



# AI-empowered Sustainability Platform for Built Assets

Automate your data extraction and processing  
from energy bills for your building portfolios



Certified Environmental, Social and Governance Analyst CESGA

Strategic Green Innovation | a venture of







# **How are you managing GHG data today?**

# Learning from Customer/Investor Signals:

Data collection and processing, especially adjustment in time frame, is so **time consuming**. We need to automate it.



Somebody understands what we are doing! Data processing is very **labor-intensive** to undertake in a timely manner without errors.



If AI can extract data to another digital platform such as a carbon calculator, the **potential is great**.



You've made it seem **very simple** even though we know it's very complex, and we support you!

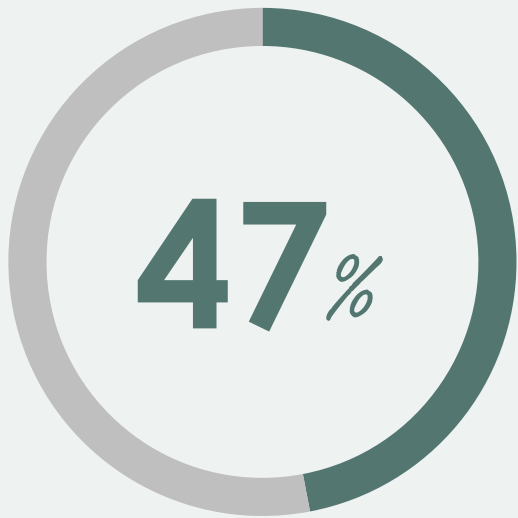


We need an **automated** way to pull in data from utility bills and use them for carbon calculation.

You are **addressing customer needs** in a space that you are an expert in. Investors will be interested. We will make introductions.

JPMorganChase

# Top 4 Challenges



organizations rely on spreadsheets to **manually** manage carbon data\*



**Labor-intensive** and **error-prone** manual processing of energy bills



**Differing** energy **billing periods** require complicated calculations



Dissimilar processing requirements for **billing formats** from **various providers**



**Delayed reporting** due to time required for data entry and processing

# Say Hello to

# STRESS-FREE

# ACCURATE DATA

sgi /eco-prosperity/



Dashboard

Projects

Bookmarked Projects

Palo Alto International Buil...

San Jose Tower

San Francisco Centre

Palo Alto International Building / Data Activity / Review Emission Factor

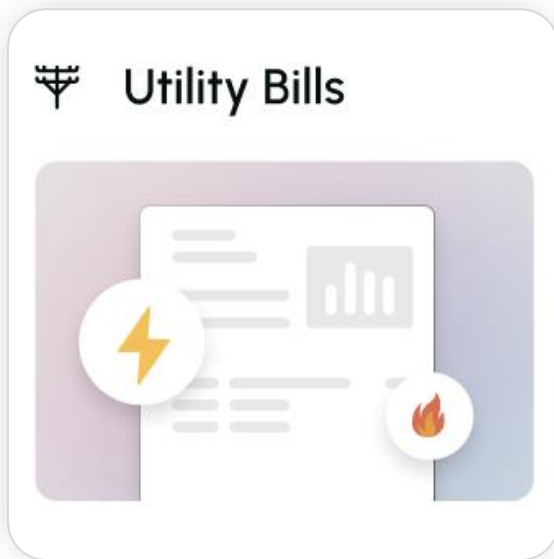
## < Review Emission Factor

We've assigned the most relevant emission factor based on your data. You can review and adjust this value if needed.  
If no emission factor is assigned, you can add your own custom value.

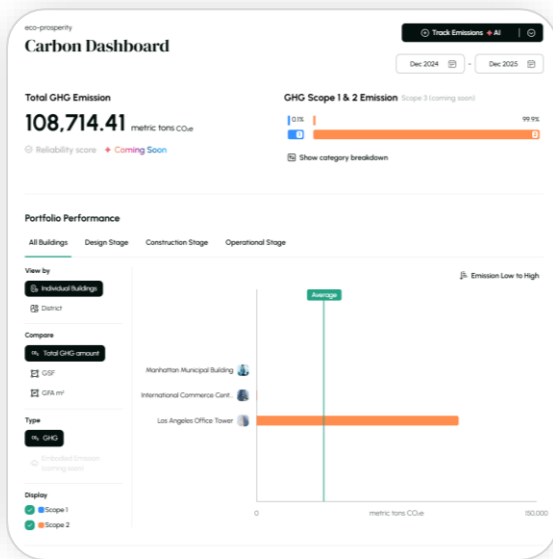
### Purchase of electricity

#	File Name	Quantity	Unit	Emission Factor	Emission Factor Unit	Emission Factor S	
		10	kWh	1.8	kg CO <sub>2</sub> e / kWh	Palo alto utilities	
1.	PA#101_2024-03.pdf			1.8	kg CO <sub>2</sub> e / kWh	Palo alto utilities	
2.	PA#101_2024-04.pdf	84	kWh			Palo alto utilities	

# Collaborative Next Steps



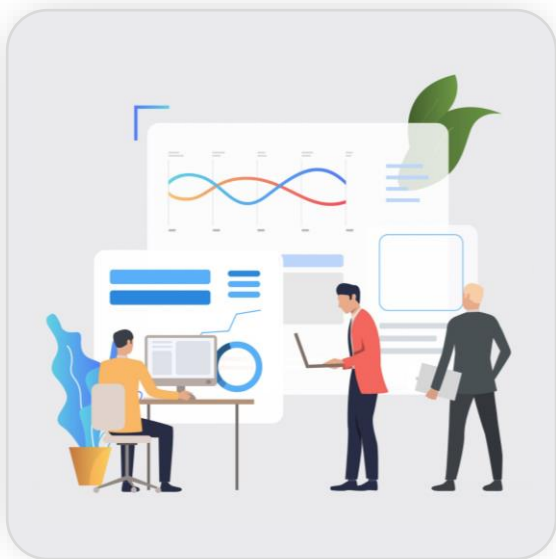
Electricity Bill  
Data Extraction



Live Dashboard  
Demo



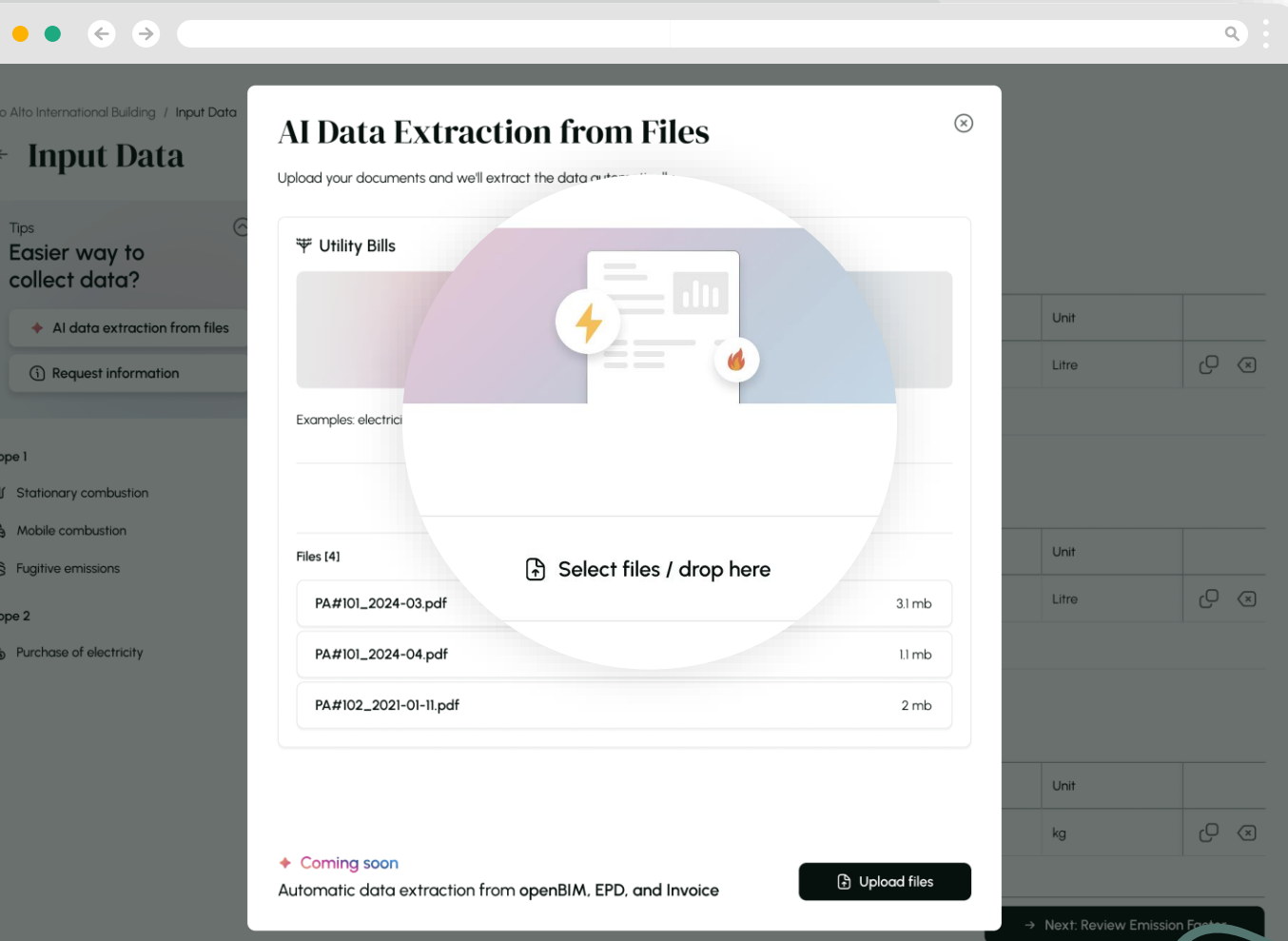
Platform Login  
Access



Workflow  
Optimization

*Solution: Labor Saving and Easy to Use*

# AI-Empowered Data Extraction from Energy Bills for Carbon Accounting

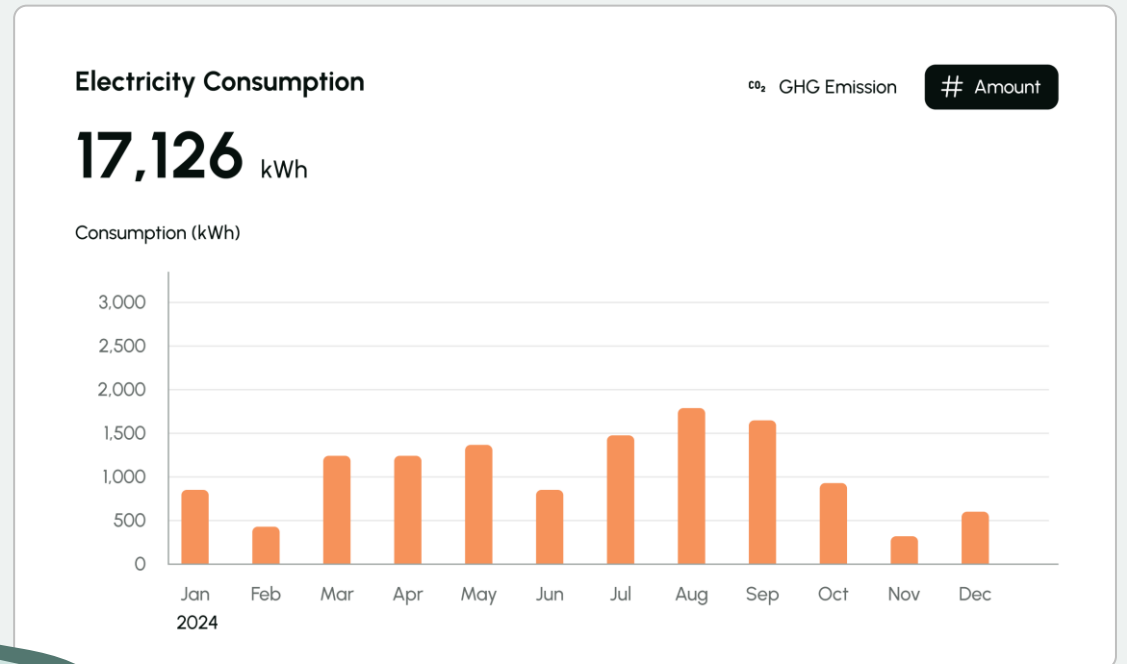
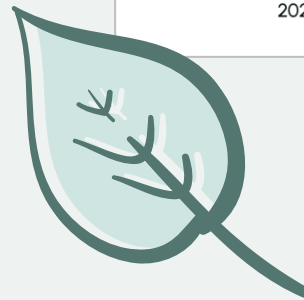


- 1 Easily upload energy bill PDFs
- 2 AI extraction of energy data
- 3 Calculate Carbon Emissions



*Unifying dissimilar formats and  
billing periods*

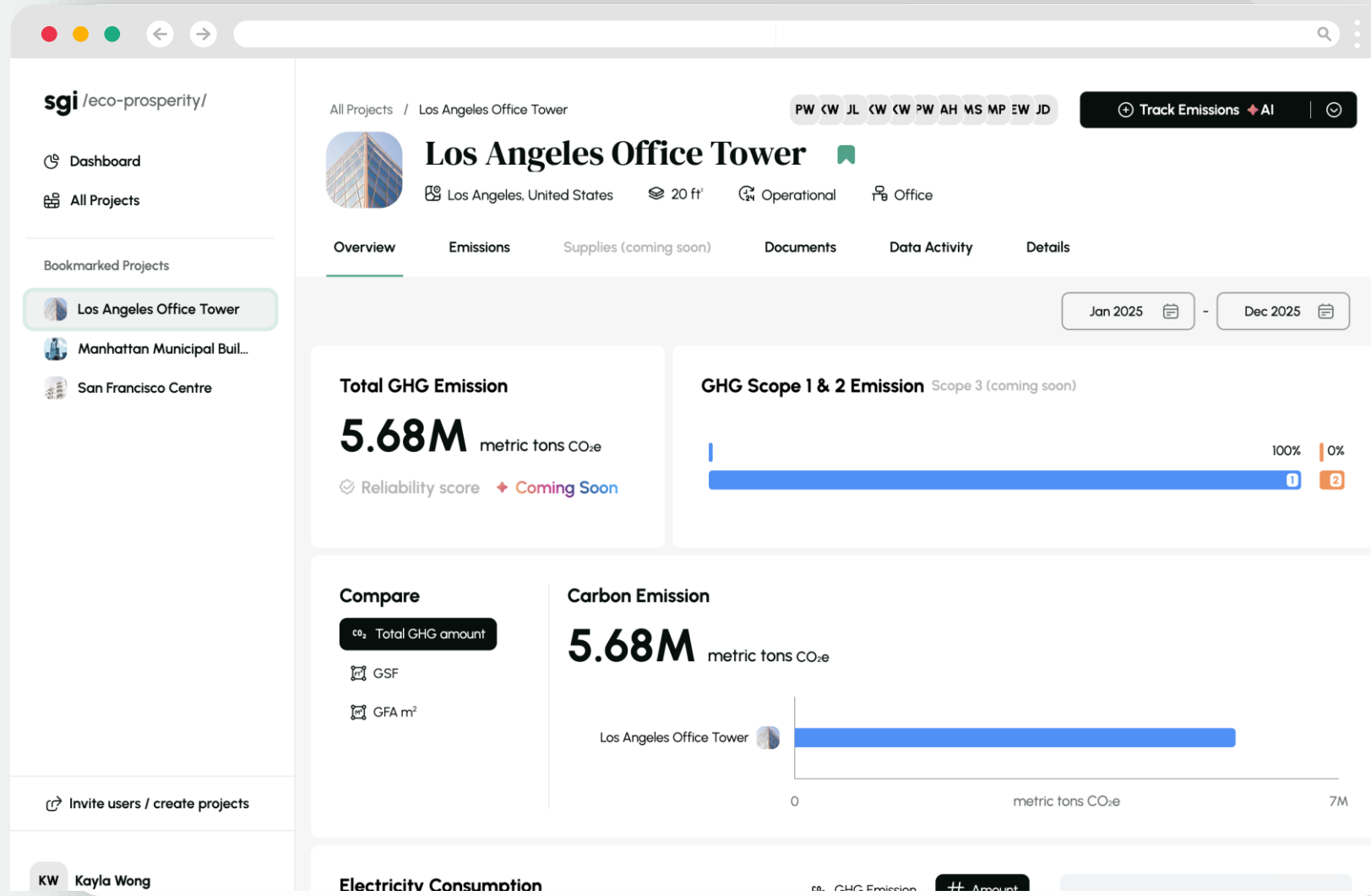
**Automatic alignment among  
differing energy billing periods to  
produce standard monthly reporting**





*Transparent & clear!*

## Usage, Cost & GHG Dashboard Display for Buildings / Projects



# Proven & Growing

Arizona

Hong Kong

Japan

Palo Alto

Vietnam

**1000+**

*bills tested*

**5**

*countries/languages*

*up to*

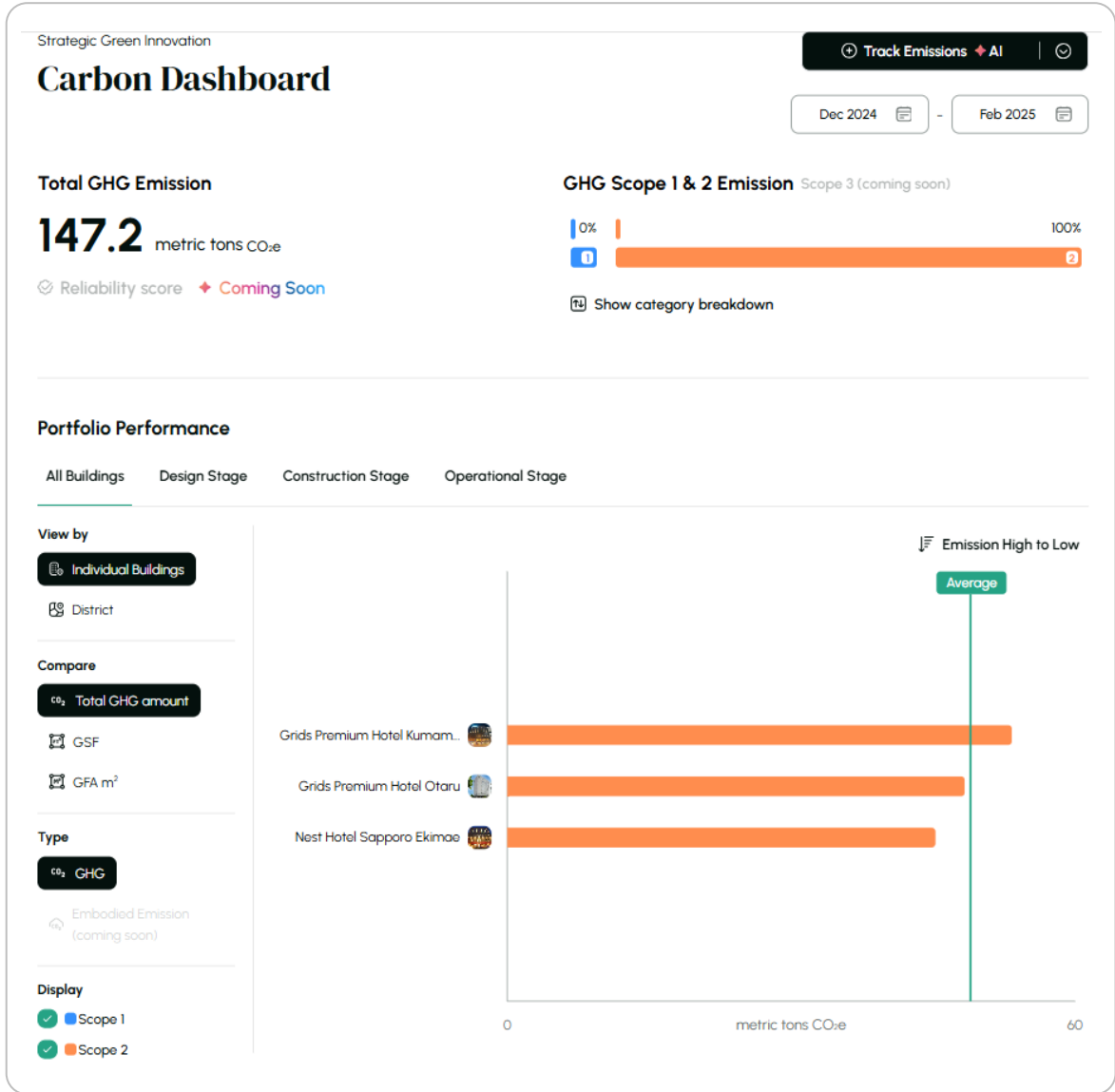
**100%**

*accuracy*

**~94%**

*faster processing with AI*

# Hotel Buildings in Japan



3 hotel buildings

16 electricity bills tested

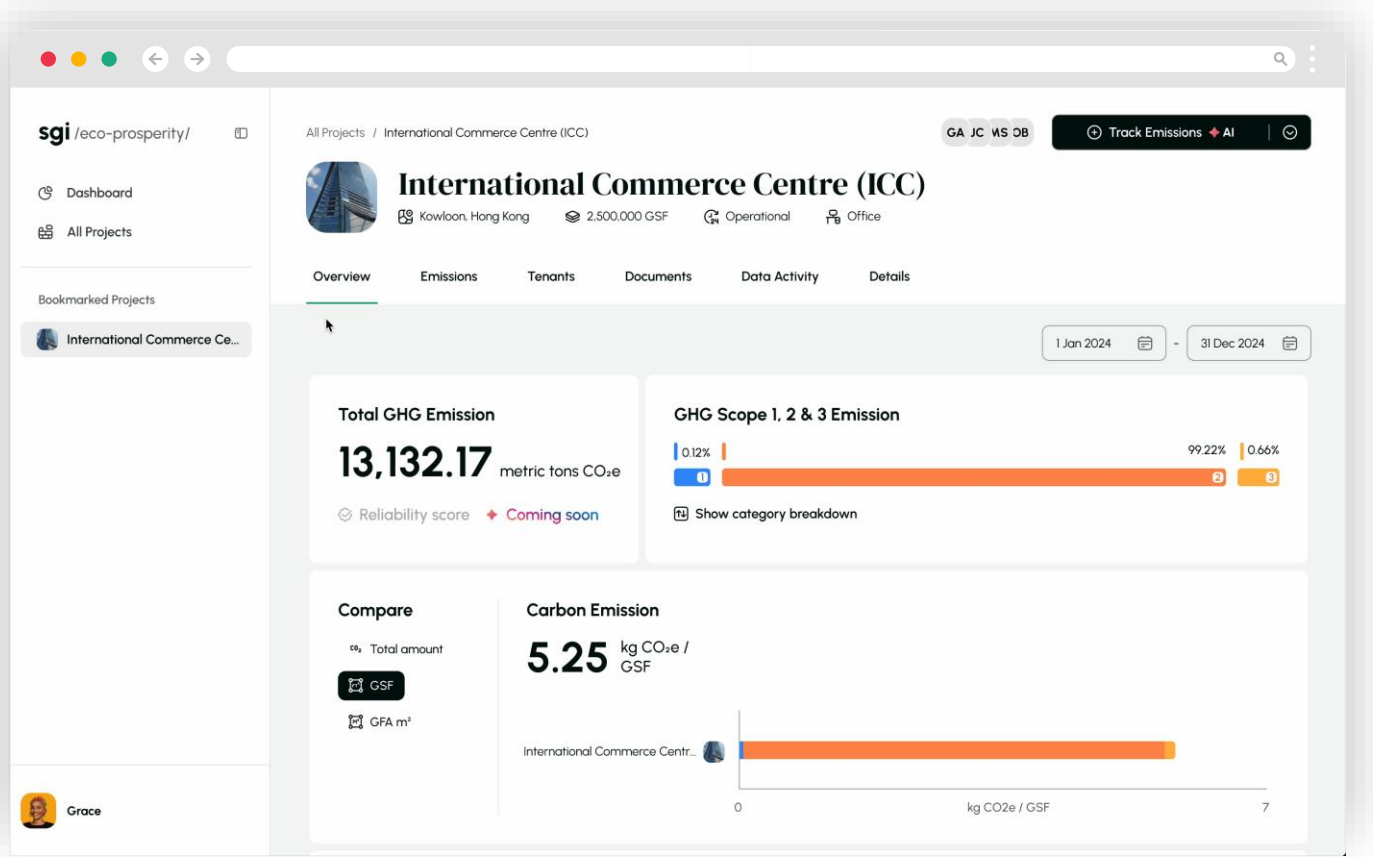
5 unique bill formats

15 seconds / file



# International Commerce Centre (ICC)

13<sup>th</sup> Tallest Building in the World



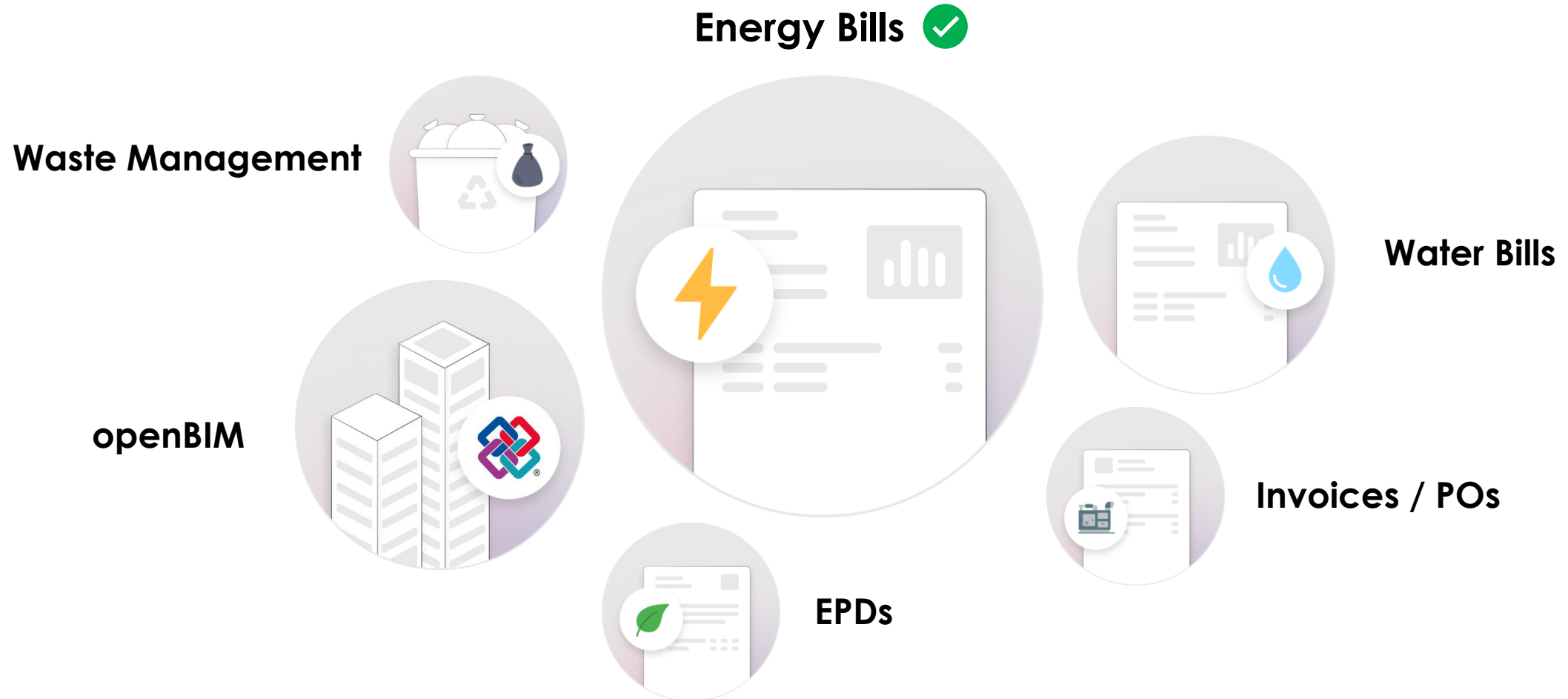
108 floors

~700 electricity bills tested

20 seconds / file

# Growing auto-capture capabilities

to include data from openBIM and additional structured and unstructured sources



# Endless Possibilities

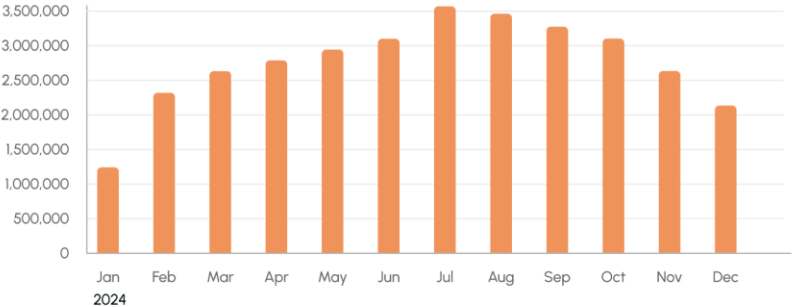
## Sustainability Dashboard

### Energy & Carbon Reduction

#### Electricity Consumption

33.41M kWh

Consumption (kWh)



GHG Emission

# Amount

#### Change in Energy Usage

20M kWh

Compared with data in 2012

#### Carbon Reduction

14,000 metric tons C...

Compared with data in 2012

#### Total Waste



#### Compare Latest Month With

# Last 3 Months Average

# Last 6 Months Average

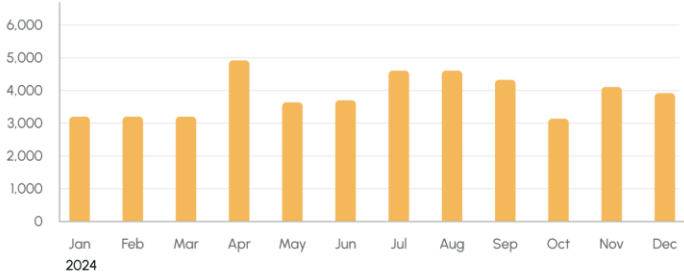


Data collected via Greenbird

#### Water Consumption

47,335.33 kg CO<sub>2</sub>e

Carbon emission (kg CO<sub>2</sub>e)



GHG Emission

# Amount

#### Sewage

38.93 tonnes CO<sub>2</sub>e

Looking for  
Decarbonisation  
Insight?

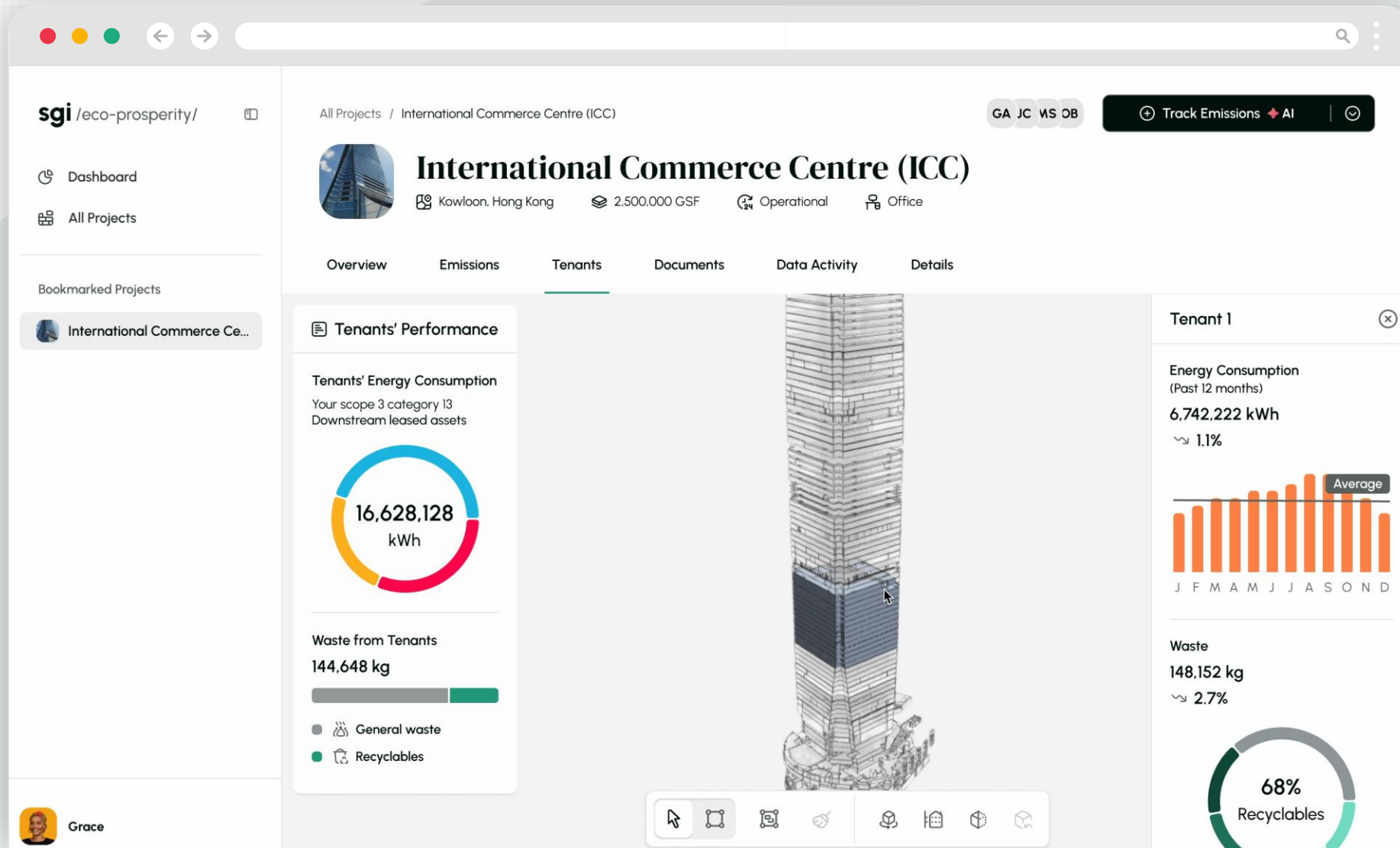


Contact SBI  
to get a detailed roadmap.



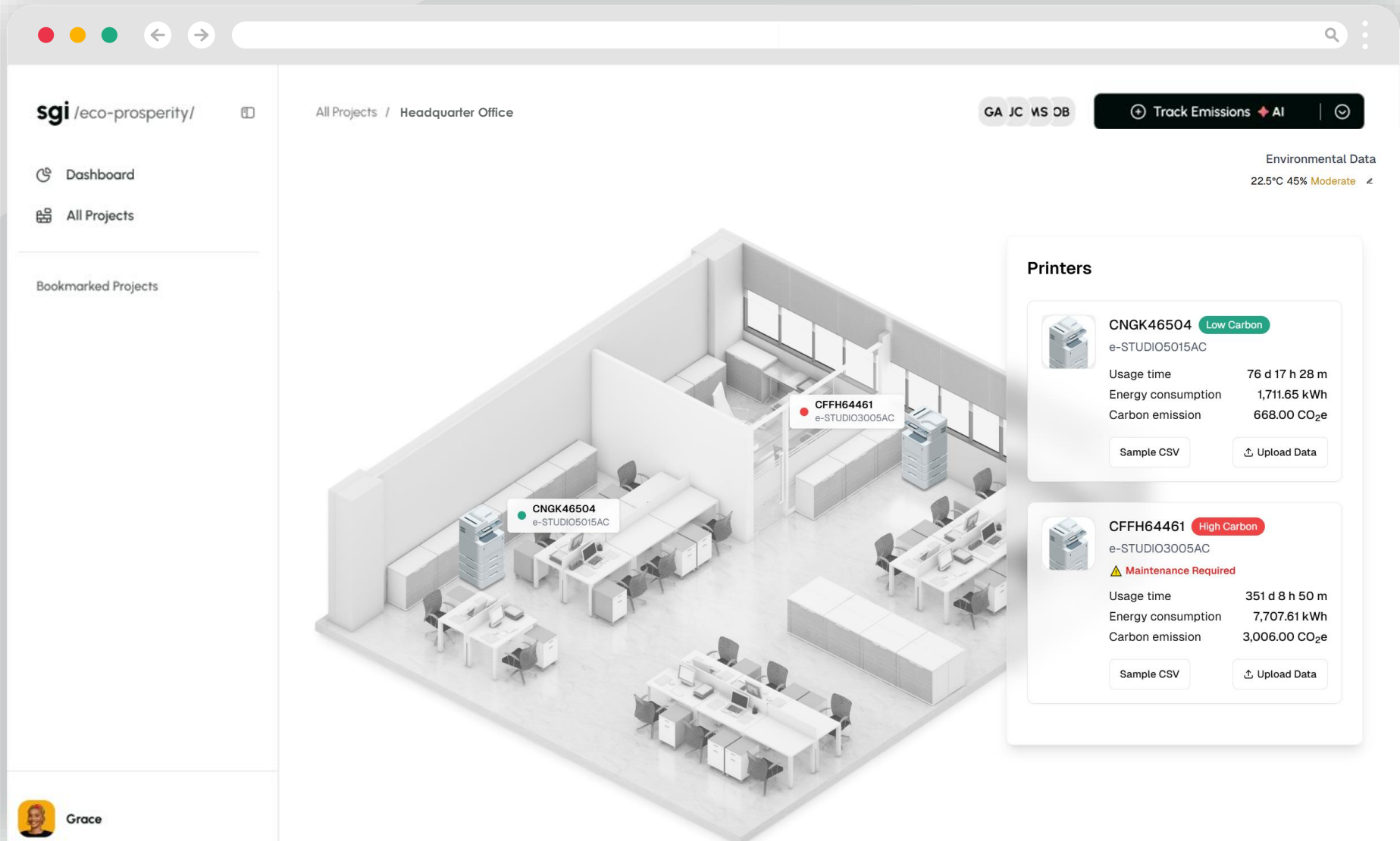
Endless Possibilities

# Tenant Utility Consumption with BIM Visualisation

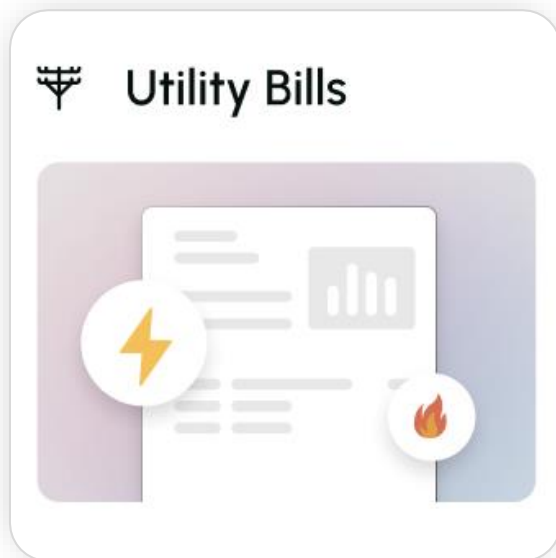


# Endless Possibilities

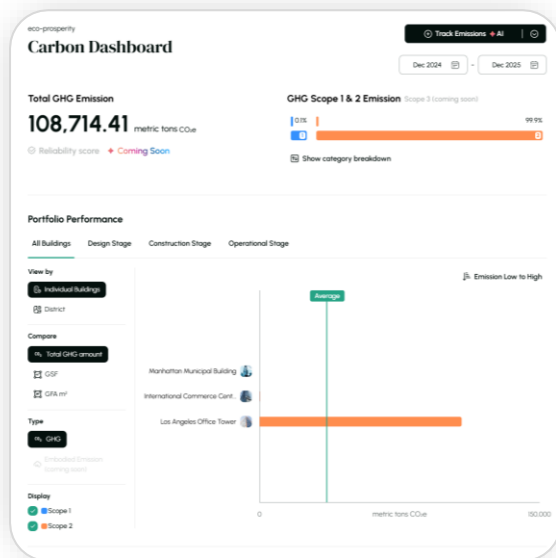
## Printer Efficiency AI



# Collaborative Next Steps



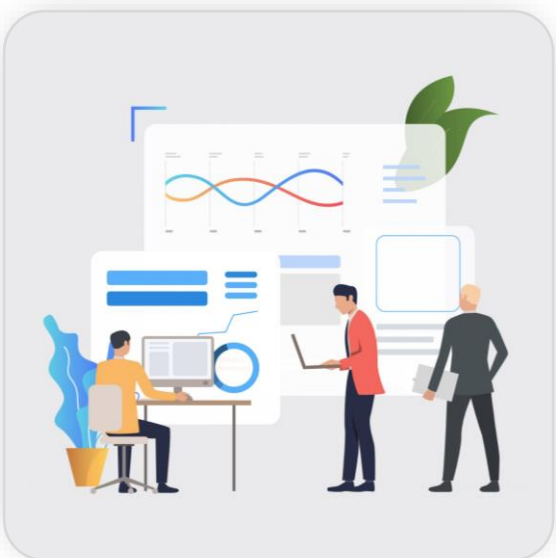
Electricity Bill  
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Workflow  
Optimization



# AI-empowered Sustainability Platform for Built Assets

building for eco  prosperity

~94%

↗ faster processing with AI

Reduce potential

~~Human Errors~~

↗ Increase level of

Scalability

# AI-Empowered Data Extraction from openBIM for Carbon Calculation

*Automated inference of materials not specified in BIM*



**Review Data**

Undo Submit

All material types	63,303 m <sup>3</sup>
Concrete	32,092 m <sup>3</sup> (56%)
C45 32 objects	30,000 m <sup>3</sup>
C55 32 objects	2,092 m <sup>3</sup>
Pre-cast concrete	23,109 m <sup>3</sup> (30%)
C45 32 objects	20,000 m <sup>3</sup>
C50 32 objects	3,109 m <sup>3</sup>
Steel	8,102 m <sup>3</sup> (14%)
S235 32 objects	8,000 m <sup>3</sup>
S275 32 objects	102 m <sup>3</sup>