Visit of the Thassalia Marine Geothermal Power Plant

24th May 2023

**8H30**: Meeting point at the Word Trade Center (City Center Vieux Port Palais De La Bourse, 2 Rue Henri Barbusse, 13001 Marseille)

- Collection of metro tickets

**9H00**: Departure by metro to Thassalia (2 bd J. Saade - Quai d'Arenc Euroméditérrannée - 13002).

**10H00**: Visit of the installations.

**12H00-12H30**: Return to the Word Trade Center.

- Collection of lunch box

**Contact**: Hervé MACARIE (06 23 20 35 15)

*Comfortable clothes and shoes are recommended.*

A description of the Thalassia marine geothermal plant is available on the following website

Visite de la Centrale de géothermie marine Thassalia

Le 24 mai 2023

8H30 : RDV au Word Trade Center (City Center Vieux Port Palais De La Bourse, 2 Rue Henri Barbusse, 13001 Marseille)
   ➔ Récupération des tickets de métro

9H00 : Départ en métro vers Thassalia (2 bd J. Saade - Quai d’Arenc - Euroméditerranée - 13002).

10H00 : Visite des installations.

12H00-12H30 : Retour au Word Trade Center.
   ➔ Récupération des paniers repas

Contact : Hervé MACARIE (+33 (0)6 23 20 35 15)

Prévoir une tenue et des chaussures confortables

Une description de la centrale géothermique est disponible sur le site web suivant
THASSALIA
District Heating and Cooling system in Marseille

DHC Days – February 21, 2017 - Lyon, France
District heating and cooling system

- District heating and cooling system in Marseille taking out the energy from the Mediterranean sea.

- Euroméditerranée : European largest urban renovation covering 480 hectares.

- Power station pumping seawater in Marseille Fos Harbor
PROJECT DEVELOPMENT

Timeline

- **2010 to 2012**  
  Project’s design agreement on the project from public authorities, Marseille Fos harbor, ADEME, clients and Euroméditerranée

- **2012**  
  Signature of the agreement on temporary occupation between Thassalia and Marseille Fos Harbor
  ADEME’s approval for financial support

- **Fin 2013**  
  Commitement of the 3 first clients

- **Sept 2014**  
  Start of the heating and cooling network installation

- **Juin 2015**  
  Installation of a temporary power station to provide energy for the first clients
  Start of Thassalia power station construction

- **Aout 2016**  
  Commissioning of Thassalia power station
  End of first section pipes installation

- **17 octobre 2016**  
  Official opening of Thassalia

- **2017 à 2020**  
  Pipe installation and substation development
PROJECT DESCRIPTION
District heating and cooling system

- Private installation
- Client’s demand on providing warm and cold water
- 4 pipes installation
- Heating and cooling network: 3,1 km long on 500 000 m² of new or renovated buildings – 2/3 tertiary buildings
- More than 70% of renewables covered by cooling unit and thermorefrigerating pump using seawater
- Installed capacity: 18,4 MW cold and 18 MW warm
- Delivered temperature: 60°C and 5°C
- Investissement: 35 M€ and Public funding: 6,9 M€
PROJECT DESCRIPTION
District heating and cooling system

- **Contract aspects**
  - Energy supply private-law contract on 10 years (or more) with equal treatment between clients:
    - Heating and cooling network connection costs
    - R1 (€/MWH) based on consumption
    - R2 (€/kW) fixed by the subscribed power
  - 35 years temporary occupation agreement on public area:
    - Maritime with Marseille Fos harbor: power station
    - Road network with Aix Marseille Provence city council: pipes
  - Seawater law:
    - Departemental territories and sea Direction
    - Water outflow < 30°C
    - ΔT < 5°C
    - Annual report on biological impact
• Clients : first partners
  — Euromedcenter and Foncière des Régions
    ♦ Calypso, Floréal et Hermione Buildings - Golden Tulip Hotel
  — Constructa - JP Morgan - Advenis ♦
    Les Docks
  — Constructa ♦ La Marseillaise, H99 et Yves
    Lion towers
Development of a private project in order to be time effective compare to a Public Service Delegation

Clients:
- Heating and cooling system
- Rooftop terrace free space
- Minimising sanitary risks (legionellosis, refrigerant fluid)

Environmental impact:
- Renewable energy ratio > 70%
- Energy efficient (needs pooling et global EER > 5)

Economic equation:
- Competitive price: taxe reduced to 5.5% on heating system
- Machines depreciation possible thanks to the dense urbain perimeter