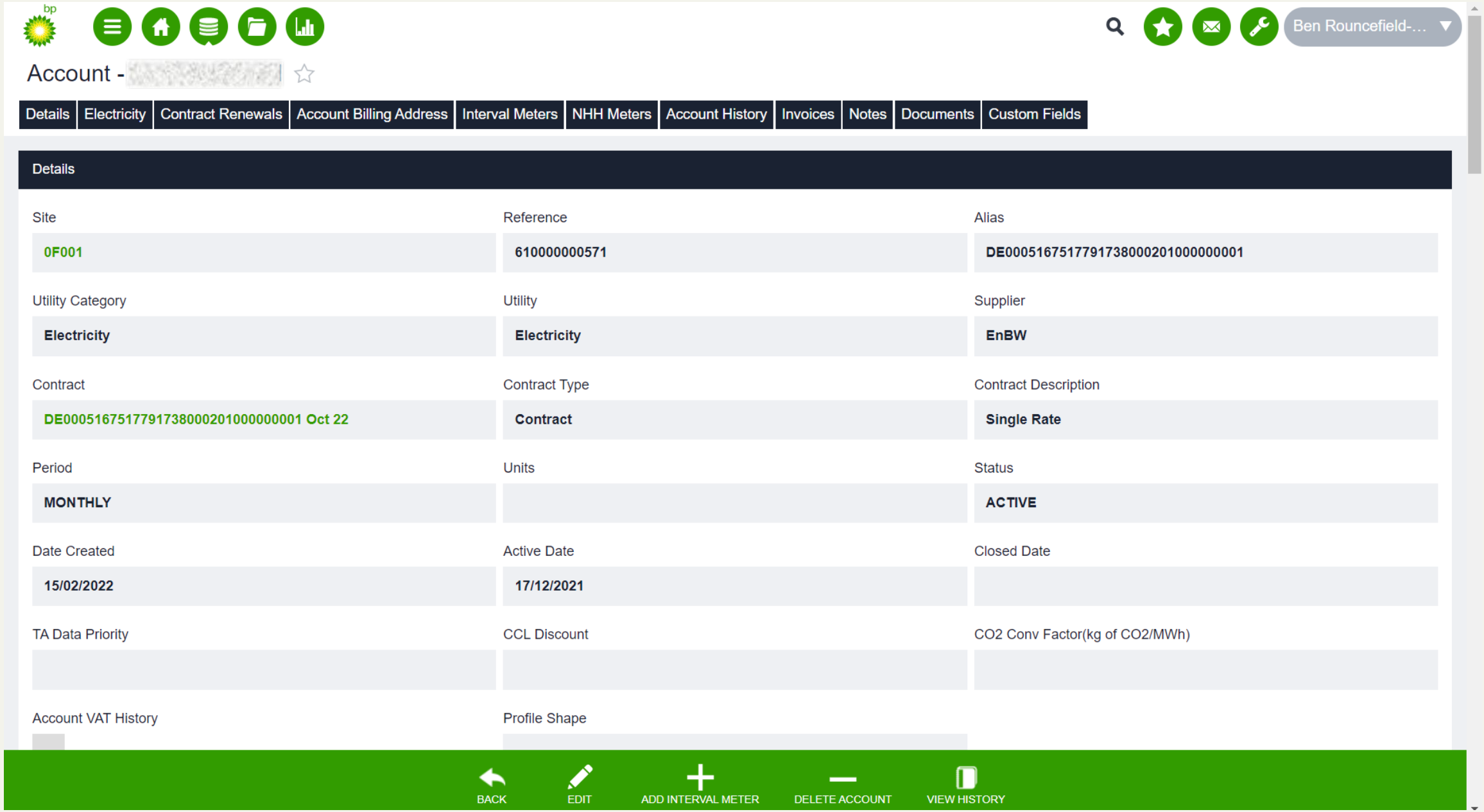
Prev
Next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Details
Electricity
Contract Renewals
Account Billing Address
Interval Meters
NHH Meters
Account History
Invoices
Notes
Documents
Custom Fields
Details
Site
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Reference
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Alias
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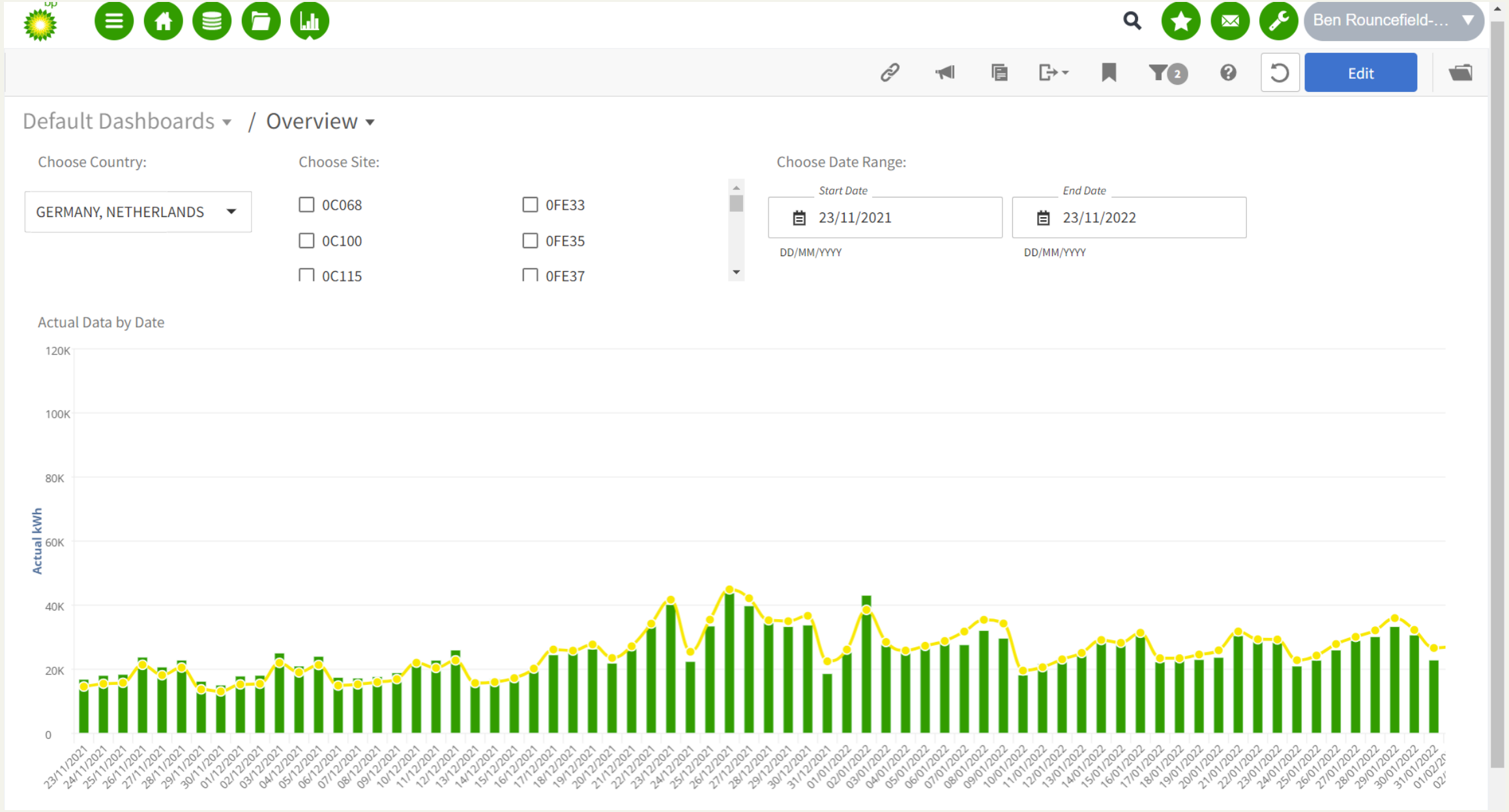
Utility Category
Electricity
Utility
Electricity
Supplier
EnBW
Contract
DE00051675177917380002010000000001 Oct 22
Contract Type
Contract
Contract Description
Single Rate
Period
MONTHLY
Units
Status
ACTIVE
Date Created
15/02/2022
Active Date
17/12/2021
Closed Date
TA Data Priority
CCL Discount
CO2 Conv Factor(kg of CO2/MWh)
Account VAT History
Profile Shape
BACK
EDIT
ADD INTERVAL METER
DELETE ACCOUNT
VIEW HISTORY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0C100
0C115
0FE33
0FE35
0FE37
Choose Date Range:
Start Date
23/11/2021
DD/MM/YYYY
End Date
23/11/2022
DD/MM/YYYY
Actual Data by Date
Actual kWh
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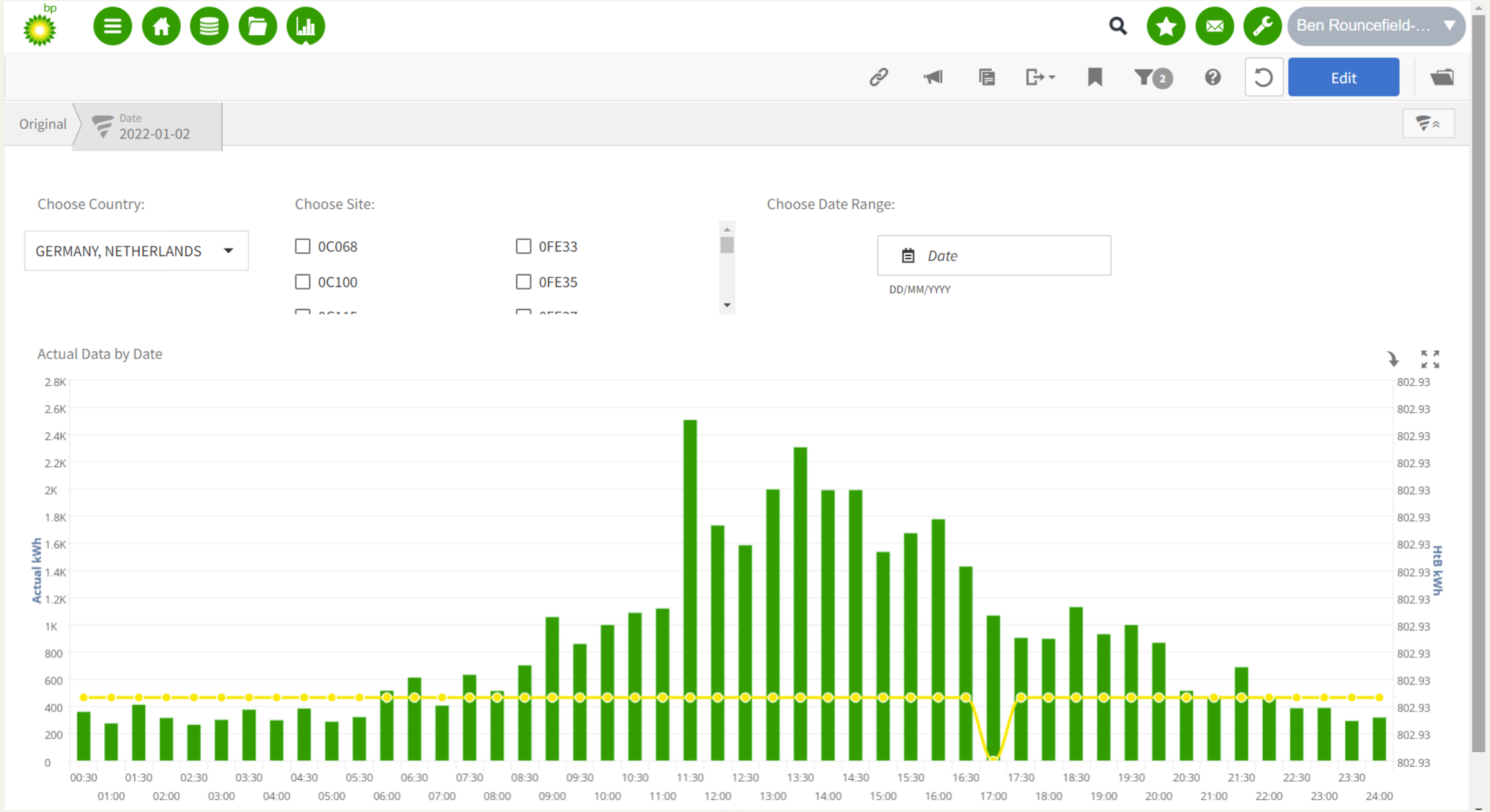
100K
80K
60K
40K
20K
0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Date
DD/MM/YYYY
Actual Data by Date
Actual kWh
HtB kWh
2.8K
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2.4K
2.2K
2K
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1.4K
1.2K
1K
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400
200
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802.93
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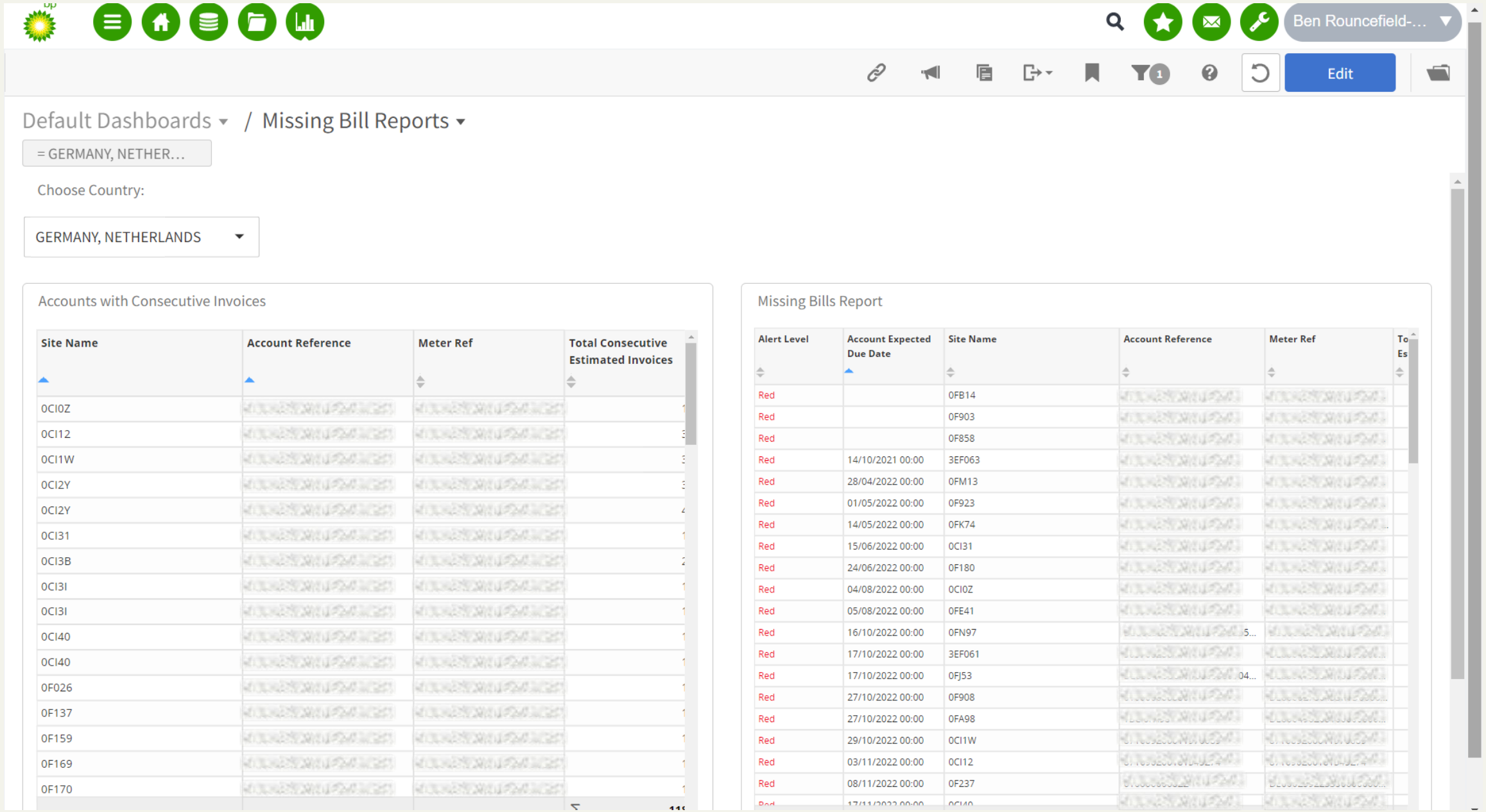
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Default Dashboards / Missing Bill Reports
= GERMANY, NETHER...
Choose Country:
GERMANY, NETHERLANDS
Accounts with Consecutive Invoices
Site Name
Account Reference
Meter Ref
Total Consecutive Estimated Invoices
0CI0Z
0CI12
0CI1W
0CI2Y
0CI2Y
0CI31
0CI3B
0CI3I
0CI3I
0CI40
0CI40
0F026
0F137
0F159
0F169
0F170
Missing Bills Report
Alert Level
Account Expected Due Date
Site Name
Account Reference
Meter Ref
Red 0FB14
Red 0F903
Red 0F858
Red 14/10/2021 00:00 3EF063
Red 28/04/2022 00:00 0FM13
Red 01/05/2022 00:00 0F923
Red 14/05/2022 00:00 0FK74
Red 15/06/2022 00:00 0CI31
Red 24/06/2022 00:00 0F180
Red 04/08/2022 00:00 0CI0Z
Red 05/08/2022 00:00 0FE41
Red 16/10/2022 00:00 0FN97
Red 17/10/2022 00:00 3EF061
Red 17/10/2022 00:00 0FJ53
Red 27/10/2022 00:00 0F908
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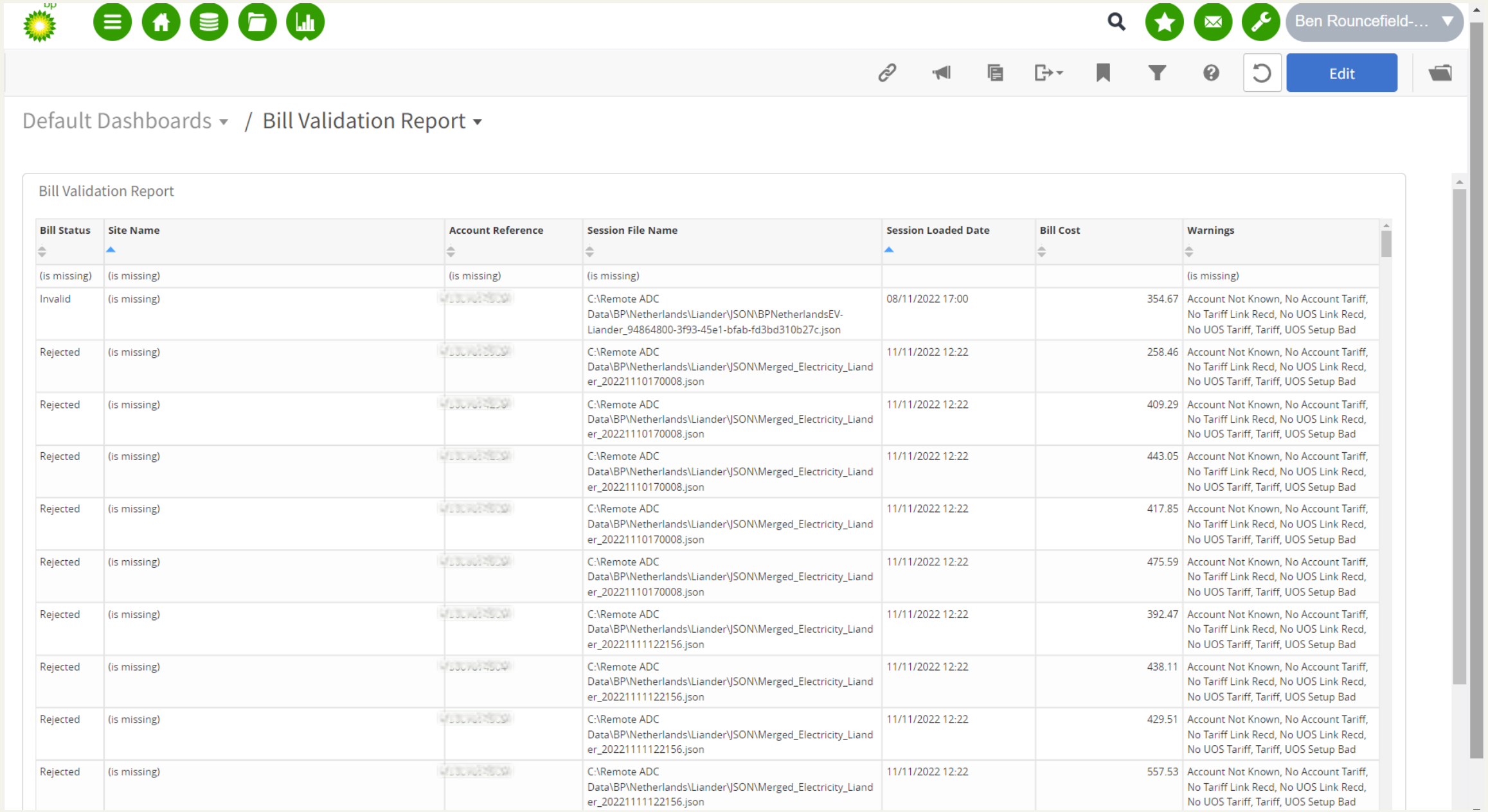

Bill Status	Site Name	Account Reference	Session File Name	Session Loaded Date	Bill Cost	Warnings
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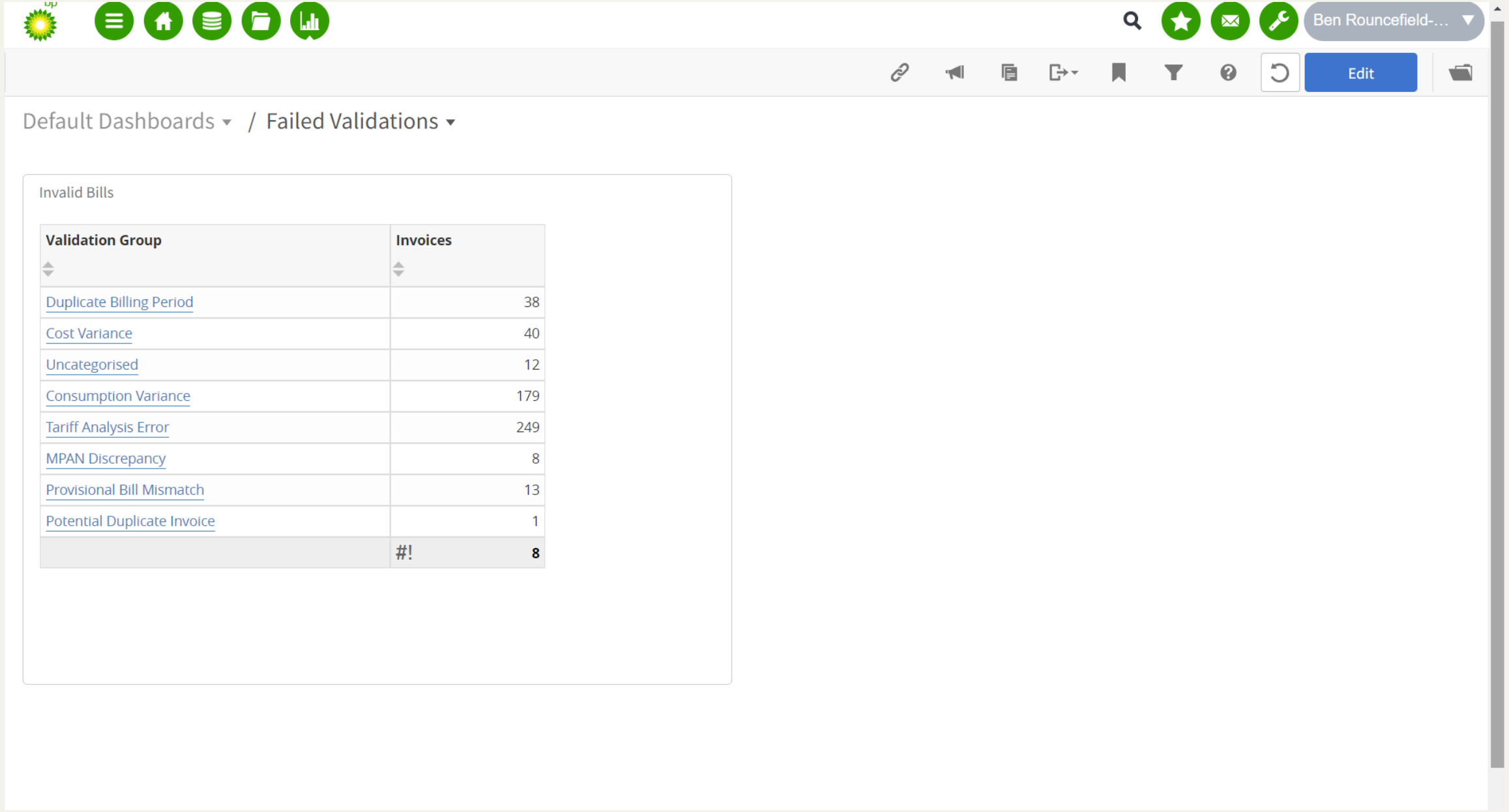
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Invoices
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Cost Variance 40
Uncategorised 12
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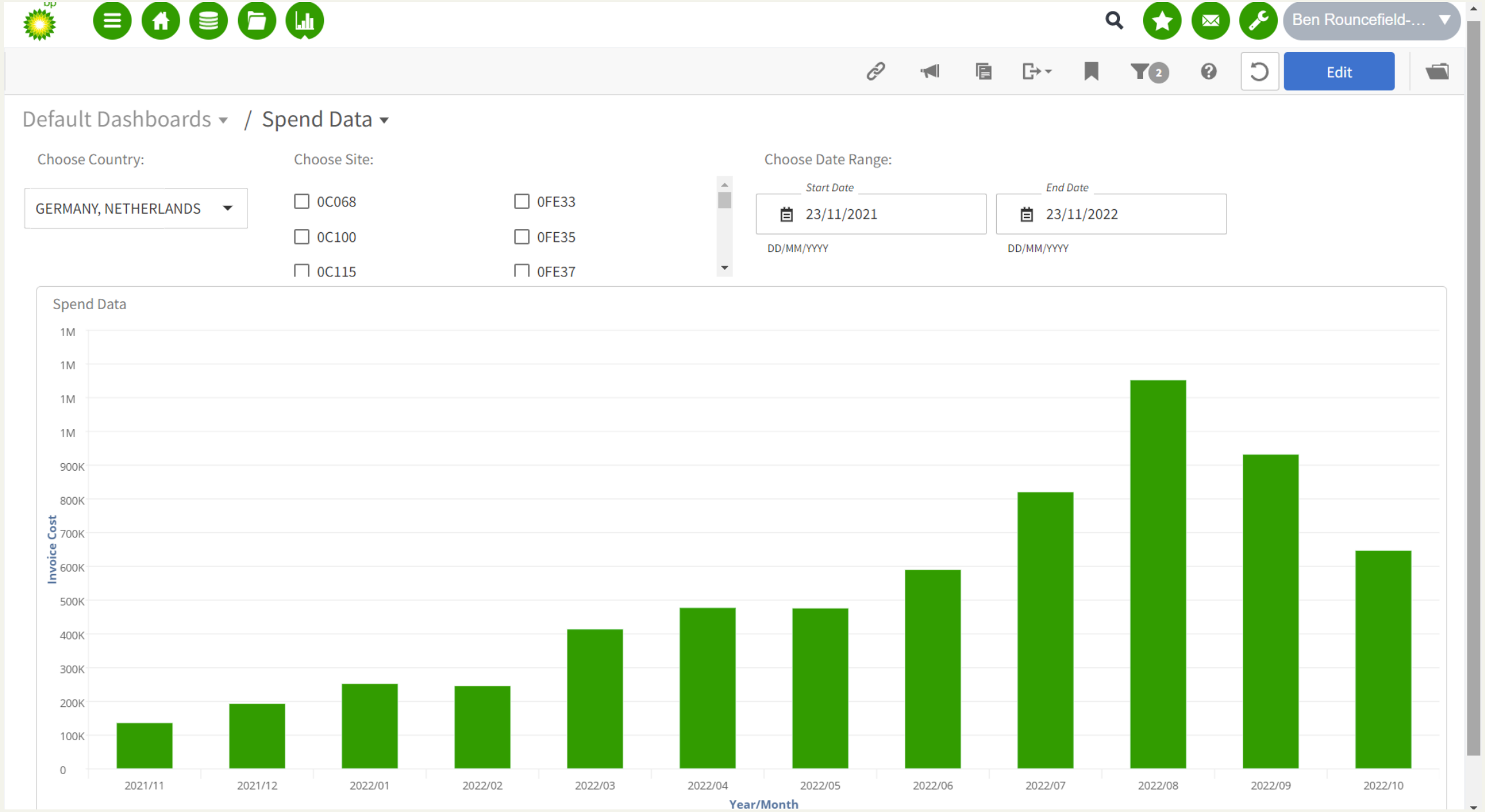
Provisional Bill Mismatch 13
Potential Duplicate Invoice 1
#! 8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Default Dashboards / Spend Data
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Choose Date Range:
Start Date
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DD/MM/YYYY
End Date
23/11/2022
DD/MM/YYYY
Spend Data
Invoice Cost
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1M
1M
1M
900K
800K
700K
600K
500K
400K
300K
200K
100K
0
2021/11
2021/12
2022/01
2022/02
2022/03
2022/04
2022/05
2022/06
2022/07
2022/08
2022/09
2022/10
Year/Month

Appendix

Automated reporting of EV invoice, charging and meter data for complete EV data accuracy

Automated data processing and validation of purchased versus consumed power reported from multiple sources provides complete accuracy of an aggregated EV portfolio of sites.

Collect	EV Supplier Invoices, EV Charging (Sales) Data and Interval Meter data
Extract	All usage and spend components of invoices, mapped to EV accounts
Validate	Data across multiple sources with discrepancies identified
Measure	Detailed structured reports across all EV sites and data sources
Manage	Aggregated view of entire EV portfolio in one location, Optii

optima technology

Collection of EV data from multiple sources

Energy Supplier Invoice

Automated collection and storage of supplier invoices to EV charging hubs i.e., purchased power

Format:

PDF, EDI via S3 transfer

EV Charging (Sales) Data

Chargepoint data collection and storage from EV software providers

Format:

CSV, EDI via S3 transfer

Interval Meter Data

Interval meter data collection from meter provider;
30 min, 15 min intervals

Format:

CSV, EDI via S3 transfer

Data extraction from all EV sources into structured formats

Energy Supplier Invoice

All components of the Invoice are extracted (parsed) via automation to a structured format; consumption, unit rates, charges, tax etc.

EV Charging (Sales) Data

EV Charging Data is mapped from EDI or CSV to a structured format; sites, date periods, consumption, tax, losses and spill over (for tax purposes) etc.

Interval Meter Data

Interval Meter Data is mapped from EDI or CSV to a structured format

Validation of purchased versus consumed power, charges and taxes

Energy Supplier Invoice

Rates on invoice validated against system setup rate; consumption on invoice validated against Charging and Interval Meter Data

EV Charging (Sales) Data

Validate EV Charging Data against Interval Meter Data
e.g., Negative Own Consumption - Interval Meter charges greater than Charging Data recorded

Interval Meter Data

Validate Interval Meter Data against EV Charging Data and data extracted from Supplier Invoice

Measure discrepancies and financial data with automated reporting

Financial reporting

Payment and Accrual Files created from validated data across all three EV data sources; over 75 columns of data, budget, forecast, measure sales data

Discrepancy reporting

Reporting between all three EV Data sources, identifying discrepancies on:

- Fixed charges
- Unit charges
- Capacity charges
- Demand charges
- Distribution Fixed, Unit and Capacity charges

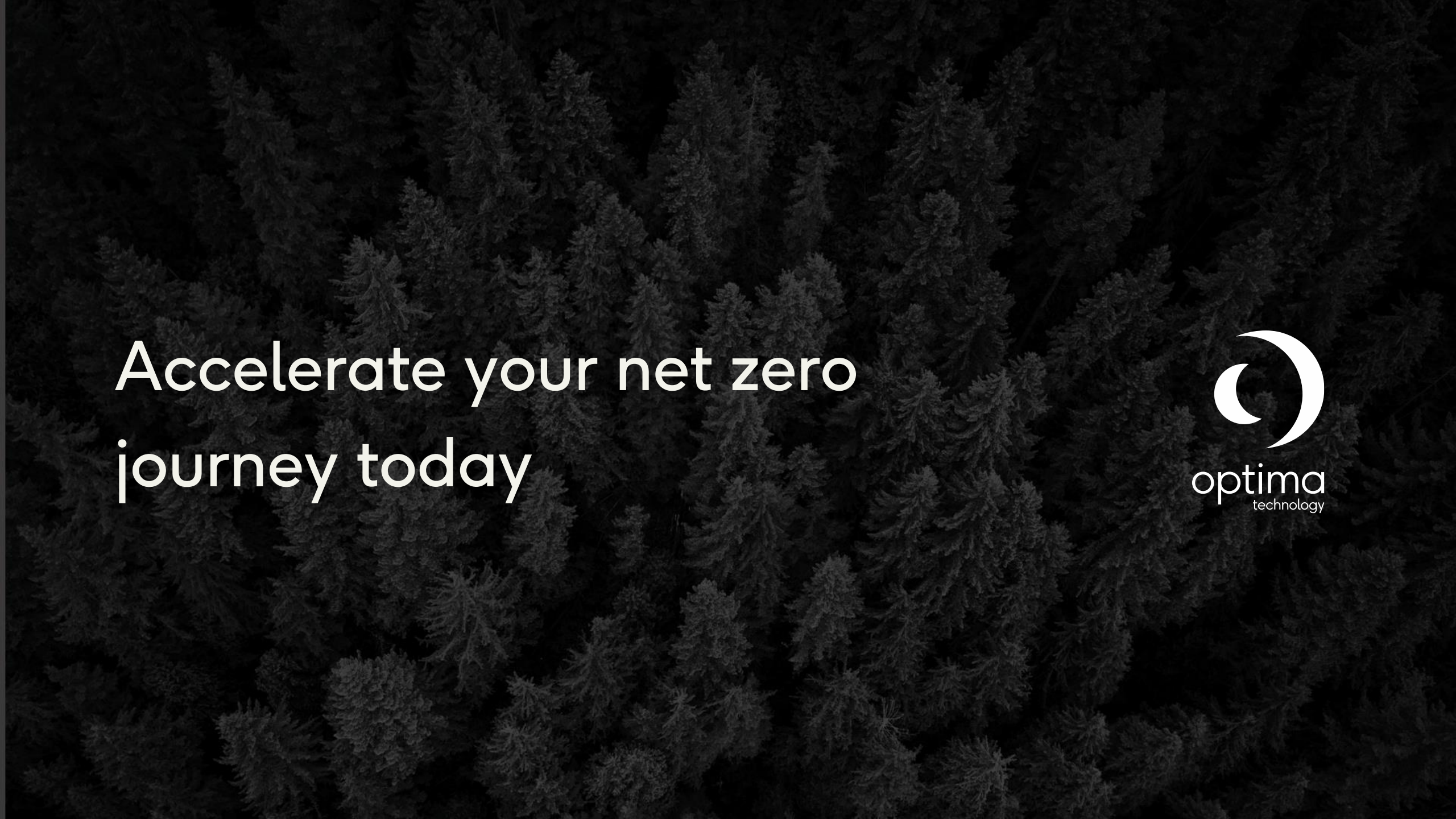
Tax reporting

Tax reporting for accuracy:

- VAT (Value Added Tax)
- CCL (Climate Change Levy)
- Losses and Spill over charges (for tax purposes)

Manage all EV reporting aggregated in one location, Optii

- Aggregated usage and spend information across entire EV portfolio
- New charges and invoice history detailed across EV portfolio
- Interval usage profile and data export across EV portfolio
- Missing invoices identified
- Discrepancies in EV power purchased versus consumed
- Sustainability and Net Zero reporting of EV portfolio


Accelerate your net zero
journey today
optima
technology