



# 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!

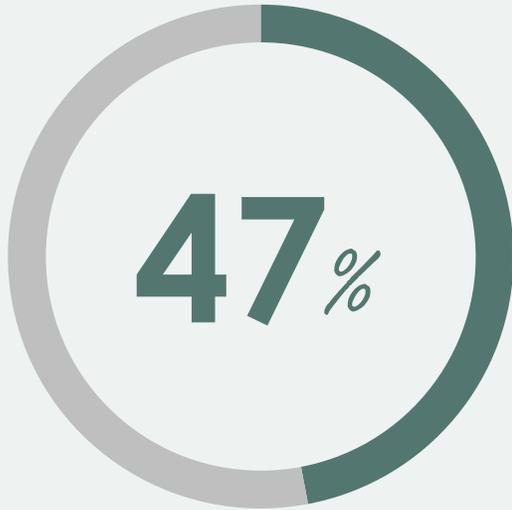


We need an **automated** way to pull in data from utility bills and use them for carbon calculation.

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



# 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

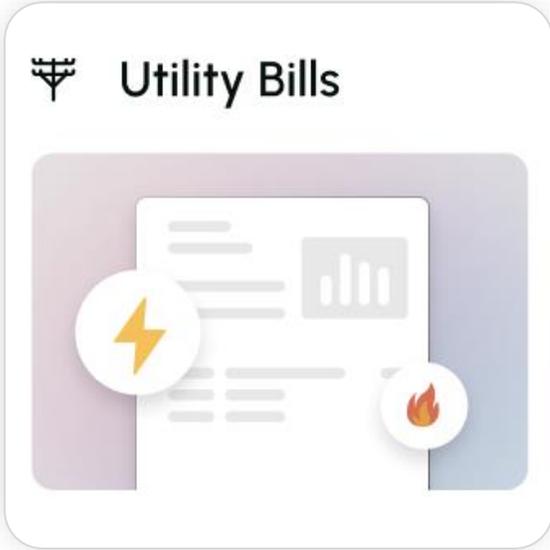
## Review Emission Factor

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.

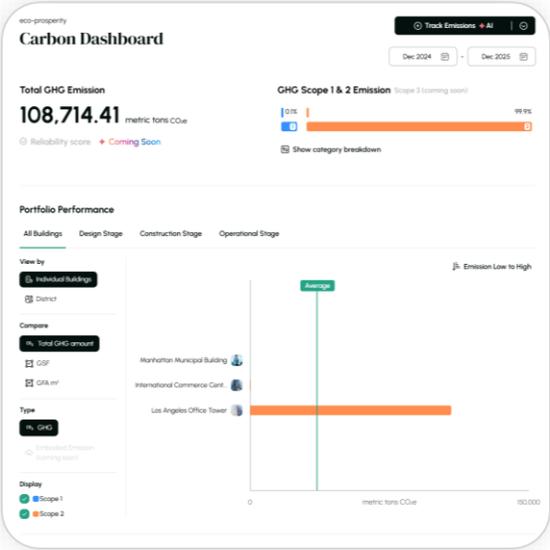
### Purchase of electricity

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

# Collaborative Next Steps



Electricity Bill  
Data Extraction



Live Dashboard  
Demo

A login form for 'sgi /eco-prosperity/'. It includes fields for 'Username' (with 'username' as a placeholder) and 'Password' (with 'password' as a placeholder), and a 'Login' button.

Platform Login  
Access



Workflow  
Optimization

*Solution: Labor Saving and Easy to Use*



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

AI Data Extraction from Files

Upload your documents and we'll extract the data automatically.

Utility Bills

Examples: electrical, gas, water, etc.

Files [4]

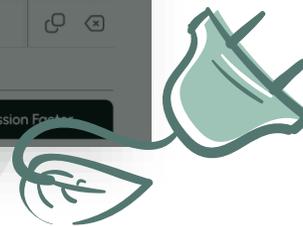
Select files / drop here

File Name	Size
PA#101_2024-03.pdf	3.1 mb
PA#101_2024-04.pdf	1.1 mb
PA#102_2021-01-11.pdf	2 mb

Coming soon  
Automatic data extraction from openBIM, EPD, and Invoice

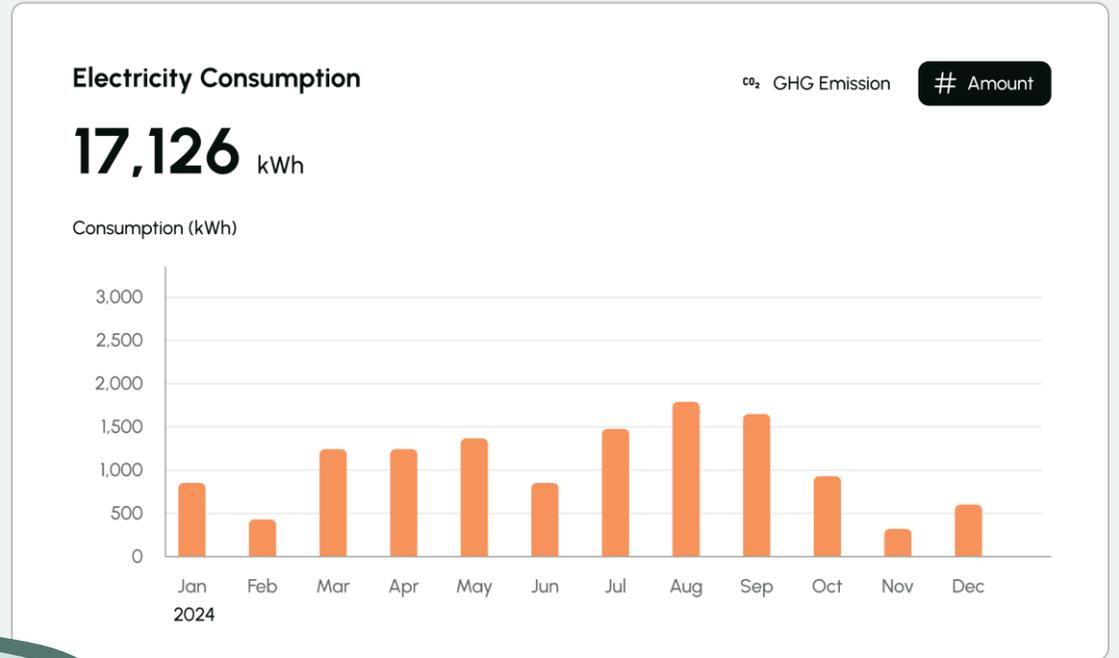
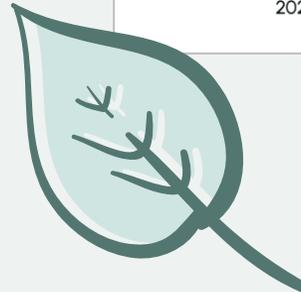
Upload files

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



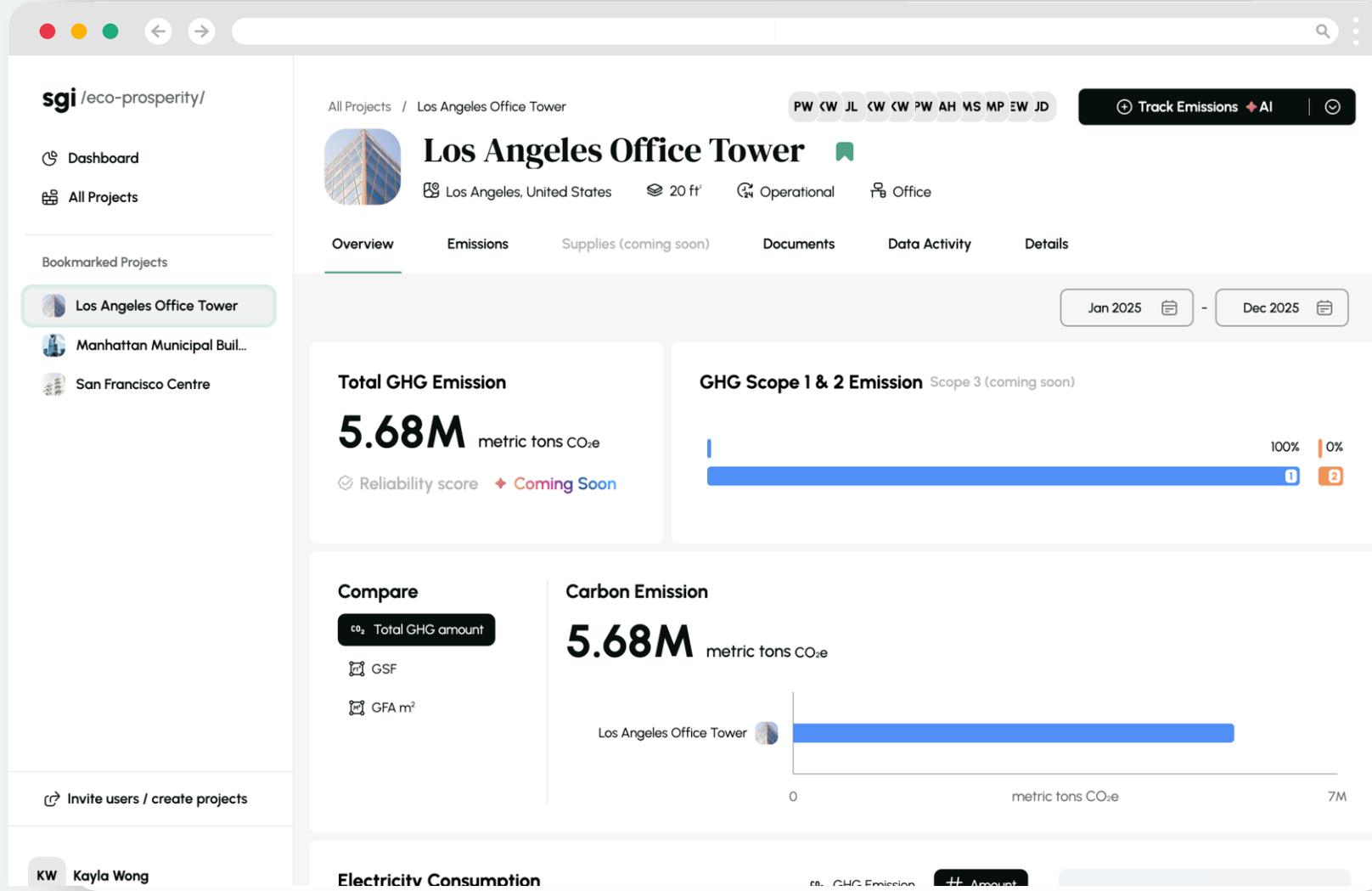
*Unifying dissimilar formats and billing periods*

**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*

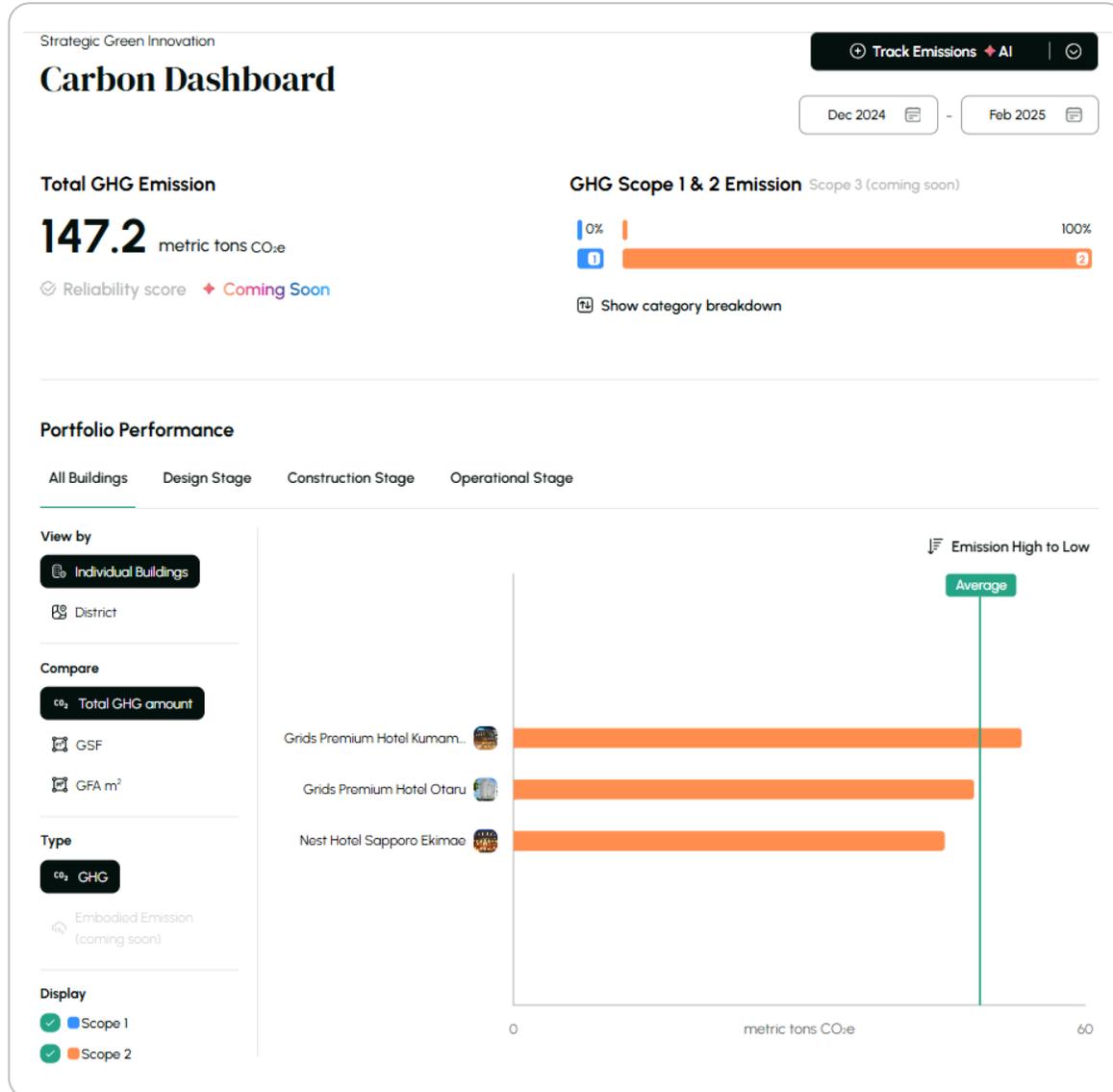
**100%**

*accuracy*

**~94%**

*faster processing with AI*

# Hotel Buildings in Japan



3 hotel buildings

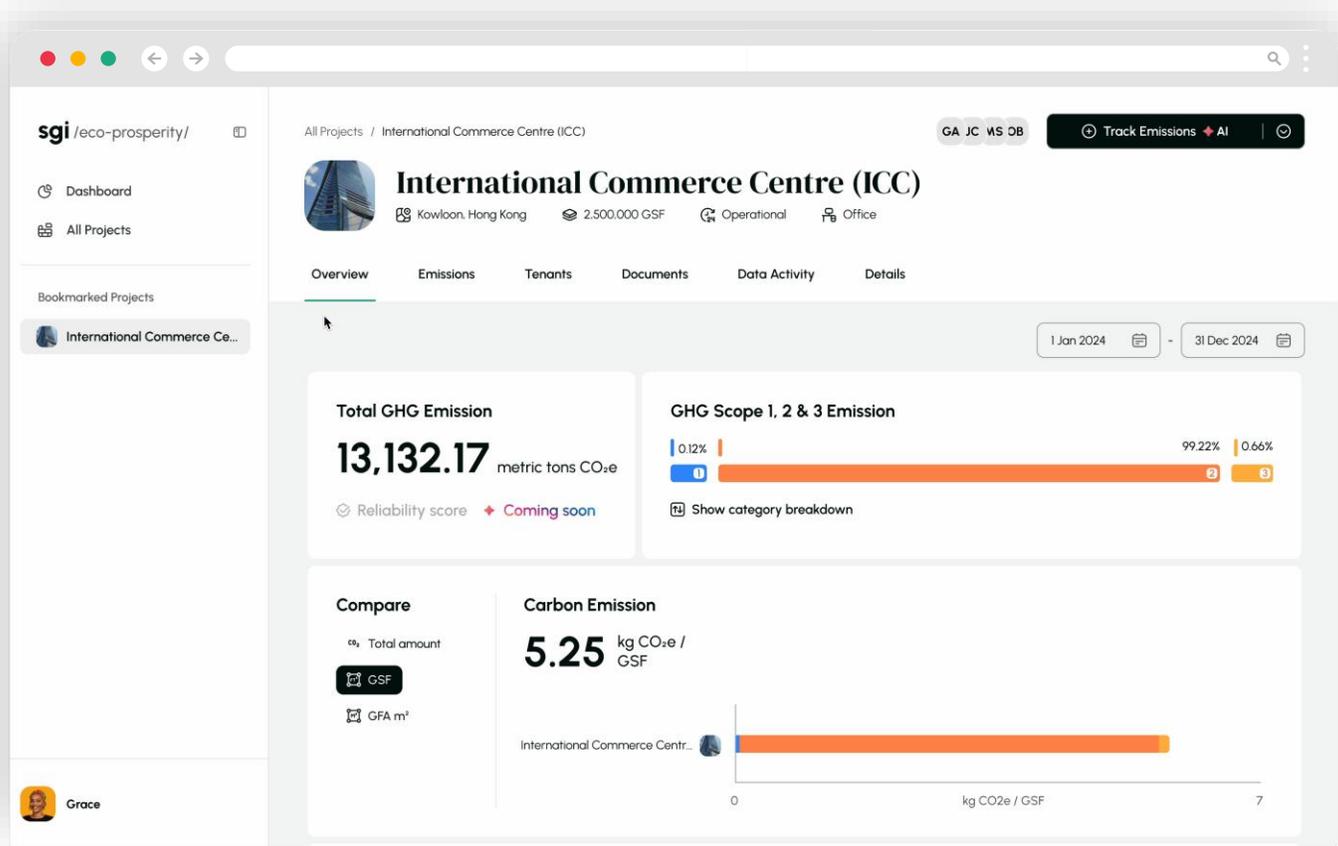
16 electricity bills tested

5 unique bill formats

15 seconds / file

# International Commerce Centre (ICC)

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



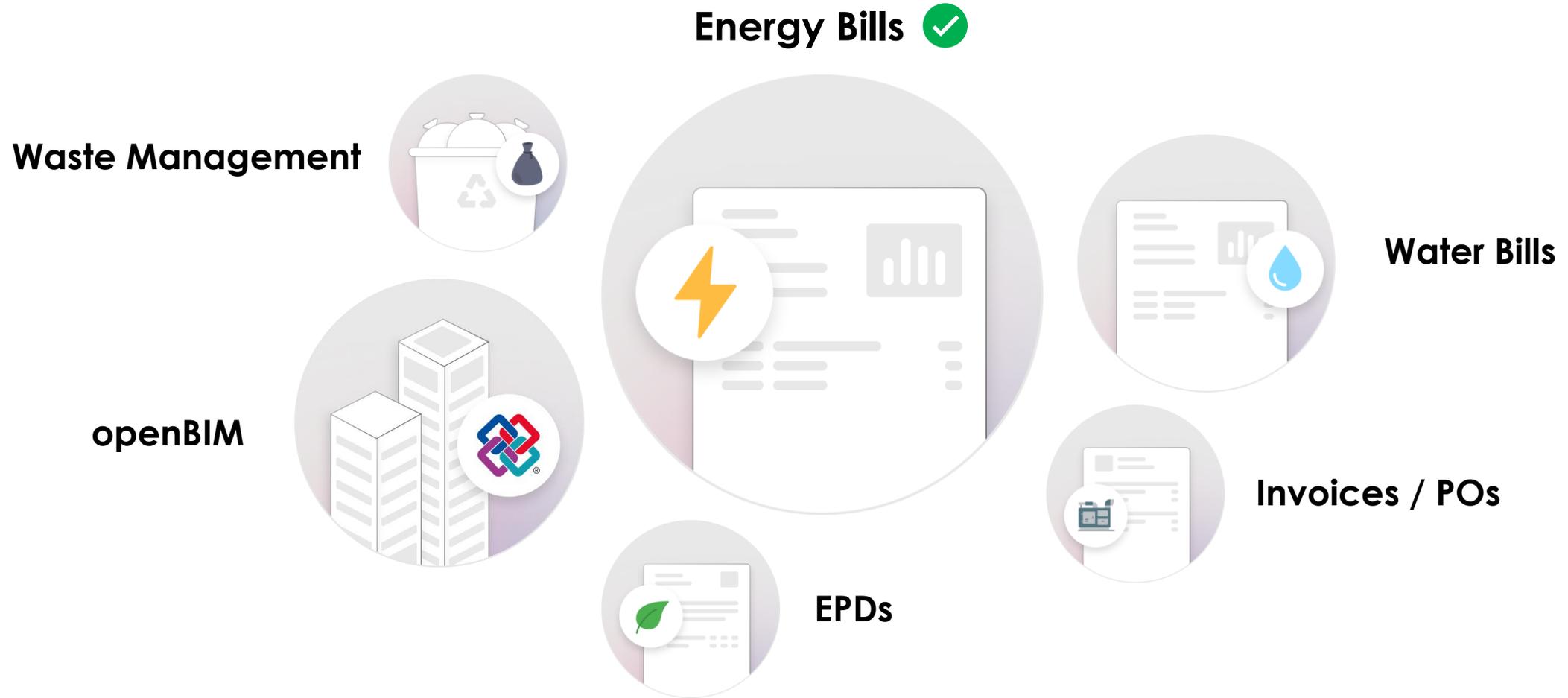
108 floors

~700 electricity bills tested

20 seconds / file

# Growing auto-capture capabilities

to include data from openBIM and additional structured and unstructured sources



# Endless Possibilities

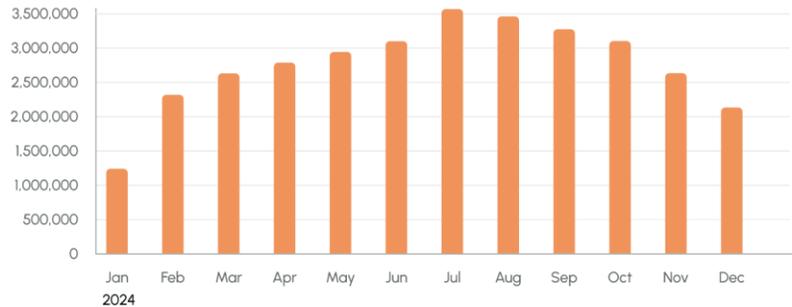
## Sustainability Dashboard

### 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



Total Waste

157.4 kg

 47.7%



General Waste

80.75 kg

 6.2%



Paper

3.50 kg

 78.87



Plastic

3.55 kg

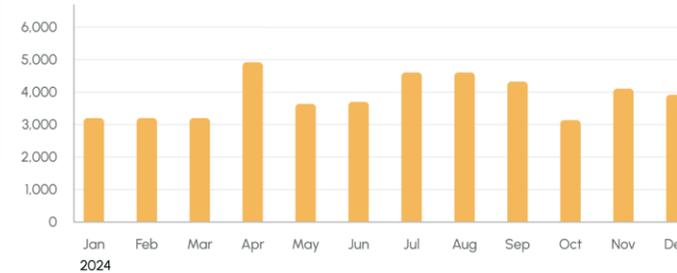
 63.38

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

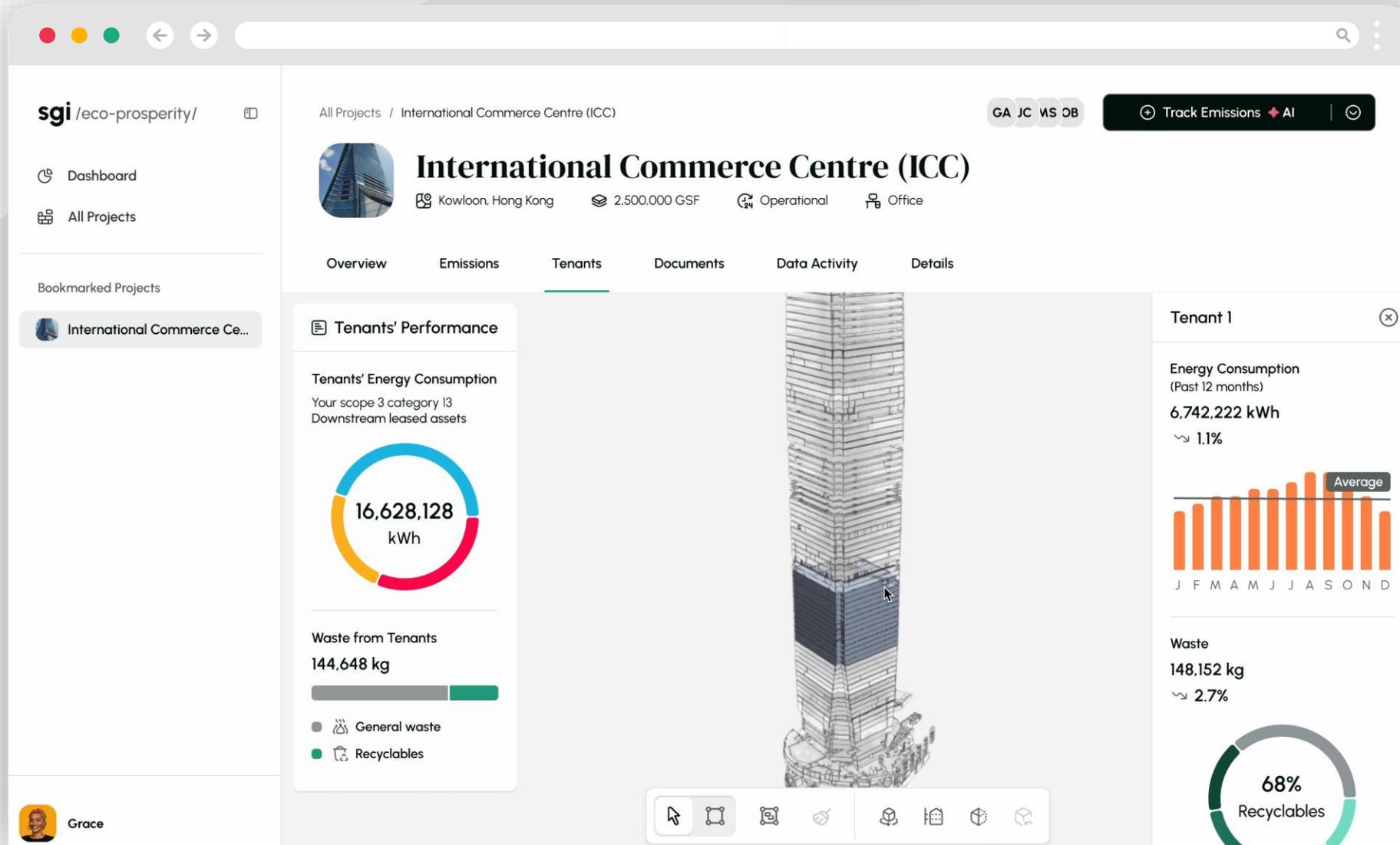
Looking for  
**Decarbonisation  
Insight?**



Contact SBI  
to get a detailed roadmap.

Endless Possibilities

# Tenant Utility Consumption with BIM Visualisation

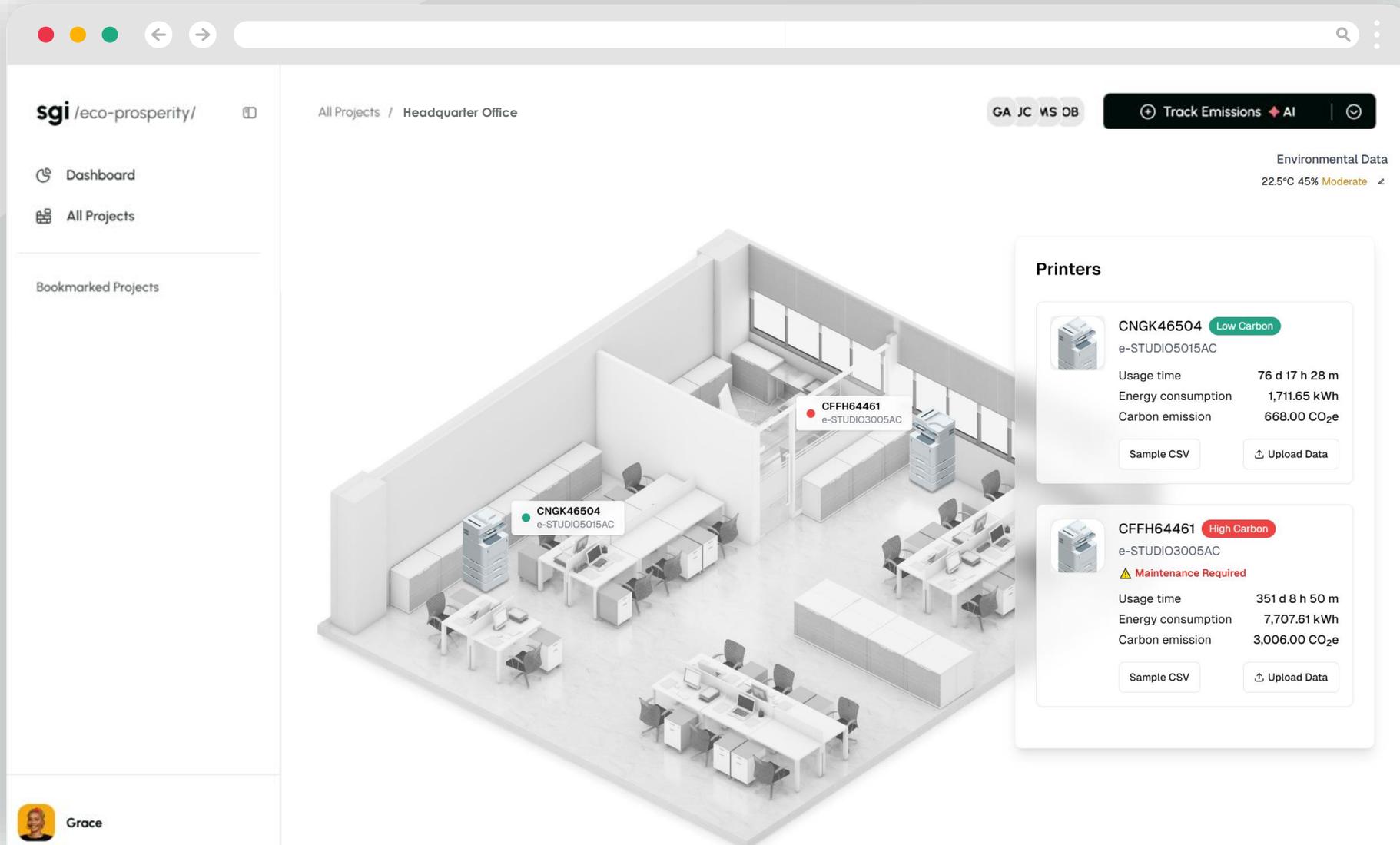


The dashboard displays the following information:

- Project Overview:** International Commerce Centre (ICC), Kowloon, Hong Kong, 2,500,000 GSF, Operational, Office.
- Tenants' Performance:**
  - Tenants' Energy Consumption:** 16,628,128 kWh (Your scope 3 category 13 Downstream leased assets).
  - Waste from Tenants:** 144,648 kg. Legend: General waste (grey), Recyclables (green).
- Tenant 1 Details:**
  - Energy Consumption (Past 12 months):** 6,742,222 kWh (~ 1.1%).
  - Waste:** 148,152 kg (~ 2.7%).
  - Recyclables:** 68%.
- BIM Visualisation:** A 3D wireframe model of the ICC building with a highlighted section.

# Endless Possibilities

## Printer Efficiency AI



sg /eco-prosperity/ All Projects / Headquarter Office

GA JC MS DB Track Emissions AI

Environmental Data  
22.5°C 45% Moderate

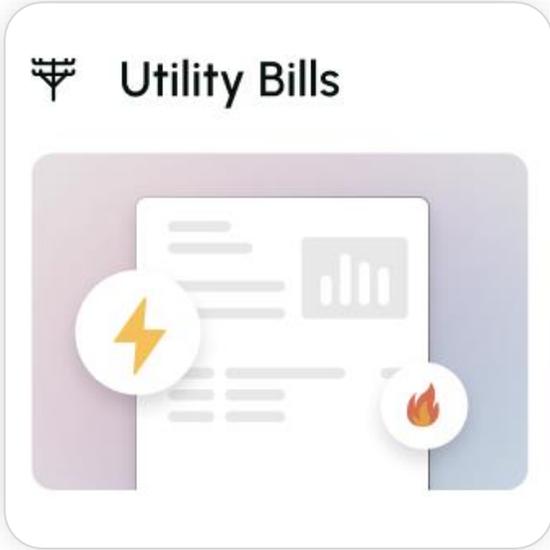
### Printers

Printer ID	Model	Carbon Status	Usage time	Energy consumption	Carbon emission
CNGK46504	e-STUDIO5015AC	Low Carbon	76 d 17 h 28 m	1,711.65 kWh	668.00 CO <sub>2</sub> e
CFFH64461	e-STUDIO3005AC	High Carbon	351 d 8 h 50 m	7,707.61 kWh	3,006.00 CO <sub>2</sub> e

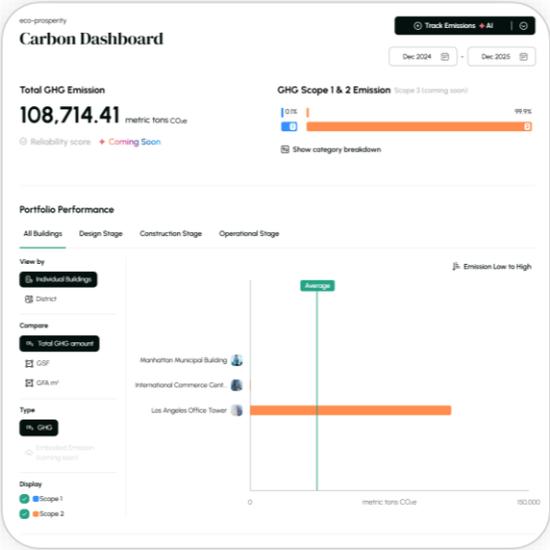
Buttons: Sample CSV, Upload Data

User: Grace

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Platform Login  
Access



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*



The screenshot displays the SGI software interface for reviewing data. The main view shows a 3D model of a building structure with orange and blue elements. The right-hand panel contains a table summarizing the material types and their volumes.

Material Type	Volume (m³)	Percentage
All material types	63,303	
Concrete	32,092	56%
C45	30,000	
C55	2,092	
Pre-cast concrete	23,109	30%
C45	20,000	
C50	3,109	
Steel	8,102	14%
S235	8,000	
S275	102	