

## Urban Solar-Hydrogen Economy Realisation (USHER)

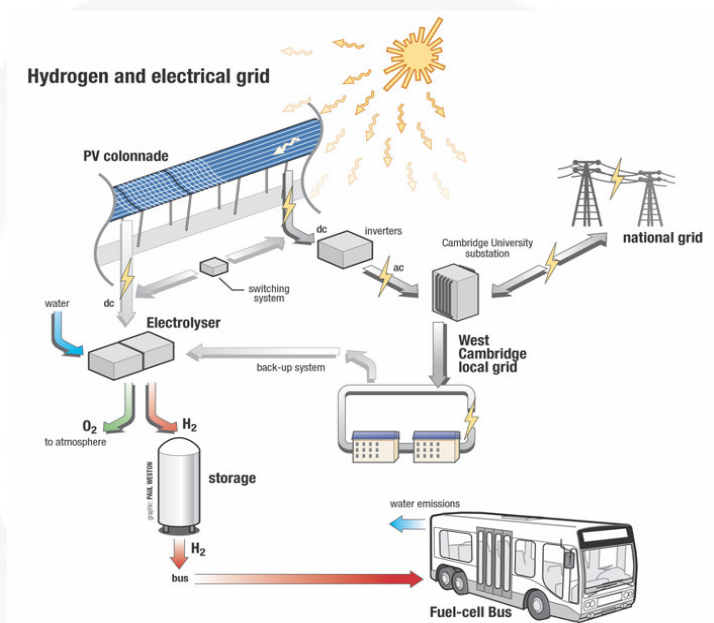
**client:** University of Cambridge, UK.

**client brief:** Develop a strategy for a sustainable transport infrastructure fuelled by photovoltaic generated hydrogen.

**our solution:** Design and techno-economic analysis of PV colonnade and hydrogen infrastructure. Assessment of suitable bus technologies. Project coordination, and strategy development.

**description:** The EC USHER project was aimed at developing two sustainable energy transport systems, one on the Swedish island of Gotland, and the other at the University of Cambridge West Cambridge site. Both projects were based around hydrogen powered buses fuelled by hydrogen created using photovoltaic generated electricity, enabling a truly zero-carbon transport infrastructure to be created.

Element Energy directors Shane Slater and Ben Madden developed a strategy for the implementation of the Cambridge project, including detailed techno-economic analysis and design of the PV colonnade (projected to be the largest in the UK at 280kWp), and assessment of suitable hydrogen infrastructure and vehicles.



*Zero-carbon transport concept using buses fuelled by hydrogen generated by electrolysis using PV electricity.*

*280 kWp PV colonnade design.*

