
Sustainable
Decarbonization
Meeting Sustainability and Energy Needs
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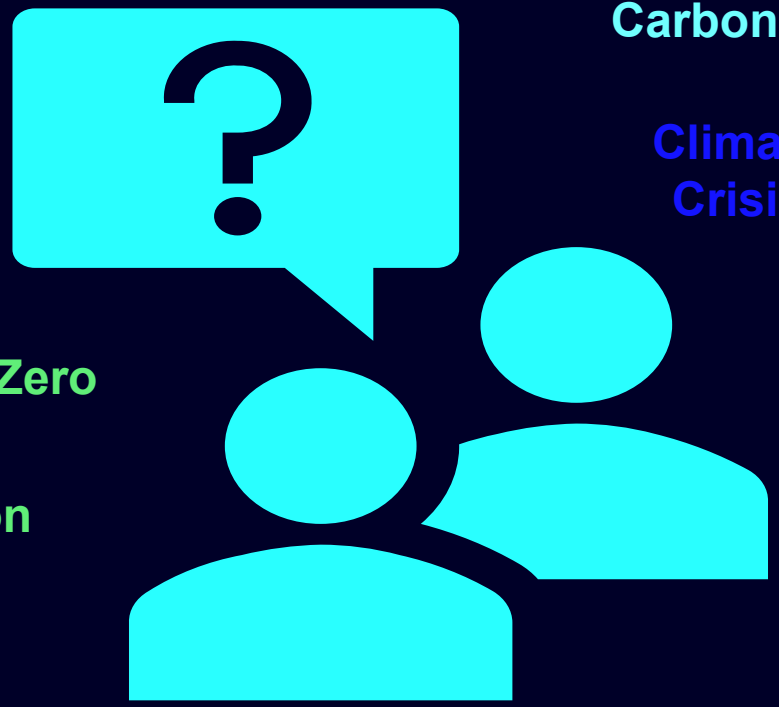
Sustainability is Complex, Evolving Fast, and Requires Clear Strategies…



ESG
TCFD
Scope 1, 2, & 3…
"Science Based"
Embodied Carbon
Internal Carbon Price
CDP
Carbon Negative
Carbon Neutral
Climate Crisis
Renewables
Carbon Footprint
Digitalization
Joint Commission
Net Zero
Greenhouse Gas
SASB
Circularity
Decarbonization
CO_2e
Cap & Trade
Climate Positive
Paris Agreement
IRA
RECs
Clean Energy
UN SDGs
COP
Carbon Offsets
Additionality
SEC

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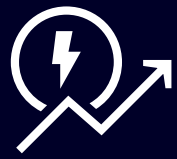
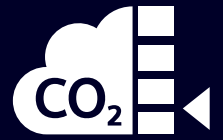
Your sustainability and energy management Issues are becoming more complicated…

	Reduce energy consumption and costs		Generate power on demand		Enable energy independence
Reduce taxes and levies		Ensure security of supply		Ensure power quality	§
	Create energy transparency		CO_2 reduction		Fulfill regulatory requirements

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Integrating Supply, Demand and Sustainability

Energy Supply

- Energy generation
- Storage solutions
- Energy mgmt. and grid control (Microgrid)
- Clean energy sourcing and alternative fuels

Demand Side

- Energy audit and monitoring
- Turnkey energy efficiency solutions
- Process and Asset performance management
- Strategic Energy Planning

- Electrification
- e-charging
- Digitalization and Digital Twin

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Decarbonization Planning Framework

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Siemens offers support and specific expertise along the entire journey of our customers

Align | Assess | Commit | **Implement** | Manage

Align

Define what is important to Stakeholders.
Outline a Strategy.
Define KPI

Commit

Strategy and roadmap
Project Development Agreements
Prioritized, achievable opportunities

Manage

Continuous monitoring, reporting and identification of opportunities.
KPI

Assess

Establish baselines and benchmarks.
Identify and prioritize opportunities.

Implement

Logistics
Implement work

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Decarbonization Strategy & Glidepath Development

Proven Decarbonization Planning Process

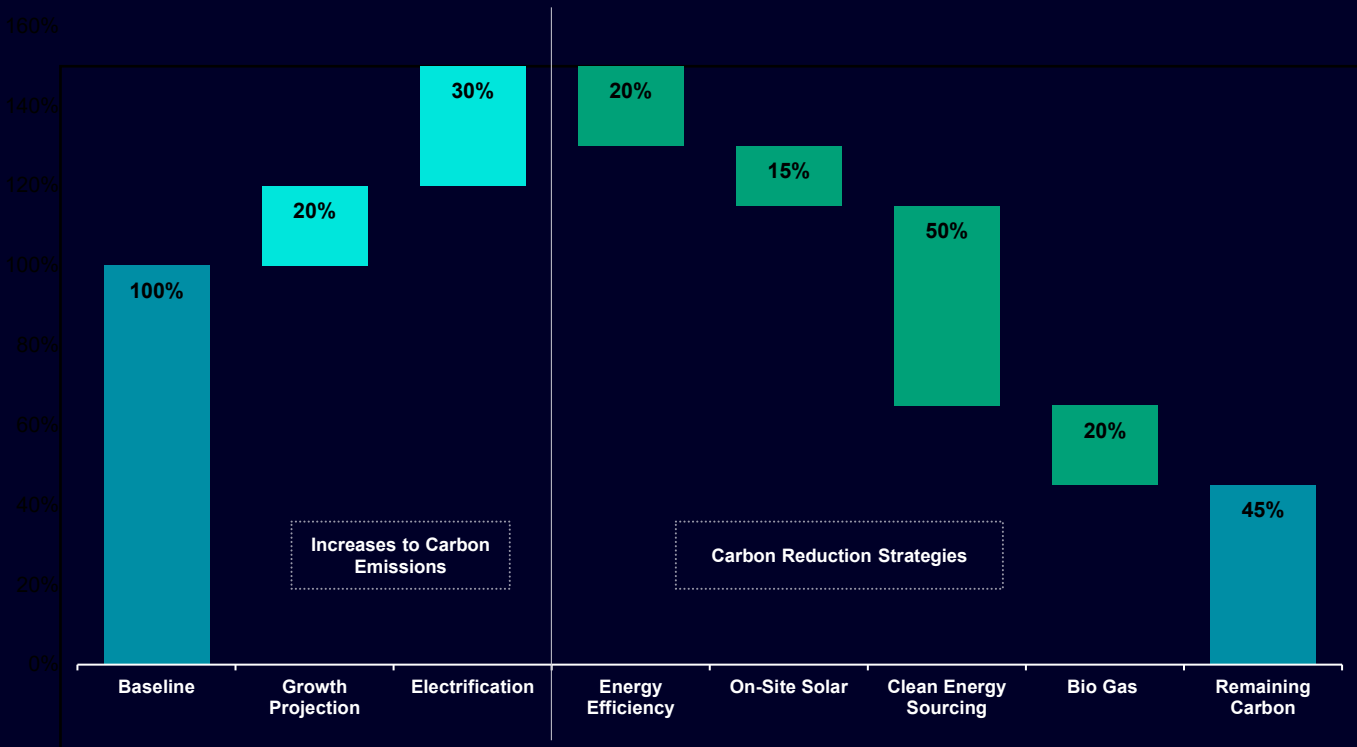
ESG Target and priority alignment, Baseline & benchmarking

Identify, evaluate and prioritize decarbonization actions

Establish scenario-based strategies & executive summary

Implementation plan & ongoing support

Representative Decarbonization Glidepath Model



Decarbonization Planning Process

Secure leadership sponsor, strategic alignment and goal setting.

Assess the current condition: Energy and carbon baseline, “ESG readiness”, stakeholder priorities, and materiality assessments.

Prioritize operations and actions for decarbonization.

Onsite or virtual decarbonization assessments to define and evaluate energy efficiency, electrification, and fuel switching opportunities.

Develop clean energy sourcing strategies and evaluate sites for onsite solar based on market and policy screening.

Formalize the strategy based on identified opportunities and priorities.

Implementation and funding planning along with ongoing reporting, communications, and strategy updates.

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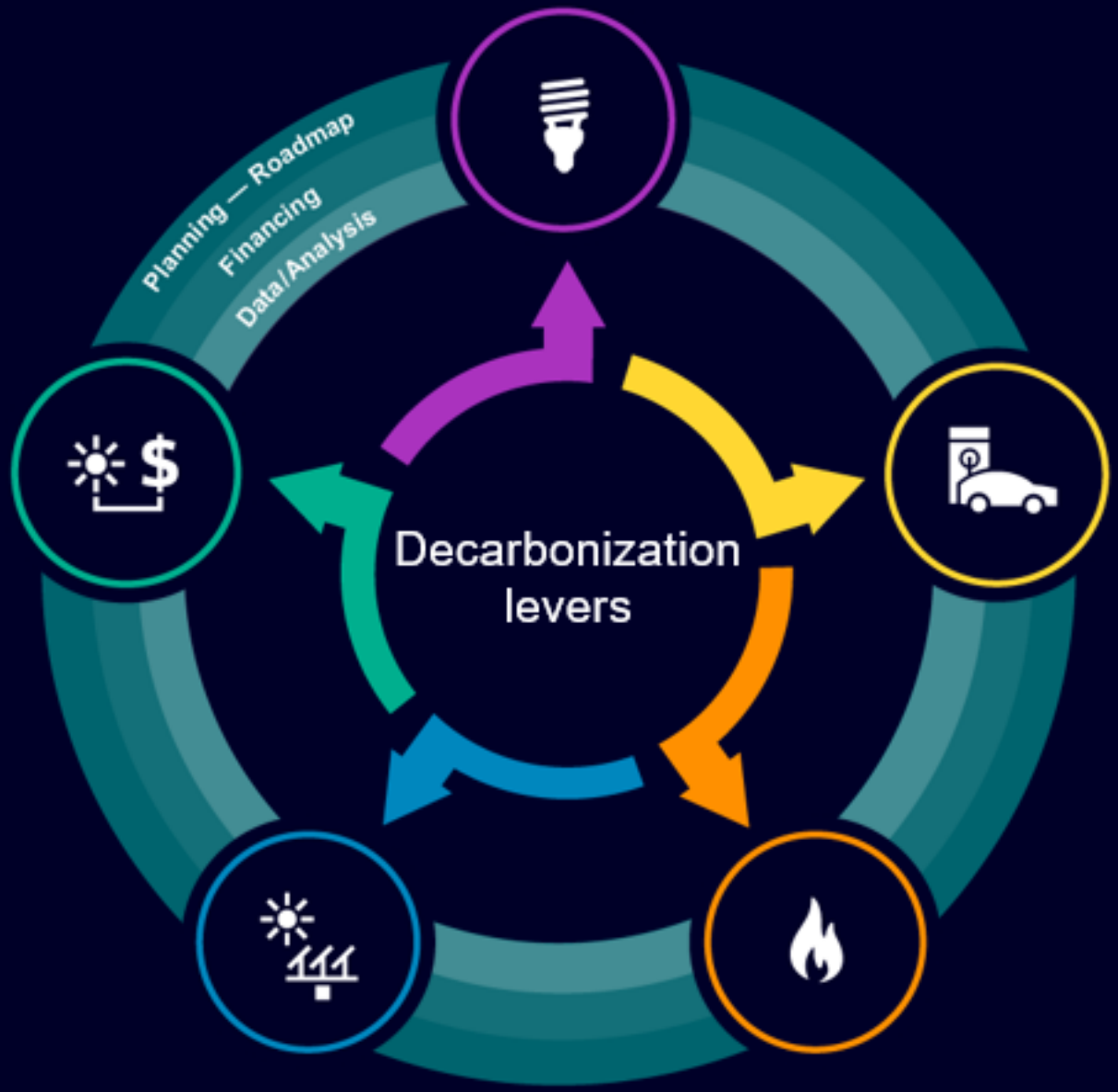
Decarbonization Levers to Drive ESG, Manage Costs, and Build Resiliency

Siemens helps you:

- Reduce consumption
- Transition to fleet electrification
- Manage thermal loads
- Produce and store energy on site
- Procure clean energy



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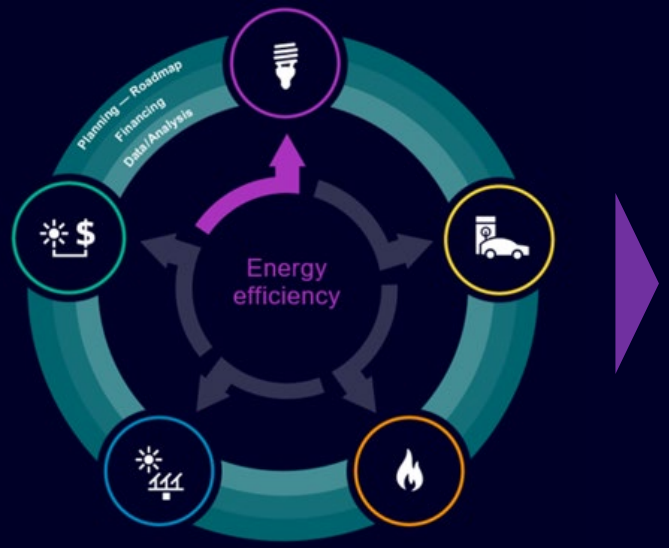
Achieve Decarbonization with Clear Returns on Investment

Scopes 1 & 2



Energy Efficiency Through:

• "Quicker" Payback Investments	• "Impactful" Decarbonization Measures
○ HVAC control and optimization	○ Heat recovery / storage capability
○ Lighting control and technology	○ Equipment upgrades and replacement
○ Chilled water system optimization	○ Variable frequency drives (all motor types)
○ Compressed air controls & optimization	○ Process efficiency & digitalization

Key Strategy Considerations

1. Establish clear KPIs, baselines, and benchmarks for meaningful evaluations.
2. Routinely assess buildings and operations for improvement opportunities.
3. Set priorities across carbon impact, payback criteria, and funding / finance sources.

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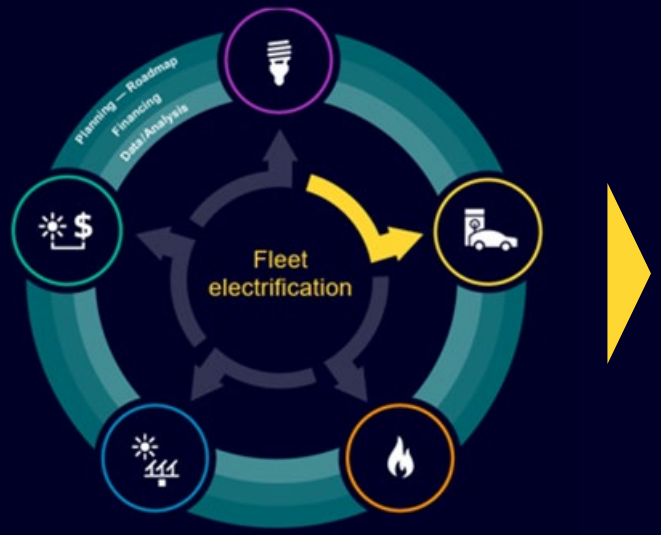
Address Owned Fleet & Transport-related Scope 3 Emissions

Scopes 1 & 3



Vehicle Electrification Through:

• EV Charging hardware	• On-going charger management
• Microgrid-enabled smart charging	• Comprehensive fleet managed services
• Charger installation and grid integration	

Key Strategy Considerations

1. Forecast EV adoption, energy and load impacts, and infrastructure requirements.
2. Evaluate EV charging placement and business and financial models.
3. Devise an EV readiness program and workplan to align with the program goals.

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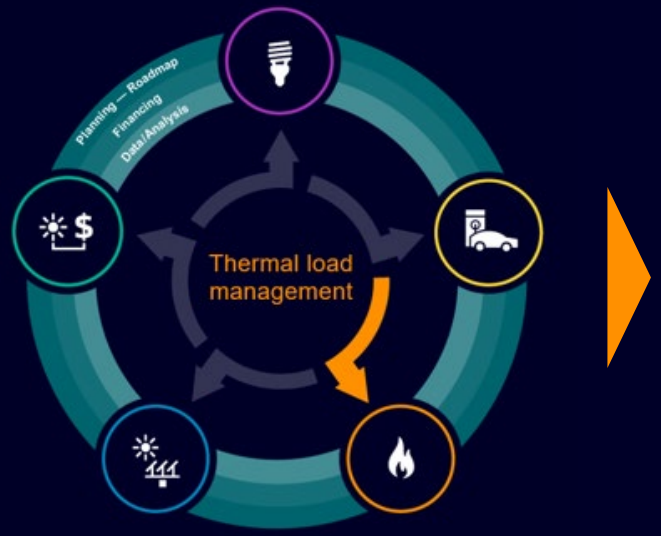
Mitigate Emissions from Fossil Fuel Use in Buildings & Operations

Scope 1



Thermal Load Management Through:

• Electrification
  ○ Conversion to heat pumps
  ○ Process (e.g., dryer, autoclave, etc.)
  ○ Boiler and furnace electrification
	• Low-carbon fuel conversion
	• Dual-fuel retrofit
	• Geothermal integration
	• Thermal energy storage

Key Strategy Considerations

1. Equipment replacement and capital plans should evaluate low carbon alternatives.
2. Load requirements and “renewables” should be considered with electrification.
3. Alternative fuel price risk, availability, and onsite storage requirements.

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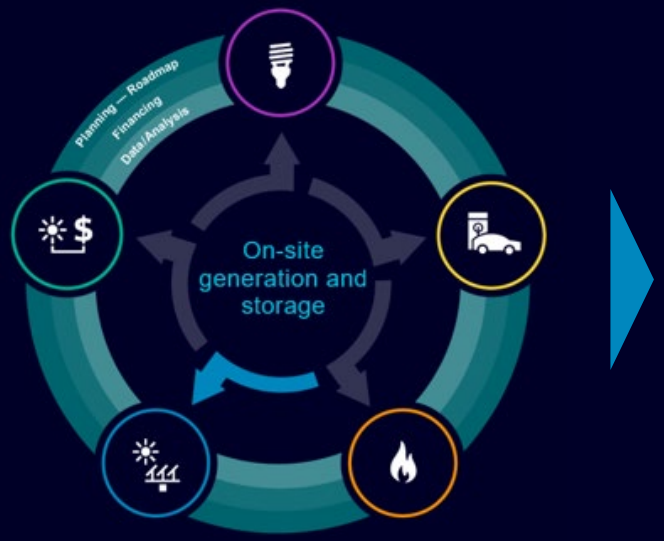
Onsite Clean Energy Generation Installation & Optimization

Scopes 1 & 2



Onsite Clean Energy Generation & Storge Through:

• Solar systems (roof, carport, ground)	• Fuel cells
• Microgrid power management	• Co-gen retrofit and load management
• Battery storage	• Site prioritization and screening

Key Strategy Considerations

1. Assess the property for suitable space for a solar system – current and future state.
2. Evaluate local policies for rebates, tax credits and 3rd party financing (i.e., PPAs).
3. Set priorities for carbon impact, resiliency, savings, and CAPEX vs. OPEX models.

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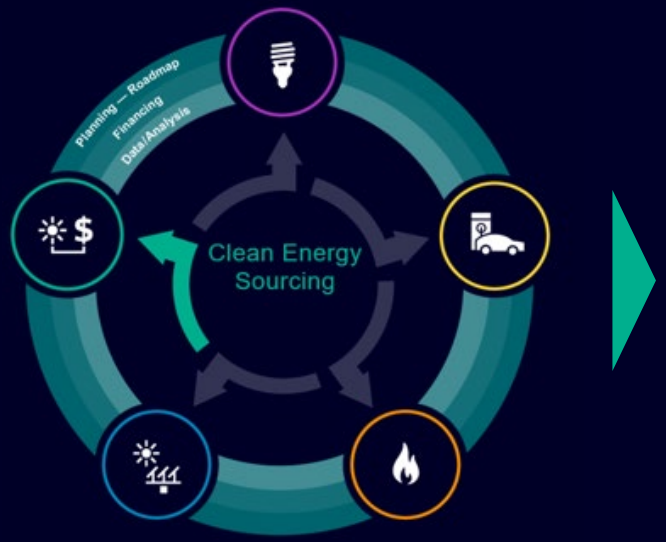
Leverage Purchasing Strategies to Decarbonize Energy Supply

Scopes 1 & 2



Clean Energy Sourcing Through:

"Bridging" Strategies	"Leading" Strategies
○ Renewable Energy Certificates (RECs)	○ Virtual Power Purchase Agreement (VPPA)
○ Utility Green Tariffs (UGTs)	○ "Impact" PPAs (i.e., environmental justice)
○ Low carbon electricity (i.e., nuclear, hydro)	○ 24X7 Renewables
○ Nature-based carbon offsets	○ Renewable and low-carbon fuels

Key Strategy Considerations

1. Define viable clean energy sourcing strategies permitted by local market policies.
2. Establish criteria for what options are "credible" and aligned to organizational goals.
3. Develop internal consensus for price premium, risk, and term length tolerances.

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Supply Chain Measurement and Management

Scope 3

Clean Energy Sourcing Through:

Assess Impacts and Liabilities	Drive Impact Through Engagement
○ Define “material” categories	○ Establish communications / outreach
○ Prioritize suppliers by spend, carbon, etc.	○ Establish clear expectations
○ Implement steps to measure / estimate	○ Provide education / training programs
○ Evaluate 3rd party disclosure (i.e., CDP)	○ Provide decarbonization solution guidance

Key Strategy Considerations

1. Establish transparent, repeatable processes to measure Scope 3 emissions.
2. Define an engagement approach and evaluate reward vs. penalty structures.
3. Track engagement and progress with plans to implement corrective actions.

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Thank you

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Update on Siemens Sustainability Journey

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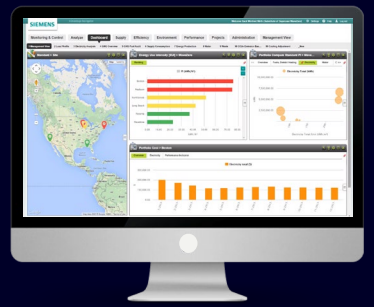
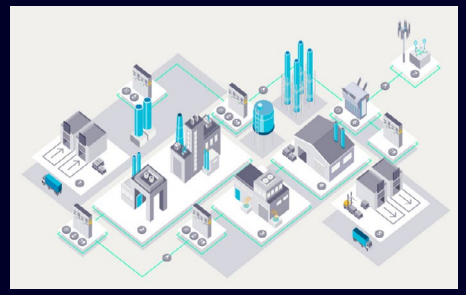
Siemens Decarbonization Portfolio Spans from Plan to Implementation!

Energy & Carbon Management & Advisory



Intelligent Building Technology & Solutions

Energy Efficiency and Project Financing



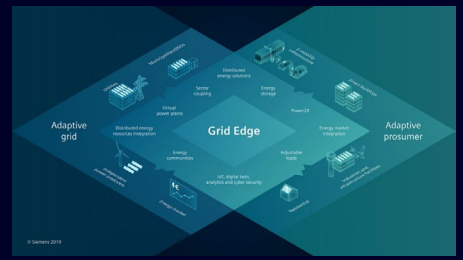
Distributed Energy Systems

Clean Energy Sourcing

EV Charging Infrastructure

Electrical Infrastructure

Grid Management & Integration Solutions



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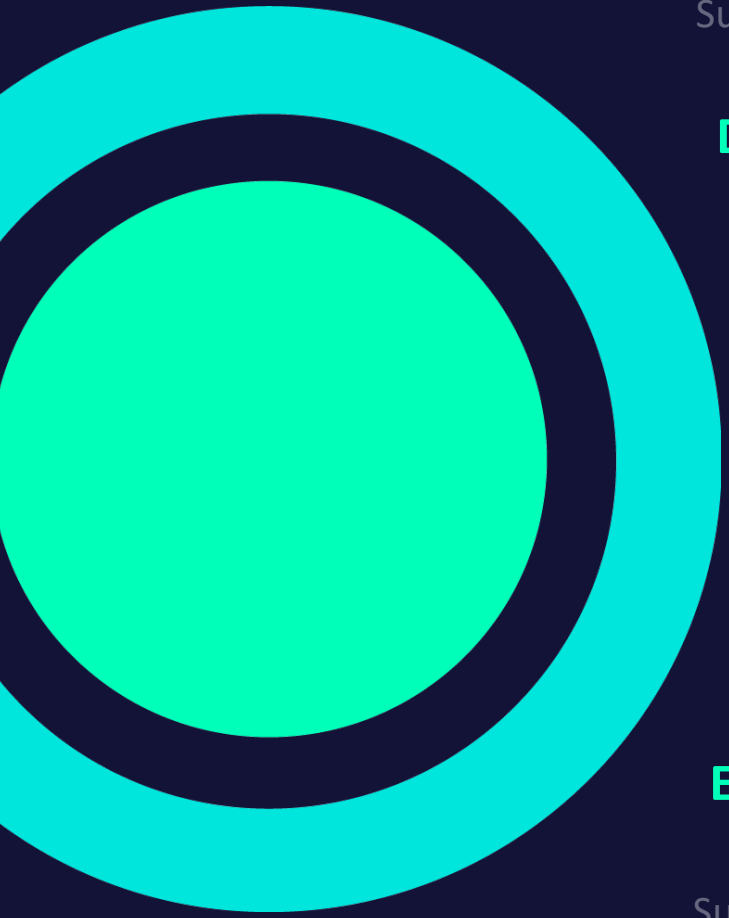
Our DEGREE framework – a 360° view on Siemens priorities in our business and our own operations



Sustainability business

D – Decarbonization **Accelerated**

E – Ethics

G – Governance

R – Resource efficiency

E – Equity

E – Employability **Accelerated**

Sustainability in own operations

Customer value propositions

Decarbonization & energy efficiency

Resource efficiency & circularity

People centricity & societal impact

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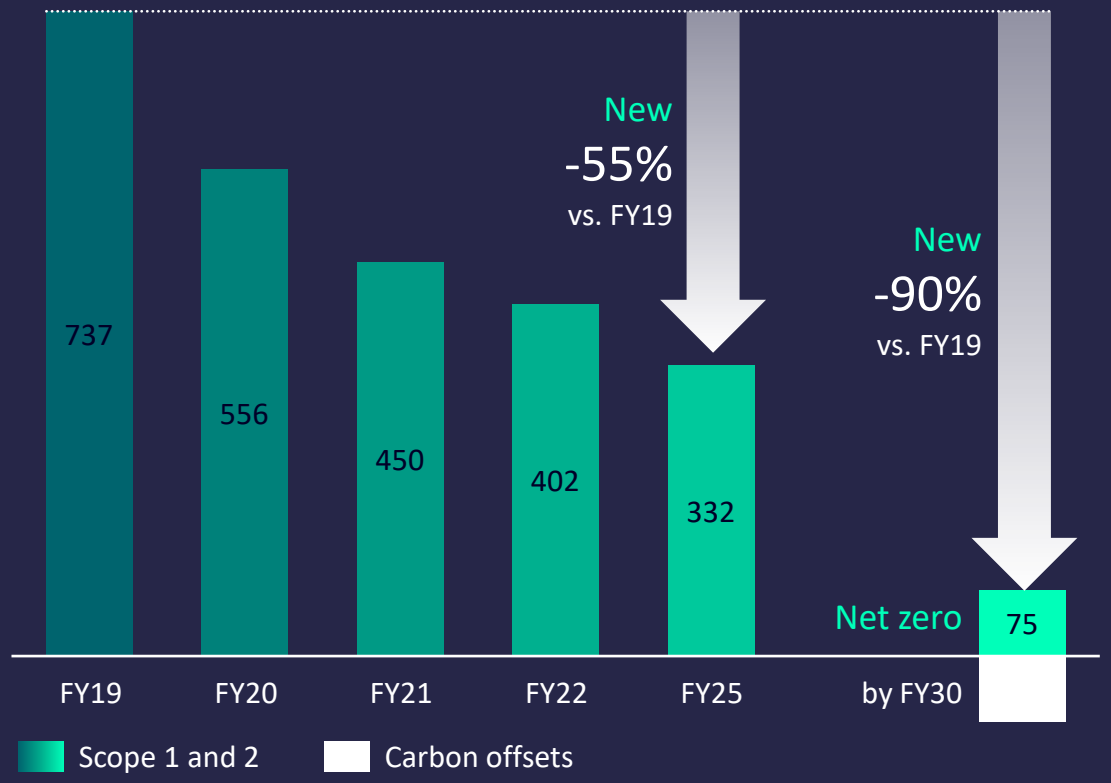
Net Zero Operations

We are accelerating CO_2 emission reductions in own operations

CO_2 footprint in own operations[1]



We accelerate the emission reduction pathway (w/o SHS)

New	Introduction of new FY25 reduction target of -55%
New	More ambitious FY30 reduction target of -90%
✓	CO_2 footprint reduced by 46% from FY19 to FY22
✓	Already 37 Siemens locations with net zero CO_2 emissions
New	Invest of ~€650m in operational decarbonization between FY22–FY30 (for fleet electrification, buildings, and production emissions)

DEGREE target

We maintain our existing commitments for Siemens (w/ SHS)

✓	Validated 1.5 °C-aligned SBTi (2021)
✓	100% electrical vehicles, 100% renewable energy, and 100% net zero buildings by 2030
✓	2015 Carbon-neutral commitment by 2030

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

CLIMATE GROUP EP100
CLIMATE GROUP EV100
RE100 CLIMATE GROUP

[1] Excluding SHS

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Siemens Approach to Mapping Decarbonization Success

Step 1: Align

Define what is important to key stakeholders, establish baselines and benchmarks, and set interim and long-term goals.

Step 2: Assess

Analyze energy and carbon performance, evaluate hot spots and liabilities. Identify and prioritize opportunities.

Step 3: Strategy

Decarbonization roadmap embraced by leadership and defined by:

- Goals and commitments
- Prioritized, achievable opportunities
- Organizational growth / change
- Stakeholder impact

Step 4: Execute

Establish implementation plans, project teams, and workstreams. Assess financial impact and define funding and financing mechanisms.

Step 5: Manage

Continuous monitoring, reporting and identification of corrective actions.

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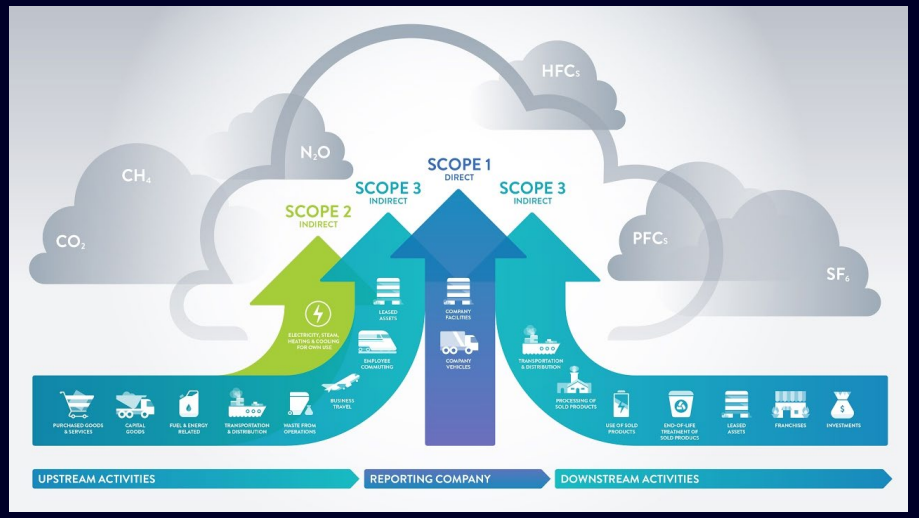
Understanding an Organization's Sources of Carbon Emissions

Emissions Scopes and Sources



GHG Emissions Scopes

Scope 1: Owned/controlled direct emissions sources

Scope 2: Indirect emissions from owned/controlled sources

Scope 3: Emissions from sources not owned/controlled

Quantifying Emissions

Scope 1 Emissions

- Natural gas and other fuels (process, heating, backup generation)
- Gasoline and diesel use (own fleet)

Scope 2 Emissions

- Purchased electricity from the Grid
- District steam
- Electricity generated from on-site sources (co-gen)

Scope 3 Emissions

- Upstream leased assets
- Processing of sold products
- Downstream leased assets
- Business travel and transportation

Reductions to Emissions

On-Site Renewables

Clean Energy Sourcing

Supply Chain Reductions

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Carbon Accounting
Scope 3 Categories

1 Purchased goods Upstream cradle-to-gate emissions from production of goods & services purchased	**2 Capital goods** Upstream cradle-to-gate emissions from production of capital goods purchased	**3 Fuel & energy-related activities** Extraction, production, & transportation of fuels & energy purchased or acquired	**4 Upstream T&D** Transportation and distribution of products & services purchased	**5 Waste generated in operations** Disposal & treatment of waste generated
6 Business travel Transportation of employees for business-related activities	**7 Employee commuting** Transportation of employees between their homes and their worksites	**8 Upstream leased assets** Operation of assets leased by the reporting company (lessee)	**9 Downstream T&D** Transportation and distribution of products & services	**10 Processing of sold products** Processing of intermediate products sold
11 Use of sold products End use of goods & services sold	**12 End-of-life sold products** Waste disposal & treatment of products sold	**13 Downstream leased assets** Operation of assets owned by the company (lessor) &	**14 Franchises** Operation of franchises	**15 Investments** Operation of investments

Typically, not material

Potentially material

Material emission sources

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