

ICLEI EUROPE FACTSHEET ON SUSTAINABLE ENERGY SYSTEMS

Energy is at the heart of climate neutrality and thus the European and Local Green Deal.

Current energy systems in Europe are unsustainable. They are still extremely wasteful and inefficient as well as vastly based on fossil fuels and selectively on nuclear, both creating systemic import dependencies with volatile prices, social and political risks.

With the European Green Deal and its underlying initiatives, suitable framework conditions are formed to create an interconnected, resilient and locally rooted energy system. Europe's efforts to become the first climate-neutral continent, however, will mainly depend on enabling local and regional governments to analyse, act and accelerate the transformation of energy production, supply and use across buildings, mobility, industry and agriculture.

A structured approach is needed in order to realise sustainable energy systems and ICLEI advocates for a hierarchical combination of energy sufficiency, efficiency, circular energy flows, renewable energy, and intelligent grids.



Our experts in sustainable energy systems offer training and technical assistance to local and regional governments and represent them in European and global policy processes in order to:

- ★ Provide succinct guidelines with **clear definitions, targets, monitoring systems, and administrative procedures** in order to steer the transformation locally.
- ★ Assist in building new **centralised and decentralised energy infrastructures**, supported simultaneously and in an accelerated manner, in order to reach local climate goals.
- ★ Support **incentivising models for electricity and thermal energy sharing**, and investment in prosumer technologies.
- ★ Establish an **accessible internal market for energy storage and grid flexibility** that privileges energy efficiency and renewable energy services instead of gas or other fossil fuels.
- ★ Create different investment schemes facilitated by local authorities in order to upscale the transformation of such infrastructures, with preference given to those that are **long-term, publicly owned** and oriented towards the **common good**.

“Cities and communities bear the weight of the energy crisis, and are leading ambitious action to transition away from fossil fuels and towards sustainable energy systems. Freiburg is at the forefront of this transition, and is committed to continuing to work with ICLEI to help Europe reach its climate neutrality goals.”

**Martin Horn,
Lord Mayor of
Freiburg,
President of
ICLEI Europe**



ICLEI'S STRATEGIC INVOLVEMENT

ICLEI is part of the [European Covenant of Mayors for Climate and Energy](#). The Covenant of Mayors is a bottom-up initiative that gathers over 11.000 local governments that politically commit to achieve and exceed the EU climate and energy targets. ICLEI is able to facilitate different knowledge transfer opportunities for front-runners as well as initiators.

[REPowerEU](#) represents the European Commission's plan to rapidly reduce the dependence on Russian fossil fuels and accelerate the green transition. ICLEI supports this initiative by e.g. facilitating the creation of Citizen and Renewable Energy Communities.

ICLEI Europe is directly involved in efforts to accelerate the [Renovation Wave](#) and linked efforts to decarbonise buildings and enhance their energy efficiency. Through consultation processes and advocacy efforts, ICLEI is ensuring that subnational perspectives are being considered in these efforts.

[Just Transition Mechanism](#) is one pillar of ICLEI's work related to sustainable energy systems. ICLEI Europe is part of the team that manage the Secretariats for both the European Union's [Initiative for Coal Regions in Transition](#), and its [Initiative for Coal Regions in Transition in the Western Balkans and Ukraine](#) (WBUA), as well as the [WBUA Coal regions exchange programme](#) and the [exchangeEU programme](#) for coal, lignite, peat and oil shale regions in transition in the EU, providing technical assistance to coal and carbon-intensive regions and develops knowledge products.

ICLEI's experience in exploiting the data from the [CDP-ICLEI Track](#) or [MyCovenant Platform](#) shows the importance of carbon reporting and data to achieve real transformation at a local level and mobilise funding from higher levels.

IMPACT

Since 2010 ICLEI Europe has been involved in nearly **100** innovative projects and services with cities working together to address Climate and Energy work in local governments.

Heat savings can cost-effectively reduce the total heat demand in Europe by approximately **30-50%**. ICLEI is actively shaping the thermal transition through contributing to [roadmaps](#), dedicated [knowledge hubs](#), [support facilities](#) and [optimisation tools](#).

50+ of our Members have signed up for the Covenant of Mayors and have developed Sustainable Energy and Climate Action Plans.

44 of our Members have committed to become climate neutral by 2030 as part of the Cities Mission in Europe.

OPPORTUNITIES

The [European Covenant of Mayors for Climate and Energy](#) can be seen as a local authority initiative that translates climate neutrality of the European Green Deal into the local context. Members can benefit from synergies with [Smart City Marketplace](#), [Cities Energy Saving Sprint](#), and through enhanced multi-level dialogue between local, national, and EU-level governance.

Interested in collaborating with us in project proposals and obtaining EU funding to increase ambition to

implement sustainable energy systems in your city? ICLEI Europe offers you its long-standing experience and success in acquiring projects and its network of 200+ partners.

Learn from and connect to more than 2500 local and regional governments worldwide who work on sustainable energy systems.

[Sign up to become a member of ICLEI!](#)

RESOURCES

The current energy transition is not only about shifting from fossil fuels to renewable energy sources, but also about how energy is produced and distributed. **Renewable energy communities**, which are less dependent on the volatility of the European energy market and can provide renewable energy to end-consumers in a fair and transparent manner, are on the rise throughout Europe. Through the projects [Win-Wind](#), [COME RES](#) and [DECIDE](#), ICLEI Europe supports local governments in becoming primary enablers in the development of renewable energy communities.

[THERMOS](#), a free, web-based energy planning software that ICLEI helped develop provides accurate heat and cold network options analysis instantly within one web-based, user-friendly tool designed to **optimise local district energy network planning processes and sustainable energy master planning**.

Innovative support schemes can help **fight energy poverty** and support vulnerable households as they face increasing energy costs. [Sun4All](#) tests a support scheme helping vulnerable households switch to renewable energy while reducing their energy bills. [POWERPOOR](#) also encourages using alternative financing schemes such as energy communities or crowdfunding to support energy poor citizens.

ICLEI Members have access to a variety of tools and resources related to sustainable energy system implementation, such as [case studies](#) and [toolkits](#) on specific topics affecting coal regions in transition such **environmental rehabilitation and repurposing, governing transitions, and transition financing**, a series of [position papers](#) produced by ICLEI Europe advocate for **specific, concrete changes at the EU-level** to help communities adopt more sustainable energy behaviour, and the [CDP-ICLEI Track](#), a major climate reporting platform and progress accountability mechanism.

Connect with us:

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🌐 www.iclei-europe.org/topics/sustainable-energy-systems



ICLEI Europe

ICLEI – Local Governments for Sustainability is a global network working with more than 2500 local and regional governments committed to sustainable urban development. Active in 125+ countries, we influence sustainability policy and drive local action for low emission, nature-based, equitable, resilient and circular development.