Solar energy for the environment vienna

Vienna’s first citizens’ power plant opened on 4 May 2012 on the premises of Donaustadt power station, and Wien Energie has been expediting the expansion of the model ever since. Over 30 solar and wind plants are already supplying the city with carbon-free energy. The thousands of local investors and the continued high levels of interest in the model demonstrate the Viennese public’s strong commitment to climate action.

A secure, affordable, environmentally sound, needs-based energy supply is and remains one of the most important prerequisites for the city’s high quality of life and economic development. The Smart City Wien Framework Strategy envisages that by 2030 30%, and by 2050 70% of Vienna’s final energy consumption will originate from renewable sources. This requires both investment in power plants within the urban area as well as imports of renewables from the surrounding region and/or via long-distance cables. The citizens’ power plants are making a major contribution to renewable power generation within the municipal boundaries and in the wider region and are thus helping to meet the energy targets of the Smart City Wien Framework Strategy.

If you are interested in investing in a Wien Energie citizens’ power plant, visit the Wien Energie website and/or sign up for the newsletter.

The city of Vienna and its wholly-owned energy provider are testing a range of participatory approaches to meet the city"s decarbonisation goals. From sustainable urban planning, through geothermal engineering to blockchain technology, Vienna is contributing new ideas and sustainable solutions for the city of tomorrow.

By Herbert Hemis, City of Vienna

The city of Vienna is Austria"s cultural and economic centre. The metropolitan area houses almost a third of Austria"s 8.9 million inhabitants. Vienna is also on track to becoming the country"s centre for green energy: by 2050, the city aims to meet half its energy consumption from renewable sources - and be close to fully decarbonised for heating and cooling.

These and other goals are in the Smart City Vienna Framework Strategy 2019-2050[1]. Other strategies, like the Energy Framework Strategy 2030,[2] the Urban Development Plan and the Climate Protection Programme share this perspective. There are many approaches towards decarbonisation taking place. Here we will present three: new energy zoning plans, new methods of energy supply for heating and cooling, and finally some initiatives of the city-owned provider, Wien Energie, including citizen-owned power plants and the decarbonisation of district heating.

Energy zoning plans: in the orange zones, only high-efficiency energy solutions for new buildings are allowed.

Source: City of Vienna - Department for Energy Planning

The Department for Energy Planning is working on upgrading the energy zoning plans through extending the regulations for the building stock. There are many buildings which are connected to gas and district heating or have different energy systems for each apartment. It is more efficient to use just one system in one building and in some areas, it is possible to find cross-building solutions so that renewable generation, energy demand and energy storage are linked up. The biggest challenge for decarbonisation is the transformation of the building stock - to switch from a fossil energy system to renewables or high-efficiency systems.

Housing (especially heating) and transport are responsible for 90% of Vienna"s energy consumption, which is why the city administration is especially eager to cut down emissions in these sectors.

Vienna"s municipality owns 220,000 apartments - more than any other municipality worldwide- many of which are now being remodelled to become more energy-efficient. All new buildings constructed under the subsidised housing programme, as well as all new school buildings, will run on 100% renewable energy. Similarly, ambitious plans exist for the transport sector: the city is investing in public transport and cycle lanes, with the aim that by 2030, eco-friendly modes of transport will make up 85% of the total.

Apartment complex MGG22 is an example of the new approach. A residential complex of about 155 apartments, located in Vienna"s 22nd district, MGG22 has an innovative energy system.