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FOCUS

EMERGING DISTRICT HEATING MARKETS

DISTRICT HEATING:
A NEW LOW-CARBON HEAT SOLUTION FOR THE IRISH HEAT MARKET

DISTRICT HEATING IN TXOMIN ENEA, SPAIN
- INNOVATION AND EFFICIENCY IN URBAN PLANNING

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EMERGING
DH MARKETS

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SUPPLYING TO THE FRENCH DISTRICT ENERGY MARKET

With 65.8 million citizens (13% of EU28) - and a climate requiring more than 2,200 heating degree days per year (DK comparison is above 3,100) - district energy should be a key parameter in the French energy mix, but below 5 million citizens or less than 10% of the French people have in fact district heating in residential homes.

Heating and cooling take up 45% of the accumulated French energy consumption – and residential heating 62% of this. The demand for cooling is growing, but still at a lower level and concentrated around the service sector in larger cities (museums and public buildings etc.). Some 93% of the cooling demand derive from the service sector – only 4% residential and 3% industrial.

With 42% of the heating and cooling need, natural gas is a key component in the French energy mix – oil and district heating come in second with each 12%.

FRENCH ENERGY POLITICS

According to Euroheat & Power, heat networks currently provide approximately 6% of France's heat demand. However, the sector is expected to grow in the near future given the ambitious target set in the 2015 Energy Transition Law. Compared to 2012, district heating and cooling from renewable and recovered energy sources are assumed to increase by a five-fold by 2030. This is equal to an annual growth of 10% or grid extensions of 930 km on average. The growing French energy sector is subject to a wide range of regulations like tax and finance laws impacting the current and future opportunities in France, such as the subsidies from the heat fund, reduced VAT rate for energy grids with more than 50% renewables, thermal regulations and the zoning rules.

SUPPLYING TO THE FRENCH DISTRICT ENERGY MARKET

With the given macroeconomic and political framework in France, it is important for foreign companies to have a local representation in France. It is critical to understand local legislation and have knowledge on subsidies - not to mention that up to date local project experience knowledge and contacts are necessary in order to succeed. The personal skills of course need to include technical, language and cultural skills.

District energy is not new to France, but there will be lessons to learn when the market takes off as expected in near future. It is going to be very important to deliver from experienced suppliers with proven quality, logistics and value chains in place in order to avoid quality defiance on an expected steep growth curve.

Installation of BROEN Ballomax® Trunnion ball valves in a hot underground water loop on the Paris IDF heat network, EN488:2015 EHP003.

Valve chamber around BROEN Ballomax® Trunnion ball valves for underground installation.

BROEN has for years kept an eye on the French market and seen a very high potential, but also a more modest development up until recent years. We now spur the first footprints of the expected solid and steep growth ahead. Some years ago, the French district energy market experienced declining development with a weak competition and small interest from European suppliers, but this now changes and the political initiatives from 2015 now seem to kick in.

The major cities now all start investing in district heating and cooling, but especially in the Northern and Eastern regions of France, we see another kind of potential for synergies with networks that might, at a later point, get regionally connected.

In general, the interest in district energy is quite substantial in France and the Danish heritage - with decades of accumulated experience from a Scandinavian climate - has given breed to quality products, which are in demand in France standing at the threshold of a steep growth in district energy. We believe our accumulated knowledge and presence in large district energy projects around the world will be a great advantage.

VALVE TECHNOLOGY IN FRENCH DISTRICT HEATING

In the French district energy market, a core characteristic is a higher flow temperature than registered on other European markets and a demand for full bore valves with less pressure loss. Especially in a young market facing a rapid growth, the quality of the components is important in order to avoid accumulating quality issues – further stressed by the fact that no technology trends have yet become mainstream and no major standard demand specification has been settled.

We have recorded a large demand for safety and security aspects, and also on the French market the most recent standards for underground valves are in request - like EN488:2015 and EHP003.

Flexible solution of operation of 3 underground BROEN Ballomax® Trunnion ball valves in a tight space.

THE POTENTIAL OF DISTRICT HEATING IN FRANCE

Apart from the already mentioned political changes implemented already in 2015, a growing demand in France is gaining further momentum by the fact, that the country also needs to comply with environmental targets for CO2 emissions and meet already stated CO2 levels in 2020 and 2030.

On a wider scope, the European Union in 2016 highlighted district heating as the backbone of the energy transition in general and also for this reason we see a tremendous potential in France in the immediate future - we are ready to meet this demand already now.

For further information please contact:

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MEMBER COMPANY PROFILE

THE BROEN GROUP

BROEN is a leading international manufacturer of valve technology for district heating and operates on three continents across the world with key markets in Russia, Europe, China and US. BROEN is headquartered in Assens, Denmark and is part of Aalberts Industries listed on the EuroNext Stock Exchange (NL). Today Aalberts has more than 15,000 colleagues operating from more than 200 locations in more than 30 countries. The proven brand BROEN Ballomax® is used in district energy grids all over the world.

HERITAGE AND HISTORY

In 1948, Poul Broen established the company BROEN, which was among the pioneers as district heating took off in Denmark. In 1982, the BROEN Ballomax® ball valve for district heating was launched, and we still strive to develop and improve products that use nature's resources as efficiently as possible.

5 TRENDS IMPACTING DISTRICT ENERGY GOING FORWARD

- Energy efficiency and the climate challenge is one of the greatest challenges of our time and based on the heritage from leading edge innovations in Danish district heating, we offer a comprehensive range of proven ball valves for distribution and transmission of district energy.

- As a result of the rising demand for energy efficiency, we supply increasingly more full flow valves with high focus on energy efficiency and KVs values.

- We also see a trend towards tougher quality standards, where cross-national industry organizations, like Euroheat and Power, launch new initiatives, such as the EHP003 certification adding to the already tough market demand of EN488:2015 – both already implemented in our range.

- As a fourth trend, we see an increasing complexity of larger valves with focus on extreme security. This means trunnion mounted ball valves with an optional drain valve ("tell-tale valve"), which can secure that the dead space between the ball and the valve body is emptied and the valve closes 100% tightly – hence the name Double Block and Bleed.

- Internet of Things (IoT) will impact district energy grids as well – we have only just begun this journey. We are investigating how this evolves in district energy. When we have the feedback from our tests, we will be able to commercialize the right solutions for district energy.

NEXT GENERATION OF VALVE TECHNOLOGY

Responding to market demand, we have recently launched a new series of valves with superior KVs values. We expect to see the share of full flow valve designs with superior flow coefficients grow dramatically and have invested in a fully automated robot production line meeting the highest quality levels to accommodate this market need. We will respond to flexible market demands, and be able to produce high quality valves with exact tolerances day in and day out. Flexibility in demand is a matter of programming the computer to match the demand.

BROEN
VALVE TECHNOLOGIES