

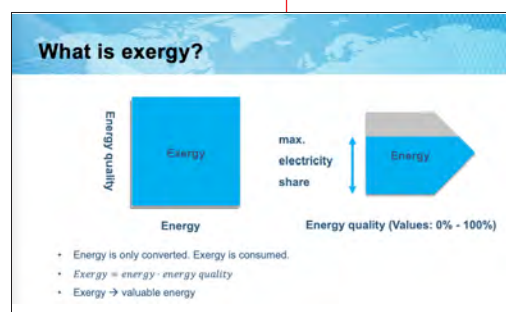
# New Twist on Solar Academy Webinars

The March IEA SHC Solar Academy webinar was a little different from the usual webinars. This webinar tackled a solar heat topic – solar thermal district heating – BUT focused on a specific audience, UK policymakers, and showed how deployment successes in Austria and Germany could be replicated in the UK.

“Making Low Carbon District Heat a Reality in the UK” was the first 2024 webinar of the Solar Academy webinar series. The event opened with the concept of resource exergy analysis, which enables a comparison between heating options based on exergy (energy quantity x energy quality). This allows a focus not solely on energy used but also on overall resource consumption, including energy quality. We expect this to gain prominence as we seek fully sustainable solutions. Analysis based solely on energy will never give a true picture, simply because energy is never consumed, only converted.

The day’s presentations then focused on developments in Germany, where district heating has ‘never had such high significance.’ There are already 55 solar thermal district heating installations, serving small towns and villages as well as cities. Applying this model to the UK context could see a renewed focus on solar thermal-powered heat networks for small towns and villages, particularly for off-gas-grid locations not in scope for a potential hydrogen rollout. However, implementation of solar thermal is generally easier and cheaper where an existing heat network is already in place, which is not often the case in rural settings in the UK. In Germany, challenges in identifying land areas close to towns and cities and their heat networks can often be overcome; this is considered to be a barrier to solar thermal deployment in the UK.

The requirement under Germany’s National Building Act means that every new heating system for houses not connected must either connect or otherwise have a minimum of 65% renewable energy supply. Further assistance for solar district heating will come not only from the €4bn efficient heat networks funding program (BEW) but is expected to focus on shortening the lengthy process of obtaining the necessary building permits. The UK government views heat networks as a vital part of the transition to net zero by 2050 and supports the sector through its Heat Network Transformation Programme (HNTF). As part of this program, the Green Heat Network Fund (GHNF) provides capital grants for low-carbon heat networks, including £485m of funding from 2025-2028. Solar thermal is an eligible heat source for funding under the GHNF. The UK is expecting rapid growth in heat network deployment as it introduces heat network zoning in 2025, anticipating it will deliver around 20% of total heat demand by 2050.



▲ **What is exergy?**  
Source: Andrej Jentsch, IEA DHC



▲ **Example of solar district heating plant in Ludwigsburg, Germany.**  
Source: Guido Bröer

Upcoming Solar Academy webinars. Join us to learn about the SHC Programme's work and results.

- **Solar Hot Water for 2030** -- September 25th and September 27th rebroadcast and live Q&A.
- **Efficient Solar District Heating Systems** -- November 19th and November 21st rebroadcast and live Q&A.

For more information visit, <https://www.iea-shc.org/solar-academy/webinars>.

With the presentation of case study examples, the webinar promoted solar district heating as an important technology combination for securing a sustainable exergy future!

Article contributed by Robin Wiltshire, UK representative, and chair of IEA District Heating & Cooling Programme. To see webinar recording and download presentations, visit the IEA SHC Solar Academy webinar, *Making Low Carbon District Heat a Reality in the UK*.