

[View online version](#)

Newsletter #7

July 2021



Editorial

Over the past few weeks, our European cities have been hit by a succession of heat waves and floods. As the consequences of climate change are felt more than ever in our urban environment, **developing intelligent and sustainable solutions** to tackle these challenges is, now more than ever, essential. **5th generation local energy grids (5GDHC)**, by allowing heating and cooling in a sustainable and circular way, are part of these solutions.

The D2Grids project has made promising progress in recent months towards the deployment of 5GDHC in Europe. The consortium **will now also work on better integration of electrical uses and local renewable electricity production capacities**: good progress in prospect to improve the decarbonisation of 5GDHC networks! Main project outcomes reached to date will be shared with the general public at a mid-term event during the COP26, in Glasgow. Stay tuned, more information will come soon.

Enjoy your reading,

The D2Grids Project Team

D2GRIDS NEWS



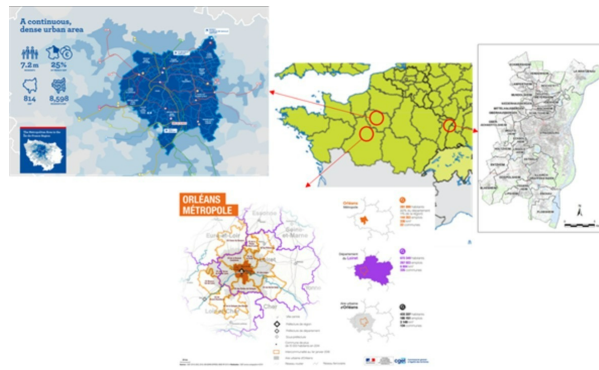
D2Grids project extension: new work ahead on 5GDHC connections with renewable electricity uses!

D2Grids project team

As a result of Interreg NWE's 2nd capitalisation call, in addition to the main project work on the heating and cooling dimensions of closed energy grids, the D2Grids consortium will now also work on better integration of **electrical uses and local renewable electricity production capacities**, to improve the decarbonisation of 5GDHC networks.

A new working group will be in charge of this part of the project work, composed of 7 partners of the initial consortium as well as 4 new partners.

[Read the article and press release](#)



Focusing on deployment opportunities for 5GDHC

BRGM/EPAPS/GreenFlex

The ambition for 5th generation heating and cooling networks is to become a widespread heating and cooling solution throughout Europe. In order to achieve this, the pilot sites must **be a source of inspiration** for other players in the sector.

This article focuses on **the first pilot site** in France, the Paris-Saclay network, but also on the **potential for the deployment** of 5GDHC in other French regions.

[Read more in french](#)



Special Session recording: Innovative district heating and cooling and seasonal storage

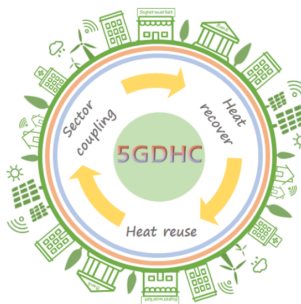
Crossing Boundaries 2021

During the special session of Crossing Boundaries 2021, Herman Eijdens, Director of Innovation at Mijwater Energy BV, presented 5th generation District Heating and Cooling grids, and the frontrunner project Mijwater Heerlen.

This webinar provides an analysis of **success factors**, and how potential barriers **can be breached** towards **successful district heating and cooling and seasonal storage**.

[Watch the replay](#)

Expert insights



District heating and cooling: 5G-ready-to-go?

Stroomversnelling

The 5GDHC principles are **now clearly determined**. Given that the goal is to spread this new concept, the next step is to **clearly understand the KPIs**.

Indeed, rigorous criteria are essential to substantiate the added value of 5GDHC to the energy transition with respect to **older generation heat grids**.

Moreover, this can provide criteria for the transformation of older generation grids to full 5GDHC grids. A **method to define 5G-readiness** is proposed in this article.

[Read more](#)



New generation heating and cooling networks for old buildings: an essential tool for achieving carbon neutrality

Ecotransfaire

It is particularly difficult to implement 5th generation heating and cooling networks in old districts.

As **old buildings represent the majority of our building stock** in Europe, it is essential to take an interest in this issue.

The D2Grids project plans to provide answers to the **specific challenges of connecting a 5GDHC network to older neighbourhoods**. One of the keys could be the establishment of energy communities.

[Read more](#)

District heating and cooling in Europe



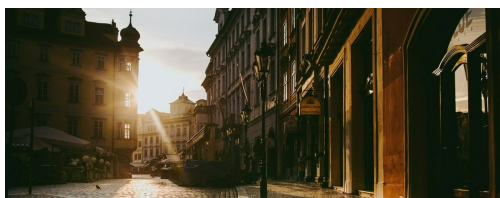
Flexibility Through Multi-Energy System Integration

Celsius City

The EU H2020 project MAGNITUDE developed mechanisms and tools to **provide flexibility to the European electricity system**, by enhancing synergies between electricity, heating/cooling and gas systems.

DHC networks are considered to be the ideal backbone for a highly integrated energy system. They enable the integration of variable renewable electricity and maximise the recovery and utilisation of **locally-available waste heat sources from both the industry and unconventional sources**.

[Read more](#)



A “Fit for 55 Package” under the EU Green Deal: an opportunity for DHC

Euroheat & Power

The European Commission has started working on the “Fit for 55 Package” which includes **initiatives and revisions of existing directives to be aligned with the new 2030 target.**

Some initiatives are of key importance for the district heating and cooling sector, like the **revision of the Renewable Energy Directive**, which considers introducing a **requirement** to use minimum levels of renewables in buildings.

[Read more](#)

Online resources on district heating



[Webinar replay] Solar energy solutions for decarbonizing ULT DHC

RELaTED project

The replay of the RELaTED and WeDistrict webinar on **solar energy solutions for decarbonizing Ultra low temperature DHC network is available.**

After a short presentation of the EU renovation wave’s heating & cooling policies, representatives of the RELaTED and WEDISTRIC H2020 projects presented the **first results** of the [integration of solar technologies in their DHC networks.](#)

[Watch the webinar](#)

Agenda



[Online] Month of July:

[Upcoming Master Classes of the Heat Academy](#)

[SEC Centre - Glasgow (UK)] August 18th - 19th:

[Dcarbonise and All-Energy, Exhibition and Conference](#)

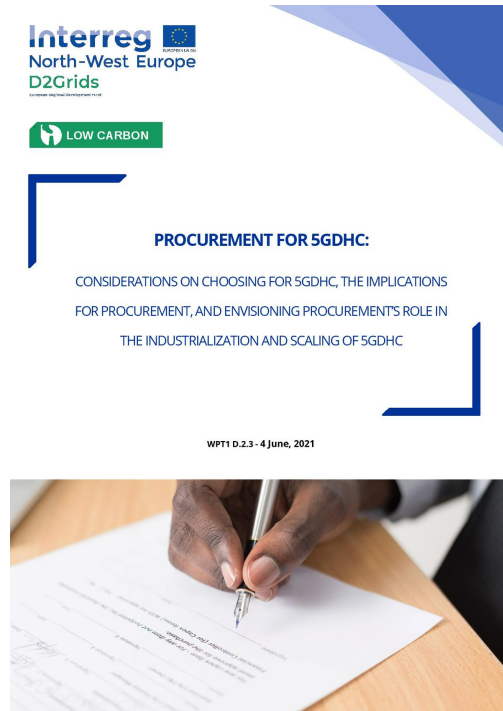
[Karlshamn (Sweden)] August 22th-28th:

[9th International DHC+ Summer School](#)

[Nottingham, (UK)] September 6th-9th:

[17th International Symposium on DHC](#)

Publication



Procurement Guidelines

D2Grids has developed **procurement guidelines** for those looking to develop a 5th generation district heating and cooling (5GDHC) system. [It builds off the guide produced by HeatNet NWE on 4DHC systems.](#)

These guidelines are not meant to be prescriptive, but instead aim to contribute to the goal of industrializing the 5GDHC approach by **identifying suitable procurement processes and development timelines for a 5GDHC system**. As the D2Grids project is still underway, and final technical criteria are to be determined, some aspects of this guide may be updated by project's end.

Read the document

About D2Grids

The 5th generation district heat and cold grid (5GDHC) was first developed in Heerlen, Netherlands, by Mijnwater Energy Ltd. In contrast to traditional district heating, it is an **intelligent thermal network based on a local lowtemperature 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). Mijnwater Ltd, based in the Netherlands, is coordinating the project with **15 other main partners and 6 secondary partners**. **Five pilot sites** located in Paris-Saclay (France), Bochum (Germany), Brunssum (Netherlands), Glasgow and Nottingham (UK) will develop 5GDHC networks.

Know more about 5GDHC on our website !

Join the District Heating and Cooling online community

Twitter  LinkedIn  Flickr  Construction21  Contact 

Have you been forwarded this newsletter? [Subscribe](#) to receive the other ones !

This e-mail has been sent to @, [click here](#) to unsubscribe.

According to the law of Data Protection of January 6th, 1978, you have the right to access, rectify, modify and delete all data referring to you by writing to info@construction21.org.