FROM SURPLUS HEAT TO PROCESS HEAT AT TAULOV DAIRY











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20 years of experience with energy optimization and energy management



TAULOV DAIRY - A PART OF ARLA FOODS

- 250 employees
- Milk 620.000 tons/year
- Production 62.000 tons cheese/year
- Cheese types: Danbo, Gouda, Edam etc.
- Energy consumption yearly
 - Heat: 40 GWh
 - Electricity: 30 GWh





ARLA'S CLIMATE AMBITION

2030

(FROM A 2015 BASELINE)



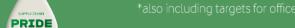


PRODUCTION &
OWNED LOGISTICS
ENERGY USAGE*

FARMS, SOURCED WHEY, 3RD-PARTY LOGISTICS & PACKAGING**

**also including targets for food waste. Targets for ackaging are based on recyclability and reduction of virgin fossil-based plastic 2050







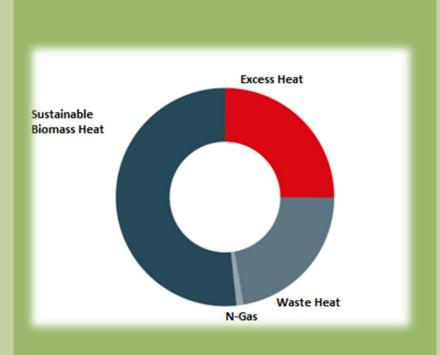


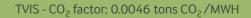
DISTRICT HEATING AS PROCESS HEAT

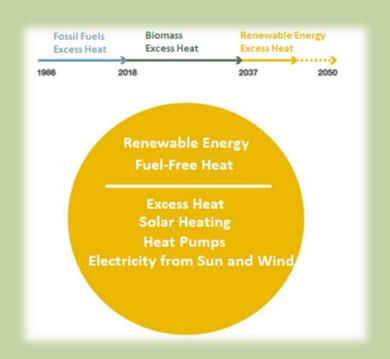












HEAT SUPPLIER

ORIGIN OF THE DISTRICT HEAT

VISION



WHAT WOULD IT TAKE TO IMPLEMENT DISTRICT HEATING?

Facts

- Taulov hot water temperature is 105°C
- TVIS' temperature 78-114°C
- District heating available
 8 months/year at min 105°C
- Natural gas boiler will be used as backup
- The project will reduce natural gas use by 55% and CO₂ emission with 3.6 mio. kg



- District heating pipeline
- Heat exchangers
- Necessary components for control on the district heating side

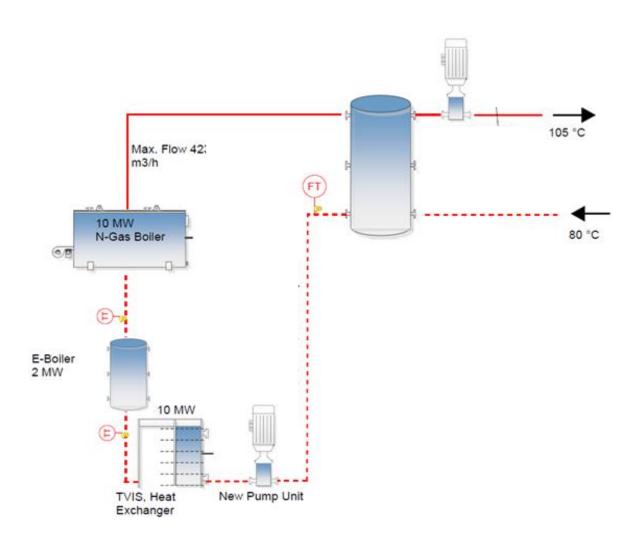


- Building for heat exchangers
- Piping between hot water system and heat Exchangers
- E-Boiler
- Buffer Tank



SOLUTION



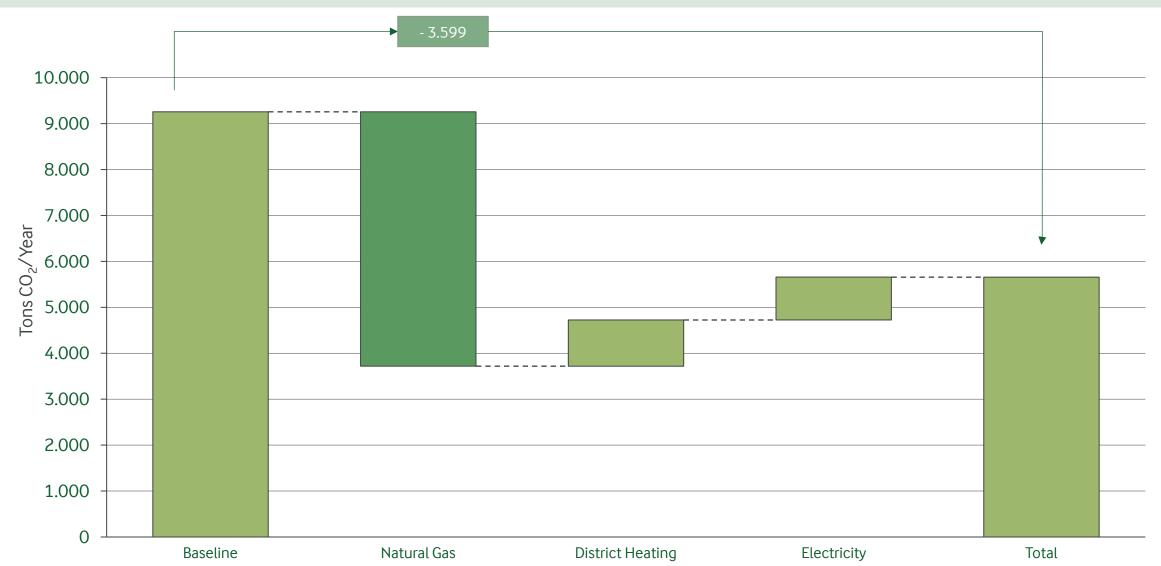






CO₂ SAVINGS









Autumn 2021

Investigation of technical solutions

Jan-Jul 2022

Conceptual design and tender

Jan 2023

Contract signed ARLA/Contractor

December 2022

ARLA Capex approval

November 2022

Contract signed ARLA/TVIS

Maj 2023
Building Permit
Fredericia Commune

Maj-June 2023
Construction of
Building

Maj-October 2023

Establish of hot water system

November 2023 100% District heating

October 2023

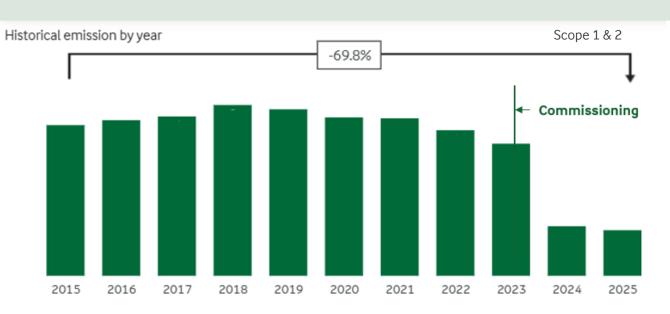
The first cheese produced using district heating

October 2023

Commissioning

RESULT AND CELEBRATION





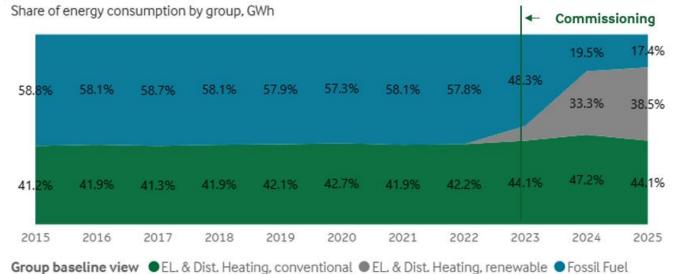
"The project is a great step forward for Taulov Dairy in their environmental journey and supporting Arla's aim to reach Carbon Net Zero in all our operations globally, from our sites to our trucks, by 2050. Big compliments to the team to realize this project in time and within budget."

Bart van Schaik, Vice President, - DK Domestic & BSM Production











THANK YOU

