

Case study

Supporting an **Independent** Energy System for Cornwall

Advances in energy storage technology have moved renewables from the periphery to the centre of many governments' energy plans. That's because clean, efficient electricity, which previously would have been lost if not used at the time of production, can now be stored to meet periods of high demand. Combined with increasingly efficient renewable technology and localised energy networks, this smart technology is now transforming the world's energy systems. An area of the UK at the forefront of this 'energy revolution' is Cornwall.

Already having one of the best wind resources in Western Europe and highest levels of solar irradiation in the UK, Cornwall also has a huge potential for using geothermal energy and offshore renewables. Understandably then, Cornwall Council commissioned us to produce a comprehensive report, in non-technical language, that would give them a complete understanding of their existing energy situation, as well as of the numerous opportunities available to take their system forward and maximise the benefits of smart and renewable technologies.

We began by mapping existing and future energy supply and demand using detailed calculations, developed in-house, which allow us to project the energy demand of future buildings based on proposed regulatory changes. We also examined the various network constraints and their impact on economic growth; conducted a high level analysis into energy storage options; demonstrated how

to further increase renewable energy generation; and explored potential investment opportunities, including the use of storage to offer services to the local and national electricity networks.

We presented our findings to the council in a series of workshops, beginning with an overview of the current situation and the opportunities available, and culminating in recommendations for future project prioritisation. We then sent the council a detailed report of our findings, in accessible, non-technical language, which gave them a clear understanding of how Cornwall can prosper from the smart energy revolution.

Advances in smart and renewable electricity are changing the world's energy systems for good but, in periods of change, obstacles and uncertainty will inevitably arise. This is where Encraft's independent consultancy service comes into its own. Our experts have a comprehensive understanding of these energy systems, and can accompany you throughout your transition to smart and renewable energy, putting you in a position where you can maximise the many benefits available from these exciting technologies.

If you would like further information, please contact [Archie Corliss](#), Consultant within our Distributed Energy Projects team.

