



Case Study



Woking, United Kingdom - Renewable Energy at City Level

Woking has 68,000 inhabitants and is situated close to London, UK in the oceanic temperate climate zone. The Woking Borough Council is at the forefront of decentralized city energy supply in the United Kingdom. It has pioneered the development of network of over 60 local generators, including cogeneration and tri-generation plants, photovoltaic equipment and a fuel cell station. These facilities have been established to power, heat and cool municipal buildings, and social housing. The council has achieved this through the establishment of two energy and environmental services companies, the Thamesway Ltd. and the Thamesway Energy Ltd which are solely owned by the Woking Council. In order to fully capitalise on its energy innovations, the expertise of the private sector was required to implement larger projects. Thamesway Energy Ltd. developed a private power network, and since this was done privately, it was able to avoid charges normally associated with the use of the grid. By circumventing these costs, it has been able to fund wires and generation to deliver low emission electricity in competition with conventional suppliers. This privatisation and decentralisation has enabled the cost of energy to be cut by nearly half. CO₂ emissions have been reduced by a massive 77.6% since 1990. The key to success has been technical innovation, such as combined heat and power generation (CHP), absorption cooling, private wire systems, and the partnership with the private sector, financial and commercial innovations, and the use of local electricity balancing and trading.

References

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Credentials

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