



### Background

Astley Signs, one of the leading UK suppliers of commercial signs approached Narec to help them to identify how renewable energy could be used to provide power to illuminate their signs.

Power consumption of sign illumination has been reduced by replacing traditional fluorescent tubes with LED technology. Moving to renewable energy generation would further lower carbon output and reduce energy costs as there will be no cabling requirement to connect the signs to a power supply.

### Project Outline

Narec carried out a technical and financial feasibility study exploring the integration of renewable energy systems to supply power for signs. Two applications were assessed for using renewable technologies to generate electricity to offset the power used by the signage.

The first application is for the petrol station price display totem and the second application is in the form of a 6m x 2.5m LED illuminated retail unit display.

The energy output from these systems was calculated in line with the feed in tariff revenue and compared with energy demands of the signs.

### Project Outcomes

The study found that the electrical load requirements of signage can be vastly reduced by the introduction of LED's, however, the potential for illuminating large signs using renewable energy is limited.

Grid connected systems may be suitable in offsetting the energy used by the signs. The grid can be regarded as an almost infinite energy store.