

EcoStruxure™
Innovation At Every Level

Green Glass transformation

Decarbonization through electrification
and digitalization – EcoStruxure for Glass
– from grid to glass.

Life Is On

Schneider
Electric

Find out more about EcoStruxure™ for Glass
se.com/mining-minerals-metals

Schneider Electric

35 rue Joseph Monier
92500 Rueil-Malmaison, France
Tel : +33 (0)1 41 29 70 00

© 2023 Schneider Electric. All Rights Reserved. Life Is On | Schneider Electric and EcoStruxure
are trademarks and the property of Schneider Electric SE, its subsidiaries and affiliated companies.
998-21985755

se.com

Life Is On

Schneider
Electric

Grid to Glass

Collaborating across the value chain to provide our customers with **decarbonized** and **digitized** green glass solutions to meet their clients' demands – from **Grid to Glass**

“

Instead of waiting for the inevitable, it is better to adapt. Electrification is the end game in many areas.

Frans Timmermans
European Commission vice-president
Eurogas annual meeting on 25th March 2021

How we see the Glass market evolving

Net Zero Operations

Accelerating urgency to meet global goals

>430

Your customers from the F&B or Automotive industry have committed to Science Based Targets including their supplier's emissions ([Learn More](#))

Furnace Revolution

Smart transformations with more electrification & digitisation

10yrs

Deadline to have scalable, Net Zero furnace design(s) to be rolled out as standard for ALL sites ([Learn More](#))

New Knowledge

Attracting/training talent and aging workforce in the transition

75%

Of industrial companies identified reskilling the workforce as important but only 10% see themselves as ready ([Learn More](#))

Our digital energy, process and automation solutions help you get to your decarbonization objectives

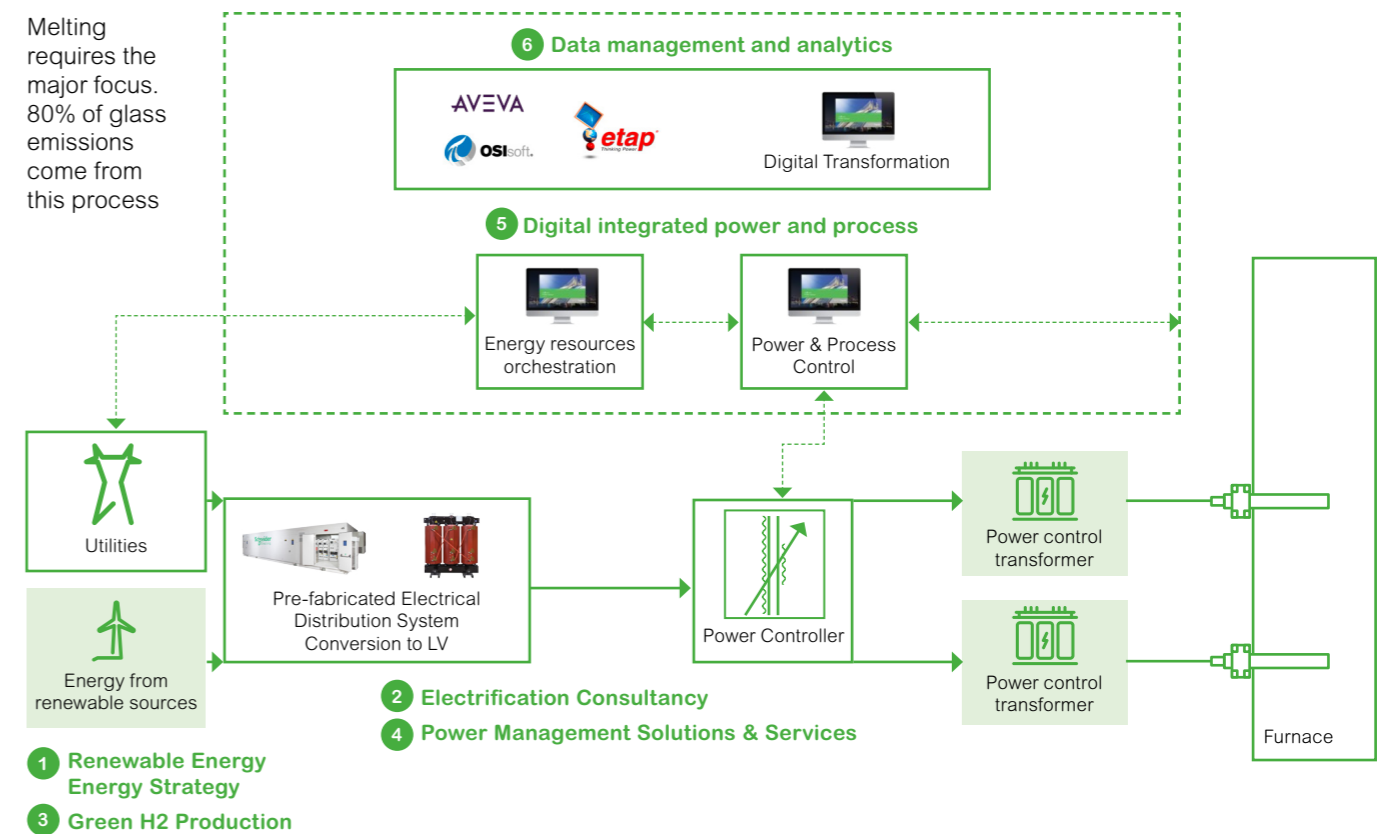
Emission reduction potential		5-10% Incremental levers on existing assets			>20% Significant investments on existing assets		80% Major investments to develop entirely new assets	
Our solutions		Renewable Energy	Energy Efficiency	Improve Yield	30% Electrical Boosting	Mixing Bio-fuels/H2	Shift to All-electric Melting	Shift to Hybrid Melting
We support your transition to new green technologies	1 (Renewable) Energy & strategy	✓	✓		✓	✓	✓	✓
	2 Electrification consultancy	✓	✓		✓	✓	✓	✓
	3 Green H ₂ production	✓				✓		✓
... while deploying our unique market leader expertise in power management, and integrated power & process	4 Power management solutions/services		✓		✓	✓	✓	✓
	5 Digital integrated power and process		✓	✓	✓	✓	✓	✓
	6 Data management and analytics	← Enabler →						

Digitally integrated power and process to reduce TotEx of transformed plants, flexible to access green energy sourcing and intelligent for continuous Improvement

- 1 Energy + Automation
- 2 End Point ^ Cloud
- 3 Design & Build > Operate & Maintain
- 4 From site by site > Integrated management

These solutions are intimately connected to your furnace's energy supply and control systems

Melting requires the major focus. 80% of glass emissions come from this process



“

As recognized leaders in energy sourcing, consultancy, management and integration with process we bring distinctive solutions to you

”

Why partnering with Schneider Electric?

1. **(Renewable) Energy & Strategy** understanding your options for decarbonisation and implementing utility scale renewable electricity
2. **Electrification consultancy** guiding your team through the challenges of a decarbonised and electrified future
3. **Green H2 production** to balance your melting process expertly optimized by SE to reduce costs
4. **Power management solutions** providing digitally connected power management solutions from the grid right up to your (boosted) furnace
5. **Digital integrated power and process** bringing power, process and model based predictive control into one system
6. **Data management and analytics** to access manufacturing performance intelligence with our industrial software, data platforms and predictive analytics

We are uniquely positioned to help you throughout your glass process decarbonization journey with digitization

- 1 Close to you with a **global** network of **2,000+** dedicated sustainability experts and **6,500+** highly trained field services engineer
- 2 Leader in energy management covering **300,000+** sites and managing **€30Bn** of energy spend
- 3 **125+ Mt of CO₂** managed annually and the **largest** advisor of negotiated corporate PPAs with **15 GW+** since 2014
- 4 Unique partnership with **Celsian** to deliver fully integrated model based predictive control
- 5 Technology leader with **digitally integrated power and process** and through our ownership of **AVEVA's** outstanding software portfolio
- 6 **500+** system integrators and consultants across the globe to support our solutions, **intimacy with global and local process OEMs**

Make the most of a high-efficiency integrated **power and automation** environment for sustainable glass manufacturing

Let's talk about
EcoEtruxure™ for Glass
Innovation At Every Level