



TURNING UP THE HEAT

*Positioning for success and growth
in the Dutch heat transition*

CLEAN ENERGY SHIFT NOT NEGOTIABLE AS CLIMATE TARGETS LOOM

Rising energy prices for natural gas and coal are causing an energy crisis that is a pressing both national governments and the EU to address the pace of transition towards green energy supply. While it is widely recognised that fossil-fuelled energy must be phased out, the dominance across Western Europe of natural gas is driven by demand from heating, industry, and energy production. Sustainable solutions for these energy for these areas are imperative for a green transition that will meet global emission reduction targets but most governments are struggling with implementation.

THE BIG OPPORTUNITIES

As we move closer to the deadline for net zero, or in the short term the Paris Agreement targets, all EU governments have clear targets for reducing their dependency on fossil fuelled energy. Across Europe, the spotlight is on energy efficiency, with particular attention on renovating buildings to maximise heat and cooling efficiency. There is still a large legacy of buildings with single glazed windows, poor insulation, and inefficient heating technology. Sustainable heating is a key part of the regeneration plans and proven solutions will have a head start in government funded projects and private development.

As part of the EU's green recovery plan, significant budget has been set aside for the Renovation Wave which aims to put 'energy efficiency first' and increase the number of affordable, energy-performing, and sustainable buildings more widely available. Decarbonisation and integrating renewables are key objectives alongside the broader use of waste heat. Swedish companies who can demonstrate expertise in integrating energy systems at local and regional levels to decarbonise transport as well as heating and cooling can play a significant role in meeting critical targets before 2030.

Tailored solutions for sustainable heating will be key to transitioning from fossil-fuels, and EU

governments are keen to match demand with the right supply. In some neighbourhoods, heat networks will be the perfect fit, while others might benefit from heat pumps or geothermal, and others will suit electric boilers powered by wind or solar.

What is clear is that renewable energy sources, in all forms, are in high demand and Swedish companies have a clear advantage. Sweden's historical knowledge and expertise in sustainable heating solutions has already been flagged as solutions that can drive the change, but Swedish companies need to be ready to act quickly in markets as their plans and budgets are implemented.

NAVIGATING THE DUTCH MAZE

The Netherlands has its sights set on a rapid transition to a carbon-neutral economy that support strong economic growth and energy security, and considering the ongoing energy crisis, it is more relevant than ever for the government to invest in long-term sustainable solutions. Currently, natural gas is the largest source of domestic energy production with 90% of households heated with gas boilers. Public pressure to shift away from gas reliance has been escalated after earthquakes hit the Groningen gas field, one of the largest gas fields

75%
of buildings
in the EU are
not energy
efficient

11%
of buildings in
the EU undergo
annual energy
efficient
renovations

34 M
Europeans
unable to
afford proper
home heating

220 M
building units
built before
2001

160 K
renovation
wave green
construction
jobs by 2030

in the world and historically the main sources of domestic gas production, causing damage to over 10,000 buildings in the nearby region. Following this, the Dutch government issued a decision to end gas production in Groningen. While this decision does not address the energy crisis, it does show that the government has not wavered on its commitment to cease fossil-fuel energy production.

The Dutch Government’s Climate Act has outlined a goal of shifting all 8.5 million households to sustainable heat sources by 2050, with an interim goal of 1.5 million by 2030. Despite good intentions, efforts to take major steps have been hampered by a nine-month long formation process for a new government after elections in March 2021.

In the new coalition agreement presented in December 2021, climate ambitions have been raised and the government plans for a new Climate and Transition Fund worth EUR 35 billion to support building necessary energy infrastructure, including electricity, heat, and hydrogen. The government is expected to introduce a new Minister of Climate and Energy, an addition to the Ministry of Economic Affairs and Climate Policy.

Fossil-free energy sources will see further investment, including more wind energy as well as two new nuclear power plants. In addition, a budget is being dedicated to accelerating the insulation and heating of households, where housing associations and individual citizens may apply for subsidies to install hybrid heat pumps.

Despite positive policies and budgeted investment, the challenge remains: how to build

a competitive marketplace that guarantees heating with renewable sources that are currently more expensive and not as stable as fossil fuels and also require significant investments before scale brings overall costs down.

THE JOURNEY AHEAD

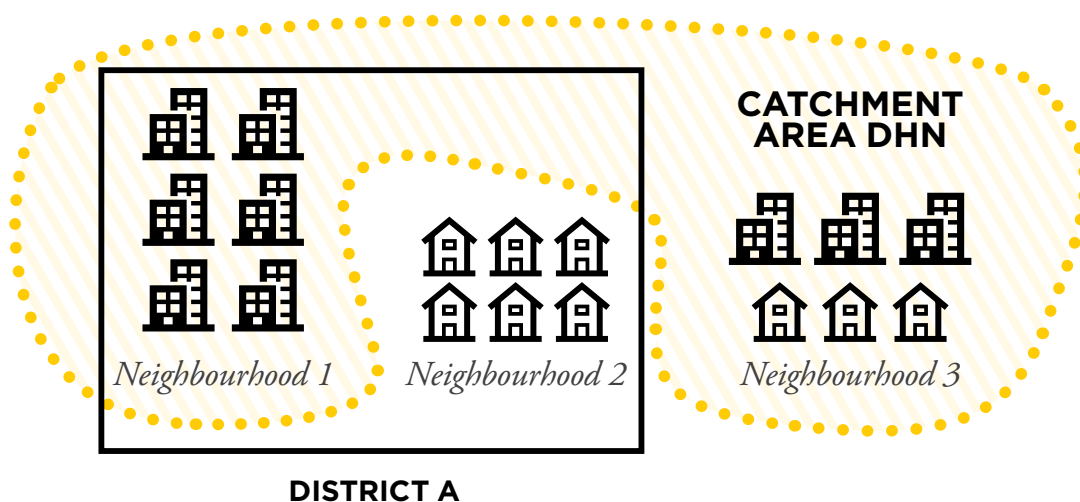
As part of the journey to reduce CO2 emissions, the Netherlands has chosen to make municipalities responsible for improving the sustainability of the built environment – the lens through which the Netherlands views the heat transition. By 31 December 2021, all Dutch municipalities will have drawn up a plan (at a district level) on how they plan to retrofit 1–5 million households by 2030 and the vision to 2050.

By 2050 the government’s ambitions are that all 8.5 million households will be carbon-neutral, and a combination of heat sources will be needed to achieve this target. District heating plays a key role in the Dutch climate transition, and multiple networks are being constructed across the country.

Municipal heat transition plans will identify what heating source is most appropriate for specific neighbourhoods – in some areas district heating will be central, and in others, heat pumps may be recommended. The expectation is that by 2050 the share of district heating supply will be between 15-45 per cent.

For any country dependent on gas, building a new energy market is difficult. In the Netherlands, this has been exemplified by the fate of the Heat Act, a consumer protection bill at its heart, setting rules on tariffs and security of supply. The Dutch Cabinet had planned

THE MUNICIPALITIES DETERMINE CATCHMENT AREAS FOR DISTRICT HEATING NETWORKS



Source: Dutch Ministry of Economic Affairs and Climate Policy

to come with a revision that clarifies the role of various stakeholders in the market, with an initial adoption date set for 2021, however the lengthy government formation pushed this to 2022, and debate over the role and responsibilities of municipalities has pushed it to 2023.

The answers may not be the same for each region in the Netherlands, however Swedish companies are able to provide solutions both in the short- and long-terms to help navigate local and national stakeholders in the Dutch market closer to achieving their climate and energy goals. But the maze is complicated and stakeholder relations combined with competitive pricing are needed from Swedish sustainable heating and cooling companies if they want to leverage the potential of the market conditions.

BECOME AN ACTIVE GAMECHANGER

As an historically critical cog in the global gas industry, the Netherlands has a major leap

to make in transitioning reliance away from fossil-fuels to sustainable energy. The political, economic, and social pressure to be energy stable is only set to continue, both from the national and regional levels, but also from a European perspective.

Sweden's approach to district energy, in particular the heating segment, has been a solid foundation implemented in new buildings and renovation projects for decades and has established a reputation for reliability and quality. There is vast potential for Swedish stakeholders from across the entire sustainable heating value chain to enter or expand in the Dutch market in the immediate and long-term.

While the pace of change has been limited by political and practical issues, the need for acceleration is acute if the Netherlands are to reach their carbon emission reduction goals and also create a stable and economically viable district energy provision.

CURRENT HEAT NETWORK PROJECTS IN THE NETHERLANDS



Source: Stichting Warmtenetwerk

THE NETHERLANDS IN THE SPOTLIGHT

A country wide need to transition to green energy is powering substantial growth opportunities, and Swedish companies from across the district energy ecosystem can find opportunities within large-scale procurement projects with both the public and private sectors.



The City of Amsterdam alone has around 645,000 households and approximately 60% of these are expected to be connected to heat networks by 2040 – ten years before the set national target. The City estimates that the accelerated timeline will cost an *extra* EUR 10 billion with an additional EUR 10 billion needed to upgrade the electricity grid, EUR 8.5 billion for extra insulation, and EUR 5 billion for heat pumps.



The Dutch government's Climate Act aims to connect 15–45% of all households to district heating networks by 2050, this would equate to approximately four million households.



The International Energy Agency's review of the Netherlands' plans have recommended that the electricity market's regulatory framework is revised to provide room for innovation and facilitate proactive development of an electricity system that can safely integrate increasing shares of variable renewable generation and support smart grid solutions.



Many Dutch cities have already transitioning their current systems to sustainable alternatives and the publication of 'heating transition visions' maps out the plans for each region. Amsterdam's plan has included a future plan of how they will reuse the heat from the numerous data centres located in the city to put back into the district heating grid.

KEY RECOMMENDATIONS

Swedish companies must take a strategic approach to identifying specific projects within the Netherlands as well as in other European markets to actively participate in tender and procurement processes.

This should include:

- Identifying which segments are prioritising growth and development in the areas where they can offer proven solutions
- Actively pursue relevant partners and supply chain collaborations that will boost attractiveness towards public and private stakeholders
- Build local understanding and networks and focus not on competing, but providing added value
- Consider clustering together with other companies to provide a turnkey solution as a consortium
- Develop a sharp pitch and be ready to sell

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