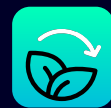


Building X Sustainability Manager



Assess Performance | Plan and Launch Initiatives | Monitor & Report Impact

The Cost of Non-Compliance



Tax Penalties

UP TO 40%

Loss of Value of Stranded Buildings¹

UP TO 30%

Increase in Operational Costs²

UP TO 20%

Higher Insurance Premiums³

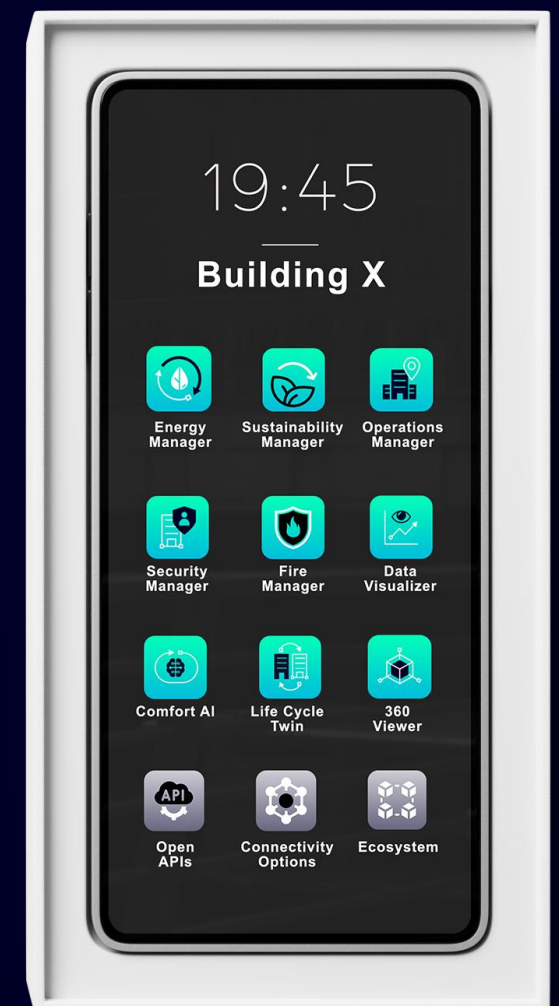
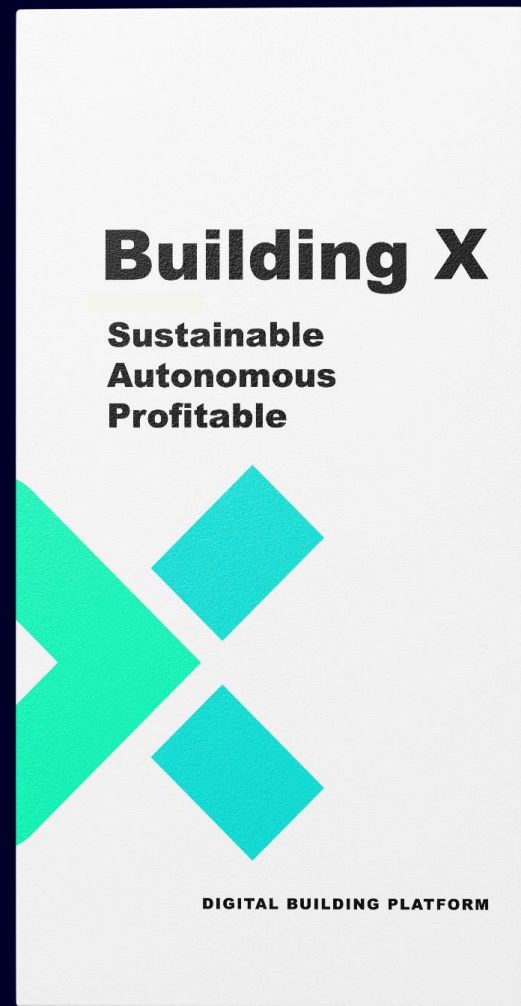
¹ Leave no building behind – or risk stranded property assets. The Fifth Estate. <https://thefifthestate.com.au> | ² Local Law 97 – NYC Accelerator. (n.d.). <https://accelerator.nyc> | ³ Energy efficiency: buildings and industry. (n.d.). Energy.gov. <https://www.energy.gov>



... Strategy Partner



Introducing
Building X,
the operational core
of your buildings.

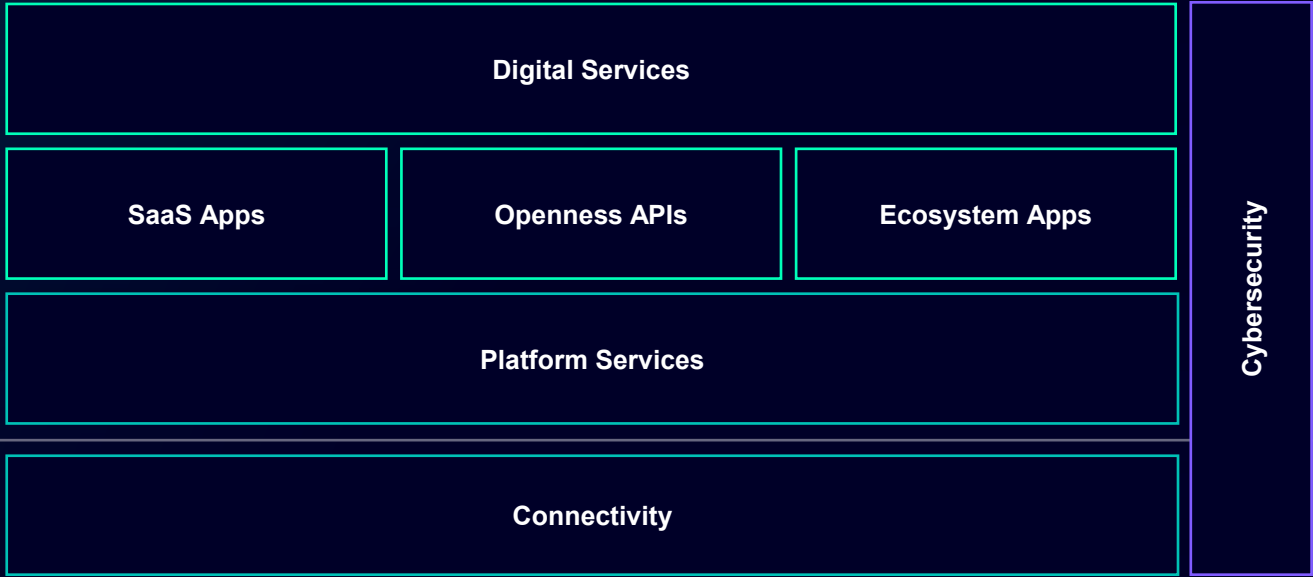


A digital building platform that digitalizes, manages, and optimizes building operations



Use Cases

Energy & Sustainability	Maintenance & Operations	Physical Security	Fire Management	Space & Workplace Management	Corporate Portfolio Management*
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Any field discipline & device



Any building architecture & industry

*Roadmap Item

Building X – A digital platform that digitalizes, manages, and optimizes building operations



Use Cases

Energy & Sustainability	Operations & Maintenance	Security & Safety	Space & Workplace Management	Corporate Portfolio Management*
Decarb. planning Compliance Reporting AI Energy Optim.	Digital Engineering Operations Monitoring Fault Detection & Diagnosis	Building Security Visitor Experience Building Access	Space Mgmt. Live Occupancy Insights Live IAQ Insights	Portfolio Single Pane of Glass Portfolio Benchmark Data Quality & Auditing
Energy, Water, etc. Monitoring Utility Mgmt. & Insights	Work order Mgmt. Cost-effective maintenance	Fire System Monitoring Fire System Testing Fire System Maint. Scheduling	Workplace Utilization Analytics Digital Workplace Admin. Desk & Room Booking	Workflow Automation & Reporting Cross Discipline Visibility

Digital Services

Automation & Mechanical	Energy Advisory & Diagnostic	Energy Optimization	Fire
Asset Performance Optimization* Asset Power Monitoring Critical Storage Critical Space Monitoring Lab Manager Analytics	Smart Building Assessment Energy Performance Advisor UBM Service Energy System Twin Sustainability Advisory*	Cooling Efficiency* Airflow Improvement* Load Optimization*	Data Driven Performance Review & Recommendations False Alarm Detection & Reporting Access Right Review

Building X Platform

Applications

Energy & Sustainability	Operations & Maintenance	Security & Safety	Space Mgmt.	Portfolio Mgmt.	Open APIs	Ecosystem
Sustainability Manager Energy Manager Comfort AI	Operations Manager Lifecycle Twin Data Visualizer 360 Viewer	Security Manager Visitor Manager Fire Apps	Occupancy Environmental & Air Quality	Portfolio Manager*		

Connectivity

Data Onboarding	Service Extensions	AI & Rule Analytics	Building Twin	Device & Edge Management	Account Management
Building Structure Data		Partner/3rd IoT Solutions		Siemens Native IoT & SW Integrations e.g., Desigo PXC, Connect Box, Desigo CC, Siveillance, Desigo Optic	

Cybersecurity



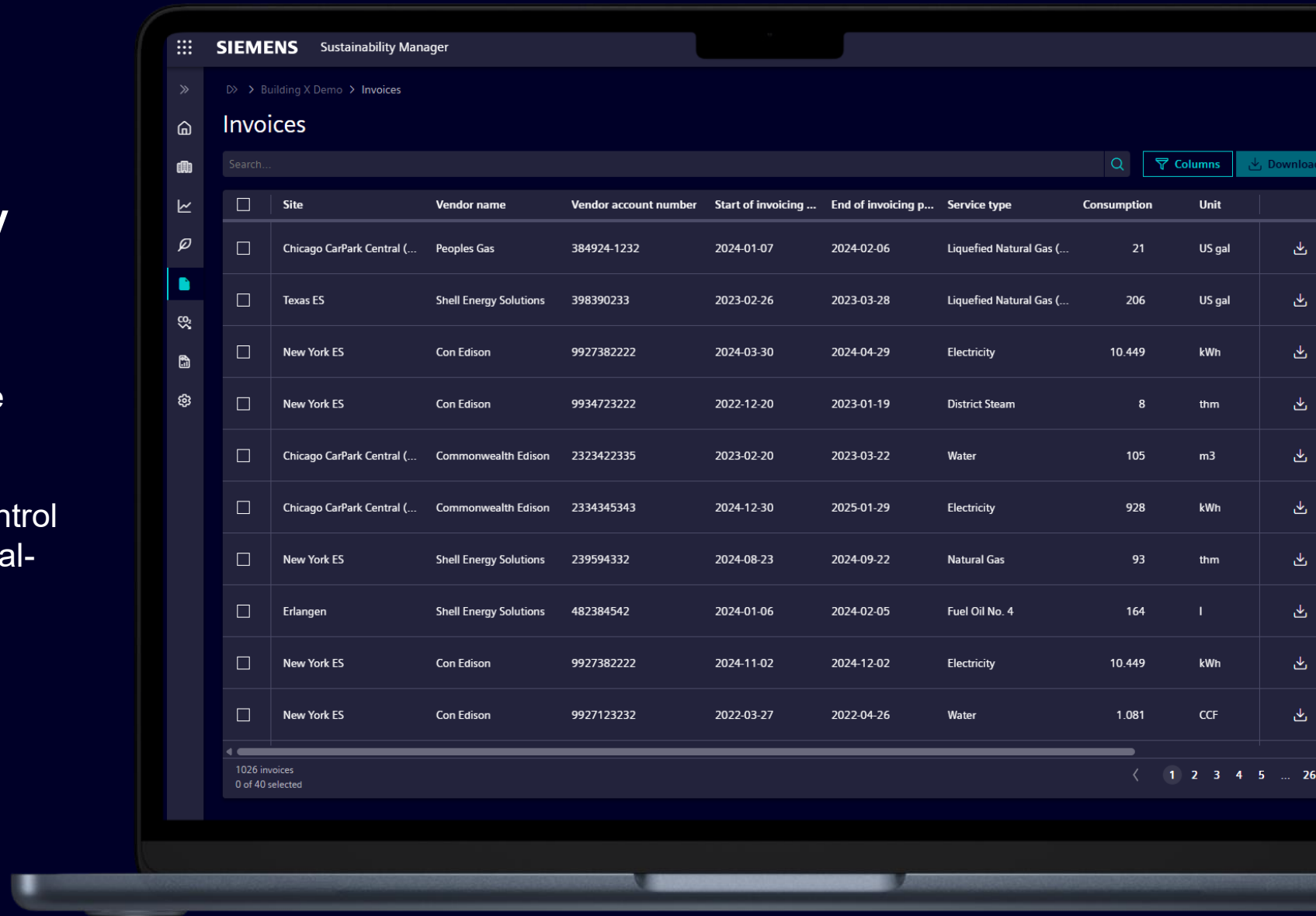


Centralize and simplify utility invoice management

Consolidate all utility invoices and documents across the portfolio in once place

Chose to monitor performance and control costs using invoice data, leveraging real-time metered data – or both

Sync real-time metered data via the Building X Energy Manager connector





Unified dashboard for your portfolio's costs & consumption insights

Track your portfolio's energy, water, gas, waste, and others – all from a single, unified dashboard

Customize dashboards by converting costs across 40+ currencies based on daily historical rates

Unlock operational transparency to drive impactful, sustainable decisions by pinpointing high-impact buildings driving energy use and budget overruns





Automated carbon emissions reporting

Track emissions using both location-based and market-based methods aligned with GHG protocol

Automate location-based calculations with research-based emission factors (IEA, EPA eGrid, EnergyStar, DEFRA, and more)

Calculates market-based emissions based on actual electricity purchases (e.g., supplier contracts)

Manage and apply energy attribute certificates directly to your market-based reporting



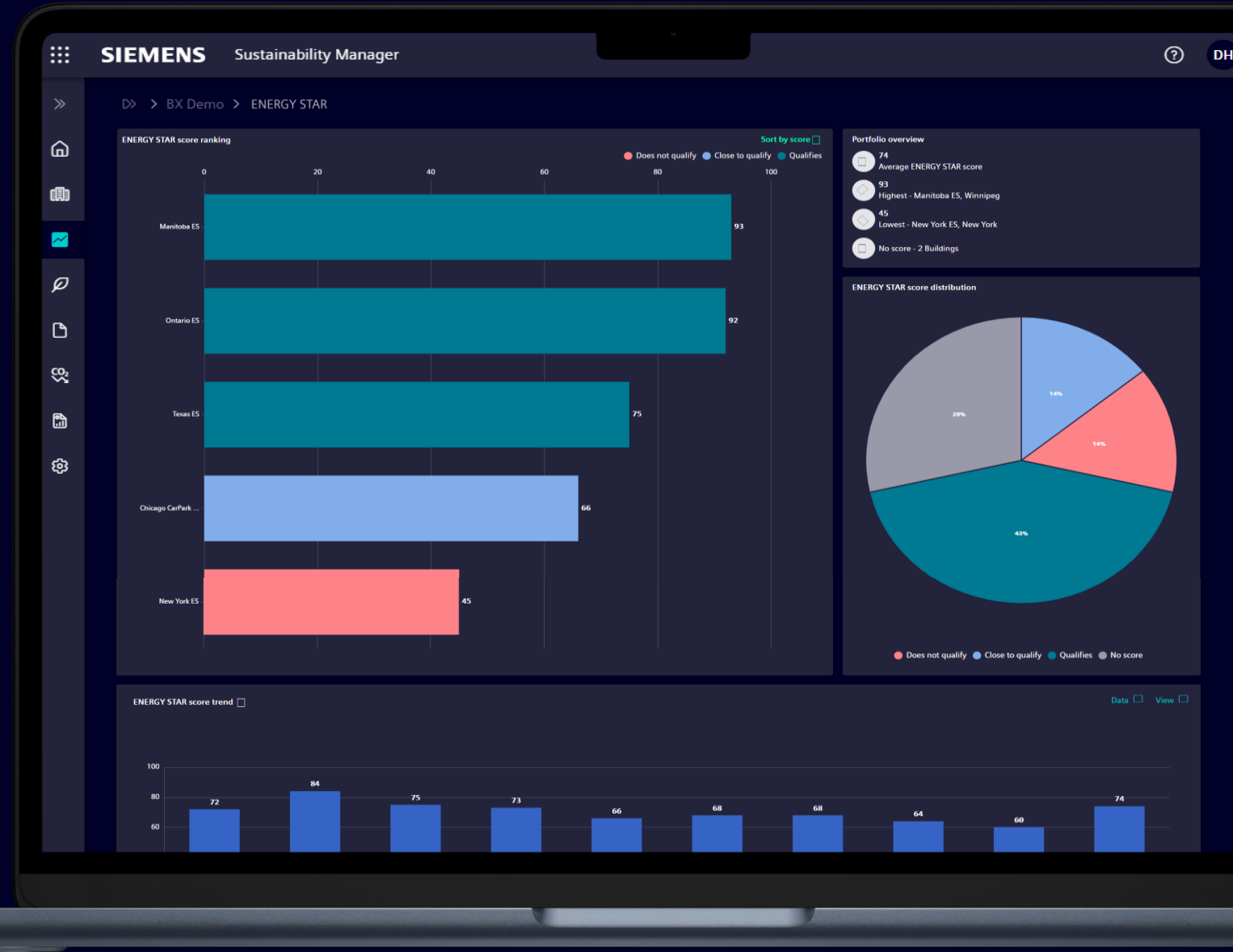


Monitor building certificates and benchmark energy performance

Sync seamlessly with ENERGY STAR Portfolio Manager¹⁾ via Building X Sustainability Manager

Benchmark and improve performance using ENERGY STAR scores and certification data

Monitor trends over time to visualize and drive continuous efficiency gains



¹⁾ Primarily available and supported for buildings in the United States and Canada



Track progress toward decarbonization & Net Zero goals

Monitor your portfolio's carbon performance
against net zero targets

Track glidepath using science-based frameworks
like Carbon Risk Real Estate Monitor (CRREM)
and Science-based Targets initiative (SBTi)

Benchmark performance to identify buildings at
risk of falling short on sustainability goals or facing
premature asset devaluation





Plan your building's decarbonization journey

Create and manage energy efficiency projects with full visibility into costs, energy savings, and carbon impact

Prioritize investments based on emissions reduction potential

Track progress against your decarbonization glidepath to ensure measurable, cost-efficient climate action





Effortless sustainability reporting

Easily generate tailored reports to meet regulatory and stakeholder requirements

Cover all key metrics – utility invoices, costs & consumption data, Scope 1 & 2 GHG emissions (location- and market-based), and more

The laptop screen shows a report for 'SIEMENS' with the following details:

- Report: Monthly emissions report (location-based)
- Company: Building X Demo
- Sites: Building X Demo > All
- Period: 2023-11-01 00:00:00 - 2024-12-31 23:59:59

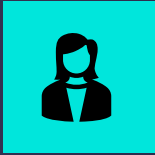
The report table includes columns for Site name, Service type, Vendor Name, Month, Consumption, Scope, Emissions (MT CO2e), Emissions factor (MT CO2e / MWh), Source, and Source Details. The data shows monthly electricity consumption from a supplier in 2023 and 2024, with a total emissions factor of 0.722 MT CO2e / MWh.

The tablet screen shows the 'Generate report' interface with the following settings:

- Report type: Costs and consumption
- Duration: Jan 2024 - Dec 2025
- Output format: Excel
- Currency: EUR - Euro
- Water unit: m³
- Area unit: m²
- Energy unit - Electricity: kWh
- Energy unit - Fossil Fuel & Others: kWh
- Waste unit: Metric ton
- Gas unit: m³



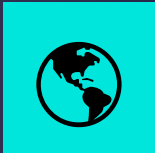
Building X Sustainability Manager



empowered by Siemens Sustainability Services to enable intelligent, data-informed decisions



more than 30'000 buildings managed



more than 20 countries served





Building X Sustainability Manager



Sustainability Manager

Sustainability Manager Standard

Easily gain transparency on costs, consumption, and GHG carbon emissions reporting.

- ✓ Vendor and utility invoice management
- ✓ Costs and consumption monitoring & analysis (energy, water, gas, waste)
- ✓ ENERGYSTAR Portfolio Manager tracking
- ✓ Advanced GHG carbon emissions and sustainability reporting
 - ✓ Location-based scope 1 and 2 emissions
 - ✓ Market-based scope 1 and 2 emissions
 - ✓ Energy attribute certificate management
- ✓ Metered interval data integration (with Building X Energy Manager subscription)



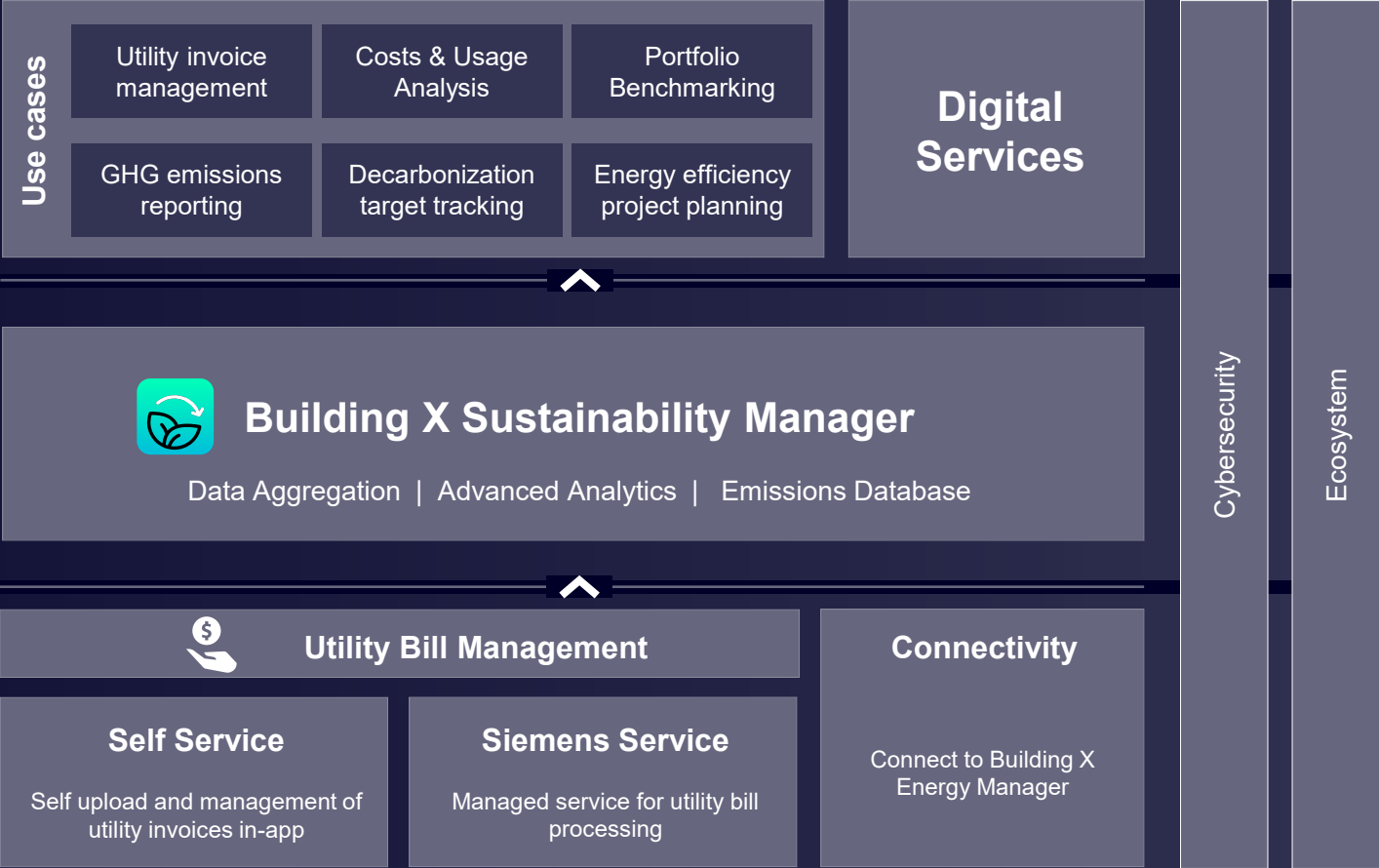
Sustainability Manager Premium

Opens the app to all functionalities around decarbonization tracking and planning.

- ✓ All features from Sustainability Manager Standard
- ✓ Decarbonization target tracking
 - ✓ Carbon Risk Real Estate Monitoring (CRREM)
 - ✓ Science-based Targets Initiative (SBTi) Sector Buildings
 - ✓ Coming soon: Custom targets (consumption, costs, emissions), US local regulations & laws
- ✓ Planning and monitoring of energy efficiency projects

Building X Sustainability Manager

First, you need to measure



... value across industries and countries



Siemens Real Estate

Sweden
Real Estate Management

- 40% less food waste
- 20% savings in cleaning cost



SYK

Finland
University Facilities

- Reduce operational cost
- Increase energy efficiency
- Future proof buildings for 11,000+ students



Clouline Solutions

USA
System Integrator

- Tailored customer apps
- Cost and time effective solution delivery



Prodea Investments

Greece
R.E. Investment Company

- Create transparency on energy consumption
- Meet sustainability goals & better tenant service



Mobile Energietechnik

Germany
Service Provider

- Continuous service delivery thanks to efficient operations
- Prolonged asset value

Siemens Mission is to support your digital and sustainable transformation

Invested in your sustainability goals

€4 bn

Energy savings for customers

25+ yrs.

Offering energy and performance services

Infrastructure digitalization pioneers

3.2 m

Devices connected to Building X

150+

Digital applications and offerings



2024 SmartScore Accredited Solution

300

Global Locations

10k+

Specialist Service Technicians

Contact

Published by Siemens Smart Infrastructure

Siemens Switzerland Ltd
Smart Infrastructure
Global Headquarters
Theilerstrasse 1a
6300 Zug
Switzerland
contact@siemens.com

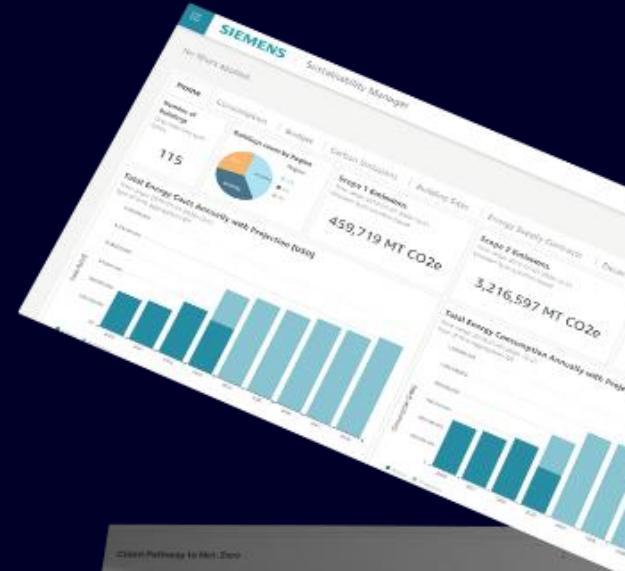
For more information:

[siemens.com/smart-infrastructure](https://www.siemens.com/smart-infrastructure)





Building X BACK-UP



Energy Supply Contracts - Go To Market Strategy

Contract Name	Contract Type	Contract Status	Contract Start	Contract End	Contract Value	Contract CO2e
Contract 1	Contract 1	Contract 1	Contract 1	Contract 1	Contract 1	Contract 1
Contract 2	Contract 2	Contract 2	Contract 2	Contract 2	Contract 2	Contract 2
Contract 3	Contract 3	Contract 3	Contract 3	Contract 3	Contract 3	Contract 3
Contract 4	Contract 4	Contract 4	Contract 4	Contract 4	Contract 4	Contract 4
Contract 5	Contract 5	Contract 5	Contract 5	Contract 5	Contract 5	Contract 5
Contract 6	Contract 6	Contract 6	Contract 6	Contract 6	Contract 6	Contract 6
Contract 7	Contract 7	Contract 7	Contract 7	Contract 7	Contract 7	Contract 7
Contract 8	Contract 8	Contract 8	Contract 8	Contract 8	Contract 8	Contract 8
Contract 9	Contract 9	Contract 9	Contract 9	Contract 9	Contract 9	Contract 9
Contract 10	Contract 10	Contract 10	Contract 10	Contract 10	Contract 10	Contract 10



Accelerate with Additive Building X Applications

 Sustainability Manager

 Energy Manager

 Sustainability Manager

 Comfort AI

 Operations Manager

 Energy Manager

 Sustainability Manager

1 Transparency & Tracking At a Glance

- ✓ Plan, track, benchmark, and report on sustainability and energy KPIs

2 Analyze Energy Efficiency

- ✓ Early corrective action based on real time data up to submeter level, anomalies detection and budget overruns prediction
- ✓ Receive recommendations for improvements related to energy suppliers, operating hours, and schedules

3 Energy Optimization

- ✓ Closed-loop optimization for energy consumption without compromising comfort
- ✓ Fix the cause of anomaly or inefficient consumption by overriding settings and schedules
- ✓ Fix alarms
- ✓ Early fault detection enabling timely repair

Building X Sustainability Manager

I want to understand how to address regulatory sustainability goals and track progress toward decarbonization.

Good fit for customers looking for high-level visibility and fast onboarding



Top-Down Approach Focus on Sustainability Journey

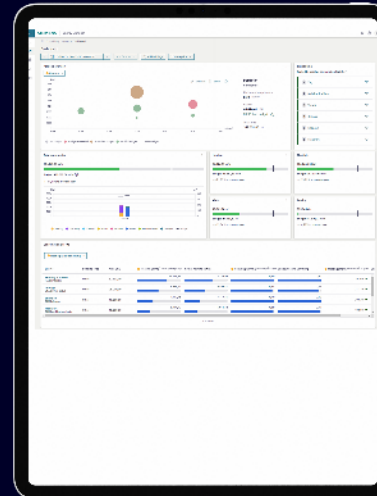
- Decarbonization Target Tracking
- ESG Compliance & Reporting Requirements
- Energy Efficiency Projects
- Utility Bill Invoice Management
- Utility Supply Contracts Management



Building X Energy Manager

To drive efficiency projects, I want to thoroughly analyze my energy performance.

Good fit for customers with good level of digitization systems (i.e. Desigo) or looking to detailed connector solution



Bottom-Up Approach Focus on Energy Performance

- Real-Time Details of a building
- Focus on Corrective Actions
- Inefficiencies & Anomaly Detection
- More Accurate Budget Overrun Prediction

Siemens Energy Services Help Customers Drive Results

 Siemens Energy Services Portfolio Integrates Supply, Generation, Sustainability & Demand-side Optimization

Supply-Side Optimization

- Utility Bill Management
- Energy Procurement & Market Advisory, incl. Clean & RE
- Risk Management
- Budgeting & Forecasting
- Virtual PPA



Generation & Distributed Energy

- Onsite Energy Supply
- Financing
- Asset Management
- Fuel Management
- Regulatory Advisory
- Market Engagement



Consumption Optimization

- Energy Data Analytics
- Energy Site Assessments
- Commissioning
- Site-Level Energy Projects
- Smart Building Controls



Sustainability Management

- Decarbonization Strategy & Planning
- Emissions Management
- Renewable Energy Strategies
- SBTi and TCFD Support
- EV Charging Infrastructure



- Lower Energy Costs
- Reduce Purchased Carbon
- Improve Transparency
- Achieve Budget Goals
- Measure and Verify Savings
- Improve Market Awareness
- Increase Reliability
- Lower Peak Demand
- Comfortable Workplace

Sustainability Manager

Understand your building's performance and track it against your sustainability and compliance targets

01

Data Collection, Building Assessment & Monitoring

Measure sustainability metrics and identify areas of improvement and opportunities for cost and emission reduction.

02

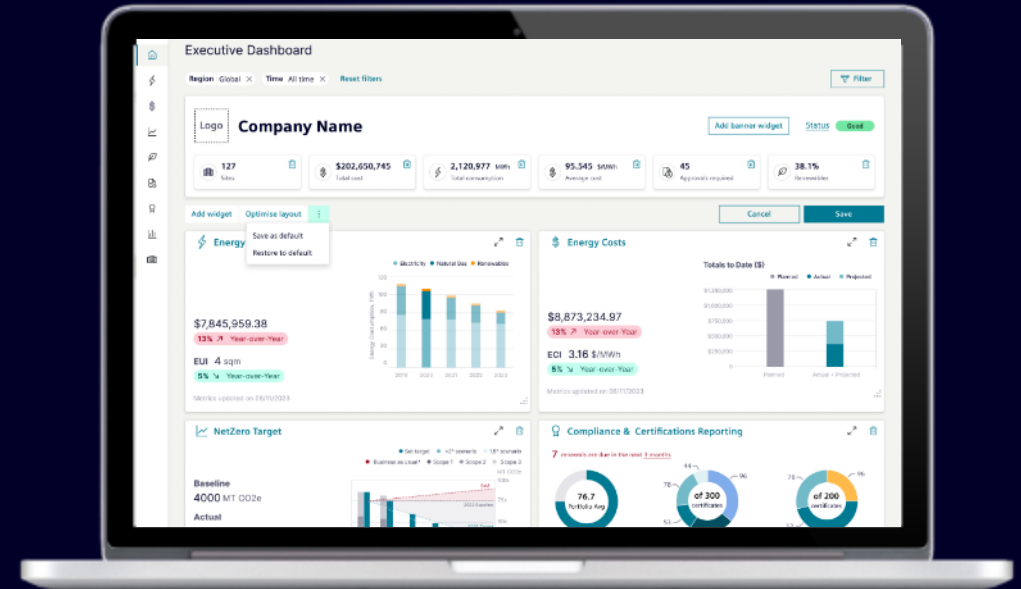
Goal Setting & Action Planning

Define net-zero targets for each building and with your capital planning goals; address compliance with regulations.

03

Reporting & Communication with Improvement Tracking

Track sustainability KPIs, progress, and targets; evaluate effectiveness of implemented initiatives.



TODAY

- Onboarding of utility bill data (API connectivity, templates) including utility supply contracts and invoices
- Holistic energy, water, cost and carbon assessment including forecasting
- Efficient utility invoice tracking and reporting across the portfolio
- Location & Market carbon emissions (Scope 1, 2) calculations
- Decarbonization target tracking integration of CRREM, and SBTi
- Plan and monitor efficiency / retrofit projects towards Net Zero

TOMORROW

- ESG disclosure reporting: GRESB, CDP
- Efficiency Projects: What-if scenario modeling and optimization
- Green Certification Tracker: manage and re-certify for building certifications
- Benchmarking of portfolio and individual buildings (e.g., EnergyStar)
- Scope 3: product carbon footprint according GHG protocol category 1-15
- Integration of additional local regulations (e.g., BERDO, SB 253)



Sustainability Manager

Sustainability Metric Dashboard

Centralized platform to collect, store and analyze data from all buildings with flexible data connectors starting with utility bill data. Interactive data visualizations with personalized dashboard and custom widgets.

Consumption & Cost Analytics

Provides energy and water consumption insights based on current utility bill data and historic timeframes across multiple media types together with forecasted budgets. Also benchmark buildings by region, country, etc.

Energy Cost Analysis

Benchmark your actual costs with your projections by fiscal and calendar year and track your portfolio's performance with utility billing data. Filter your portfolio by region, business segment, or building type.

Carbon Emission Calculations

Calculate both market and location-based emissions for Scope 1 and 2. Emission factors are based on International Energy Agency (IEA) data, US EPA eGrid data, and others.

Manage Your Energy Supply Contracts

Overview of all your vendor contracts across your portfolio by type, status, costs and expirations dates. Notifications of expiration dates help the procurement to manage them more effectively.



Sustainability Manager

Efficiency Projects Library & Planning

Choose from a library of retrofit and efficiency measures, track costs, and estimate energy and carbon savings to plan your decarbonization journey.

Decarbonization Tracking

Track progress toward your goals and benchmark against standard pathways such as SBTi, CRREM, and local regulations, such as NYC's Local Law 97.

Coming soon: EnergyStar Integration

Integration that pulls and pushes data between the Building X Sustainability Manager and EnergyStar Portfolio Manager.

Coming soon: Disclosure reporting

Submit in-depth analysis of your ESG performance via benchmarking reports such as GRESB, CDP or custom portfolio and individual building reports.

Coming soon: Scope 3 Emission

Get transparency on your Scope 3 emissions according GHG protocol that occur along the value chain of your building lifecycle.

Coming soon: Efficiency Projects Scenario Modeling

Optimize your investment into efficiency project investment by modeling scenarios such as optimize ROI or energy savings for a given budget.