



EDITORIAL

Facing the geopolitical and climate crisis, 5th generation for district heating and cooling grids must be even more developed across Europe. Indeed, 5GDHC grids mostly rely on heat recovery, renewable and local energy sources.

The first half of 2022 has been very intensive for the D2Grids project, with many outputs on the pilot sites as well as many contents and events to promote 5GDHC. On the agenda of this newsletter:

- [A new pilot site has joined the D2GRIDS project](#)
- [Bochum pilot site successfully drilled a 2nd borehole](#)
- [A day dedicated to 5GDHC organised in Paris-Saclay](#)
- [\[Case-study\] The 5GDHC grid of Paris-Saclay \(France\)](#)
- [Assessing the feasibility of 5GDHC for your grid: a kick-start tool](#)
- [\[Infographic\] Is a District Heating and Cooling grid 5th generation? Look at the 5 key performance indicators to assess the efficiency of your system](#)
- [Why coupling a self-consumption system to a DHC is interesting? Checking out legal aspects](#)
- [\[Video\] Discover the Brunssum pilot site!](#)

Enjoy your readings,

D2Grids Project Team

D2GRIDS NEWS



A new pilot site integrated into D2GRIDS Project, Plymouth (UK)

D2Grids Project Team

Plymouth City Council is joining the European project D2GRIDS! After working on 4GDHC in the HeatNet project, Plymouth will develop a **new pilot site that aims to expand the heat network infrastructure** to supply a range of public buildings in two clusters of the city. Joining the D2GRIDS project will help the city make an important step towards decarbonising its building stock.

[Read more](#)



D2Grids at Paris-Saclay SPRING event: a day dedicated to 5GDHC!

EPA Paris-Saclay

On May 12th, D2Grids project organised a **day dedicated to 5GDHC grids** during the Paris-Saclay SPRING event.

On the agenda: a **conference** to present the management and operation of 5GDHC grids, and a **serious game** which immersed participants in a hypothetical scenario to deploy a DHC grid in the city of Orleans. To end on a high note, a **visit of the D2Grids pilot site** was offered by our partner EPA Paris-Saclay.

A big thank to all those who came to attend this day!

[Read more](#)



Both boreholes for tapping mine water at the Bochum pilot site successfully drilled!

Stadtwerke Bochum

FUW GmbH, a subsidiary of the municipal utility, and the Fraunhofer Institute for Energy Infrastructures and Geothermal Energy IEG jointly **explored the use of mine water at the MARK 51'7 site**.

Together, they implemented the drilling concept with the drilling company MND Drilling. After the first borehole (340m depth) was successfully drilled in February, the **second borehole, which reaches a depth of about 820 meters, has now been completed**.

[Read more](#)



A look back at the Clyde Gateway Energy Workshops in Glasgow

Glasgow

In early June, Clyde Gateway hosted **workshops for policy makers and industrials** at their brand-new events venue, The Bothy at Cuningar Loop.

The workshops **raised awareness and knowledge of 5GDHC technology** in general and more specifically informed the stakeholders about the investments planned at Clyde Gateway.

[Read more](#)



[Video] Brunssum pilot site: 5th generation heating and cooling grid in practice!

Brunssum

In Brunssum, Mijwater Energy B.V. is **building an energy loop** for the residential complexes of the Weller B.V. housing corporation.

Thanks to the heating and cooling grid of Mijwater, the connected houses are not only **heated, but also cooled without any gas**. This video lets you know everything about this unique project of 5GDHC in practice!

[Watch video](#)

EXPERT INSIGHTS



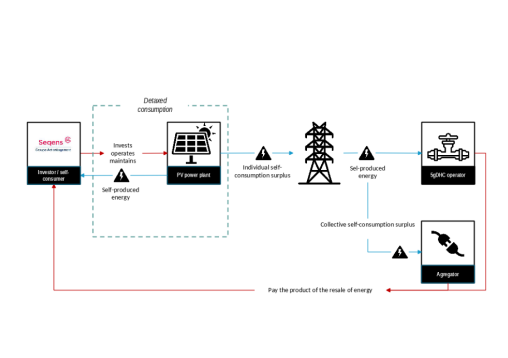
[Infographics] 5GDHC: 5 key performance indicators to assess the efficiency of your system

Mijwater Energy B.V

D2Grids first challenge was about putting forward a **definition of 5GDHC** which resulted in **five core principles**. D2GRIDS partners then took on the new challenge to form a complete set of **KPIs to quantify those five principles**.

If you **know a potential energy system** or you are part of a company that works with or possesses a heating and cooling grid, **please contact us**. You will thus contribute to the creation of a **benchmark of innovative 5GDHC grids**.

[Read more](#)



How collective self-consumption can support the creation of 5th generation district heating and cooling

LLC et Associés

Integrating local and renewable energy: this is one of the 5 principles of 5GDHC grids.

However, this integration may **face some obstacles**: how to overcome the extra costs generated? How to manage the incursion of a heat grid manager into an activity that is not necessarily its core business?

Collective self-consumption helps to answer these questions.

[Read more](#)

ONLINE RESOURCES



A new tool to help you initiate your 5GDHC project

GreenFlex

You are considering 5GDHC for your city and you wish to assess the potential for 5GDHC? This **new tool** developed by D2Grids **will assess your project and provide designs** suited for each situation.

It can be **accessed free-of-charge on the 5GDHC.eu platform**. Preliminary directions given by the tool will help you launch detailed expert studies.

[Read more](#)



[Case Study] The 5th generation heating and cooling grid of Paris-Saclay

Construction21

Get to know **everything about the 5GDHC Paris-Saclay grid**: this case study lists all the different features of the Paris-Saclay 5GDHC grid, from technical solutions to the economic model and governance.

You will also learn more about the **different assets** of this infrastructure in terms of sustainability

[Read more](#)

MEET THE PARTNERS

“As a public utility and a local energy supplier, we started several years ago to integrate renewable energies in our portfolio and also in the heating sector. With the implementation of a 5GDHC-grid we ve now taken the step of building a new infrastructure on a larger scale for the first time, as well as venturing into the development of geothermal energy from greater depths. We believe that this is one of several sensible building blocks for a successful energy transition in the heating sector in the Ruhr Area.”

Dr Frank Peper
Head of the District Heating, Water and Energy Projects at Stadtwerke Bochum Holding GmbH and Managing Director of FUW GmbH

FUW STADTWERKE BOCHUM

AGENDA

[Tuesday 13 – Wednesday 14 September 2022]
[Smart_Energy_Systems_International_Conference](#)

[Monday 26 – Friday 30 September 2022]
[EU Sustainable Energy Week](#)

[Monday 17 – Friday 21 October 2022]
[European Geothermal Congress 2022](#)

PUBLICATION

Overview of District Heating and Cooling Markets and Regulatory Frameworks under the Revised Renewable Energy Directive

European Commission

This study aims at providing a deep **analysis of the DHC market**, as well as the **policy framework and urban regulations** affecting DHC use in buildings and industries. It also aims at studying the various **technical possibilities to further integrate renewable and waste heat** and cold sources in local energy systems.

To illustrate current best practices, **ten European case studies** of DHC systems using renewable energy, waste heat and waste cold sources are analysed

[Read more](#)

ABOUT D2GRIDS

The 5th generation district heat and cold grid (5GDHC) was first developed in Heerlen, Netherlands, by Mijwater Energy Ltd. In contrast to traditional district heating, it is an **intelligent thermal network** based on a **local low temperature loop**. Decentralised energy production, using heat pumps located at the user's premises, allows energy exchange on the network, where flows are **demand-driven**. This concept allows the **recovery of cold and heat emitted by supermarkets, data centers, factories, offices etc.**

D2Grids stands for "demand-driven grids". It is an Interreg Northwest Europe (NWE) project that runs for more than 4 years (2018-2023). Mijwater Ltd, based in the Netherlands, is coordinating the project with **15 other main partners and 6 secondary partners**. **Five pilot sites** located in France, Germany, Netherlands and United Kingdom will develop 5GDHC networks.

More on D2Grids on: nweurope.eu/D2Grids

Visit the platform dedicated to 5GDHC: 5gdhc.eu

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