COMPANY PROFILE 2011

Nordre Strandvej 46
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www.aaenas.dk

”To pioneer the improvement of our climate and to work for a visionary utilization of our energy resources”

AAEN A/S
CONSULTING ENGINEERS

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AAEN Consulting Engineers A/S provides technical consultancy for planning, design and establishment of energy-, climate- and environmental projects. The diagram below illustrates the scope of service that we offer in reference to utilization of Renewable Energy resources. Our activities are equally divided between the national and the international scene and because of this, AAEN Polska sp. z o.o. a Polish subsidiary to AAEN A/S was created in 2001. Common to all of our activities is however, that they relate to our vision: "To pioneer the improvement of climate and to work for a visionary utilization of our energy resources".

Exampel of activites

Project budgeting and financing including the application and administration of development funding from national and international funds.

Project planning, and design, authority processing including the environmental approval, building permission & EIA, competitive bidding & contracting and inspection & delivery.

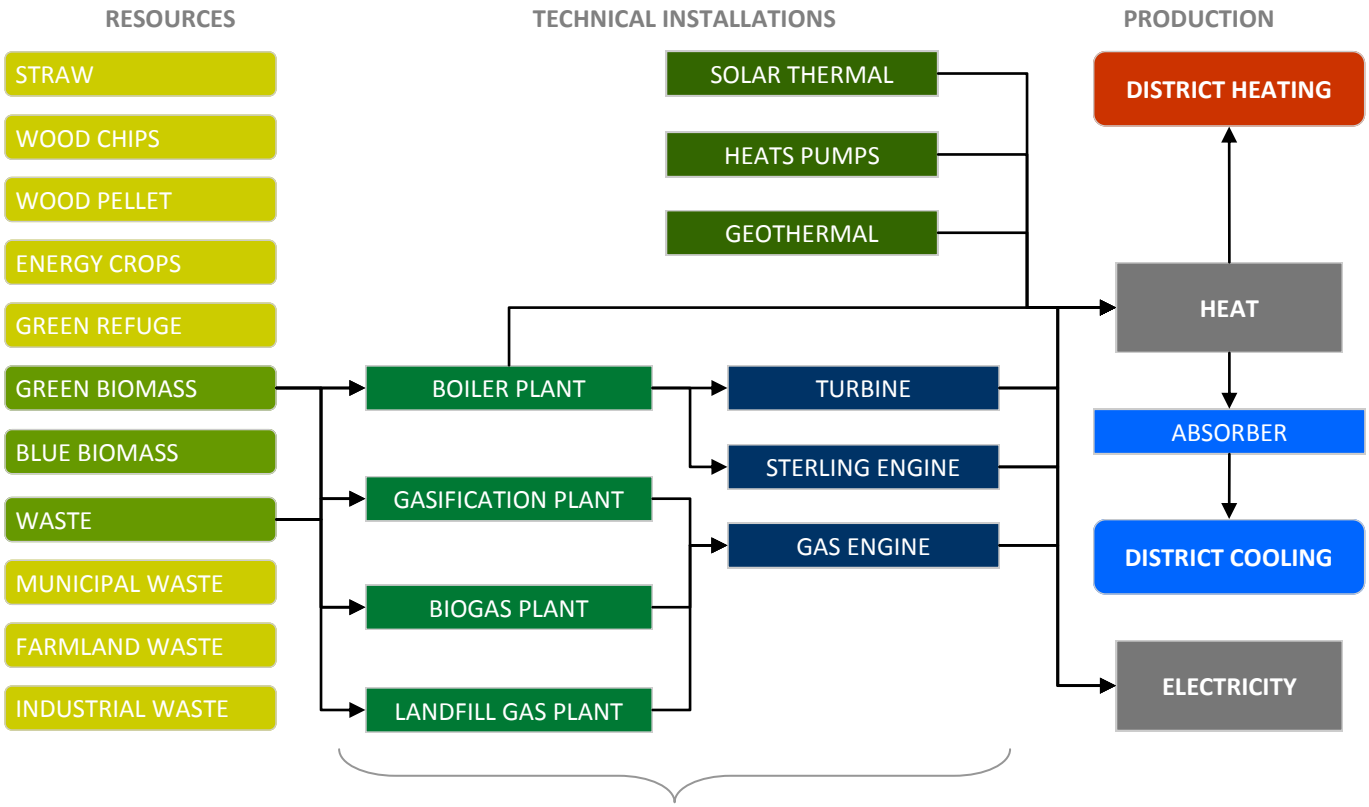
Architectural design and layout incl. 2D engineering drawings and 3D modelling of plants.

Project assessment based on investments, operational– and socio-economic calculations and implementation analysis.

Net registration and operation optimisation through modelling in iteration programs as Thermis and Aquis

Net registration in programs like DFF-Map

Establishment of district heating networks



Over the last 10 yeas AAEN A/S has build a wide range of unique capacities within the establishment and operation of climate projects in Europe and development countries, including emission verification and CO_2 trading.

Establishment of JI & CDM climate projects based on the construction portfolio above.

Registration and verification of Emission Reduction Units (ERU) and Certified Emission Reductions (CER)

CO_2 TRADING

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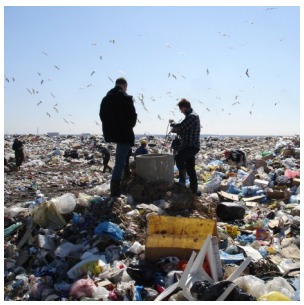
EXAMPLES OF OUR SCOPE OF ACTIVITY

The examples below illustrates the scope of activity of AAEN A/S. A large part of our client base consists of district heating and CHP companies and thus our staff of employees have wide experience catering to the specific needs of this energy industry. In addition to the more traditional consulting service AAEN A/S has developed a range of specialized core capabilities. These capabilities includes areas such as the growing field of CO_2 unit management and CO_2 trading and the area of district heating network optimisation thorough net registration and operation simulations. Check out over web site for more information and examples of the projects and technologies that we are involved in.

MERGER OF DISTRICT HEATING COMPANIES: Rising natural gas prices, stricter environmental legislation and a fluctuating population are all conditions that are challenging the operating economy for district heating companies in Denmark. One of the more comprehensive solutions, which meets these challenges, is a complete merger of adjoining district heating networks previously owned by different DH companies, under the motto “union equals strength”. The mergers provide new possibilities for the investments in alternative technologies or the use of alternative fuels, eg. establishment of larges biogas plants for utilization of manure and energy crops from surrounding farms or with establishment of biomass boiler plant based on the larger common demand for heat...

BIOMASS GASIFICATION: At I/S Skive District Heating’s site on Thorsvej 11 in Skive a faint rumbling sound emerging from the large, newly erected building reveals that the gas engine plants, which have been installed behind the beautiful building fronts covered in pre-oxidized copper, are in service. It is however not the gas engines that provide the largest news value, but the plant that delivers gas to the engines. The gas is delivered by on the world’s largest “fluidized bed” gasification plants designed for gasification biomass. Beyond this accomplishment lies a unique scope of development, that has been both comprehensive and extensive, as the development of the gasification plant influences all element of the CHP central including the building construction, engine plant development and almost all others units...



CO_2 TRADE: Just about a decade ago most countries in the world signed an international agreement and thereby established the “United Nations Framework Convention on Climate Change” (UNFCCC). An organisation, which has the clear goal of responding to the increasing climate challenges, which a rising number of researchers, institutions and government organs around the world agree that we need to counter. The agreement was the Kyoto Protocol and became the basis for the creation of a globally founded system to lower the world’s emission of carbon dioxide and other harmful gasses. This system, however, is more than “another tax on the industry’s emissions”, as it is a “cap and trace” system. The system provides possibilities for sale and purchase of quotas or investment in foreign environmental projects...

DISTRICT COOLING—THE NEW DISTRICT HEATING: The technical principal behind district cooling has been known for many years and the name of the technology pretty much says it all District cooling = District heating, just in reverse. The technological and operations economical reality behind the term is however more complex and is the main reason for why presently there are only two central district cooling plants in Denmark one in Hjørring and one in Løgstør. AAEN has been involved with the establishment of the districts cooling plant for Løgstør District Cooling, which is a newly formed subsidiary of Løgstør District Heating A.m.b.a. The district cooling plant is based on a 500 kW absorption cooler, which is using the heat from two biomass boiler plants as booster heat...

BIOGAS IN THE AUSPICES OF DISTRICT HEATING: The district heating sector has begun to show interest in including biogas plants in their plant portfolio. This is mainly due to the very good climate characteristics of the technology, as well as the fact that the price for green electricity based on biogas is now guanteed. In spite of the fact that the biogas plant industry has been standing very still in Denmark for the last decade, the technology has still managed to evolve greatly. Because of the long time operation experiences that has been achieved, the technical basis for obtaining stable and economic operation is now much better than when the technology was first introduces to the sector. AAEN is involved with various projects concerning the implementation of biogas plants for the district heating sector, where the biogas...

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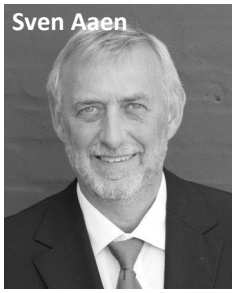
CONTACT AAEN

The staff of AAEN A/S consists of highly educated engineers with different backgrounds and capabilities. Therefore, our team can provide a very wide knowledge and experience base which we are constantly looking to expand and develop. AAEN A/S is able to offer consultative services covering all phases of an establishment project from development of the preliminary ideas and budgeting, planning and authority processing to tendering, contracting, supervision and to the final delivery. Additionally we offer consultative services in very specific areas of knowledge Renewable Energy management. The listed below including name and contact information for a selection of our highly educated engineers along with a list of some of their key capacities and skills.



CEO
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District Heating Development
Geothermal Plants
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International Project Devel.
CO_2 Verification & Trace
JI/CDM Project Development
Construction Supervision
Landfill Gas & Bio Gas Plants
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Implementation of Development Technologies
Authorities Processing
Socio-economics
Gasification Plants
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Project Development Financing
District Heating Net Registration
DH System Optimisation
Drinking Water Systems¨
District Cooling Plants
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R&D Financing
JI/CDM Projects development
Architecture & Plant Design
Biomass Boiler Plants
Geothermal Plants
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Project Development
JI/CDM Project Management
CO_2 Registration & Verification
Gas Emission Systems
Landfill Gas Plant Engineering
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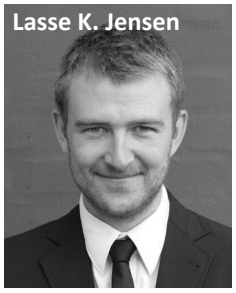

Project Proposal Development
CO_2 Registration & Verification
Project & Socio-economics
Construction Supervision
Biogas Plants
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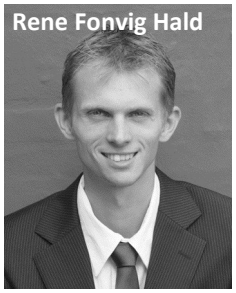

District Heating Net Registration
DH System Optimisation
Energy Savings
Construction Supervision
Building Site Safety
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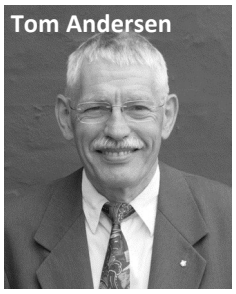
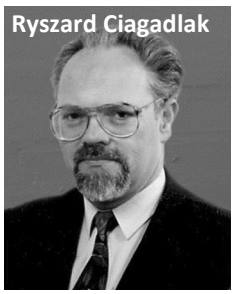


Authority Processing
Procurement & Tendering
Supervision
Waste Management Strategy Planning
tan@aaenas.dk



Waste Management Strategy Planning
JI/CDM Project Management
Landfill Gas Plant Management
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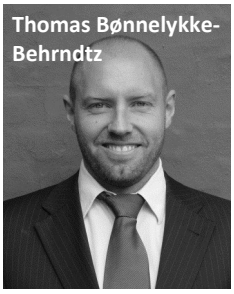

JI / CDM Project development
CO_2 Registration & Verification
Contracting
Construction supervision
Landfill Gas Plant Engineering
tbb@aaenas.dk

Socio Economic Project development
Energy Saving Unit calculation
District Heating Planning
Energy consultancy
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