



In partnership with CLASP.







**INVITATION TO MASTER CLASS SESSION** 

**HEATNET - DISTRICT ENERGY PARTNERS** 

SEPTEMBER - 2015

#### INVITATION

# DESIGNING, INSTALLING & OPERATING HEAT NETWORKS - I

DISTRICT ENERGY MASTER CLASS SESSION FOCUSING ON TECHNICAL DESIGN,
INSTALLATION AND OPERATIONS OF DISTRICT HEATING NETWORKS

London - 2<sup>nd</sup> and 23<sup>rd</sup> September, 2015

#### You are invited to the first in a series of MASTER CLASS SESSIONS in District Heating.

The initiative is a co-operation between NORDIC HEAT, Imperial College, London School of Economics and HEATNET.

**The Aim** is to provide delegates with a more in-depth technical training session on the key elements in designing, installing and operating district heating and to provide access to best available technologies, practices and experiences from various markets

**The Speakers** will include technical consultants & network designers, technology suppliers, and operators in district energy.

**The Audience** is expected to include operational staff in existing district energy companies and ESCOs as well as local authority officers and other professionals related to the sector. The presentations and discussions will be technical and assume a basic level of understanding of the concept of district heating.

Topics addressed at the session, which is the first in a series Master Class activities, are

- Designing heat networks priorities and concerns to optimize efficiency
- Distribution systems technologies, installation and O&M to optimize life cycle costs
- Heat interface units design, technologies, installation and O&M
- Metering solutions technologies, design, installation and operations
- Monitoring & Maintenance technologies, practices and competencies
- Managing Information handling the flow of information related to DE systems

#### PRACTICAL INFORMATION - MASTER CLASS SESSION I

**Dates** 2<sup>nd</sup> September – 09.30-17.00 *and* 23<sup>rd</sup> September – 09.30-17.00

The MASTER CLASS II SESSIONS will be organized in October and November.

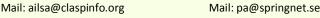
**Location** Imperial College – London

Free of charge for participants from LAs and other public sector

institutions. £250 for other attendees.

Questions & Ailsa Gibson - CLASP or Peter Anderberg - HEATNET

**Registration** Phone: +44 (0)1524 824325 Phone: +46 70 56 111 99

















2015-Q3

# NORDIC HEAT

#### Introduction

**NORDIC HEAT** is a peer-to-peer advisory service aiming at providing hands-on support in the entire process of bringing district energy from vision to operations – business planning, commercial strategy, design, procurement, installation, commissioning and operations and maintenance. A critical element in our proposition is that Nordic Heat is an initiative initiated by a group of large municipality owned energy companies, thus completely independent from consultants and technology suppliers.

NORDIC HEAT involves professionals with a long and proven track record from the District Energy sector. You will meet colleagues to yourselves who are eager to share their knowhow and experience in order to support you in building district heating networks in a way that minimizes your costs and maximises your revenues. Just as they have done, and still do, in their regular positions back in Sweden. They have first-hand experience in managing risk and optimizing returns on investments. You can trust they will be on your side of the table throughout the process, something that is critical for the credibility, and thus the very existence of NORDIC HEAT.

NORDIC HEAT offers a range of advisory services related to the development and operations of District Energy solutions - political strategies, business modelling and commercial strategy, investment strategies and due-diligence support, design and technical solutions, procurement of consultants, hardware and contractors, project management, commissioning, operations and maintenance.

#### **MISSION**

Peer-to-peer advisory service aiming to support the development of District Energy and W2E solutions in new markets, by transferring the extensive know-how and experiences developed in Sweden during the past 50 years.

The objective being to reducing risks and increasing financial and environmental returns for new entrants in the sector.



Doers in District Energy

Partners in NORDIC HEAT









#### **SERVICES**

- **Seminars & Workshops**
- **Master Class sessions**
- **Advisory Services**
- **Management support** in business planning
- **Training & Exchange** programs
- **Case Studies**
- **Support services**
- **Networking platform**
- **Facts and News service**
- **O&M** support
- Financial advice and DD



NORDIC HEAT - SPRINGNET

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# **NORDIC HEAT**

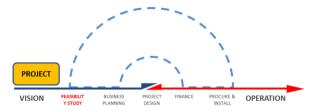
#### **SERVICES**

**NORDIC HEAT** is a peer-to-peer advisory service aiming to support the development of District Energy and W2E solutions in new markets, by transferring the extensive know-how and experiences developed in Sweden during the past 50 years.

By providing a range of SERVICES, the aim is to assist new entrants in the district energy sector to bring projects beyond visions and feasibility studies, into business planning, design, procurement, installation and ultimately operations.

**Examples on services** to bridge the gap between visions and operations are

- Seminars & Workshops
- Project reviews and second opinion
- Range of Advisory Services
- Training & Exchange programs
- **Operational Support services**
- Networking platform





### Assisting in Bridging the Gap **Between Vision and Operations**



A more detailed description of services can be provided upon request

## NORDIC HEAT consists of a number of large municipality owned energy operators

in Sweden, all with a very long experience and proven track record in designing, installing and operating district energy. The companies involved are presented in enclosure 1.

It should be stressed that NORDIC HEAT is not a traditional technology consultancy, executing feasibility studies, calculations and design work. The role is rather that of a "critical friend" providing peer-to-peer assistance in the different stages of a district energy project. NORDIC HEAT is a non-profit activity charging a fee to cover costs only.

The overall ambition of NORDIC HEAT is to support new entrants to assist new entrants with e.g. advice, transfer of experience, reference cases, key figures, selection of technologies and suppliers, training, support in commissioning, inspiration and energy. The overall goal being to support colleagues in speeding up ongoing projects while minimising risks and optimizing the benefits.

#### NORDIC HEAT - BRINGING PROJECTS BEYOND FEASIBILITY STUDIES











Partners in NORDIC HEAT

2015-Q3







#### NORDIC HEAT

#### EXAMPLES ON ADVISORY SERVICES OFFERED BY SWEDISH ENERGY COMPANIES

STAGE IN PROJECT 7. STRATEGIC ADVICE AND **FINANCING** 6. OPERATIONS & MAINTENANCE 5. INSTALL & **TRAIN** 4. PROCUREMENT **OF TECHNOLOGIES** & SERVICES 3. SYSTEM **DESIGN** 2. COMMERCIAL **STRATEGY** 1. BASIC PROJECT **REVIEW & BUSINESS PLANNING** 

SUPPORT IN PROJECT REVIEWS/ LEARNINGS

**ACTIVITIES** 

- LONGER TERM STRATEGIC AND OPERATIONAL PLANNING
- DD AND OTHER FINANCIAL SERVICES
- ADVICE ON HOW TO OPERATE SYSTEMS IN ORDER TO OPTIMIZE TOTAL COSTS VS. PERFORMANCE
- ADVICE ON INSTALLATION REQUIREMENTS TO SECURE QUALITY AND PERFORMANCE
- SUPPLIER SELECTION AND PRICE NEGOTIATION
- ADVICE ON TECHNOLOGIES AND SERVICES TO PROCURE
- SUPPLIER SELECTION AND PRICE NEGOTIATION
- SECOND OPINION ON CURRENT DESIGN OF SYSTEM AND NETWORK
- ADVICE ON OPPORTUNITIES TO REDUCE COSTS OR IMPROVE PERFORMANCE
- VALUE PROPOSITION
- MARKETING AND SALES MATERIAL
- PR vs. general public, MEDIA, POLITICS, INVESTORS, ETC.
- BRIEF PROJECT REVIEW
- SECOND OPINION ON FEASIBILITY STUDIES AND CONCLUSIONS
- RECOMMENDATIONS TO REDUCE RISKS & COSTS

**DELIVERABLES** 

- ACCESS TO ADVICE AND EXPERIENCES FROM SENIOR MANAGERS IN ENERGY OPERATORS
- ACCESS TO ADVICE FROM OTHER KEY STAKEHOLDERS - INVESTORS, POLITICIANS, ETC.
- STRATEGY WORKSHOP WITH SENIOR MANAGERS FROM NORDIC HEAT PARTNERS
- ACCESS TO OPERATIONAL MANUALS, QUALITY SYSTEMS AND TRAINING FILMS
- ACCESS TO MAINTENANCE GUIDELINES
- ACCESS TO THEORETICAL AND PRACTICAL TRAINING OF KEY STAFF IN OPERATIONS AND MAINTENANCE
- ACCESS TO EXPERIENCES, DATABASES AND QUALITY MANUALS DEFINING INSTALLATION REQUIREMENTS AND PROCESSES
- ACCESS TO METHODS AND TOOLS TO DOCUMENT INSTALLATION WORK
- OPPORTUNITIES FOR TRAINING OF KEY STAFF
- ACCESS TO DATABASE OF PREFERRED TECHNOLOGIES AND SOLUTIONS
- ACCESS TO SHORTLIST OF SUPPLIERS WITH PROVEN TRACK RECORD, AND TO PRICE LISTS AND OTHER CONTRACTUAL TERMS
- SUPPORT IN SECURING PERFORMANCE AND QUALITY
- ACCESS TO EXPERTISE WITHIN NORDIC HEAT PARTNERS AND NETWORK
- ACCESS TO THEORETICAL AND PRACTICAL TRAINING
- OPPORTUNITIES FOR STUDY VISITS AND TRAINEESHIPS AT NORDIC HEAT PARTNERS FACILITIES
- PRESENTATION MATERIAL TO BE USED WHEN PRESENTING THE BUSINESS CASE INTERNALLY/EXTERNALLY
- ACCESS TO MARKETING MATERIAL
- ACCESS TO PR EXPERIENCES AND ADVICE FROM NORDIC HEAT PARTNERS
- REPORT ON CONCLUSIONS AND RECOMMENDATIONS FROM PROJECT REVIEW WORKSHOP
- ADVICE ON OPPORTUNITIES AND REQUIREMENTS TO DEVELOP BUSINESS CASE - PROPOSAL ON PRIORITIES
- ACCESS TO RELEVANT DOCUMENTATION FROM ENERGY COMPANIES IN SWEDEN















# **NORDIC HEAT**

**NORDIC** 

### **PARTNERS**





#### **DISTRICT ENERGY COMPANY**

Ownership: 100% municipality

Experience: 61 years

Share DH: 70% of total market

Fossil: <15% (CHP) Km Pipe: 1 000 Sales DH: 250 M€ ROCE DH: >12% Total turnover: 750 M€



HEATNET - STOCKHOLM WATERFRONT

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#### DISTRICT ENERGY COMPANY

Ownership: 100% municipality Experience: 50 years >90% of market Share:

<10% Fossil: 600 Km Pipe: 80 M€ Sales: ROCE: >12% Total Turnover:400 M€





Ownership: 100% municipality Experience: 60 years Share DH: 90% of market Fossil: <15% (CHP) Km Pipe: 660 Sales DH: 120 M€ >12% Total turnover: 650 M€



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Stockholm Waterfront

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2015-Q3 INTRODUCTION **HEATNET - DISTRICT ENERGY PARTNERS** 

# HEATNET — EUROPE

#### INTRODUCTION

The Heat is On in the W2E and District Energy sectors world wide. Having proven their case in Scandinavia – commercially, financially and environmentally – they are now attracting the interest from a broad range of stakeholders in across Europe and beyond. W2E and District Energy are no longer theoretical concepts being studied and advocated by politicians, energy experts and environmentalists. Pipes are in the ground, and sub-stations connected. Experiences are being accumulated. And they are positive. Energy customers, politicians, operators, investors, media, environmentalists all agree. W2E and District Energy is here to stay. And to grow. Driven by end user convenience, political demands for energy efficiency and security, public concerns for the environment, and unexplored commercial opportunities.

There is No Time to Waste for those who want to establish a position in the emerging W2E and District Energy markets. Now is the time to enter the market, and to find the answers to all the key questions for anyone involved in sales

- What do the new markets look like in practice volumes, driving forces, trends?
- Where is the market which are the companies behind the macro statistics?
- Who are individuals to approach how to access the key decision makers?
- How to serve how can my products and services match these needs?
- Whom to establish partnerships with to build a long term market position?

**HEATNET** is a pan-European support company offering a range of temporary assistance services on short notice to managers and teams in the European District Energy and Waste to Energy markets. The 250 professionals who are partners in the HEATNET network spread across more than 20 countries are all highly experienced and well connected. Most have more than 25 years of operational experience in the energy sector.

Our guiding principle is that Business is never Business to Business. It is always Human to Human. The role of HEATNET is to offer a range of support services to enable those humans to do even more business. We are holding out a hand for professionals to take, when they need one.



250 Partners - 20 Markets

#### **HEATNET** offers a range of services

- Market knowledge and research service
- Strategic and operational advisory service Access to key stakeholders in targeted markets
- Advisory and due diligence services to investors
- Networking and partnering activities
- Access to major customers in key markets
- Access to best-in-class competence and technology suppliers in energy/energy efficiency
- Access to investors and financing institutions
- Resource and competence pool
- Management support services

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Business is Always Human to Human



