













ENERGY = EMPOWERMENT = EFFICIENCY

Mini-Grid Acceleration Scheme

Implemented by:



Instructions: Click on the Programs tab to access all program documents.

Getting Started Video

User Guide

Odyssey Updates

The Odyssey team is committed to providing you the rapid support you need as you try out the platform. Simply enter your comments or questions in the chat box on the screen, and we promise you a quick response.

ECREEE WEEKLY Q&A SESSIONS

Every Tuesday at 2 pm GMT Odyssey will be hosting Q&A sessions for the ECREEE Call for Proposals. JOIN US! (https://zoom.us/j/506741283) or

Read More

View an Odyssey Introductory training session

Read More

Odyssey has been in the news

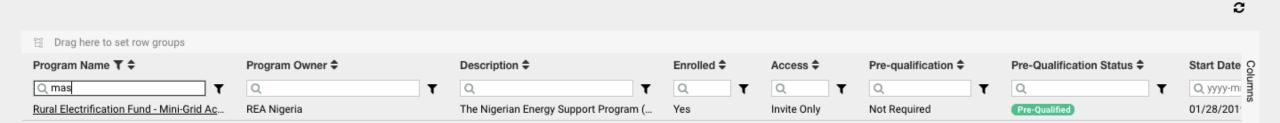
Odyssey recently surpassed 550 projects being planned within the software, requiring a total estimated investment of more than USD \$500 p

Check out our latest features in Greentech Medi





Programs



∢ Back

Rural Electrification Fund - Mini-Grid Acceleration Scheme (MAS) Invite Only, No Pre-qualification

Home Documents F	Projects
Program Name	Rural Electrification Fund - Mini-Grid Acceleration Scheme (MAS)
Description	The Nigerian Energy Support Program (NESP) Implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in collaboration with The Federal Ministry of Power, Works, and Housing. Funded by The European Union and the German Government.
Access	Invite Only
Start Date	01-28-2019
End Date	02-28-2019
Bid Review Date	03-03-2019
Pre-qualification Deadline	01-28-2019







Projects Programs

Portfolios

RFQs

Hunter Dudley 🔻

Help ?

Sack

Rural Electrification Fund - Mini-Grid Acceleration Scheme (MAS)







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Portfolios

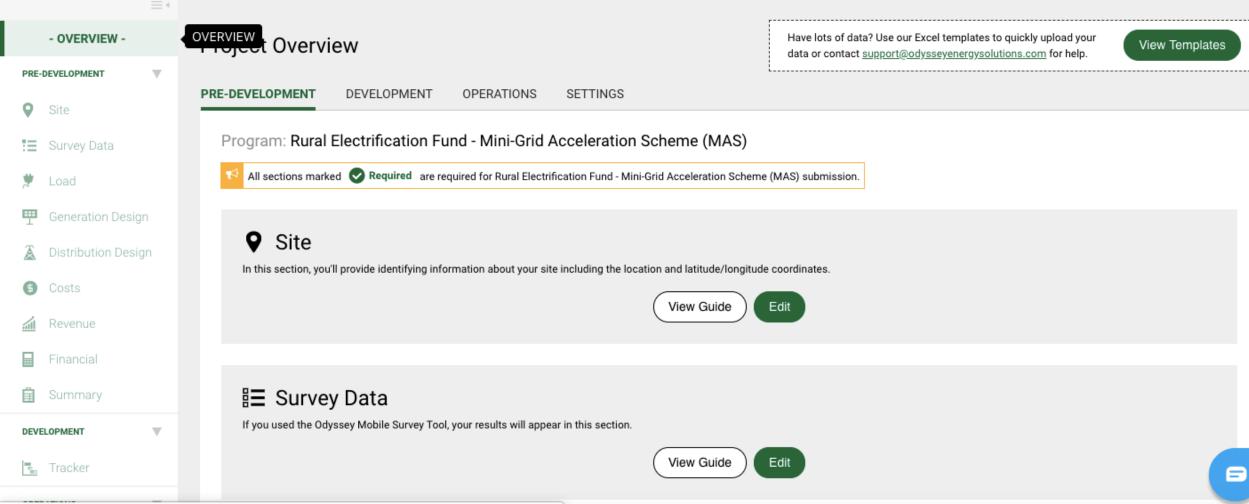
RFQs

Hunter

Hunter Dudley ▼

Help ?

Sample Project 6









Programs

Portfolios

RFQs

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Sample Project 6



PRE-DEVELOPMENT



Site

!≡ Survey Data

Generation Design

Revenue

Summary

DEVELOPMENT

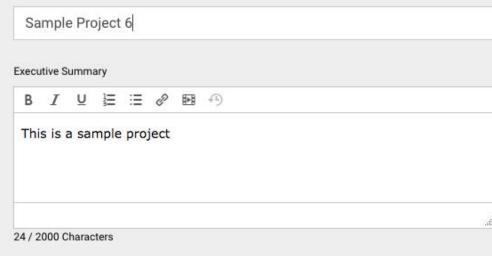
Tracker

Site Specifications

Project Overview Project Files Site Details Have lots of data? Use our Excel templates to quickly upload your data or contact support@odysseyenergysolutions.com for help.

View Templates









Projects Programs

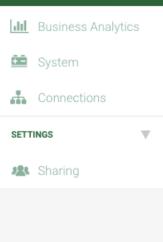
Portfolios

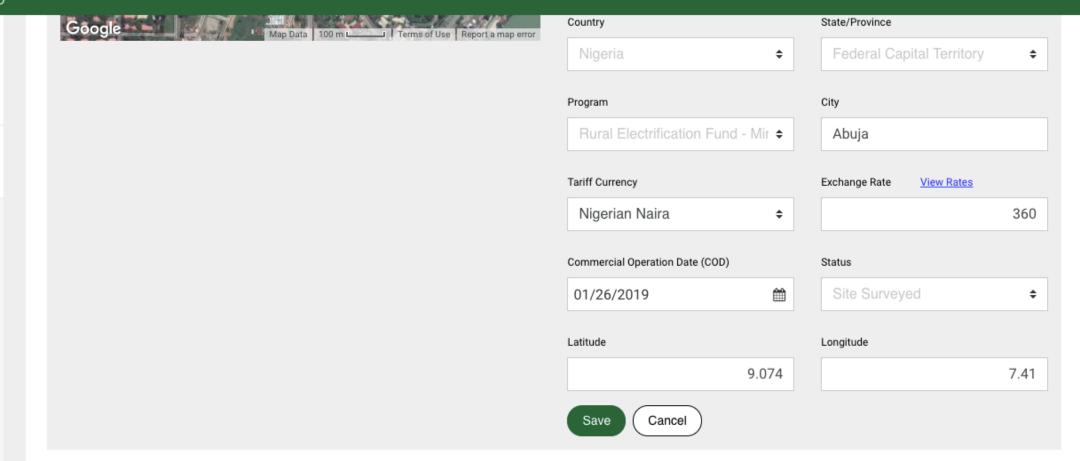
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Sample Project 6











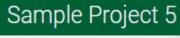


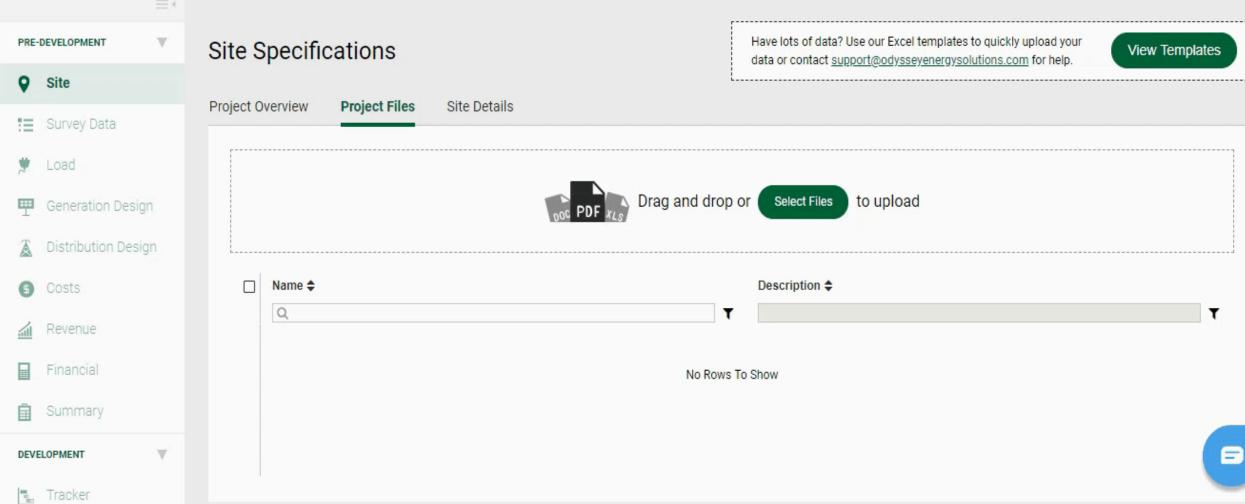


RFQs

Trina Tychell ▼











Projects

Files

Programs

Portfolios

RFQs

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Sample Project 5

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Project Overview

data or contact support@odysseyenergysolutions.com for help.

view rempiaces

Site

Survey Data

Load



Distribution Design

Costs

Revenue

Financial

Summary

DEVELOPMENT



OPERATIONS



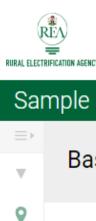
Project Files

Site Details

Category Name	Value	Unit	Source	Source Detail
Households	600		▼	Oct. 2018 Survey
Population	1,300		Government ▼	Government 2016 Statistics
Population density	25	per km^2 ▼	Other ▼	
Distance from grid	12.5	km ▼	Government ▼	Government 2016 Statistics
List commercial/industrial facilities	Posho Mill, carpentry		Survey ▼	Oct. 2018 Survey
Number of shops (small)	2		Survey ▼	Oct. 2018 Survey
Key economic activities	Agriculture		Survey ▼	Oct. 2018 Survey
List major agricultural crops, if any	Yams, sorgum, spices		Survey ▼	Oct. 2018 Survey
Min lighting/mobile charging spend per month	50	Nigerian Naira ▼	Survey ▼	Oct. 2018 Survey
Max lighting/mobile charging spend per month	250	Nigerian Naira ▼	Survey ▼	Oct. 2018 Survey
Number of diesel generators	2 in village center		Survey ▼	Oct. 2018 Survey
Min diesel spend per month	1,800	Nigerian Naira ▼	Survey ▼	Oct. 2018 Survey
Max diesel spend per month	210,000	Nigerian Naira ▼	Survey ▼	Oct. 2018 Survey















Programs

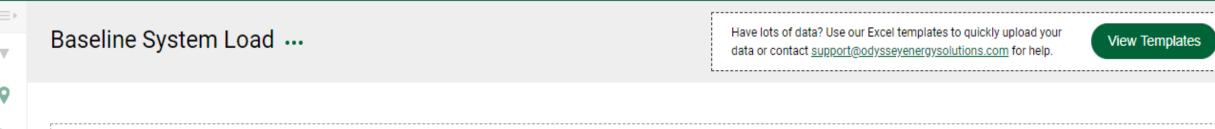
Portfolios

RFOs

Trina

Trina Tychell ▼ He

Sample Project 6



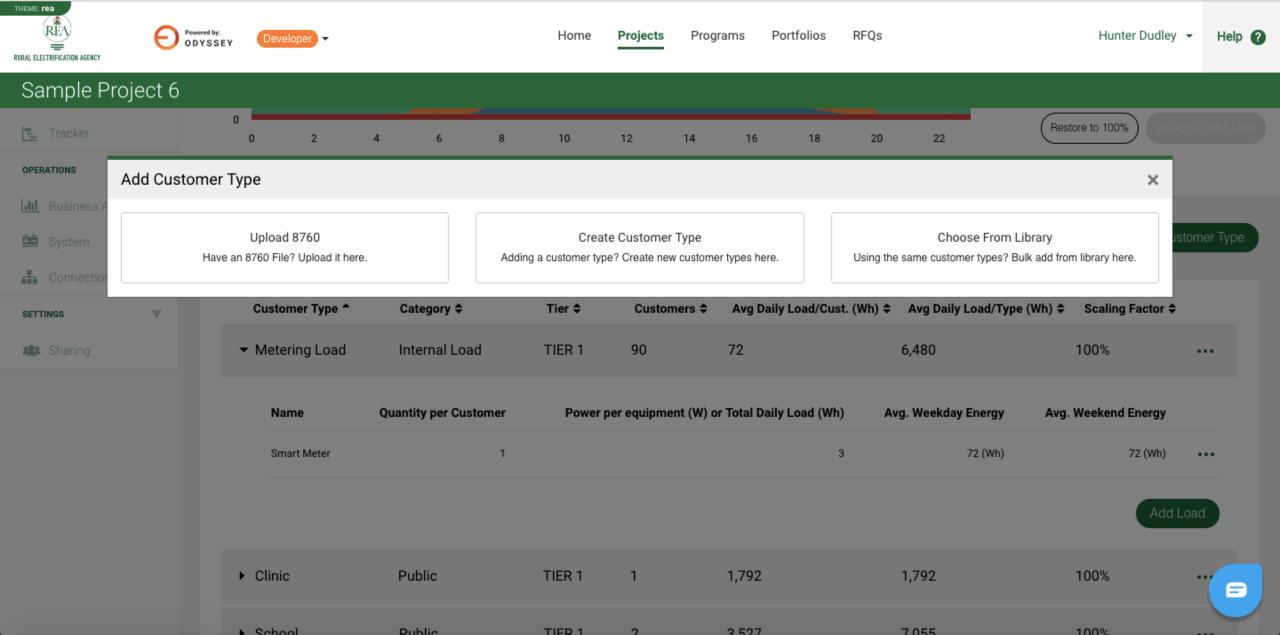


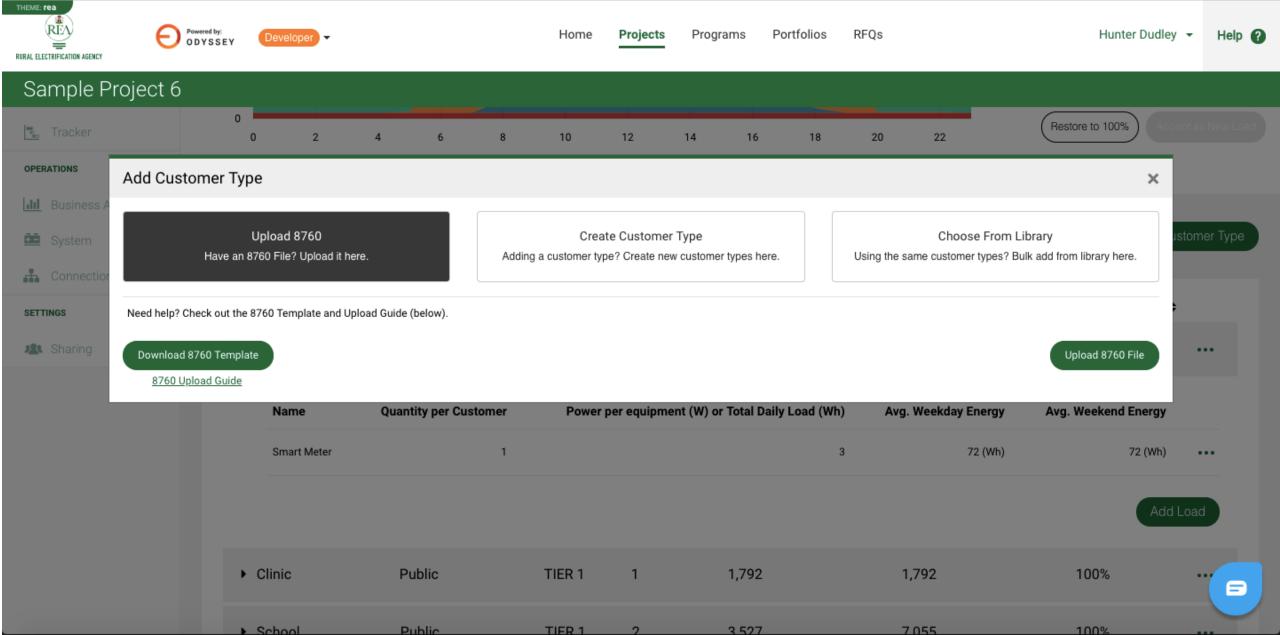
Results will be calculated once you add Customer Types and Equipment

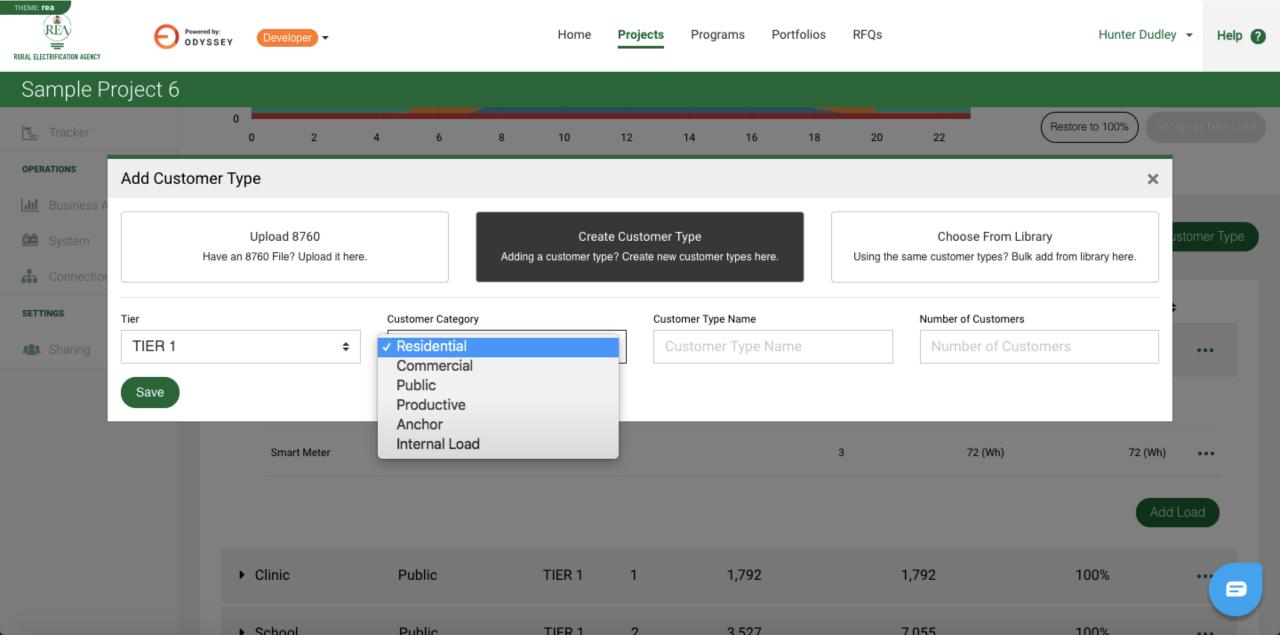


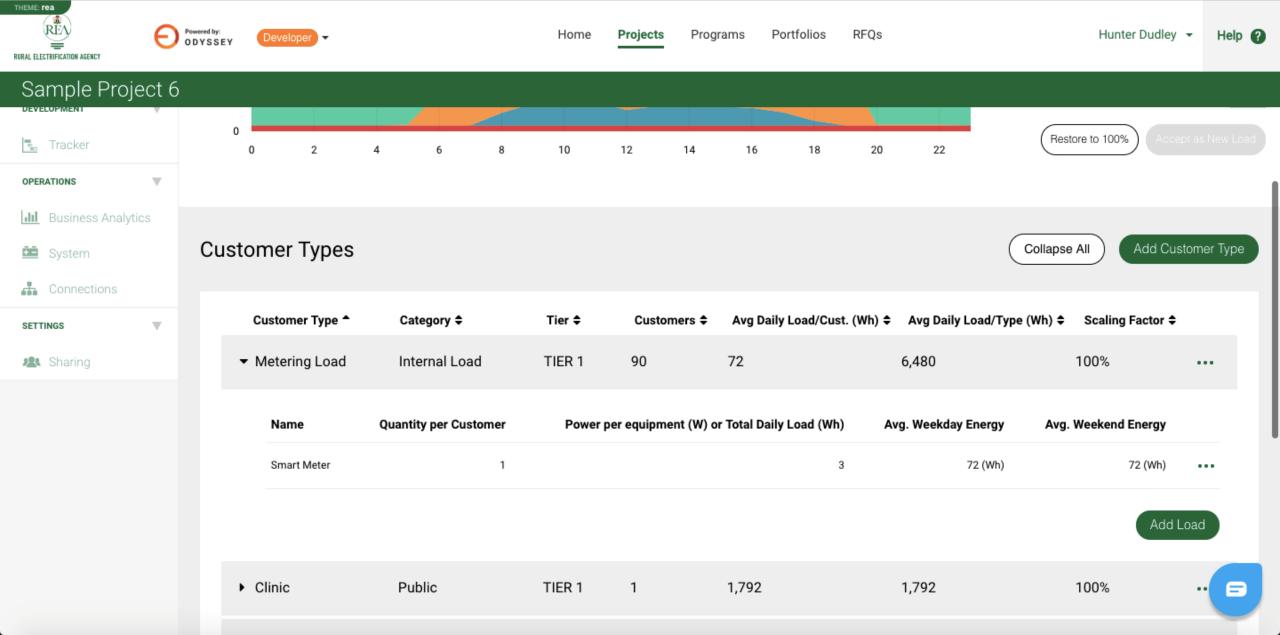














School

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Home

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Projects

Programs

3 5 2 7

Portfolios

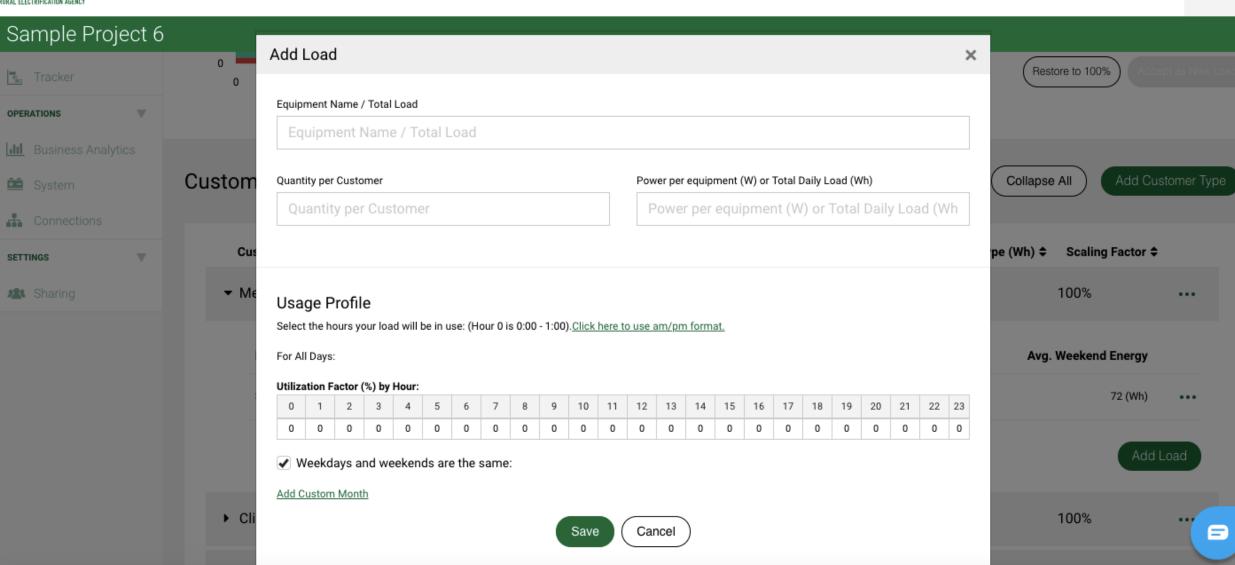
RFQs

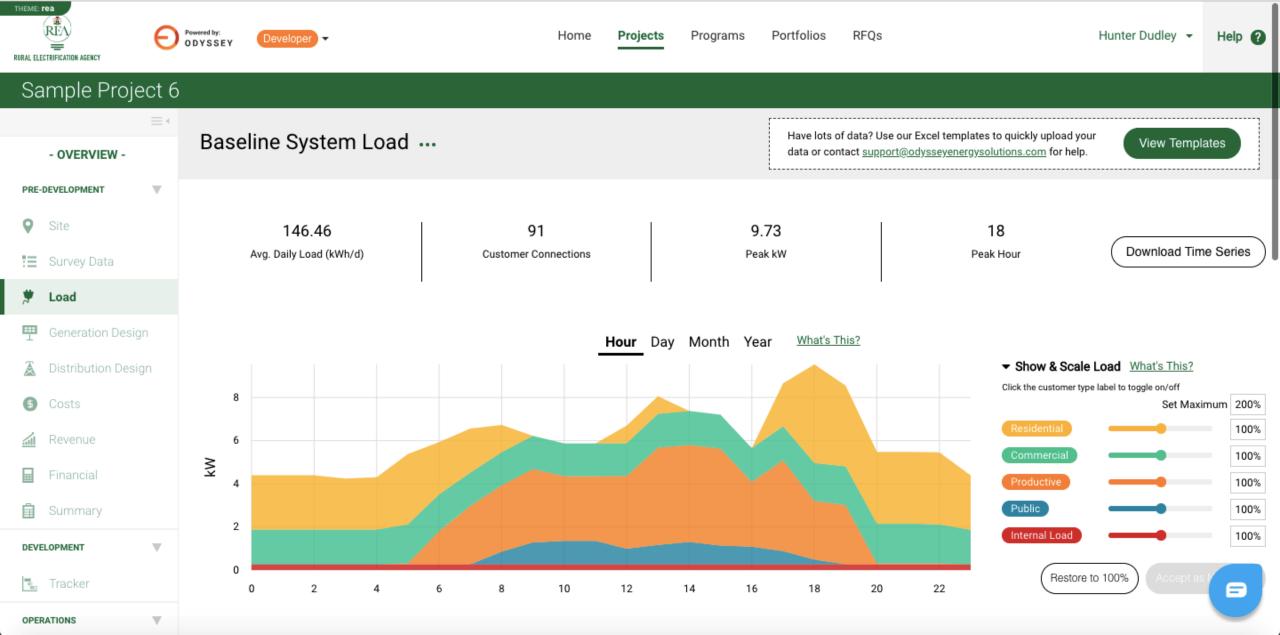
7.055

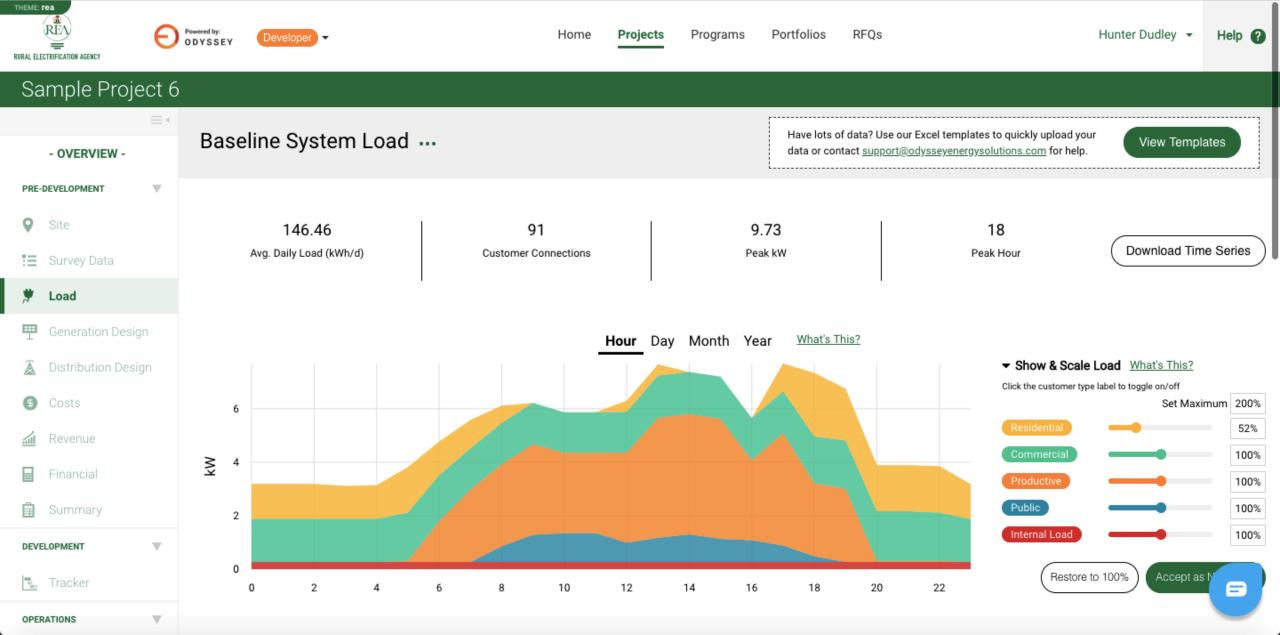
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100%













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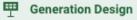






















DEVELOPMENT



OPERATIONS

Have lots of data? Use our Excel templates to quickly upload your data or contact support@odysseyenergysolutions.com for help.

View Templates

Generation Designs

Below is a list of all generation designs you have created for this load. To let us know which load and design you would like to use for future calculations, you must select one as your final design by clicking the ••• and selecting as a final design.

> New Design Create from Library

Create New Generation Design -

Name	Source	Solar PV	Generator	Storage	Load Met	Renewable Fraction	OPEX	CAPEX	Create from Library	
Sample Generation System	HOMER	45 kW	Diesel, 10 kW	165 kWh, Lead Acid	Not Calculated	Not Calculated	\$1,172.00/yr	\$74,375.00	Final Design	









Programs

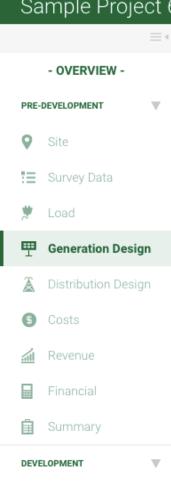
Portfolios

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Sample Project 6



Tracker

OPERATIONS

Generation Design

Have lots of data? Use our Excel templates to quickly upload your data or contact support@odysseyenergysolutions.com for help.

View Templates



Model with HOMER:

Finalize Design



Save and Return to List

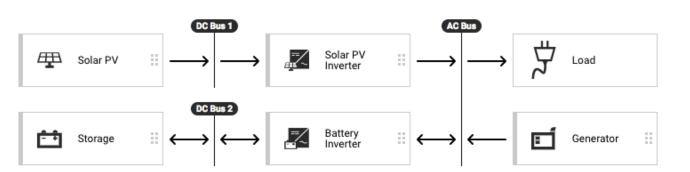


Sample AC-Coupled System

DC-Coupled System

AC-Coupled System Components

Drag and Drop components into your custom generation design.



Other Components













Projects

Programs

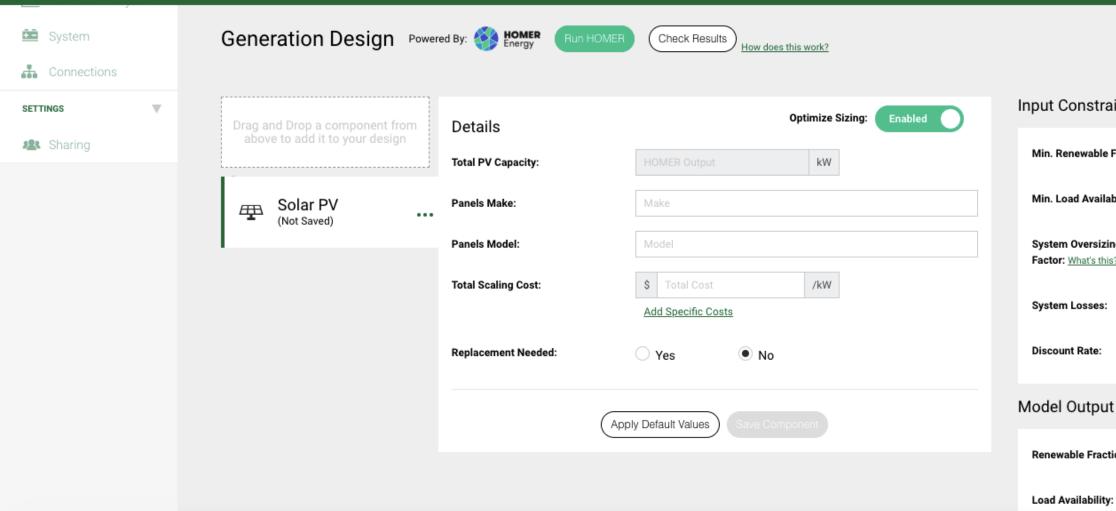
Portfolios

RFQs

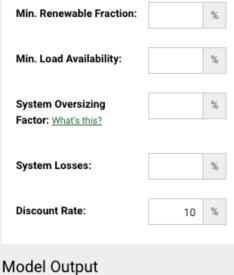
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Help ?

Sample Project 6



Input Constraints



Model Output

Renewable Fraction: Not Calculated Not Calc







Projects

Programs

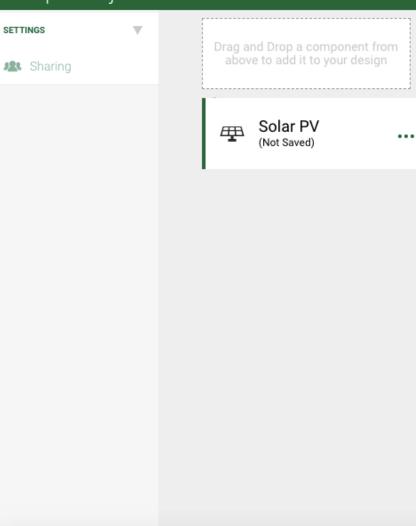
Portfolios

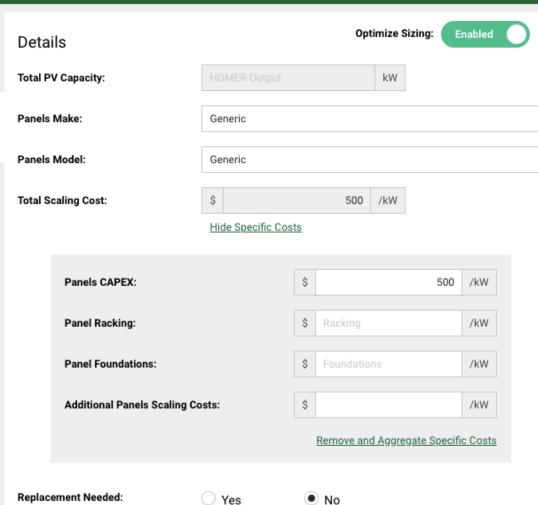
RFQs

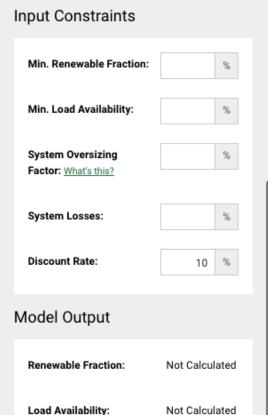
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Help ?









Not Calculated

Not Calcu.

Excess Electricity:

Cost of Energy:







Projects

Programs

Portfolios

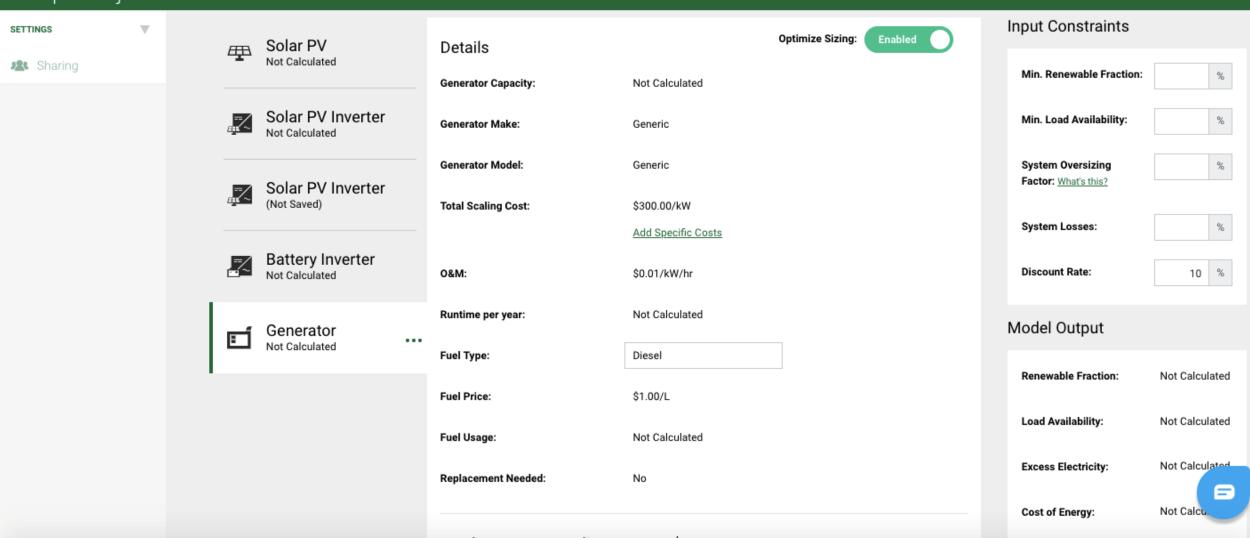
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Sample Project 6









Home Projects

Programs

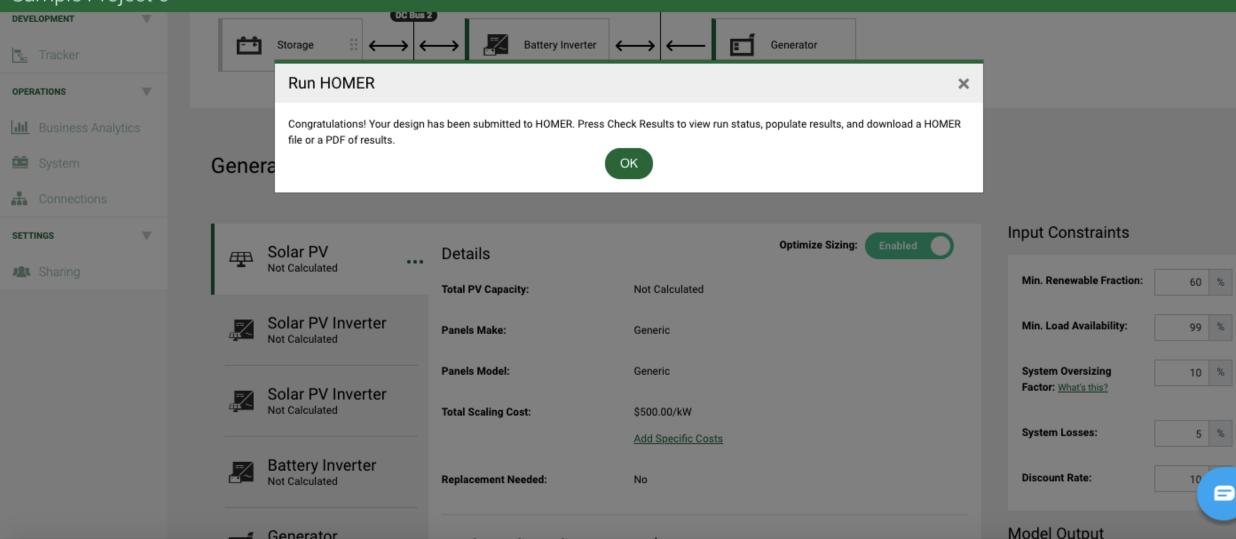
Portfolios

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Help ?











Projects

Programs

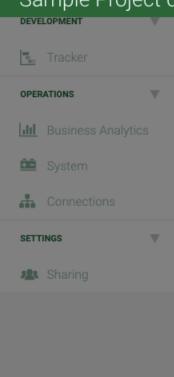
Portfolios

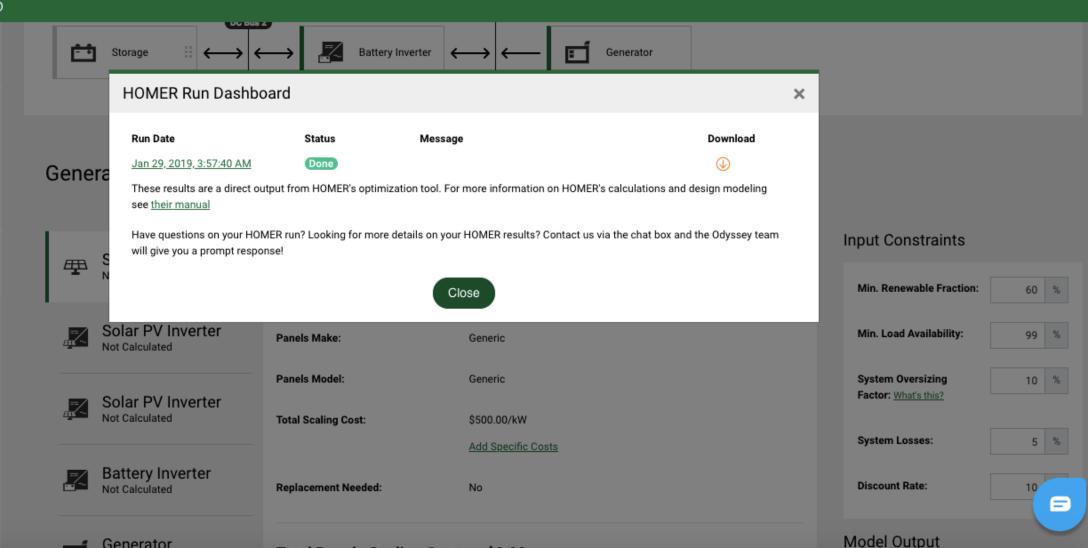
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Projects

Programs

Portfolios

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Help ?

90 %

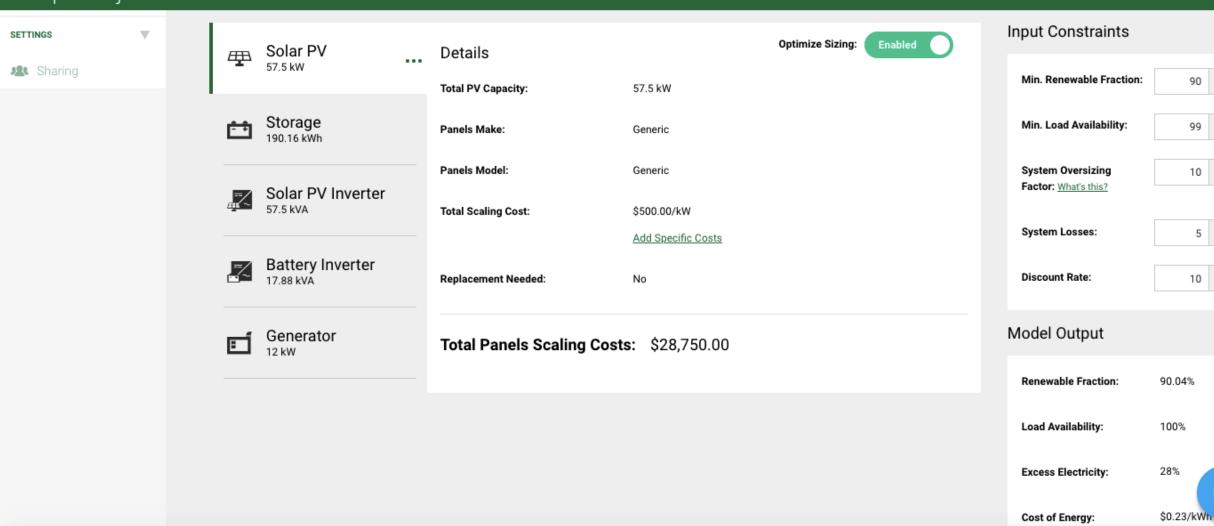
99

10

5 %

10 %

Sample Project 6









Projects

Programs

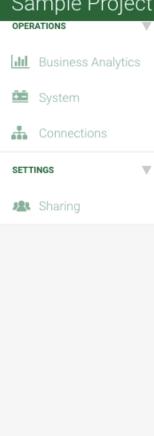
Portfolios

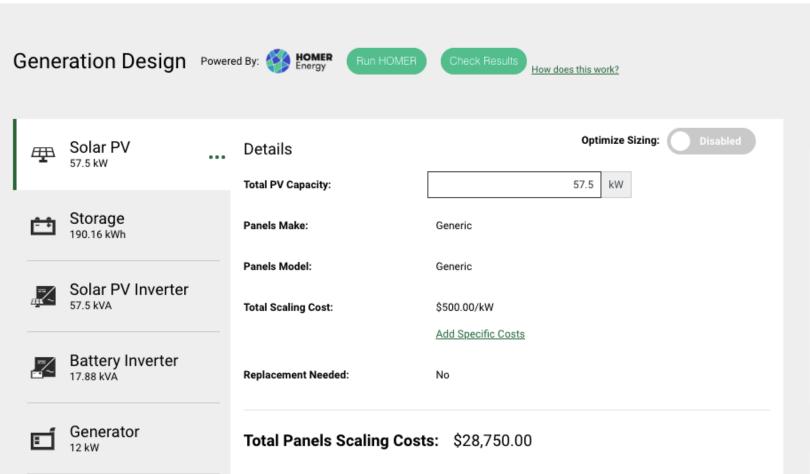
RFQs

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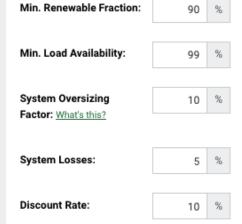
Help ?

Sample Project 6





Input Constraints



Model Output

Renewable Fraction: 90.04%









Projects

Programs

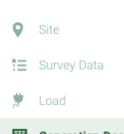
Portfolios

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Revenue







OPERATIONS

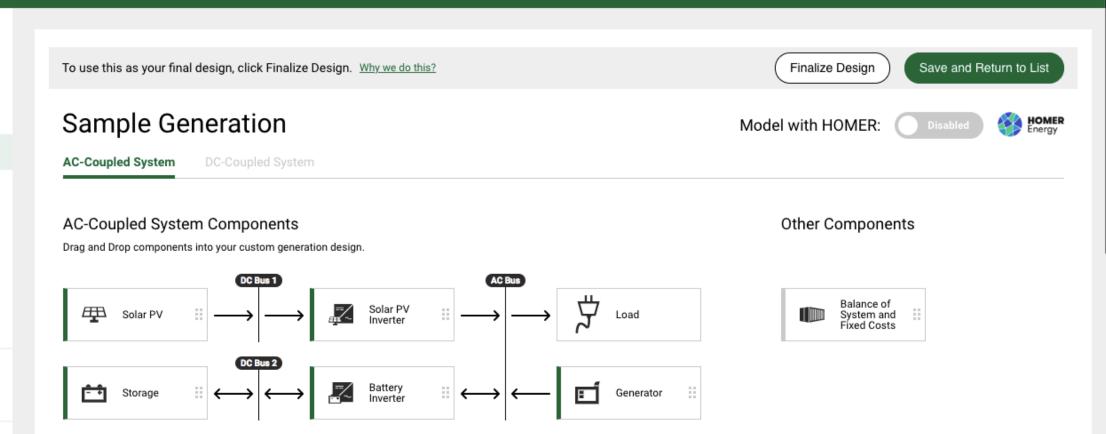


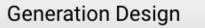


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Programs

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Sample Project 6



PRE-DEVELOPMENT



Survey Data









Revenue





DEVELOPMENT

OPERATIONS

Tracker

ODYSSEY	Develope



Projects

View Templates

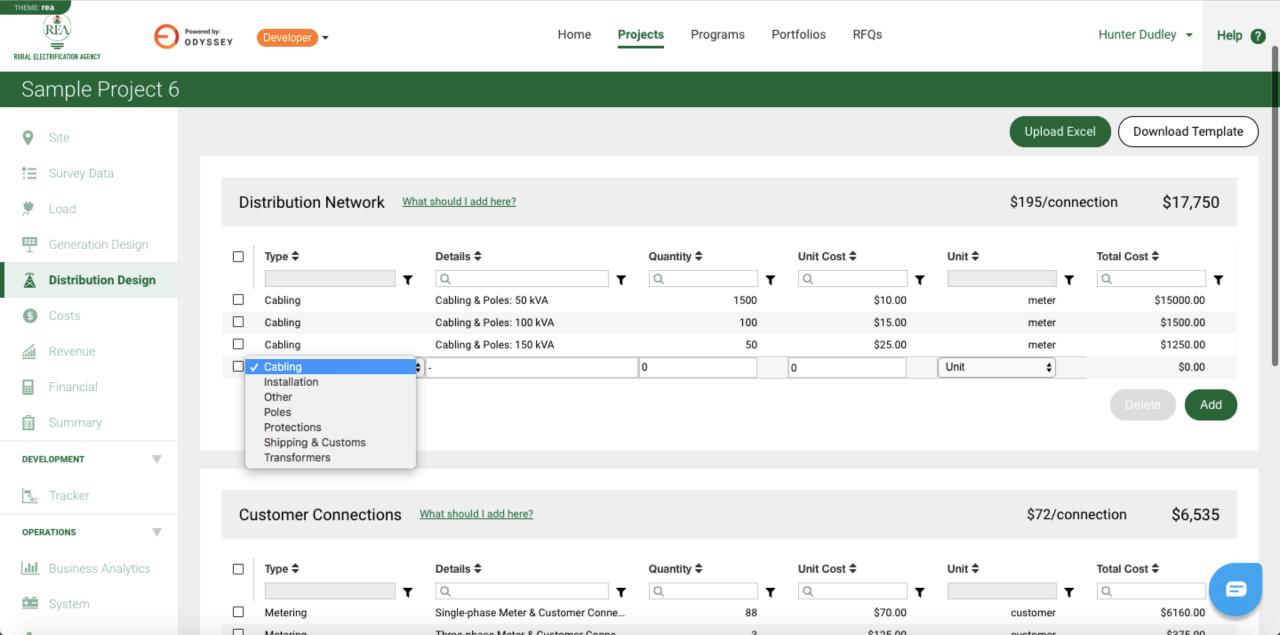
Generation Designs

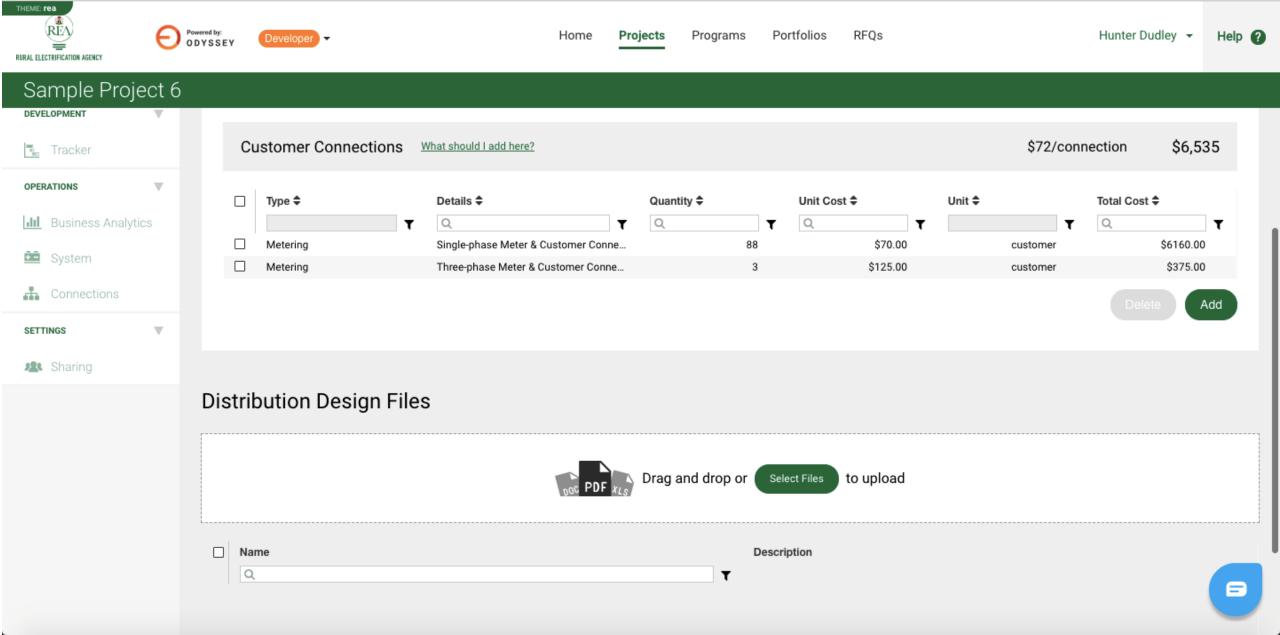
Below is a list of all generation designs you have created for this load. To let us know which load and design you would like to use for future calculations, you must select one as your final design by clicking the ... and selecting as a final design.

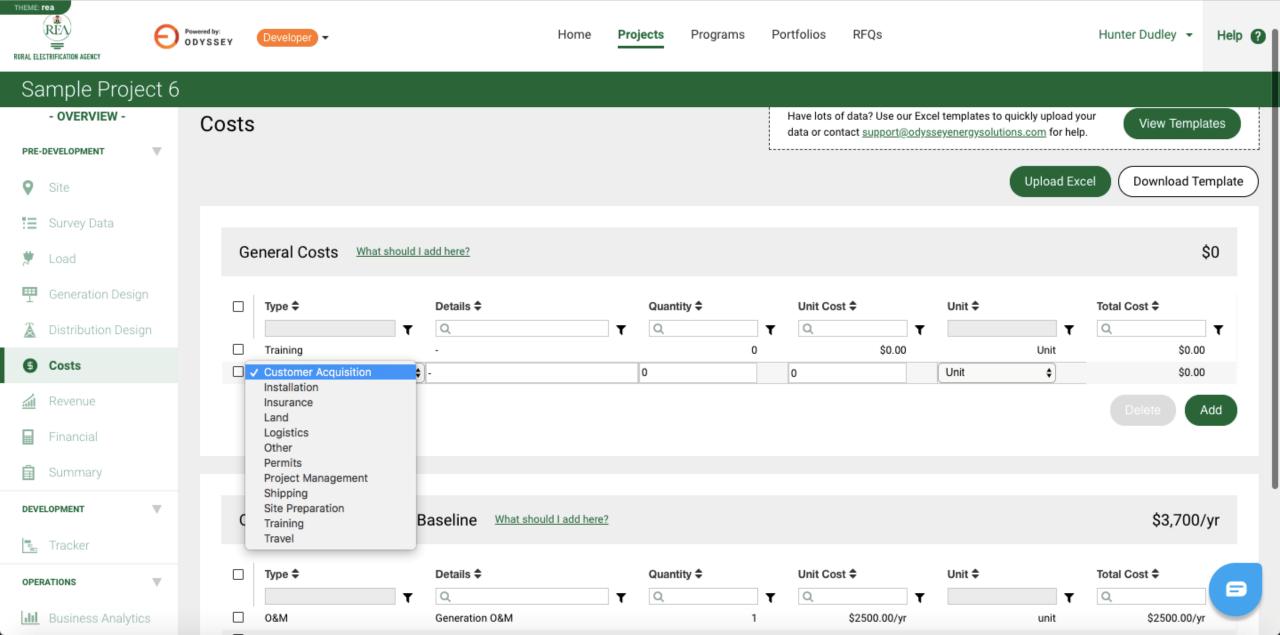
Create New Generation Design -

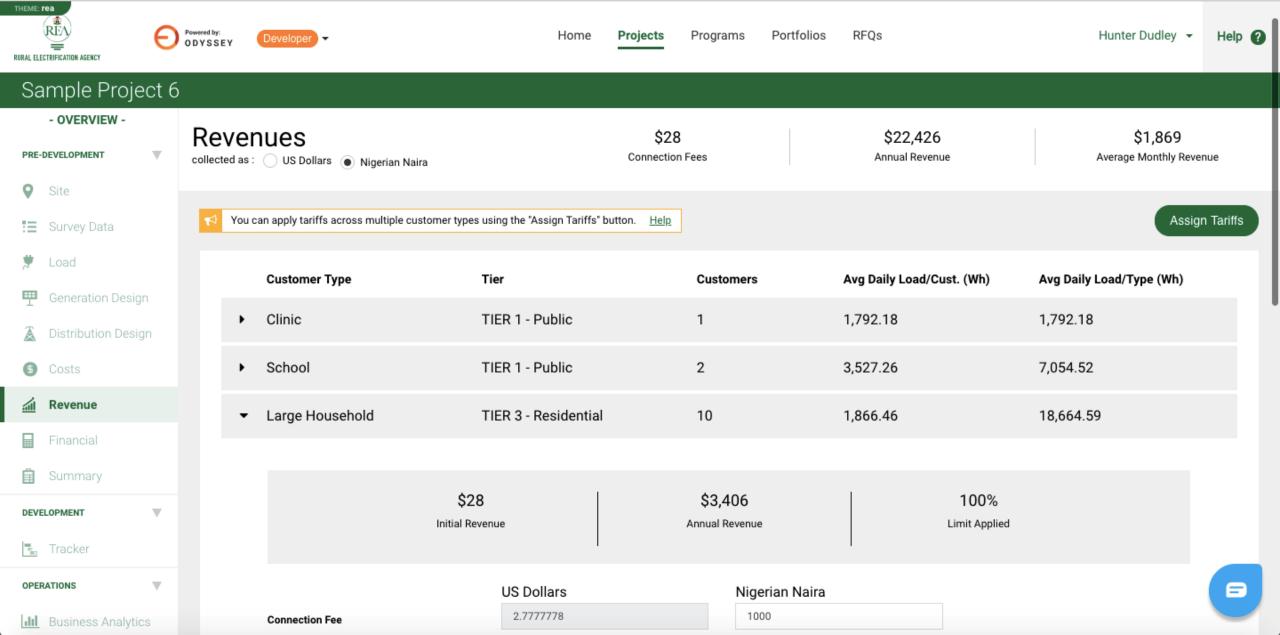
Name	Source	Solar PV	Generator	Storage	Load Met	Renewable Fraction	OPEX	CAPEX		
Sample Generation	Manual	58 kW	Diesel, 12 kW	190.16 kWh, Lead Acid	100%	90.04%	\$1,120.00/yr	\$100,148.00	Final Design	•••
Sample Generation System	HOMER	45 kW	Diesel, 10 kW	165 kWh, Lead Acid	Not Calculated	Not Calculated	\$1,172.00/yr	\$74,375.00		•••

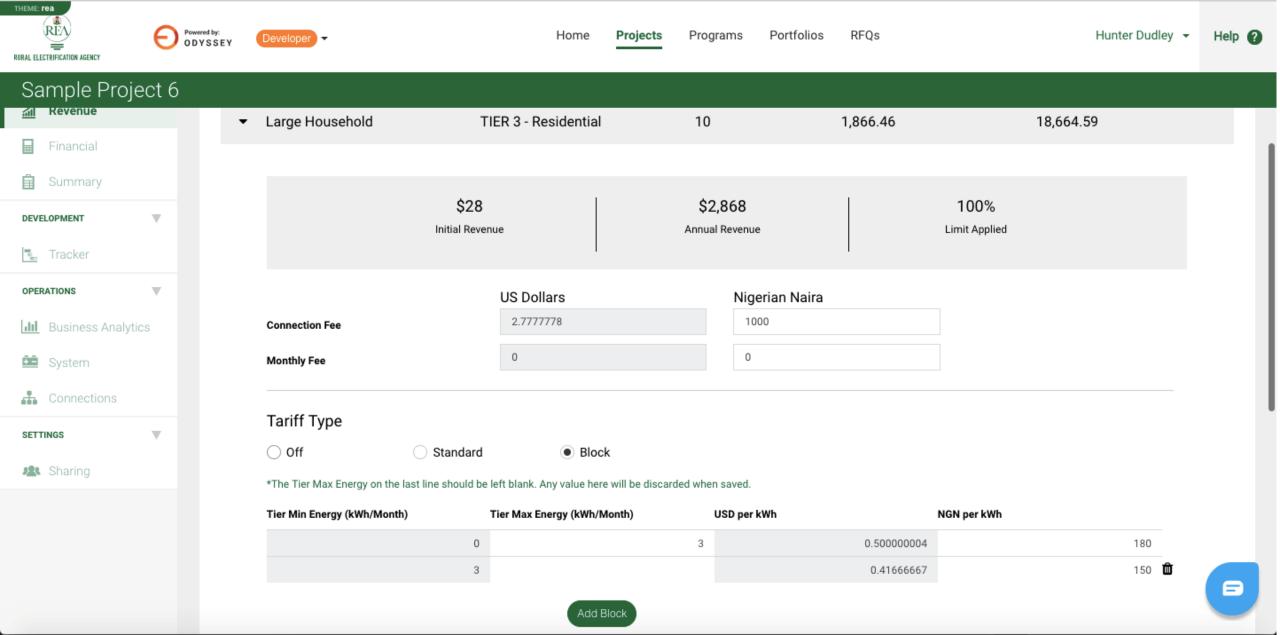


















Projects

Programs

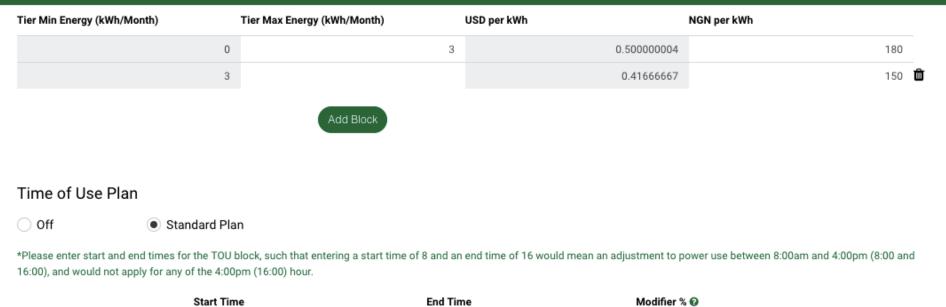
Portfolios

RFQs

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Help ?

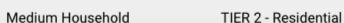
Sample Project 6



80 🛍 10 20

Add Time Period



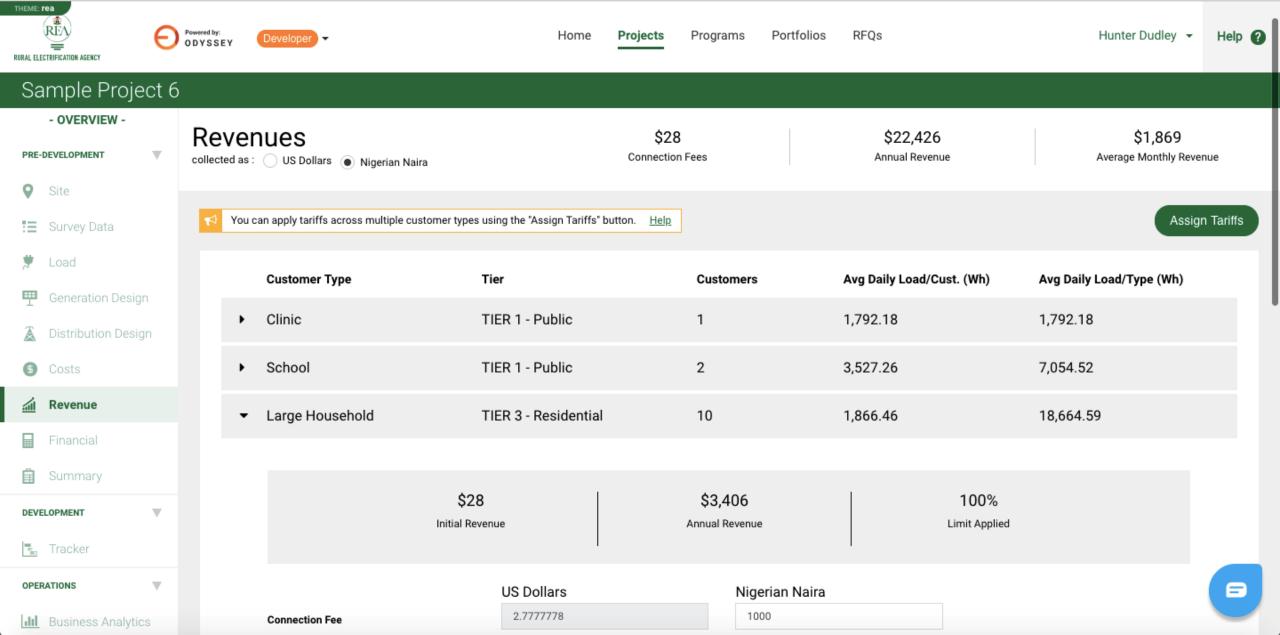
















Projects

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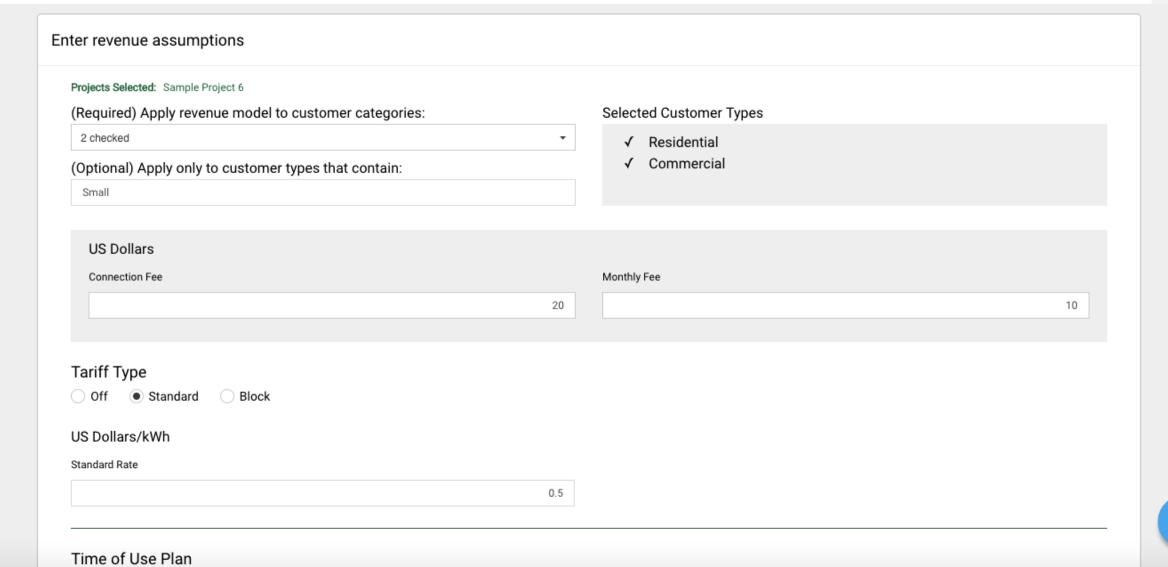
Portfolios

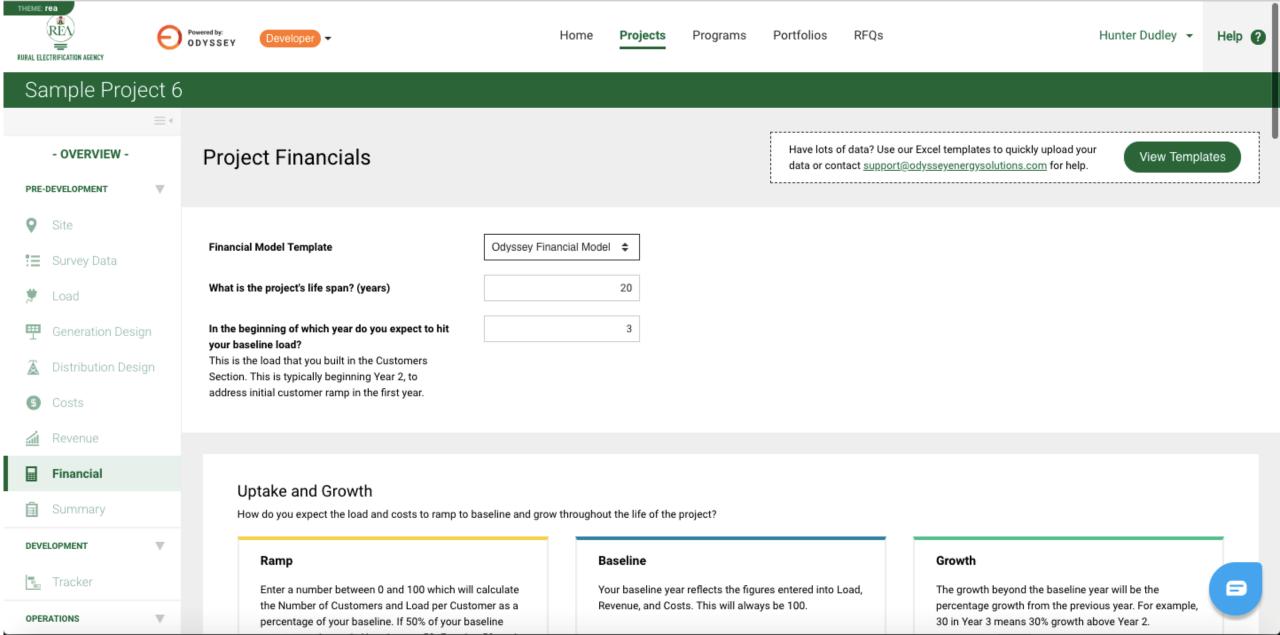
RFQs

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Home

Projects

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Sample Project 6



Connections

SETTINGS

Sharing

Reminder: All numbers are converted to percentages. Entering 20 here means 20%.

Load Growth		Ramp (%)		Baseline (%)	Growth (%)											
Residential	Number of Customers	75	90	100	5	4	2	1	1	1	0	0	0	0	0	0
	Load per Customer	100	100	100	2	1	1	0	0	0	0	0	0	0	0	0
Commercial	Number of Customers	75	90	100	5	4	3	3	1	1	0	0	0	0	0	0
	Load per Customer	100	100	100	2	2	2	2	0	0	0	0	0	0	0	0
Productive	Number of Customers	75	90	100	2	2	2	1	1	1	0	0	0	0	0	0
	Load per Customer	100	100	100	2	2	2	2	0	0	0	0	0	0	0	0
Public	Number of Customers	75	90	100	2	2	2	1	1	1	0	0	0	0	0	0
	Load per Customer	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0
Anchor	Number of Customers	75	90	100	0	0	0	0	0	0	0	0	0	0	0	0
	Load per Customer	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0
Total Load Growth					5.76	4.81	3.86	2.80	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00

Costs Growth OPEX 75 90 100 3 Fuel Cost 0 0 0 0 0 0 0 0 0 0 0

The growth rate applies to all years after baseline.

Annual Tariff Escalation



Sample Project 6

The growth rate applies to all years after baseline.

Annual Tariff Escalation

Additional Revenues and Costs

Note: If you have forecasted load growth beyond the capacity of your system, make sure to add expansion costs here.

Year of plant operation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Additional replacement/expansion costs	100	100	100	3	3	3	3	3	3	3	3	3	3	3	3	3
Appliance program revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Appliance program costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





Projects

Programs

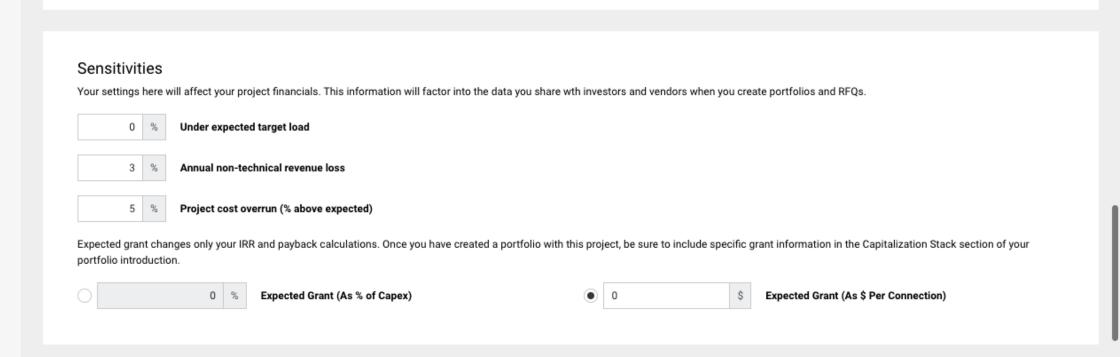
Portfolios

RFQs

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Help ?

Sample Project 6



Save and Run Calculation

Financials calculated using: Odyssey Financial Model

Download Project Financial Model

Upload Project Financial Model

Project-only Financials

Based on project cashflows only (unlevered, pre-tax).



RFQs

Sample Project 6

Save and Run Calculation

Financials calculated using: Odyssey Financial Model

Download Project Financial Model

Upload Project Financial Model

Project-only Financials

Based on project cashflows only (unlevered, pre-tax).

IRR 14.19%

Payback 8 years LCOE \$0.22 / kWh

ARPU		Financial Metrics	
Adjusted CAPEX	\$130,654.65	Total Revenues (Project Life)	\$621,976.12
Residential ARPU	\$8.11	Total Expenses (Project Life)	\$96,097.14
Commercial ARPU	\$57.17	financial-results-arpu.total-margin-label	\$26,293.95
Public ARPU	\$44.85	CAPEX	\$124,433.00
Productive ARPU	\$188.02	CAPEX / Connection	\$1,252.97
Anchor ARPU	\$0.00	kWh Sold at Baseline	45,377.04 kWh

Sample Project 6

Update Results

Overall Financials

These financials include leverage and tax assumptions, as well as related business cashflows entered in the Excel financial model.

IRR **7.75%**

Payback 12 years

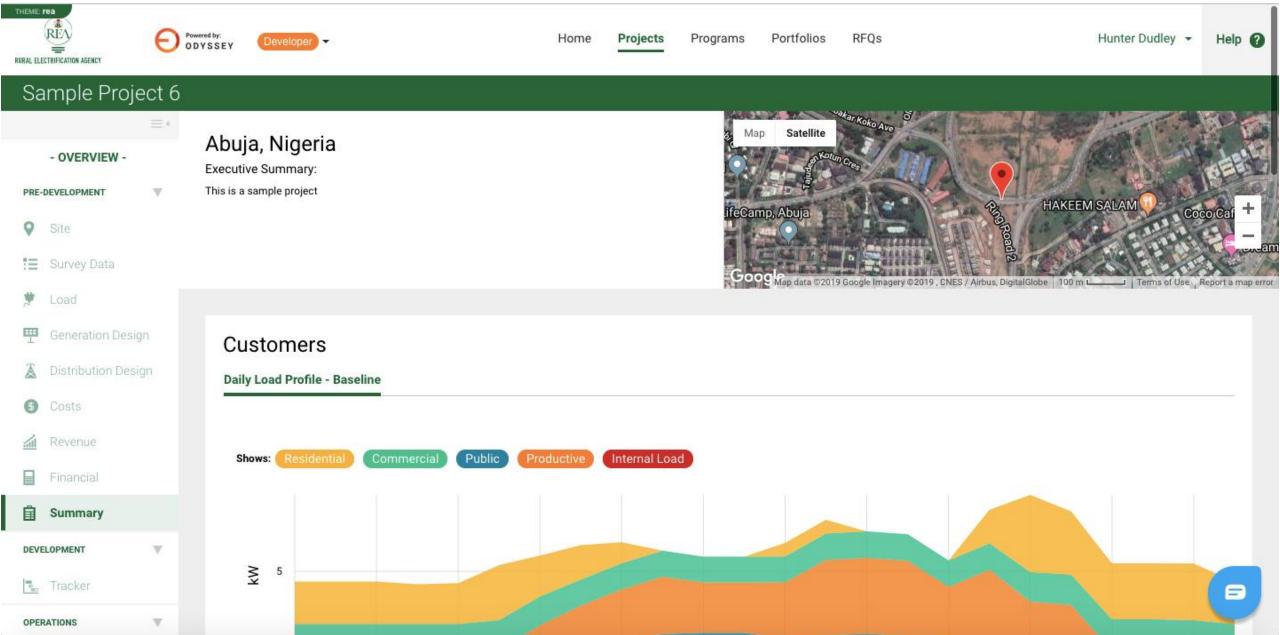
Financial Metrics

NPV to Equity

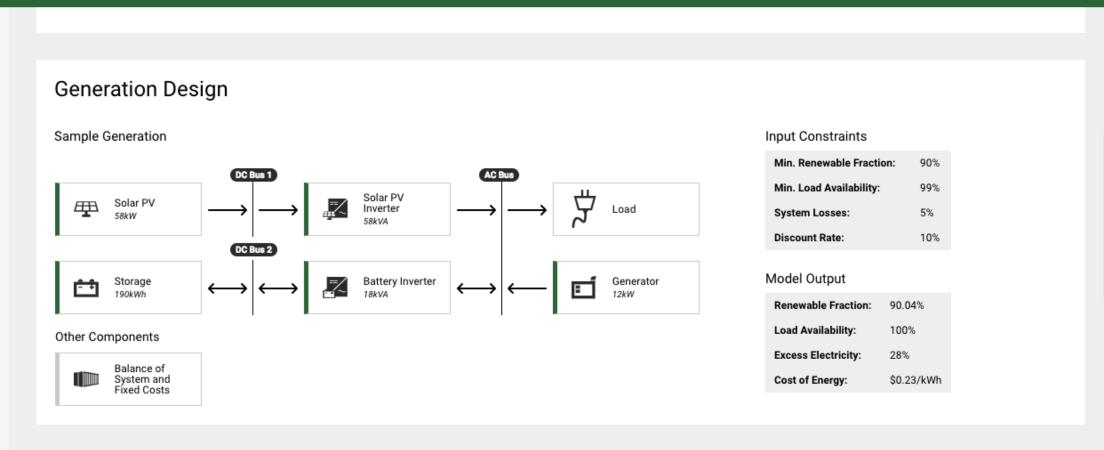
Min DSCR N/A

Average DSCR 1.25

Update Results



Sample Project 6



Project Costs



\$124,433 Total CAPEX

\$4,820

Total OPEX/yr

\$1,367 Installed CAPEX/connection







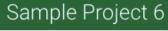
Projects Programs

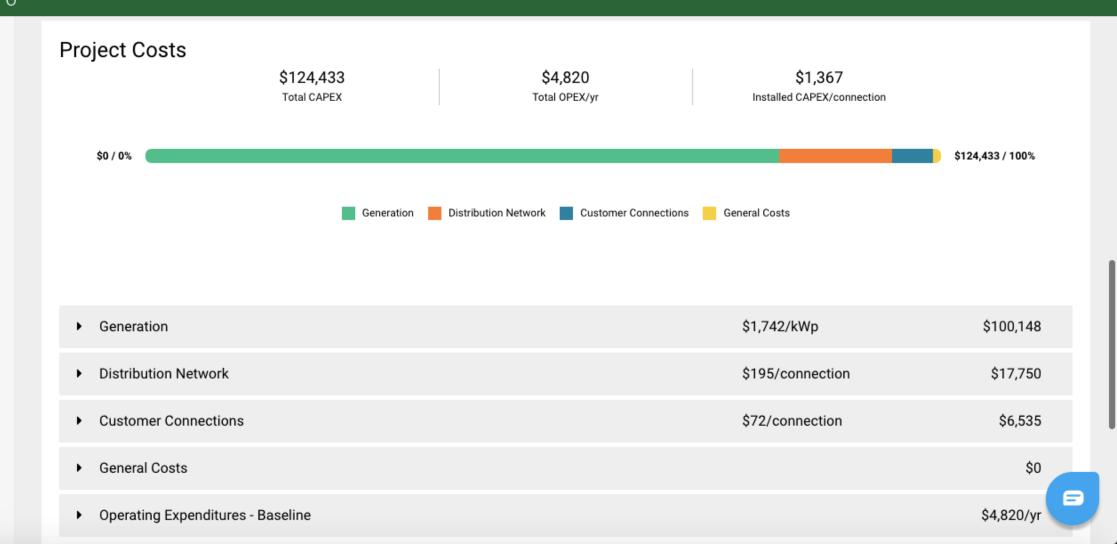
Portfolios

RFQs

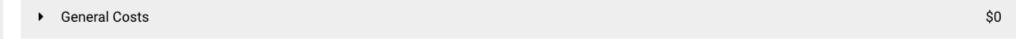
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Sample Project 6



▶ Operating Expenditures - Baseline \$4,820/yr

Financials

\$621,976

\$96,097

Average Yearly Operating Margin

\$26,294/yr

\$130,655

with 5% CAPEX Overrun

Pro Forma

Simple Payback

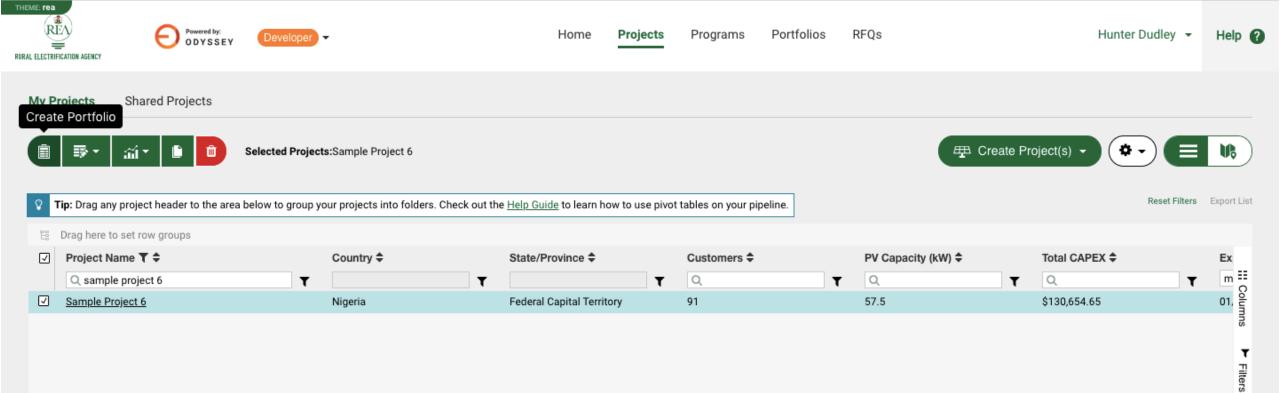
8 Years

14.19%

Unlevered Project IRR

with a 0% Grant

with a 0% Grant



Total Rows: 22 Filtered: 1 Selected: 1







Programs

RFQs

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Project Group 3

Project Data

Data Room

Data Room



Financial Statements

Agreements

Drag and drop or Select Files

Folder or File Name \equiv Project Group 3 Contracts Documents_1.png Documents_2.png

Data Room



Size

756 KB

756 KB

82 KB

674 KB

0 KB

0 KB

My Projects

Shared Projects

Create Portfolio	
Portfolio Name	
MAS submission	
Selected projects:	
1. Sample Project 6	
What would you like to do with this portfolio?	
 ✓ Create Portfolio for Financing (Tenders, RFPs, Investors) □ Create RFQ for Vendors 	
	Cancel Create







Projects

Programs

Status

Draft

Draft

Draft

Portfolios

RFQs

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Rural Electrification Fund - Mini-Grid Acceleration Scheme (MAS)

Help ?

•••

•••



Portfolios

Investor Profiles

To create a new portfolio, add projects from the Projects Page

Portfolio Name

MAS submission

You don't have any investor interest yet. You can continue to add data to your portfolio and expose it for investors once they are interested.

Project Group 3

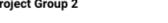




View Investor message and details





















Projects

Programs

Portfolios

RFQs

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Help ?

MAS submission

Overview

Introduction

Business Plan

Project Data

Data Room

Level 1

Introduction

Your introduction is the first set of information that investors will see about your portfolio.

The more specific you are the better the chance you'll get a match.

Level 2

Business Plan

Now is the time to provide a more complete summary of your portfolio. The goal of this section is to introduce an investor to your projects and general business model and approach.

Level 3

Project Data

In this section you'll see all the projects you've included in this portfolio.

Level 4

Data Room



Edit

Edit

Edit

MAS submission

Overview

Introduction

Business Plan

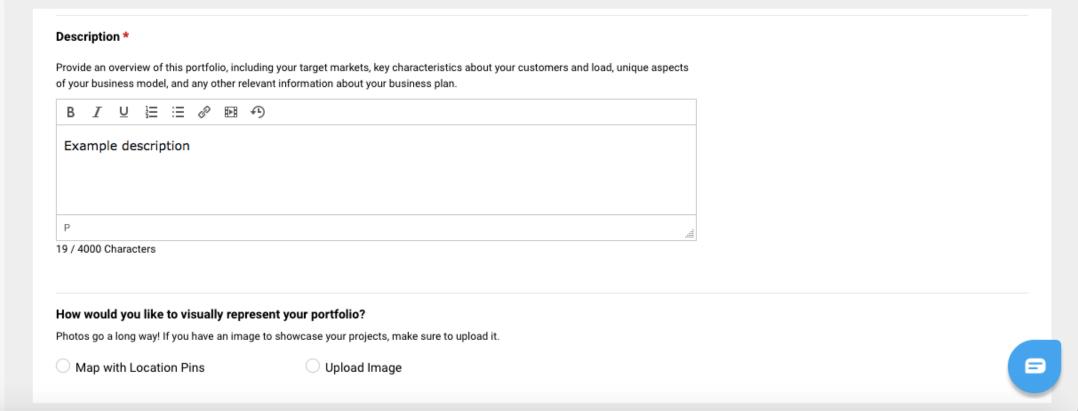
Project Data

Data Room

Define your Introduction

If you publish this portfolio to the Finance Marketplace, investors will see the summary information below and your organization's public profile. To edit your profile, <u>click here.</u>







MAS submission

Overview

Introduction

Business Plan

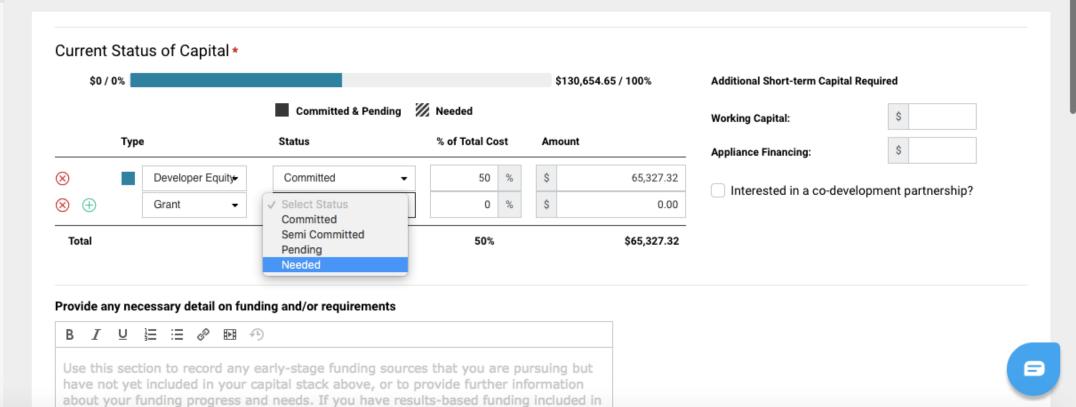
Project Data

Data Room

Define your Introduction

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Save Draft Portfolio Actions -









Home Projects Programs

Portfolios

RFQs

Hunter Dudley ▼

Help ?

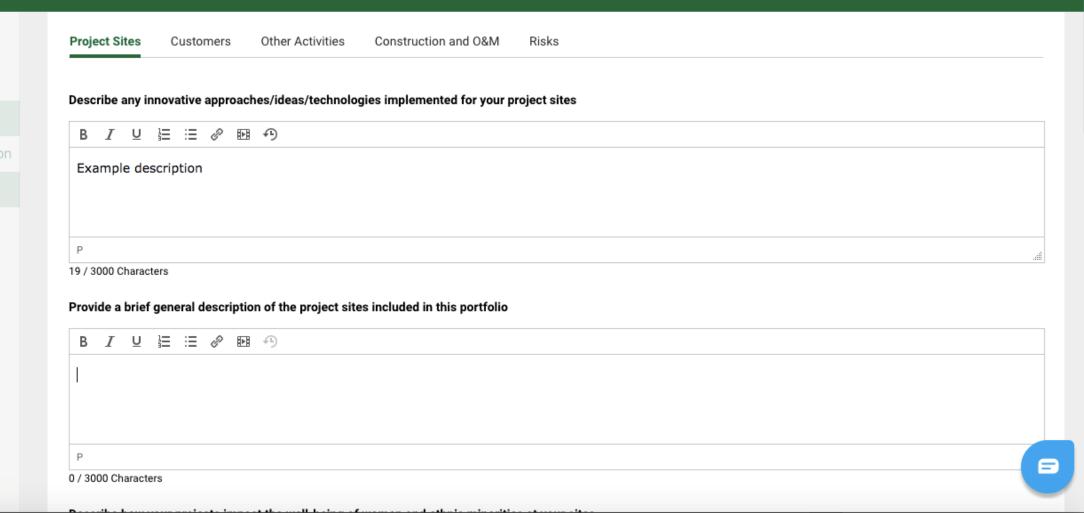
Project Group 3

Business Plan

Portfolio Description

Equipment

Project Data







0 / 3000 Characters

Describe your customer education and acquisition process

Home

Projects

Programs

Portfolios

RFQs

Hunter Dudley -

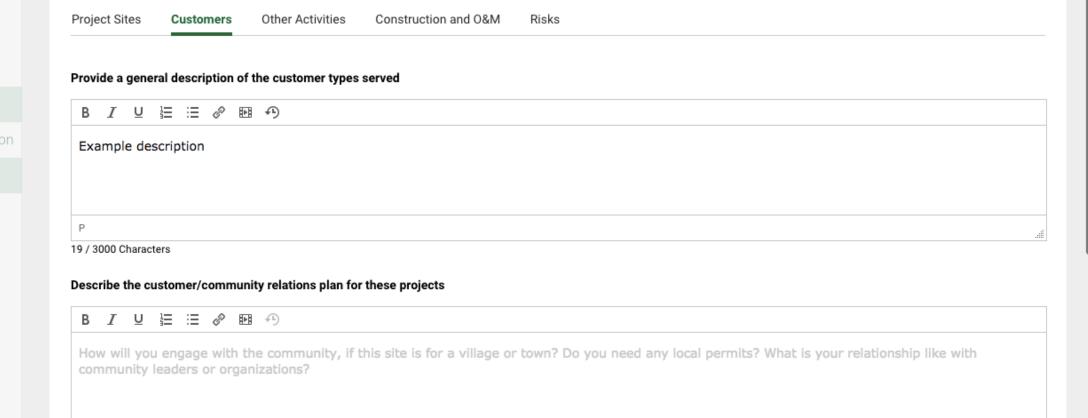
Help ?

Project Group 3

Business Plan

Portfolio Description

Equipment









Projects

Programs

Portfolios

RFQs

Hunter Dudley 🔻

Help ?

Project Group 3

Overviev

Introduction

Business Plan

Organization Information

Portfolio Description

Timeline

Sources and Use

Pro Forma

Equipment

Project Data

Data Roon

Timeline

List the portfolio's key milestones. Add as many as you like, but make sure to cover key milestones such as securing land, permits, tariff approval, etc.

Development

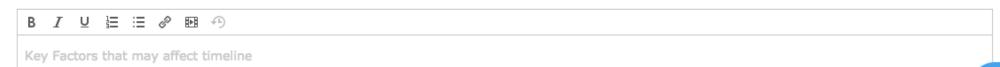
	Key Milestones	Target Date		Completion Date	Description	
⊗ ⊕	Milestone 1	01/24/02019	m	01/25/02019	First milestone	

Capital

		Key Milestones	Target Date		Completion Date	Description	
(⊗ ⊕	Milestone 2	01/08/02019	≅ 0	01/18/02019	Second milestone	

Key Factors that may affect timeline

.....





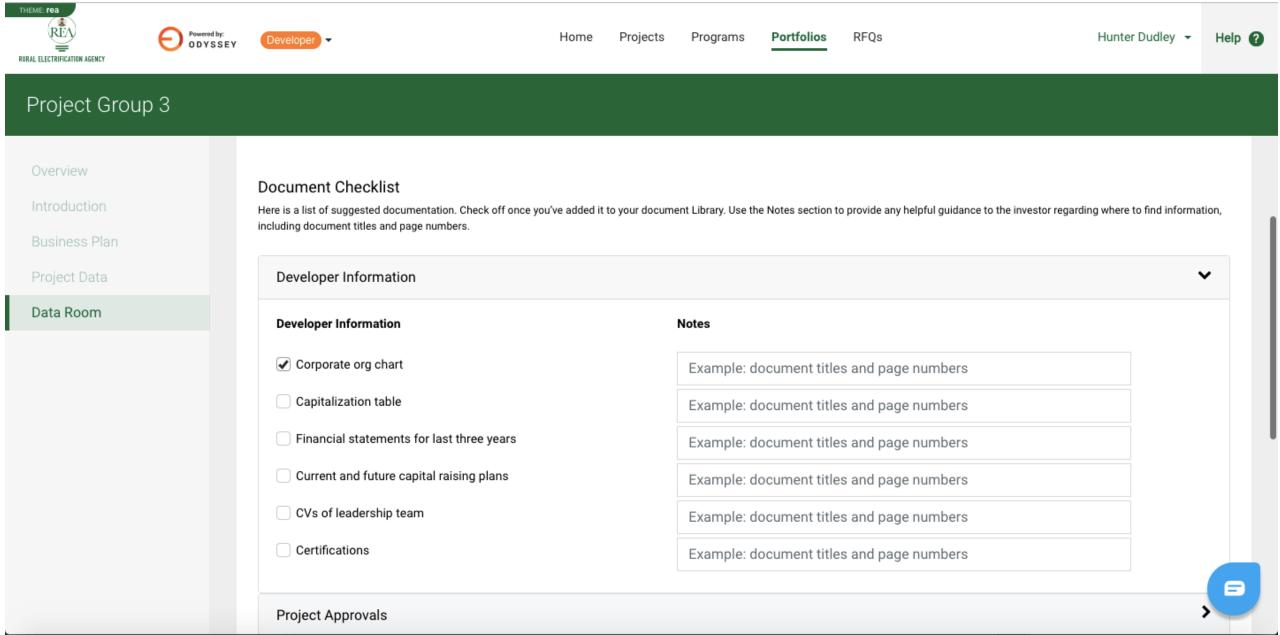
Project Group 3

Project Data

Projects

Projects cannot be added or removed from a portfolio once created. You can always create a new portfolio from your projects list.











Home Projects

Programs

Portfolios

RFQs

Hunte

Hunter Dudley ▼

Portfolio Actions -

Help ?

MAS submission

Overview

Introduction

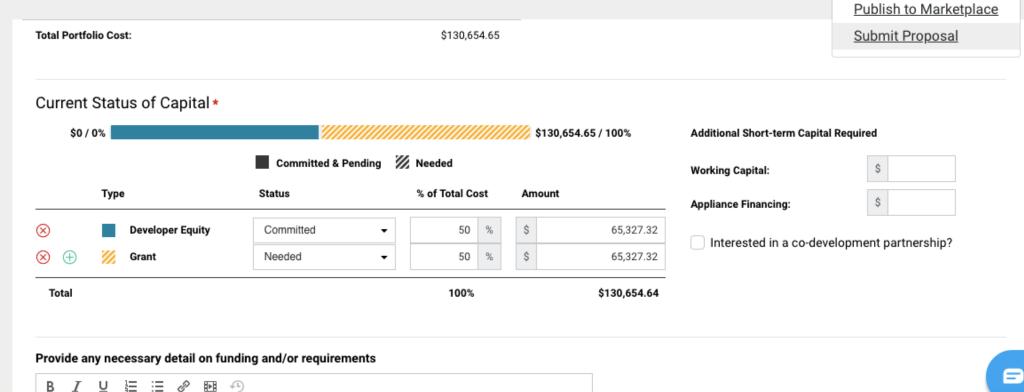
Business Plan

Project Data

Data Roon

Define your Introduction

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Projects

Programs

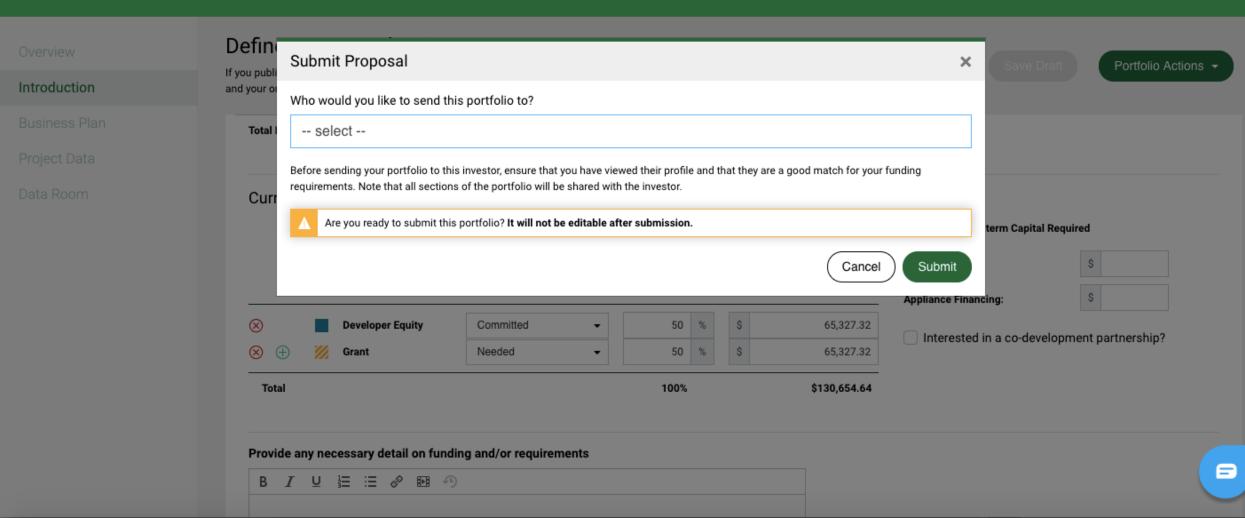
Portfolios

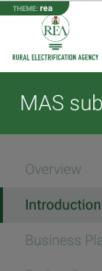
RFQs

Hunter Dudley ▼

Help ?

MAS submission









Projects

Programs

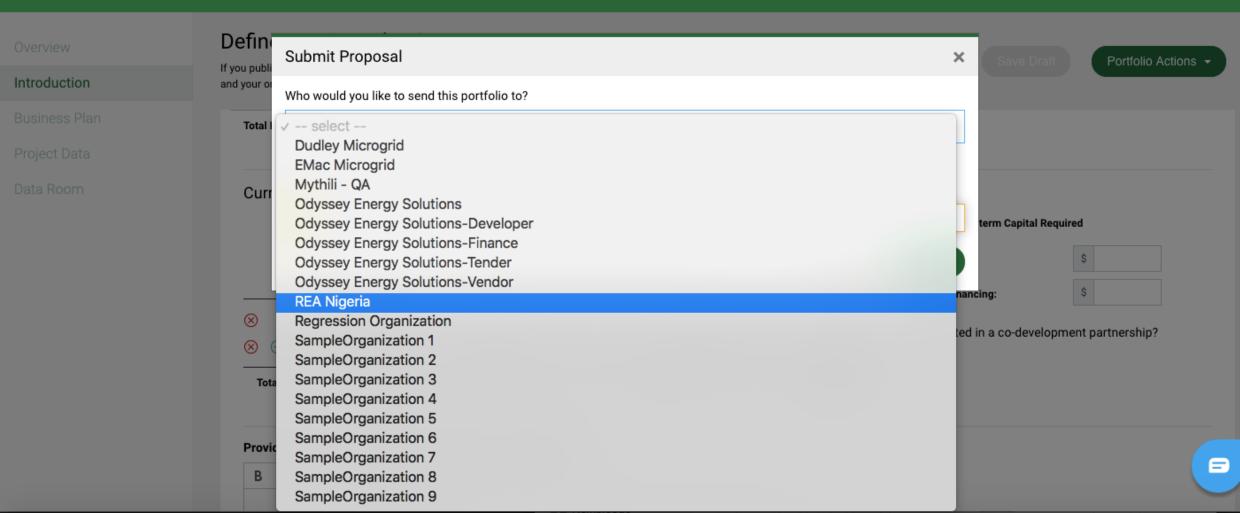
Portfolios

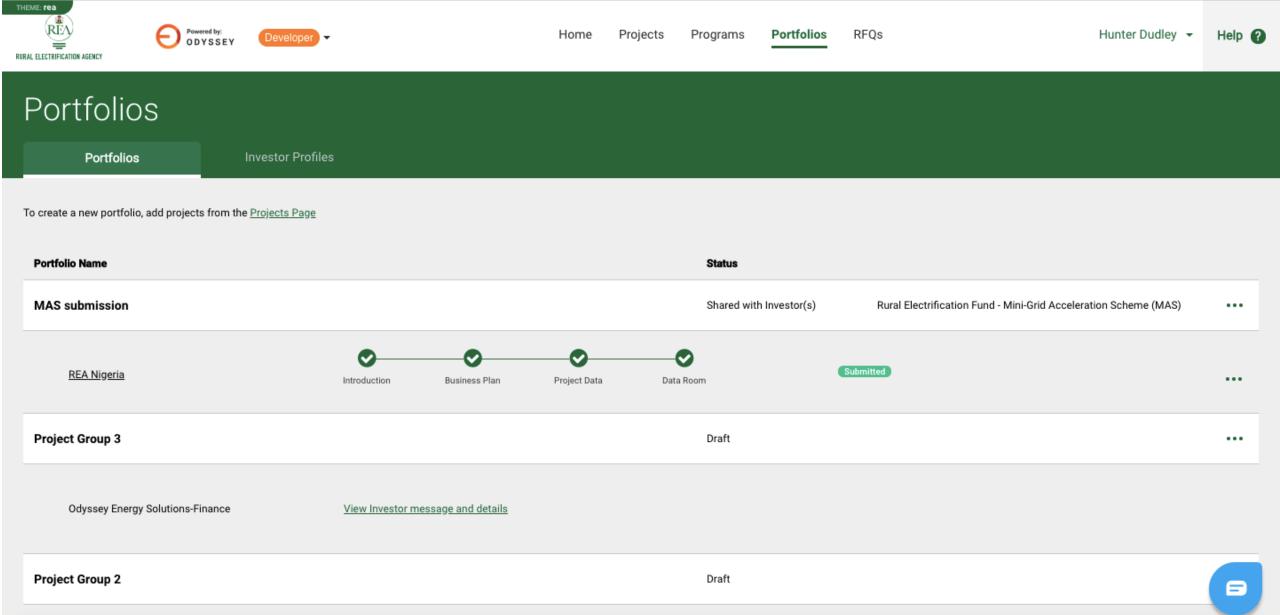
RFQs

Hunter Dudley ▼

Help (2)













Projects

Programs

Portfolios

RFQs

Hunter Dudley 🕶

Help ?

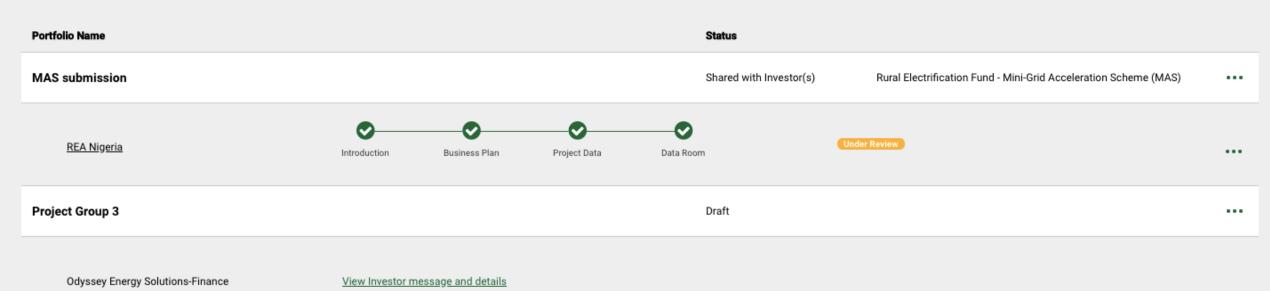
Portfolios

Project Group 2

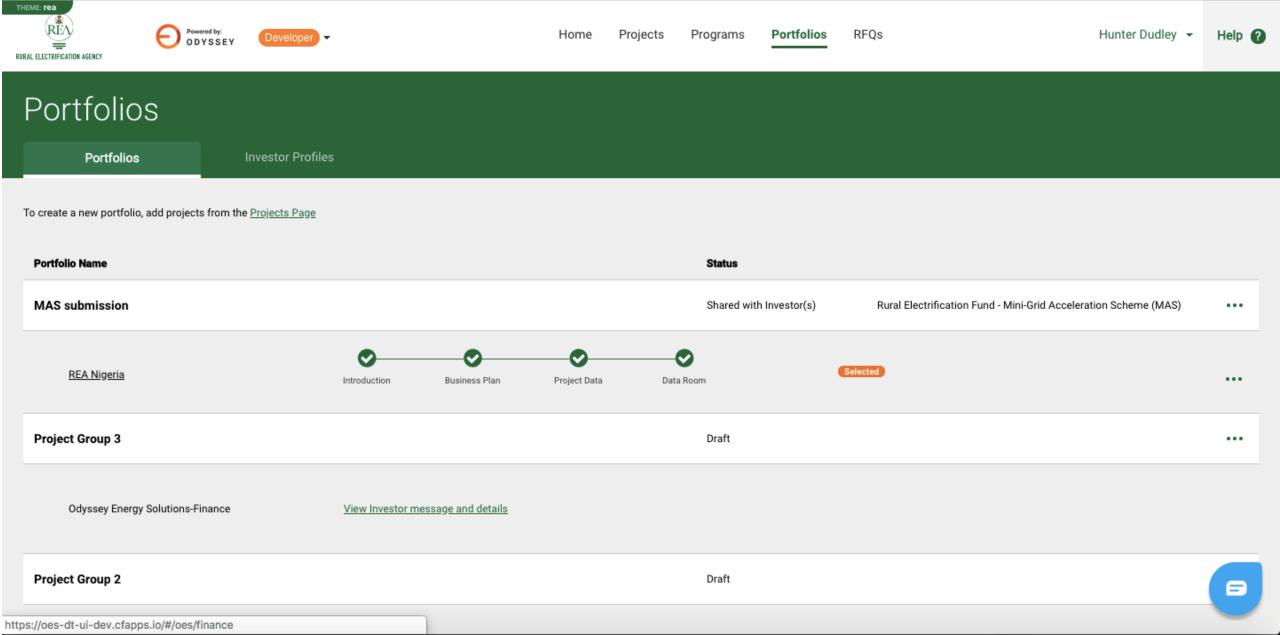
Portfolios

Investor Profiles

To create a new portfolio, add projects from the Projects Page



Draft





Tracker

OPERATIONS





Programs

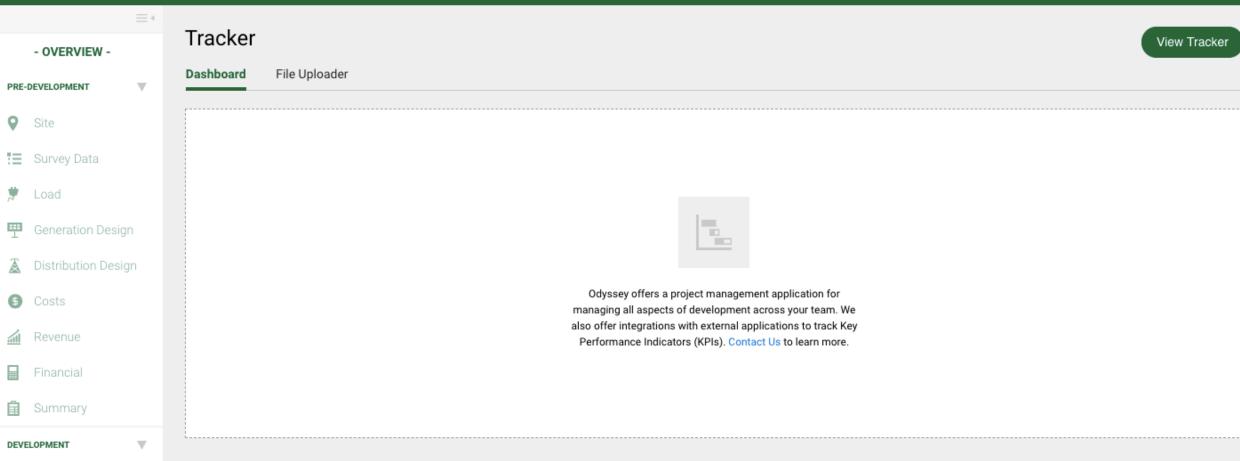
Portfolios

RFQs

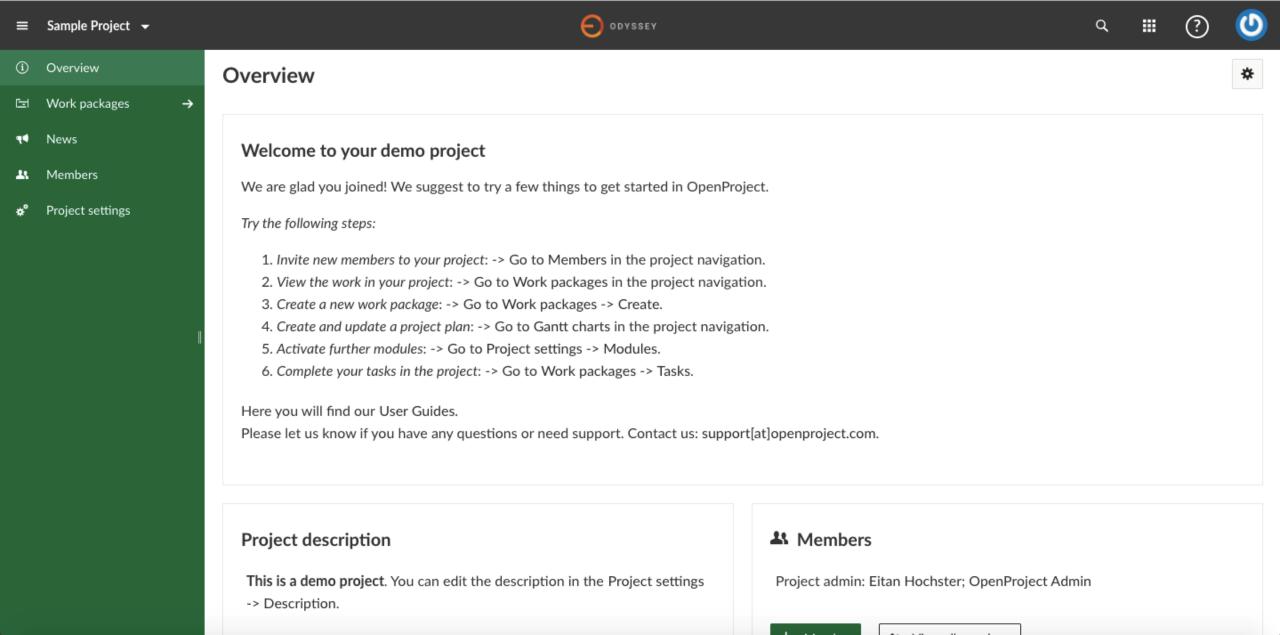
Hunter Dudley ▼

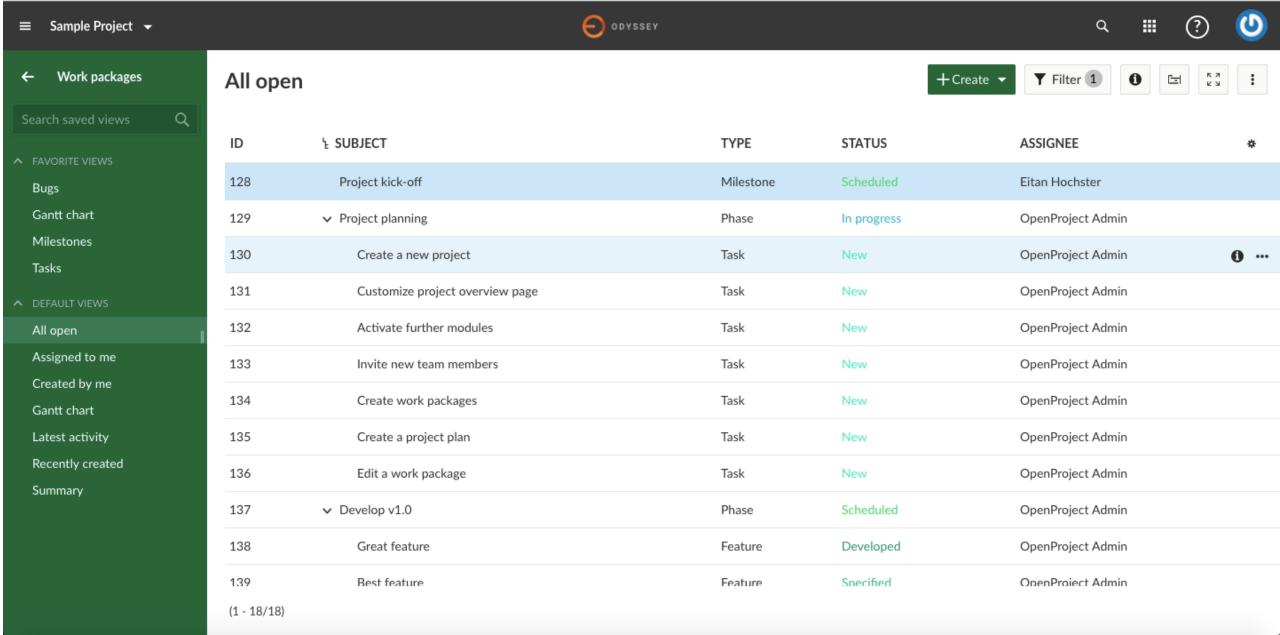
Help ?

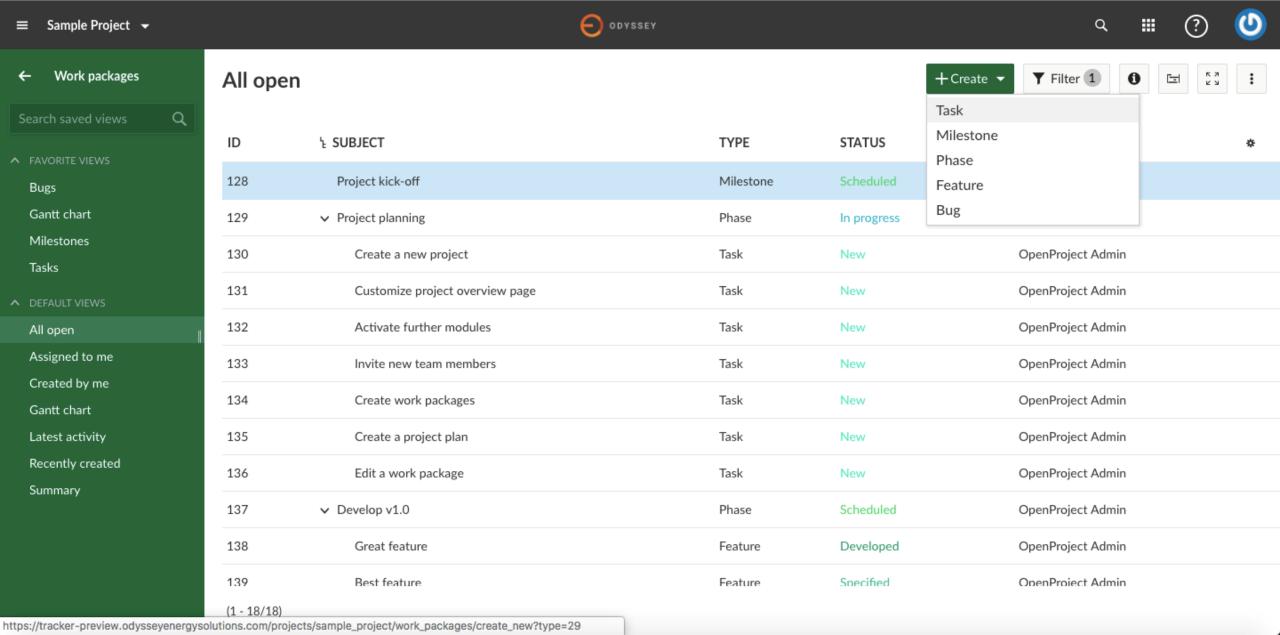
Kinazi Grid

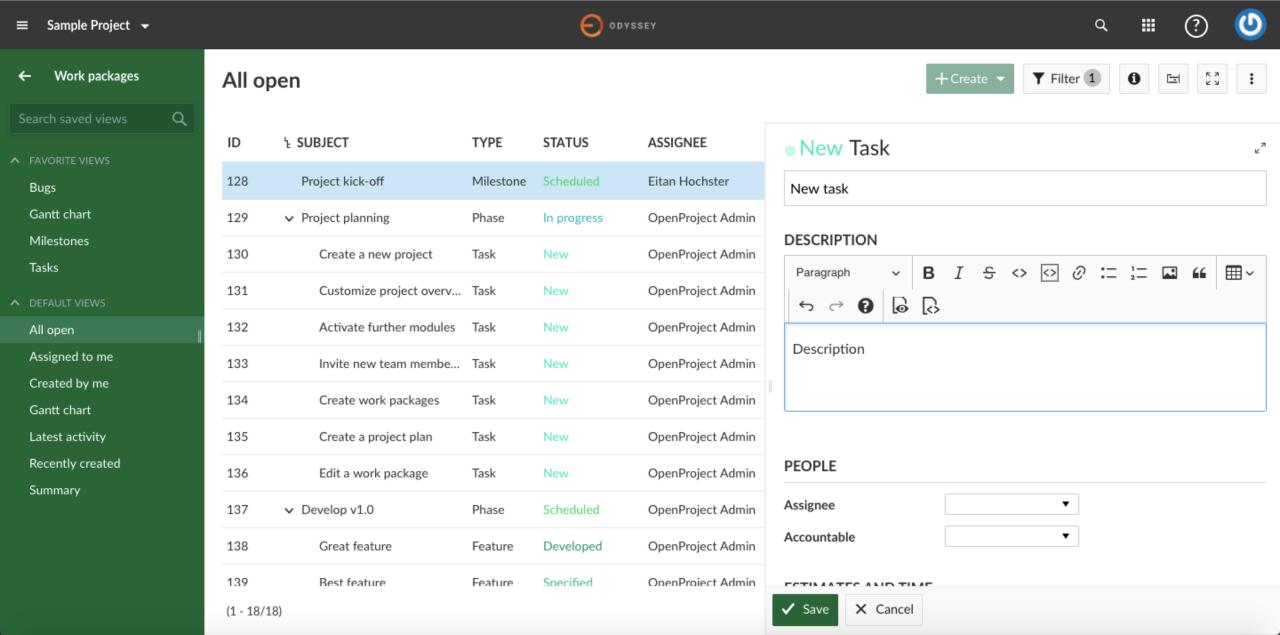


















Projects

Programs

Portfolios

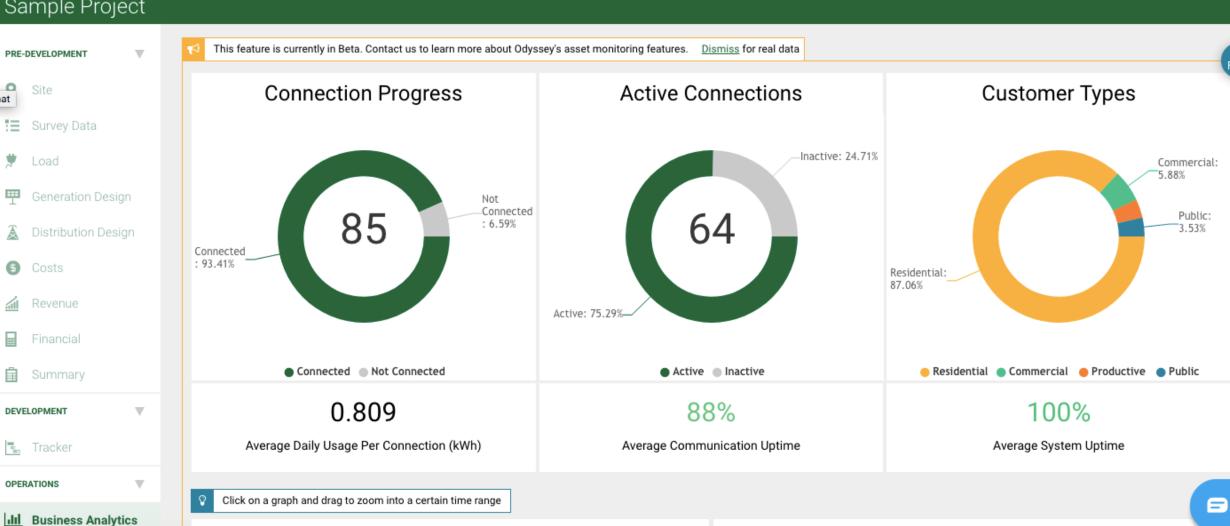
RFQs

Average Daily Load Per Connection

Emily McAteer -

Help ?

Sample Project



New Customers Connected







Projects

Programs

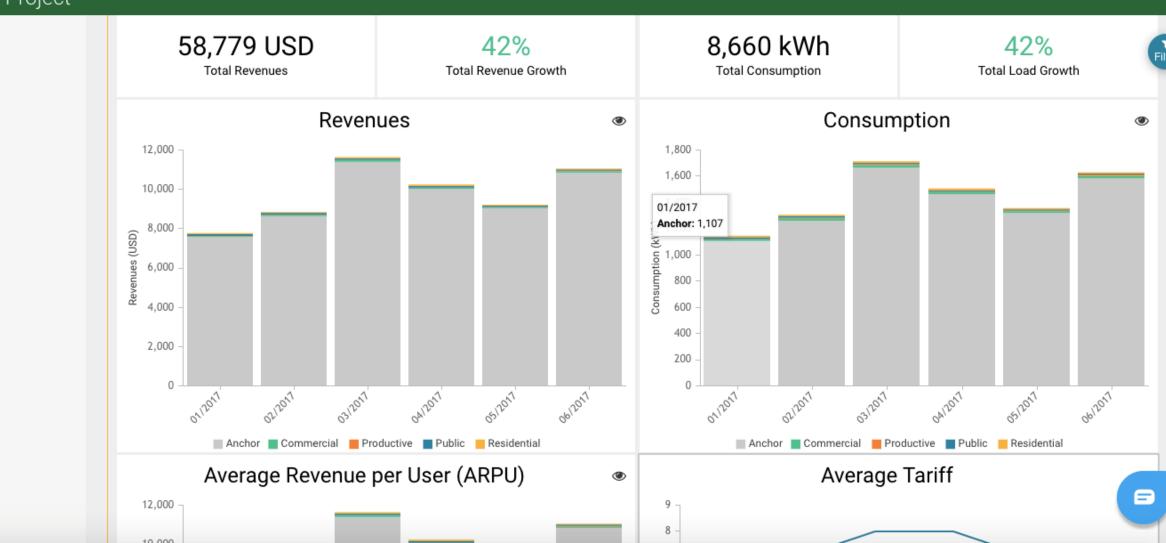
Portfolios

RFQs

Emily McAteer -













Programs

Portfolios

RFQs

Emily McAteer -

Help ?

Sample Project

Business Analytics

System 3



