SAVING ENERGY FOR A SAFE WINTER

The European Commission supports cities leading the way

20 July 2022

Saving energy is a key factor to quickly make Europe independent from Russian fossil fuels and to reach the goals of the European Green Deal.

In cities, where three quarters of all Europeans live, the potential for energy savings is particularly high. Reducing energy consumption as consumers, businesses, public authorities, and industrial actors – through energy saving and energy efficiency measures – will reduce energy bills and accelerate the EU's clean energy transition.

The EU Mission for 100 climate-neutral and smart cities by 2030

The EU Cities Mission aims to help 100 cities become climate-neutral and smart by 2030. Energy saving measures will be a key part of the Climate City Contracts (CCCs), which all Mission cities will develop and which will involve citizens and local businesses. The CCCs are in the process of being written, but many Mission cities already have projects underway to reduce consumption and save energy.
More information about the Mission and Climate City Contracts:
EU Mission: Climate-Neutral and Smart Cities | European Commission (europa.eu)

The Cities Energy Savings Sprint

is a joint initiative of the Covenant of Mayors, with the European Commission and the European Committee of the Regions, encouraging cities to take measures that will immediately reduce their energy consumption. Read the Toolkit of the campaign, to explore other energy saving measures your city can take and learn more about what local authorities across Europe have already been doing. Covenant of Mayors is the world's largest movement of cities committed to meeting and exceeding the EU's climate and energy targets through climate mitigation, adaptation and energy poverty actions.

Join the Cities Energy Saving Sprint by registering your city to the campaign.

From the REPowerEU plan

"Regions and cities are playing a leading role in developing energy saving measures tailored to their local context. They should launch awareness and information and support schemes, energy audits and energy management plans, pledging savings targets, and ensure citizens' engagement such as through the **European Mission on climate-neutral and smart cities** or the European Urban Initiative under cohesion policy."

Energy savings are the cheapest, safest, and cleanest way to reduce European reliance on fossil fuel imports, e.g. by:

- Readjusting indoor temperatures of public buildings, which can lead to significant public energy savings
- Improving public lighting, which can substantially reduce electricity bills
- Incentivising the use of public transport, which can curb the demand for diesel and petrol
- Disseminating energy saving advice, which helps citizens reduce their energy expenses and join the collective effort

Cities that are part of the **EU Mission for 100 climate-neutral and smart cities by 2030** and of the **Cities Energy Savings Sprint** are already reducing energy consumption. A non-exhaustive selection of examples:

AACHEN (Germany)
optimising energy use in public institutions

The municipality is adapting the temperature in administration buildings, schools and other public facilities and converting to LED in indoor and outdoor lighting as well as switching off exterior lighting of representative public buildings.

AMSTERDAM (Netherlands)
lowering district heating's temperature

In March 2022, Amsterdam drastically reduced its dependence on gas by decreasing heating temperatures in public buildings from 21°C to 18°C, with the exception of sensitive areas, such as hospitals and archives.

BRUSSELS (Belgium)
campaigning for more bikes

Brussels launched Bike for Brussels, a campaign that encourages biking to move around. The public awareness programme focuses on catch phrases and jokes to increase the visibility and to discourage private car use.

CLUJ-NAPOCA (Romania)
switching to public electric mobility

The municipality introduced solar-powered electric buses, trolley buses and trams, created dedicated bus lanes, and offers free public transport every Friday, resulting in over 50% primary energy savings and reduced pollution and CO2 emissions.

COPENHAGEN (Denmark)
taking the leap into energy optimised buildings

Energy Leap, a partnership comprising Copenhagen, HOFOR and more than 40 private and public-sector property owners and administrators, supports the energy optimisation in housing units and offices representing 25% of Copenhagen's total building stock.

IOANNINA (Greece)
revamping urban lighting

The municipality is replacing old streetlights with new LED lights, leading to a reduction of energy consumption by more than 80%. Upgrading urban lighting and road infrastructure energy performance and managing consumption in public buildings via sensors generates further energy savings.

LYON (France)
keeping the speedometer in check

Lyon reduced the speed limit in inner-city roads to 30 km/h in 84% of the city's drivable area. The initiative decreases petrol consumption and promotes the use of public transport and bikes to move faster across the city and making streets safer for drivers and pedestrians.

PARMA (Italy)
making schools sustainble

The municipality has already reached 55% energy savings by improving the energy performance of all municipal kindergartens and 20 schools. Within the next decade, all municipal schools will see efficiency interventions.

PORTO (Portugal)
switching to renewable electricity

Since 2020, electricity used in municipal buildings and services is sourced from 100% renewable origin. Related annual emissions are reduced by 16,5 tons CO2eq/ year, which saves € 2.6 million.

SOFIA (Bulgaria)
implementing energy efficiency in municipal buildings

In recent years, at least one energy efficiency measure has been implemented in 95% of the municipality's 700+ buildings, including green energy production and smart utilities.

STOCKHOLM (Sweden)
using artificial intelligence to reduce energy use

Artificial intelligence sensors in school buildings have led to a reduction of energy use by 35%. The City has also set a standard energy policy for new constructions, going beyond national norms.

TAMPERE (Finland)
using lake water to cool buildings

Tampere is using water from lake Näsijärvi for its district cooling network. Water that has absorbed heat from buildings is used to warm Tampere open-air swimming pool in summertime before it is directed back to the cooling plant.

VALENCIA (Spain)
supporting SMEs through energy advice

Valencia relaunched Negocio Local Sostenible, a self-financed platform to support local small and medium enterprises (SMEs) to unlock energy savings by providing free energy advice and audits to decrease utility bills.

WARSAW (Poland)
pursuing an extraordinary LED rollout (new)

The Municipal Roads Authority agreed to substitute 52.600 incandescent lamp bulbs across the city districts, striking a balance between achieving both improved visibility at night and greater cost-efficiency.

Selection of Horizon 2020 projects contributing to energy saving and energy efficiency in cities

The EU invested €3.1 billion in urban projects during the period 2014-2020, of which more than €420 million were invested in lighthouse projects mainly focusing on energy (including energy efficiency) , ICT and mobility.

Horizon 2020 RESPONSE seeks to establish a strategic vision for Smart Cities Energy Transition: Climate-neutral cities by 2050. RESPONSE supports the lighthouse cities of Dijon (France) and Turku (Finland) and their fellow cities Brussels (Belgium), Zaragoza (Spain), Botosani (Romania), Ptolemaida (Greece), Gabrovo (Bulgaria) and Severodonetsk (Ukraine).

Under **Horizon 2020 POLICITY and CITYZEN** projects, 76,000 m^2 residential buildings were renovated with energy savings of 70% contributing to the implementation of the EU Directive for Energy and performance of buildings.

Horizon 2020 POLICITY delivered new constructions and generation of energy supply in Cerdanyola del Valles near Barcelona (Spain). It converted the old city area of Turin (Italy) with energy distribution and regenerated a former military ground in Ostfildern near Stuttgart (Germany) with new constructions with biomass heat and electricity supply.

CITYZEN yielded savings of 35,000 tons CO2 per year and renovated 76,000 m^2 residential buildings in cities, such as in Amsterdam (Netherlands) and Grenoble (France).

Horizon 2020 SmartENCity is using renewable energy sources for heating and smart lighting. It has retrofitted about 2,500 dwellings benefitting about 29,000 inhabitants, and generating energy savings of about 30,000,000 kwh/y and a CO2 reduction of about 19,000 tn/y in Vitoria-Gasteiz (Spain), Tartu (Estonia) and Sonderborg (Denmark). These solutions were replicated in Lecce (Italy), and Asenovgrad (Bulgaria), benefitting 29,300 inhabitants and generating energy savings of about 30,000,000 kWh/y.

Horizon 2020 ATELIER showcased innovative solutions and integrated the built environment with smart mobility and technologies to produce energy in Amsterdam (Netherlands), Bilbao (Spain), Bratislava (Slovak Republic), Budapest (Hungary), Copenhagen (Denmark), Krakow (Poland), Matosinhos (Portugal), and Riga (Latvia). Overall, these cities have been generating an energy surplus of 1,340 MWh of primary energy and saved 1,7 kt of CO2 and 23 t of NOx-emissions.

Urban Innovative Actions project examples

LEIEDAL (Belgium)
cutting the demand for raw materials for renewable energy installations and saving energy

On a heritage site, the Leiedal Intermunicipal Association is using a direct current (DC) power grid, linking a collective set of distributed renewable resources (PV and wind) and energy storage. This leads to more efficiency in energy savings and material use.

GETAFE (Spain)
supporting households affected by energy poverty

Getafe is tackling the problem of energy poverty. An “Energy Poverty Intelligence Unit” in the municipality is using a system that collects information on energy consumption, income and other factors determining energy poverty in households. The municipality then develops tailor-made solutions for affected households.

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