

On the path to Net Zero:  
OnGen and Tower Hamlets  
Council case study.

Using OnGen Expert™, the  
London Borough of Tower  
Hamlets identified  
renewable generation  
opportunities to save up to  
287 tonnes of carbon  
annually.

## Case Study



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# Overview



In March 2019, the London Borough of Tower Hamlets became one of the first councils to declare a climate emergency – a declaration now shared by over 300 other UK councils. By setting an ambitious target of becoming a net zero carbon council by 2025 and a net zero carbon borough by 2045 or sooner, the organisation knew that inaction over their carbon footprint was not an option.

Energy related emissions accounted for 73% of Tower Hamlets Council's total emissions. Therefore, it was vital that an energy strategy and business plan were established to reduce carbon emissions from the council's building portfolio. OnGen's unique, award-winning, software, OnGen Expert™, was introduced to help analyse and choose the best onsite zero and low-carbon energy generation options to reduce emissions and maximise value for money.




Jack Dash House

“The OnGen Expert™ has really helped us on our journey to installing Solar PV across the Council's estate to help us achieve our net zero ambitions. The OnGen Team provided fantastic support in getting our sites assessed for their suitability for Solar PV. The reports that are generated from these assessments clearly provide all the information we needed so we could easily identify the sites that we could take forward for this project. Without OnGen Expert™ the process of identifying these sites would have taken a lot longer.”


David Esdaile, Sustainable Development Team, London Borough of Tower Hamlets.




# Results



287 tCO<sub>2</sub>e  
of annual carbon savings



16.9 tCO<sub>2</sub>e  
average carbon savings  
per site



5%  
Average IRR



£1,820,100  
Total NPV



6.3 years  
average payback



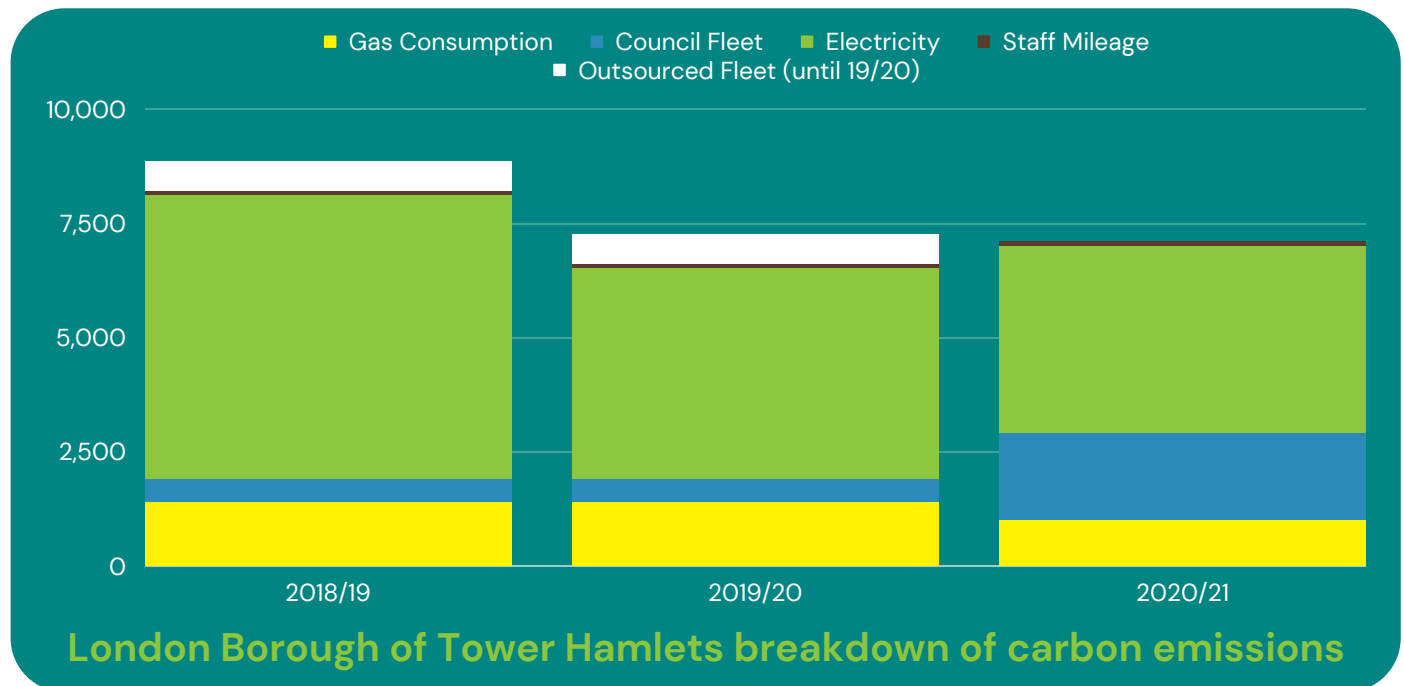
# Approach



Employing OnGen's efficient Managed Service, the Council used the OnGen Expert™ platform to analyse a large portfolio of sites to build the business case for switching to onsite renewable energy generation. The software provided accurate and impartial information regarding multiple renewable technologies and allowed the council to model the exact energy demand, architectural features and geographical constraints of all their sites. This helped identify which projects were most beneficial for not only carbon reduction but also cost-saving.

By accessing OnGen Expert™, users were able to construct a straightforward, detailed and presentable business plan for decarbonising the site portfolio.

The transparent business plan that was created using OnGen Expert™ enabled Tower Hamlets to provide a clear plan to the Greater London Authority's procurement framework, which in turn helped gain the support of the council's carbon offset fund. Generated reports have since helped inform an onsite renewable deployment strategy for May 2023. The carbon offset fund is generated from new developments in the borough that do not meet energy efficiency standards and subsequently face an offset cost for every tonne of carbon over the requirement. Money generated by the fund is then utilised by the council to support carbon reduction projects throughout the borough, including the ones recommended by OnGen Expert™.





# Outcome



Solar PV proved to be the most sensible investment for the council, offering various environmental as well as financial benefits. By producing no emissions whilst converting to electricity, solar power offers the council an effective way of generating electricity whilst simultaneously reducing its carbon footprint.

Decreasing the amount of electricity imported from the grid also means the council can make effective steps towards reducing energy costs at many of their sites. This comes from the premise that every unit of energy generated and used by the solar PV system is one less that the council needs to purchase. Such a cost effective measure is valuable at a time when energy costs are ever increasing.

Tower Hamlets Council's use of OnGen Expert™ to implement changes in accordance with their net zero pledges has gathered a positive response amongst district residents, businesses and local government institutions throughout the country. Moving forward with onsite solar PV is a very clear and visible indication of the council's positive environmental commitment and plan for the future.



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