



Belgium, WALLONIA – regional policy framework

National policies affecting 4th generation District Heating (4DHC) development

- There is **no national approach towards DHC**, and renewable energy policies are almost entirely regionalized (apart from off-shore wind). However, the federal government is mandated to define maximum prices, government assignments, and consumer rights when related to heat networks.

Other national regulations influencing energy efficiency and renewable energy investments, funding programs

- [National Energy Efficiency Action Plan \(2014\)](#): The competences for energy efficiency are distributed to the three regions, with support measures from the federal government. The regions have, each for its own territory, implemented the EPBD and the EED directive; promoted grants for further energy efficiency measures to be taken by households and in tertiary buildings, compulsory audit schemes, awareness raising programmes, etc.; fostered energy savings in industry by signing voluntary agreements (both in Flanders, Wallonia); and promoted renewable energies and cogeneration by setting up green certificates and CHP certificates systems.

Regional or local policies influencing 4DHC development

Currently, there is no strategy targeting specifically district heating and cooling in Wallonia. A [decree regulating the thermal energy market](#) has been debated in 2019 but has not been adopted yet.

In addition, in the framework of the [PNEC 2030](#), regional authorities debated on the topic of heating networks. Nevertheless, initiatives have taken place to develop heating networks at a local level and strategic plans for energy have been adopted over time. Here is an overview of the policies that have the most impact on heating networks:

- The 'wood-energy' plan (*Plan Bois Energie & Développement Rural (PBE & DR)*) approved in 2001 by the Walloon government and whose aim is to help public entities to use forest by-products as fuel as well as to develop a local industry for these resources. [35 heating networks](#) have been created thanks to this initiative.
- Recommendations for the development of a '[biomass-energy strategy](#)' have been approved by the Walloon government in 2016. In particular, it estimates the possible contributions of several sectors to achieve 2,331 GWh of heat production from biomass (see Annex 1).
- The [2016-2022 'Air-Climate-Energy' plan](#) which sets objectives & measures to reduce pollutant emissions, to improve air quality and to adapt to climate changes (see Annex 2). According to the Climate Decree of 2014, an 'Air-Climate-Energy' plan needs to be prepared every 5 years.
- The [requirement](#) to analyse the economic value (NPV and IRR) of CHP and heat network when implementing or renovating an installation producing more than 20 MWh.

Actors of the private sector and public entities who plan to make an investment to improve their energy efficiency can contact [facilitators](#) who will provide them with guidance. They have been mandated by the Region to advise project holders and act as bridges between the authorities and the community. A number of them already worked on heating networks projects.

When it comes to financial support, the subsidies for individuals and part of the private sector that were targeting specifically the network were abolished a few years back. Yet, there is still a number of mechanisms that support directly heating networks or that could benefit them, including:

- [UREBA subsidies](#) for certain public entities and non-commercial bodies to improve the energy efficiency and the rational use of energy in buildings. The subsidies can cover for instance a percentage of the costs to complete an energy audit/accounting or a pre-feasibility study, to produce heat from renewable sources (via heat pumps, solar boilers, biomass boilers) or to install/extend a heating network.
- [AMURE Subsidies](#) for the private sector to conclude energy audits and energy studies.

As a complement to the AMURE subsidies, [branch agreements](#) were concluded between the Region and several industrial sectors. The current set of agreements (second generation) that should have ended in 2020 have been extended to 2023. A branch agreement consists in two parts: firstly, energy audits for companies, and then the design of a roadmap for the whole sector to reduce the CO₂ emissions. Besides, the amounts awarded as AMURE subsidies can be increased and more actions are available in the case a company is part of a branch agreement.

- Investment aids for sustainable energy use ([UDE – Utilisation Durable de l’Energie](#)) for certain private sectors, including subsidies for CHP, biomethanisation installations, heat pumps and others.
- [Easy’Green](#), a support mechanism run by Novallia targeting micro businesses and SMEs who want to improve their energy efficiency at the building level or at the process level via innovative ways and to produce renewable energy.
- [Tax deductions](#) that can be claimed by companies for energy-saving investments, for the production of renewable energy, and for waste heat recovery systems.
- [Regional energy premiums](#) (plus some at the municipal level) for individuals that can be applied to heat pumps, solar boiler, biomass boilers or audits.
- [Green certificates](#) issued for the production of electricity.

While we are looking at the regional and local policies, it is worth pointing out that the Walloon Region supports European funds (e.g. ERDF, EAFRD) influencing DHC.

Local and regional good practices

More than 200 municipalities are acting to protect the climate by participating in the [POLLEC](#) campaign. This program provides financial, technical and methodological support to municipalities who want to be involved in the Covenant of Mayors. The tool box helps them put in place Sustainable Energy (and Climate) Action Plans (see Annex 3), some of which include heating networks.

The [PEP’S Lux](#) initiative, coordinated by the Province of Luxembourg is also supporting the implementation of the Covenant of Mayors. This initiative is intended to make the whole province energy positive by 2050.

Pilot projects are being carried out as well: heating networks projects are developed with the ERDF support:

- i. In Herstal (Liège), an [urban heating network](#) should provide heat from waste incineration to the city,
- ii. In Mons, the [GEOTHERWALL DOUBLET 1 project](#) aims at supplying the area of the Ambroise Paré hospital with geothermal heat (via two new wells);
- iii. In Charleroi, a potential [urban heating network](#) connecting 3 public buildings is currently being studied.

Here are some examples of other good practices:

- i. The [Negundo district](#), an economic activity area which is composed of buildings that are supplied by geothermal heat and heat pump,
- ii. The [use of geothermal heat](#) to dry sludge from the water treatment plant of Wasmuel (Hainaut),
- iii. The [eco-district Domaine des Pléiades](#) (Visé, Liège) is fuelled by a biomass heating network.
- iv. The [cooperative La chaleur d’y vivre](#) (Malempré, Luxembourg) provides heat to the village via a biomass heating network,
- v. The [cooperative Biogaz du Haut Geer](#) (Liège) which uses the heat produced by a biomethanisation unit for its activities and then sells the excess electricity.

BARRIERS to development of 4GDHC

Policy or legal barriers

- There is currently no **regional plan** defining the role of district heating and cooling in the strategy of the region to reduce CO2 emissions.
- For new buildings, the **EBP methodology** is unfavourable and constitutes a real barrier.
- The **timeframe between the readiness of a technology and its actual use** is too long.
- The **plans of buried cables** must be made more easily accessible.

Financial and market barriers

- When it comes to urban mobility or energy, there is a **lot of debate**.
- **Previous bad experiences** may prevent municipalities to take the lead.
- Generally, people tend to **lack information** about the topic. E.g.: minimum level of energy consumption required, EPC contracts, combination of DHC and retrofitting, lifecycle of technologies. It is **difficult to find the right interlocutors**.
- To **collect information** about new technologies and pilot projects **takes time and** requires to dedicate **people** to the task. This is especially the case when it comes to DHC as business models are hardly replicable as such. Time and workforce are **both highly valuable resources** for most businesses.
- **Cross-border transfer of information** is still not enough developed.
- Frameworks to guide discussions involving several players would be welcomed, as DHC projects are often combining private and public participation, with a **lot of different actors around the table**.
- In major cities, buildings are quite different from each other. Thus, people tend to focus on one building or sometimes on a small group of buildings. Besides, answering to public procurements must be done within a limited amount of time. These two reasons **prevent people from looking for solutions at the district level**.
- **Energy is not the prior concern** when designing a project; developers rather focus on the real estate opportunity.
- **Low gas prices also affect projects**.

Recommendations for policy makers

- **Showcase innovative or best practices**, while not forgetting to take into account the lessons from past experiences. **Capitalize on municipalities who conduct pilot projects to motivate others.** Make use of your possibility to access low-interest loans. Wallonia still needs the support of public authorities to develop DHC. Some initiative will fail, but the more projects are there, the more chance to succeed.
- **Develop a long term regional plan**, with binding objectives and/or a charter with levels of ambitions.
- Take the opportunity to consider **connecting public buildings or social housing**, elderly people's accommodations, schools, swimming pools, etc. together when major works are planned.
- **Create a place for discussion** specific to DHC, as **we need more consensus** between the actors. **Invest in human capital** for people to have enough expertise to conduct projects, to apply for European or regional grants. **Broadcast information.**
- **Involve citizens:** they generate ideas and projects, bring investments and knowledge. Plus, cultural change towards more acceptance of DHC is needed. Involving citizens could help facilitate getting their support.
- **Create tax incentives, financial support** for DHC projects, over defined periods of time: project developers need consistency and stability.
- Motivate individuals to **make use of their savings** for example by helping to develop **cooperatives.**
- **Adapt the EBP software to the characteristics of heating and cooling networks.**
- Create a **mapping of the region based on real data** (energy cadastre).

Note

In the frame of the Energy Efficiency Directive 2012/27 – Art. 14, interesting [reports](#) present barriers and solutions for CHP and waste heat. This paper is intended to highlight the most common experiences faced by field actors. It is not intended to be fully exhaustive.

Annex 1 – Heat production

Source: [Recommandations pour l'élaboration d'une stratégie wallonne « Biomasse-énergie »](#), pg.37, by CWaPE, DGO3, DGO4, DGO6 and ValBiom, 21 April 2016.

Sector/Year	2013	2020	2030
Biogas	96	194	286
Incineration	0	40	80
Alternative fuels	1,357	1,373	1,401
Solid biomass - wood	6,471	7,488	9,609
Solid biomass - other	401	431	481

Annex 2 – Emissions reduction objectives

Source: [Plan Air-Climat-Energie 2016-2022](#), pg.5, by the Walloon Government, 2016.

Pollutant	2020 objectives (Gothenburg Protocol & Directive)	2030 objectives (Directive)
SO ₂	43%	66%
NO _x	41%	59%
VOC	21%	35%
NH ₃	2%	13%
PM2.5	20%	41%

Annex 3 – Process of elaborating a Sustainable Energy (and Climate) Action Plan

Source : <http://www.apere.org/fr/pollec-foire-aux-questions>

