Integrated energy solutions

New opportunities in energy management

There are considerable savings to made in reducing the operational costs of facilities by undertaking a program of energy demand management, strategic investment in energy efficiency technology and onsite energy generation and storage.

Efficiencies will effectively reduce an organisation's greenhouse gas emissions profile in line the Federal Government's affirmation of its commitment to the Paris Agreement for climate action beyond 2020 [1].

An Energy Management Program also provides an opportunity for a company to review its operations in view of the United Nations Sustainable Development Goals (SDGs)[2] of which Australia is also a signatory [3].

Energy contracting: review current costs of your energy contracts through this no cost, no obligation service which will confirm whether or not your organisation's properties are currently paying the lowest available cost contracts for energy provision (electricity and gas). See:

www.leadingedgeenergy.com.au/rethink-sustainability

Energy Demand Management: a range of technologies are now available that will deliver significant energy efficiency improvements in normal use and subsequent costs reductions. We offer premium advice in LED lighting, refrigeration/heating ventilation and cooling efficiency and hot water.

Renewable energy generation: The cost of photovoltaic solar panels has reduced significantly in recent years and there is considerable opportunity to reduce costs through generation of electricity onsite.

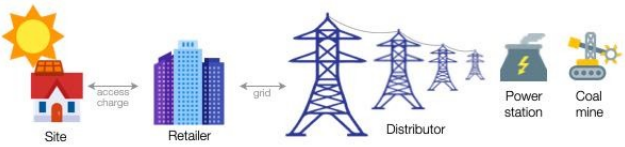
Depending on location and tariff structures, small scale solar systems up to 99kw can typically be paid off in less than three years. Larger systems are also now economical as digital energy management technologies come into play.

Energy storage: the cost of battery storage is also decreasing and may be an economic alternative in sites when coupled with either solar or wind generation. The emergence of hydrogen technologies are also redefining the concept of energy storage and reuse.

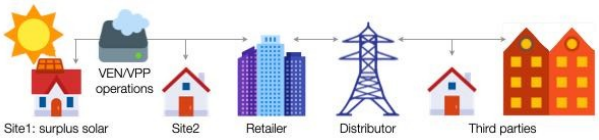
As Australia transitions from the current centralised, 80% fossil fuel powered electricity grid to one with increasingly distributed renewable energy resources (DER), there will be many opportunities to create greater value for electricity consumers. A Virtual Energy Network (VEN) is one such opportunity.

Virtual Energy Network: our VEN platform will transform the way in which energy is managed from the traditional site by site model, to a model which allows control over how energy is sourced, generated, stored and distributed amongst existing portfolio and/or independent sites.

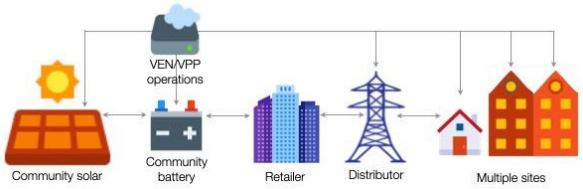
1.Traditional energy sourcing



2.Integrated energy solution (VEN)



3.Community energy participant



Hydrogen opportunities: The global energy sector is transforming. The way we make, move, store and use energy is changing quickly. Australia's future energy system will need clean, flexible, storable, and safe fuels. Hydrogen has all of these characteristics [4].

Hydrogen technologies now enable us to think about it as an "emissions free, lossless battery". The Australian National Hydrogen Strategy is initially concentrating hydrogen use in niche hubs that will foster domestic demand.

Through our partnerships and capacity to develop integrated energy solutions we are able to assist in your consideration of hydrogen as an alternative energy source. Our ability to design projects, coordinate markets and the provide new technologies (electrolysers and fuel cells) powered by Australia's abundant renewable energy confirm this opportunity.

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[1] http://www.environment.gov.au/climate-change/government/international/paris-agreement

[2] https://dfat.gov.au/aid/topics/development-issues/2030-agenda/Pages/sustainable-development-goals.aspx

[3] https://www.sdgdata.gov.au/

[4] https://www.industry.gov.au/strategies-for-the-future/growing-australias-hydrogen-industry