



Denmark: Water and Waste Water Treatment Industry Overview

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Sabina Krøigaard
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Summary

Danish Drinking water is unique in its almost exclusive use of virgin groundwater for drinking water. For this reason extracted water requires minimal preparation before it is drinkable. User surveys show that the water supply satisfaction is very high, and just as Danes are concerned with the preservation of the clean groundwater reserves, the environmental awareness is high, and requirements for discharged ground water are relatively strict.

Overall the Danish water and waste water market is dominated by domestic suppliers which hold strong positions in the international market. This can be attributed to a cooperation between public institutions and private firms, combined with an aggressive environmental policy that has helped push forward the Danish industry in the market. However, Denmark is very open to U.S. imports and if U.S. firms sell competitive products of high quality, they might benefit from entering the Danish market for water services. The Danish water sector itself is, however, a non-profit line of business.

Market Demand

Denmark consists of the peninsula Jutland plus 443 islands of which Zealand is the largest where also the capital of Copenhagen is located. Many of the larger Islands are connected via bridges. The Danish coastline is 7314 kilometers and no location in Denmark is farther from the coast than 52 kilometres, which explains the historical and societal close connection between land and sea.

Danes are proud of their drinking water as virgin groundwater accounts for 99 percent of the water extracted in the production of water services. For this reason, it is unnecessary to cleanse the water with carbon filters or add chloride; only oxidation and cleansing in a sand filter is required before it is drinkable. Also, due to the relative ease with which drinkable water can be extracted, the Danish water service industry distinguishes itself from most of its European counterparts by its high degree of decentralization; around 2700 water works supply the Danish population of 5.6 million. 2550 privately owned water works supply one half of the Danish households or around two million people. The remaining 150 water works are municipally operated, and are substantially larger: A municipally operated water work extracts 24 times the amount of privately operated water works on average. Consequently, the treatment of water waste is relatively concentrated; 90 percent of the aggregate water waste is treated in 216 plants – mainly municipally operated water works. The proportion of water waste compared to drinking water is 2.5.

The Danish water service industry is characterized by a hub of competence, constituted by cooperation between the public and private sectors. It includes a number of public research institutions, research institutes and a group of firms that supply the water service sector. The favorable industrial condition is strengthened by a consistent environmental policy that has pushed forward the technological improvements in the industry. Also, it strengthens national industrial integrity and increase spillover effects, which helps Danish firms to secure and hold a strong international position with extensive exports of products (5/6 of turnover), and consulting services (1/6 of turnover).

Market Data

The aggregate ground water extraction on a yearly basis is 656 million cubic meters. The water works' share of the extraction amounts to 60 percent, while the remains are extracted by self-supplying firms with water installations or extracted for irrigation. Households consume half of the total water supply and industry consumes $\frac{1}{4}$, while institutions (schools, hospitals, nurseries etc.) account for 6.5 percent. And even though the loss of water in the 19,800 kilometers long water mains has decreased by 12 million cubic meters a year since 1997, the loss still amounts to 7 percent of the water supply. The daily water consumption in Danish households is 122 liters per person, a reduction of one third from 174 liters per person in 1989. The development is related to growing environmental awareness among consumers, improved water saving technology and increasing prices. Since the Danish water sector operates with a non-profit policy, the user-experienced water price is equivalent to the production expenses: Waste water represents 45 percent, drinking water 22 percent and state taxes 33 percent.

According to Statistics Denmark, sales in the energy and water industry have increased from price index 100 to 172.9 (2008) in the last eight years. There is little data on the water industry itself, but wage increases in the private sector were the highest (5 percent) in 2007. From this data a moderate to high growth can be expected. Domestic producers hold the majority of the market and employ around 2,100 people, while 75 Danish firms export goods and services worth around 600 million USD.

Best Prospects

The market for water treatment equipment in Denmark is very mature and dominated by domestic suppliers. Of the water suppliers' expenses new investments account for 9 percent, reinvestments 27 percent and operative expenses 64 percent. Because of the climate experts' predictions of an increasing number of more powerful cloudbursts there is no doubt that the sewer systems will flood more often, if nothing is done to counter the climate changes. For this reason, the sewer business and the municipalities are preparing to upgrade the sewer systems. Another movement in the industry is an increased focus on energy saving improvements. Both of these market trends can potentially lead to profits for American firms entering the Danish market for in high-quality equipment for use in new installations and for replacement of old equipment.

Key Suppliers

AVK International, Grundfos, HV-Turbo, Kruger and Per Aarsleff dominate production in the domestic market, while the consulting market for water services is lead by Kruger, Carl Bro, COWI and Ramboll.

Prospective Buyers

The market can roughly be divided into three users of water and water waste equipment; Industry, public and private water works. While the number of water works that are privately or industrially operated is larger, the average size of municipally operated water works is much larger. For this reason, there is a wide range of buyers that demand various types and amounts of equipment. Future demand will mainly consist of purification equipment for new installations and for the replacement of old and out-dated equipment.

Market Entry

Denmark is a small country with an open economy, highly dependent on foreign trade and international cooperation. Danish trade and investment policies are liberal and encourage foreign investment. The import climate is open and receptive to U.S. products and investments. There are no significant trade barriers or regulations that U.S. firms need to take into consideration. Danish imports are very diversified and many opportunities exist.

Denmark is a natural gateway to the Scandinavian countries and the Baltic area. Copenhagen Airport is the main hub in Northern Europe and Europe's most efficient airport; a high-quality motorway network means swift and easy access to all markets in the Northern European region. Denmark holds one of the world's top three flexible labor markets, a very advanced telecommunication infrastructure with world leading use of PC, Internet and Broadband and a well-educated population with a high proportion of university graduates with excellent language skills. English is considered a natural second language.

U.S. firms interested in entering the Danish market should establish a partnership or joint venture with a Danish company, or appoint an agent to represent them in the market.

Market Issues and Obstacles

Denmark has a favorable tax climate with a corporate tax rate of 28 percent, an extensive network of tax treaties and attractive rules for expatriates. Taxation obligations for physical goods ordered via the Internet, as with any other transaction, require payment of VAT (currently at 25 percent) and, if the goods are imported into the EU, import duties.

No water is discharged without pretreatment, and there are number of requirements. In the water environmental plan the water works are required to limit the amount of nitrogen per liter to 8 mg, phosphor per liter to 1,5 mg and organic material (BI5) to 15mg. Locally, even stricter requirements exist. In the last 20 years the total amount of discharged nitrogen, phosphor and organic material has decreased by 96, 80 and 93 percent, respectively, since the first water environmental plan in the eighties. The aggregate amount of discharged material from water waste facilities is 700 million cubic meters, equivalent to a discharge of 2,625 tons of organic material per year.

Trade Events

The trade show listed below should provide U.S. firms a good opportunity to introduce their products to the Danish market and to establish contact with companies actively engaged in water and water treatment.

NVK 2008 (6th Nordic Drinking Water Conference 2008)
Oslo, June 9-11, 2008

Organizer:
Radisson SAS Scandinavia Hotel Oslo
Holbergsgate 30, NO-0166 Oslo
Tel: +47 6255 3029.
Fax: +47 6255 3031
Web: <http://norsk vann.no/nvk2008/forside>

The intention of the conference is to stimulate the exchange of experience, knowledge and skills between the practitioners and scientists within drinking water technology in the Nordic countries. The conference aims at personnel and managers of water and wastewater works, consultants, contractors, scientists and authorities. At this fair, U.S. firms can offer their products and services to an audience of top decision makers and politicians involved in environmental issues.

Resources and Key Contacts

Miljøministeriet (Ministry of the Environment)

Address: Højbro Plads 4
DK-1200 Copenhagen K,
Phone: +45 7254 6000
Fax: +45 3332 22 27
E-mail: mim@mim.dk
Internet: <http://www.mim.dk/eng/>

Klima- og Energiministeriet (Ministry of Climate and Energy)

Address: Stormgade 2-6
DK-1470 Copenhagen K
Phone: +45 3392 2800
Fax: +45 3392 2801
E-mail: kemin@kemin.dk
Internet: <http://www.kemin.dk>

Miljøstyrelsen (Danish Environmental Protection Agency)

Address: Strandgade 29
DK-1401 Copenhagen K
Phone: +45 7254 4000
Fax: +45 3266 0479
E-mail: mst@mst.dk
Internet: <http://glwww.mst.dk/homepage/>

Foreningen af Vandværker i Danmark (The Danish Water Works Association)

Address: Solrød Center 22 C
DK-2680 Solrød Strand
Phone: +45 5614 4242
Fax: +45 5614 6776
E-mail: fvd@fvd.dk
Internet: <http://www.fvd.dk>

For More Information

For further information please contact U.S. Commercial Service, Commercial Specialist Ms. Sabina Krøigaard.

Address: Dag Hammarskjölds Allé 24
DK-2100 Copenhagen O
Phone: +45 3341 7315
Cell: +45 2521 0550
Fax: +45 3542 0175
E-mail: sabina.kroigaard@mail.doc.gov
Internet: <http://www.buyusa.gov/denmark>

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