

# Electric systems for glass melting – Introductory training

duration  
4 half-day,  
from 2 PM CET

date  
6 – 9 July, 2021

location  
Online

Electricity will play a major role in the ongoing energy transition to reduce CO<sub>2</sub> emissions. Although electric melting of glass is an old technology, many aspects have to be considered to create an efficient system that is suitable for each specific glass production. This training focuses on supply and hardware, from the electrical grid down to the electrodes and beyond, to provide you with a pragmatic level of understanding of the whole system.

## Contents

- Purpose of electrical boosting, from sustainability to flexibility.
- Heat transfer to the glass : efficiency of electricity vs combustion.
- Refractory selection and furnace lifetime.
- Selecting the correct type of transformer.
- Cables and busbar.
- Electrode material, types, holder and cooling systems.
- Granularity, efficiency and types of control systems.
- Melting zone, barrier and throat boosting.

## Training methods

We offer a blended learning approach by mixing e-learning, lectures, open discussions, exercises, and case studies in teams or individually. The number of participants per course is between 10 and 25 to maximize your learning experience. Participants always receive the presentations and a training certificate.

## Level of seniority

This training is meant for novice to advanced beginners who would like to improve their understanding and apply the knowledge in practice.

## Investment

Training costs € 1,950 per participant, € 1,800 for each extra participant per company. Price excludes tax and duties.

## After the training

- You understand the many advantages of electrical boosting.
- You have a clear overview of what needs to be considered in order to increase the electric share in your energy mix.
- You know how to choose the proper electrical system for your specific production, from the choice of the right transformer to the choice of the electrode density and control system.
- You know how to prevent and follow the electrode corrosion and how to shift the electrodes.

We do our best to ensure that the events take place. However, Celsian reserves the right to cancel up to two weeks prior to the training, proposing new dates or refunds. Cancellation fees apply from 4 weeks before the event: more than 4 weeks before training free of charge, less than 1 week before training 50%; otherwise full price. In case of an unexpected event, we are happy to look for a voucher solution for future courses.



We welcome your questions by e-mail: [academy@celsian.nl](mailto:academy@celsian.nl) Register on [www.celsian.nl](http://www.celsian.nl)

Online access to this training can be offered and the training may be fully given online.