

Case Study



The Killerton Estate

Killerton, near Exeter, is one of the largest National Trust estates. It covers over 6,400 acres including 20 farms, 250 cottages and Killerton House, built in 1779 for the Aclands, one of Devon's oldest families. Around 139,000 visitors enjoy the wonderful house, gardens and landscapes every year.

The National Trust is already leading many initiatives towards cutting carbon emissions, and sharing their assets for greater community benefit.

The regional management team wanted to better understand their vulnerabilities to rising fossil fuel prices and potential supply disruption, with dependence on oil of particular interest.

Transition Training and Consulting was engaged to conduct an **Energy Resilience Assessment (ERA)** at Killerton.

This property was chosen for its similarity to others around the region, so the findings and recommendations would have the widest possible application.

Transition Training and Consulting

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The questions

Working with the management team, TTandC consultants identified several priority areas suitable for further analysis and representing, collectively, over half of the property's income streams.

These included rental income, visitor admission income and direct energy use.

Specific questions were then used to frame the project, for example:

"How does the petrol price influence the behavior of our visitors, and what's the threshold price that will stop them coming by private vehicle?"

"How vulnerable is our rental income to carbon/energy-related legislation imposing an increasing cost burden on us to improve the energy efficiency of our let cottages?"

"How might let cottages with lower energy efficiency ratings impact tenant's utility costs, and therefore their total cost of rental and in turn, the 'lettability' of that property at reasonable rates?"



The findings

94% of visitors drive to the property, with an average return journey of 66 miles. Petrol price increases projected by the end of the year were already reached in May.

Previous fuel price spikes in 2008 resulted in 28% of older drivers (a key NT market) making a conscious decision to drive less, with leisure pursuits cut first.

Fuel price forecasts were used to model impacts on visitor numbers and on related admission and shopping/catering income.

This modeling indicated that significant and sustained declines are likely but that they could be somewhat balanced by increased visitors to the South West due to improved local climate (one possible scenario).

The vulnerability of rental income to energy costs and constraints was also considered, with Killerton's tenants reporting average energy costs of 17% of rent.

OFGEM forecasts of electricity cost increases of up to 46% by 2015, and gas by 54%, suggest that tenants will take energy efficiency ratings increasingly seriously, resulting in cottages with lower ratings failing to command the best market rates.

The cost of bringing all let properties up to an internal 'minimal' energy efficiency standard equates to a significant 27% of total current income for the next 4 years. Protecting this income stream, of course, also reduces the carbon footprint.

"This work has provided intriguing insight into our current energy related vulnerabilities at this property, the means to mitigate them and also pointers for our strategic planning. We would like to develop the Transition concept over the whole estate, and also feel the estate could be used to pilot a different internal investment model based on mitigating future income risks."

Philip Smart, General Manager, Killerton Estate

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The outcomes

The ERA identified key areas of energy vulnerability at Killerton and, specifically, the need to:

- (1) retain as many of the current visitors as possible by addressing their car dependence and
- (2) grow new, more diverse low-carbon income streams that offset any drop in visitors, e.g. producing food for the local community, offering training courses, producing building materials from the estate and so on.

Killerton is exploring ways to help tenants access low-cost or no-cost energy efficiency measures and grants.

Some of these grants are available to communities, not to landlords, so Killerton aims to help seed a local 'transition initiative' with whom they can work to address tenant energy concerns, help protect tenants from fuel hardships and build a stronger, mutually beneficial relationship with the local community, possibly leading to creation of an Energy Descent Action Plan for the area.

The Energy Resilience Assessment has also led to further analysis to better understand visitor travel behaviour and to identify 'local' versus non-local visitors, and related spend.

TTandC is now building on this work alongside the management team to maximize Killerton's resilience to future energy, resource and economic shocks.

