Trustech

Think. Solve. Make

GHG REDUCTION BY ELECTRIFICATION & THERMAL STORAGE

Energy Efficiency vs Environment

Current Challenges

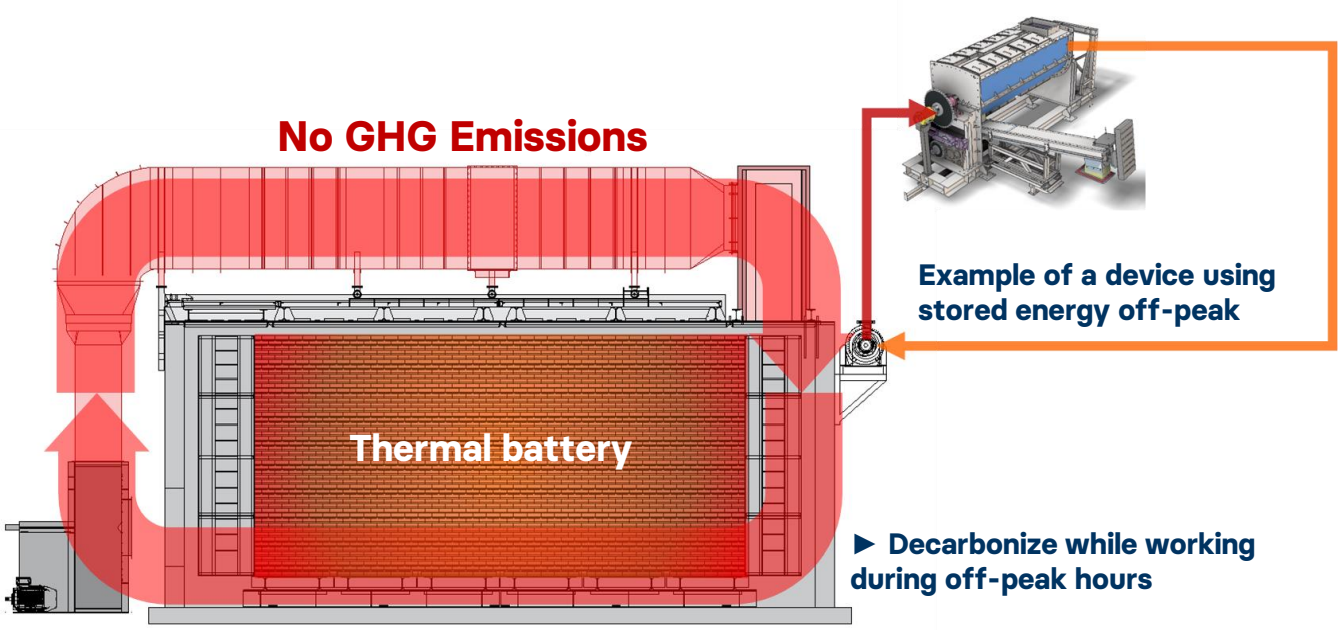
- **GHG emissions**
- **Inefficient use** : Underutilized electrical entry [often used at 30% to 70%].
  High cost : due to peak penalties.

Our Solution

ELECTROTHERMAL ALUMINO-SILICATE BATTERY

Long-term thermal energy storage system enabling:
flexible use according to process needs, which eliminates regeneration frequent heat and reduces fossil fuel consumption for better energy efficiency.

15 MWh MODULAR THERMAL BATTERY



Advantages & Benefits

- **Electrification of the process :** Contributes to the reduction of the use of fossil fuels (environmental recommendations), no increase in the capacity of the existing electrical input, reduction or elimination of a carbon tax.
- **Energy availability :** Electrification and/or recovery of hot emissions released after filtration. Extension of the availability of thermal energy with minimal loss. Usage truly based on the process needs.
- **Sustainability :** Use of permanent materials (very long-lasting thermogenic slab)
- **Reducing energy costs :** Use of thermal energy stored in a closed circuit for a drying process. Optimization of the quantity of thermal energy by reducing the need for frequent heat regeneration (conventional way) thus saving energy and reducing its costs.
- **Eligible for subsidies :** "GHG" reduction program - Énergir, Others applicable.

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Technical specifications

Category	Unit	Value
Thermal storage capacity MWh	MWh	Multiple of 15
Storage temperature	°C	Nominal 500 - ⟵ variable ⟶ +
Storage duration	Month	1 to 12

Performance data

Category	Unit	Value
Off-peak electrical energy charging	KW	500-2000 / Module
Compatibility with existing systems	Yes	Hot Oli / Hot air exhaust
Thermal efficiency	%	>99%
Nominal heat loss /Module	%	0.002 to 0.003
Instantaneous usage power MW	MW	from 1.2 to 3 / Module

Installation & maintenance

Category	Unit	Value
Dimension of a module	FT	40 L x 14 W x 18H
Weight of a module	Tm	325
Thermogenic slab	Qt'y	12 600
Weight of a Brick	Kg	22
Insulation thickness	mm	from 250 to 600
Maintenance frequency	Month	Minimum & Visual

Estimation of cost savings

Category	Unit	Value
Estimated lifespan	Years	35 ans +
Reduction of GHG emissions Tm	Tm	215 and +
ROI : Return on investment time savings in maintenance p/r boiler	Years	2 to + According to applicable subsidies
Reduction of fossil energy consumption depending on the equipment connected to the battery	%	15 to 70