

District Energy Report Ed 1 2017

District Heating and Cooling



District Heating and Cooling (DHC) Networks

29 Country Network Profiles

Network lengths 2000 to 2020

1GDH to 4GDH

DHC Technologies

DH & DC Equipment Components

Heat Sales in Volume & Value

Capital Expenditure

Equipment Sales

DH & DC Utility Analysis

Supply Chain Companies

- ◆ The DHC industry is unique among energy markets in that it is dominated by Russia in size, and led by the Nordics in technology. The DHC market is subject to large variations in local heat prices, currency rates and trends. Devaluations of the rouble, and national CIS and EE currencies have had a huge impact on the global DHC market. Accurate market estimates and forecasts require analysis of each country separately.
- ◆ This report profiles 29 separate DHC markets with historical data from 1990 and forecasts to 2021, sales volume (TJ) and value (\$ and €), capex by country for 2016 and global sales of equipment components from 2016 to 2021 - network pipelines, substations, HIUs, building level heat meters, internal pipework, dwelling unit heat meters and heat cost allocators.
- ◆ The progression from 1st to 4th generation DH technology is defined and plotted
- ◆ The report outlines DH and DC technology; prefabricated insulated pipes, direct/indirect & open/closed systems, one/two/four pipe network systems, hydraulic interface units and heat exchangers, compressor chillers, absorption chillers, regulators, heat consumption measurement devices.

StatPlan Energy Research
October 2017

District Energy Report Ed 1 2017, District Heating and Cooling

DH STATISTICS AND MARKETS

- ◆ DISTRICT HEAT CONSUMPTION AND NETWORK LENGTH, 1990-2020
- ◆ DISTRICT HEATING TURNOVER, PRICES AND EXCHANGE RATES, 2016-2021, \$ and €
- ◆ DISTRICT HEATING CAPEX, 2016
- ◆ EQUIPMENT SALES, 2016-2021

DH TECHNOLOGY

◆ THE FOUR GENERATIONS OF DISTRICT HEATING TECHNOLOGY - 1GDH TO 4GDH

District Heating has evolved through 3 generations of technology and the current networks are a combination of these in each country. DH systems are already evolving into the 4th generation, which combines new DH technology with renewables, distributed generation and two-way supply.

◆ DH SYSTEM STRUCTURE - OPEN AND CLOSED, DIRECT AND INDIRECT

◆ DH NETWORK COMPONENTS

◆ BILLING AND HEAT METERS, MEASUREMENT AND CONSUMPTION ALLOCATION

The structure of network systems, the components and the regulating and billing methods vary by country. Modern consumption metering is fundamental to development, efficiency and capex.

DISTRICT COOLING

◆ TECHNOLOGY OF DISTRICT COOLING SYSTEMS

◆ NATIONAL DEVELOPMENTS

NATIONAL DISTRICT HEAT AND DISTRICT COOLING PROFILES

CIS - Russia, Ukraine, Belarus, Kazakhstan

The Russian DH networks are the world's largest and oldest, accounting for half the world's heat. With outdated technology, they are in critical need of investment and modernisation.

EUROPE

Nordics - Denmark, Finland, Norway, Sweden, Iceland, Greenland

Western Europe - Austria, France, Germany, Italy, United Kingdom

The Nordics and Germany are trailblazing developments of RE technology and growing networks.

Eastern Europe - Poland, Czech Republic, Hungary, Bulgaria, Romania, Slovakia

Baltics - Estonia, Latvia, Lithuania

The heirs of Soviet DH, some countries are investing and modernising DH, others are stagnating.

Turkey

A new geothermal DH market developing vigorously for residential and agricultural use.

ASIA

China, Korea, Japan

China rivals Russia in network size and leads the world in DH growth, drawing on the latest technology to modernise obsolete and run-down systems and to build new ones. Korea is a relative newcomer, smaller but vigorous. After some years of stagnation, Japan is growing and developing.

MIDDLE EAST

UAE, Saudi Arabia, Qatar, Oman, Bahrain

With temperatures of 40° C, GCC demand for District Cooling is expanding.

UNITED STATES

The first modern user of District Heating, the US networks stagnated for many years and many ceased operation. Some technology is still 1GDH steam, but both DH and DC have found a new lease of life, looked at European best practice and the markets are growing.

District Energy Report Ed 1 2017

District Heating and Cooling

HOW TO ORDER

FOR ENQUIRIES OR TO OBTAIN CHAPTER SUMMARIES, A TABLE OF CONTENTS & SAMPLE PAGES CONTACT:

Euan Blauvelt
StatPlan Energy Research
+44 0208 871 2752
e.blauvelt@statplanenergy.com
8 Quarry Road, London, SW18 2QJ, United Kingdom

ORDERING DETAILS

All reports may be ordered through the StatPlan website: www.statplanenergy.com
Or by email to: e.blauvelt@statplanenergy.com, with the Order Form on the next page

PRICE

Price for PDF 1 - 4 users... £2,500
Price for PDF + Excel Database - 1 - 4 users ... £2,800
For corporate multi-user please see order form.

STATPLAN REPORTS & DATABASES

StatPlan publishes a range of reports for the energy, utility and telecoms industries and markets. We maintain databases of electrical and telecoms infrastructure for all countries, constantly updated, encompassing; generation, renewables, transmission and distribution, power and distribution transformers, switchgear, meters, towers and poles, and other equipment. In many cases these databases go back to the early days of the industry, providing a solid basis of data for plotting the replacement cycle as well as new installations.

StatPlan can provide one-off customised analysis of these databases as well as published reports.

AD HOC RESEARCH

StatPlan offers customised research services, bringing to bear years of experience in the global energy and telecoms markets.

ORDER FORM

Please provide the following information and scan/email or mail to StatPlan Energy Research.

First Name: _____

Second Name: _____ Title: Mr, Mrs, Ms, Dr, Other _____

Company: _____

Address: _____ City: _____

Country: _____ Post Code: _____ State/Province: _____

Telephone: _____ Email: _____

TICK BOX FOR LICENCE REQUIRED

SUL - Single user licence (1-4 users)

Multi user licence (5-20 users) = 1¼ x SUL

Enterprise licence (Unlimited use) = 2 ½ x SUL

Report Name	Price
UK/EU: Please quote VAT Number:	
UK customers only, please add VAT at 20%	
TOTAL ORDER VALUE	

These prices are for electronic copies only. For 2 Hard Copies add £120, Europe - £180, Rest of World - £190.
Please call +44 (0)208 871 2752 if you have a query.

PAYMENT OPTIONS

Cheque enclosed Send invoice for bank transfer

Date.....Signature.....

Please email order form toinfo@statplanenergy.com

Or post toStatPlan Energy Research, 8 Quarry Road, London, SW18 2QJ, United Kingdom.

Invoice required: Please provide an appropriate Purchase Order PO number: