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Danish Energy Agency

CTH PORCELAIN AND CERAMIC JOINT STOCK COMPANY

Technical Meeting on
Demonstration Energy Audits
in Beverage and Ceramic Industries

Hanoi, September 23, 2025



Main content

- About CTH Porcelain and Ceramic Joint Stock Company
- Benefits of participating in the VA Program
- Application of tools and methods in operation

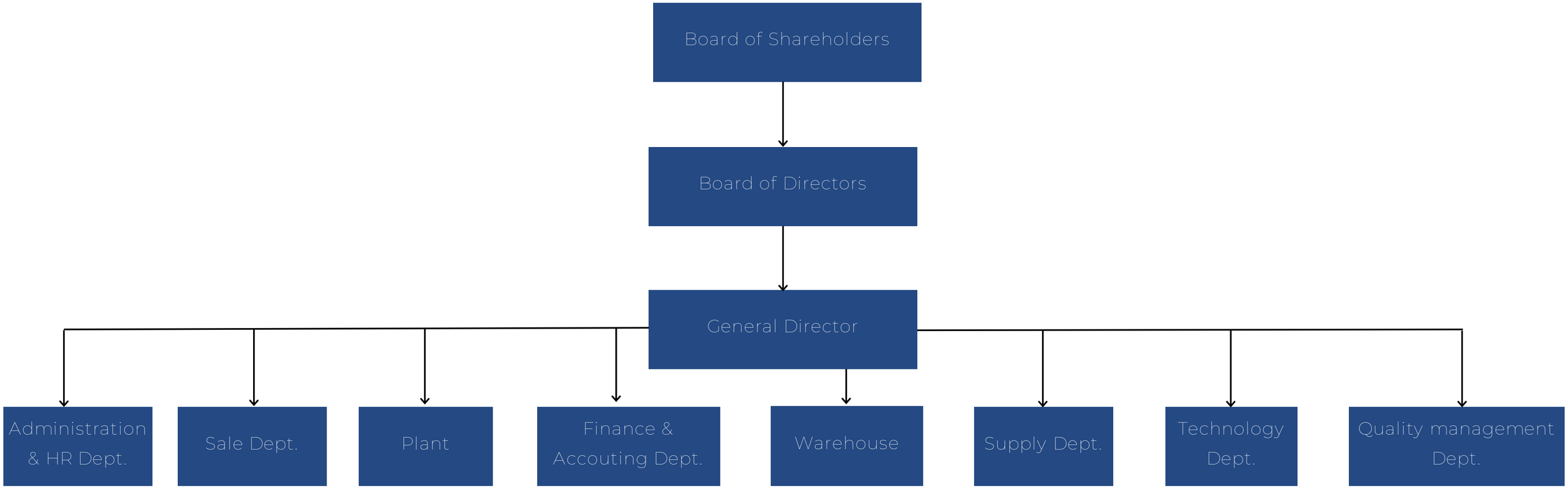
I. General introduction



- Company Name: CTH Porcelain and Ceramic JSC.
- Address: Thanh Binh Area, Au Co Ward, Phu Tho Province
- Representative: Nguyen Duc Truyen
- Date of Operation: March 24, 2007
- Type of Enterprise: Non-state joint stock company
- Business Sector: Production of ceramic tiles
- Email: info@apodio.vn
- Website: www.apodio.com.vn

I. General introduction

Company Organizational Structure



I. General introduction

- Main product: Ceramic tiles
  - 2021: 5,252,539 m²
  - 2022: 4,739,436 m²
  - 2023: 3,802,232 m²

- Main Raw Materials: Clay, aluminum balls, waste soil, liquid glass, talc, kaolin, feldspar, weathered soil
- Total Amount of Raw Materials Used: 145,513.49 tons/year



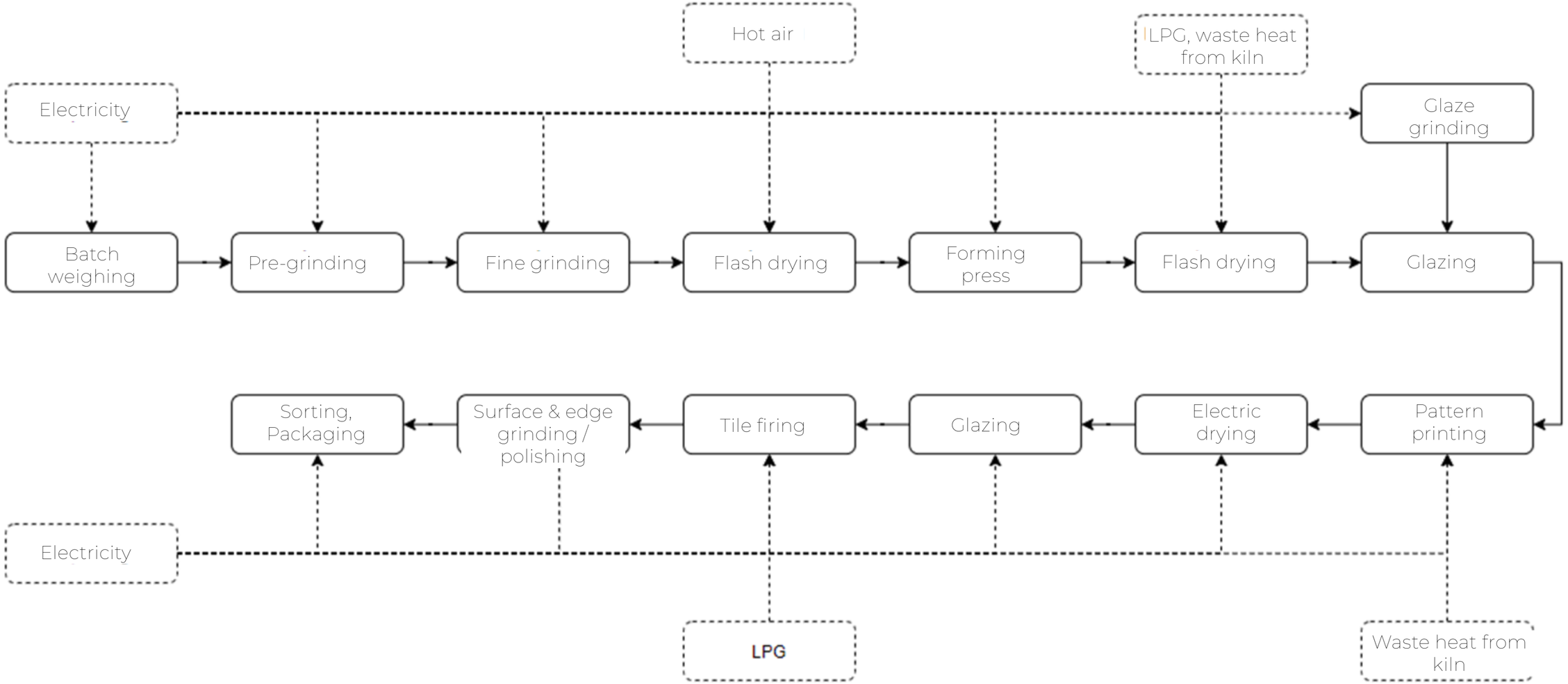






I. General introduction

Technological process diagram



I. General introduction

Equipment systems of the plant







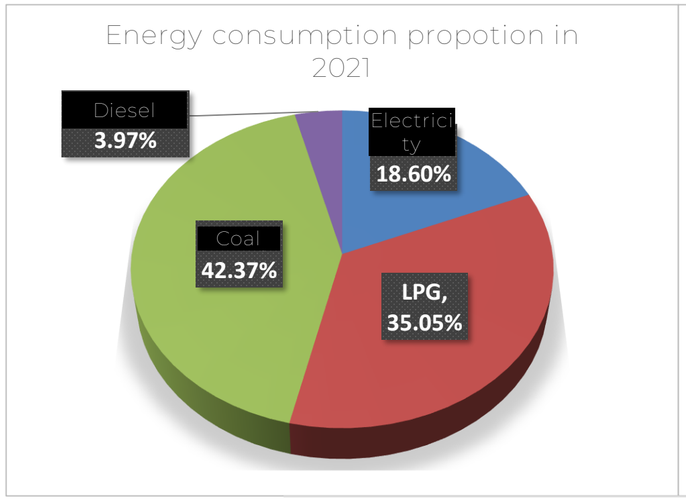


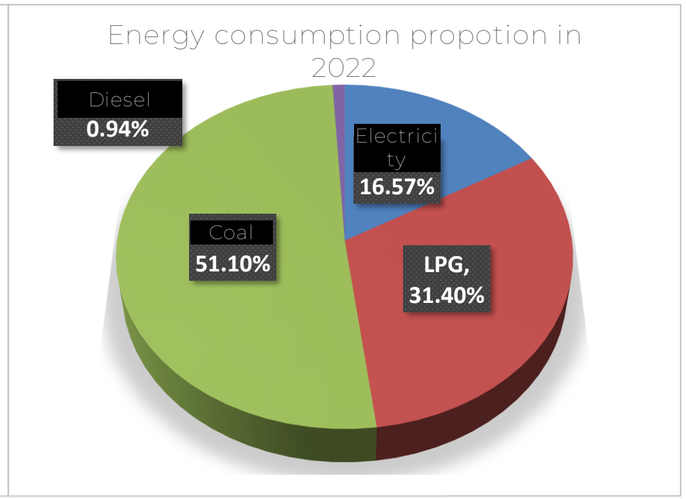


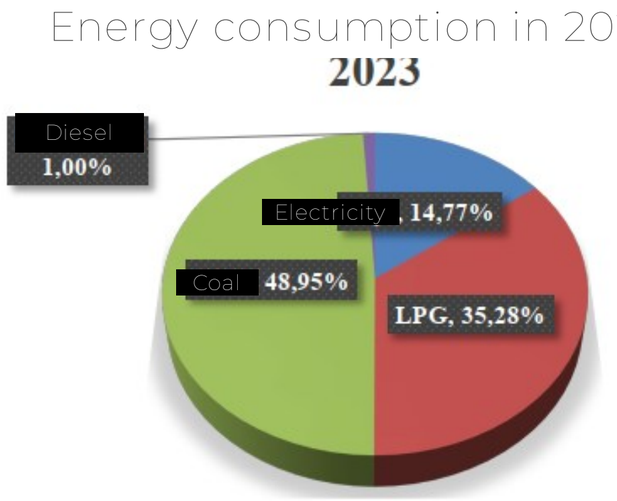
I. General introduction

Annual Energy Use

#	Energy type	Unit	Consumption	TOE Converted	Proportion (%)
					2021
1	Electricity	kWh	23,118,270	3,567	18.60%
2	LPG	Kg	6,166,899	6,722	35.05%
3	Coal	Ton	13,542	8,125	42.37%
4	DO	Liter	865,001	761	3.97%
5	Water	m^3	13,827	0	
Total				19,176	100
					2022
1	Electricity	kWh	26,317,660	4,061	16.57%
2	LPG	Kg	7,058,540	7,694	31.40%
3	Coal	Ton	20,870	12,522	51.10%
4	DO	Liter	261,318	230	0.94%
5	Water	m^3	17,152	0	
Total				24,506	100
					2023
1	Electricity	kWh	21,748,419	3,356	14.77%
2	LPG	Kg	7,352,977	8,015	35.28%
3	Coal	Ton	18,530	11,118	48.95%
4	DO	Liter	256,934	226	1.00%
5	Water	m^3	12,983	0	
Total				22,715	100







I. General introduction

Two main consumed energy types

Coal – being used for fluidized bed boiler, providing hot air to the spray drying system



LPG – being used for the drying kiln and furnace systems



BENEFITS OF PARTICIPATING IN THE VA PROGRAM



Optimizing energy consumption

Optimizing production process

Improving awareness and skills (Energy mapping)

Reducing GHG

Accessing new technology

Meeting legal requirements and environmental standards

Building credibility and social responsibility

Receiving financial and technical support

III. APPLICATION OF TOOLS AND METHODS IN THE PLANT OPERATION

1. Install a rooftop solar power system.
2. Re-set the air compressor's operating mode: converting from a linear circuit to a closed-loop circuit.
3. Insulate the fluidized bed furnace’s doors.
4. Install a time relay and setting time cycles for the stirring motor system in the glaze tanks.
5. Install VSD for the motor system in the slip stirring tanks





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Thank you

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