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Pairing large scale PV with storage

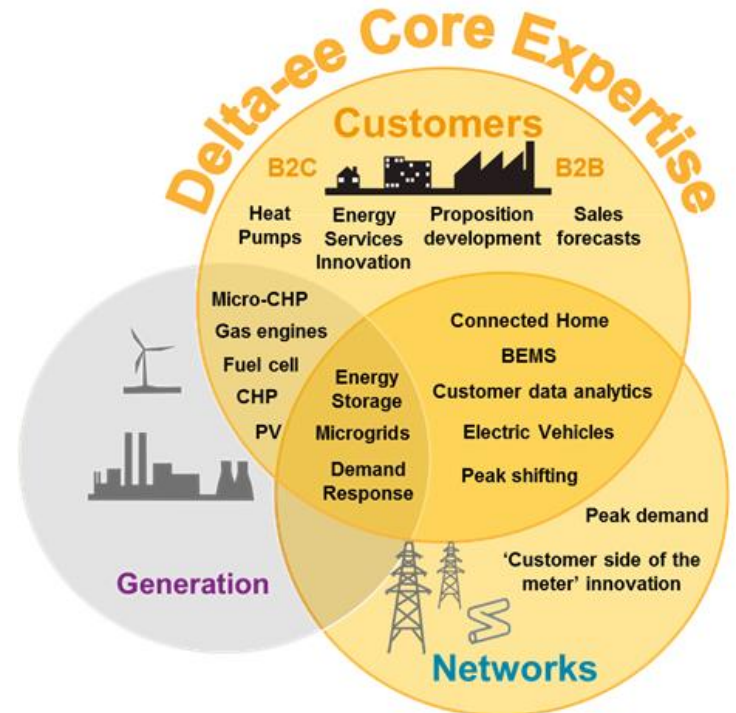
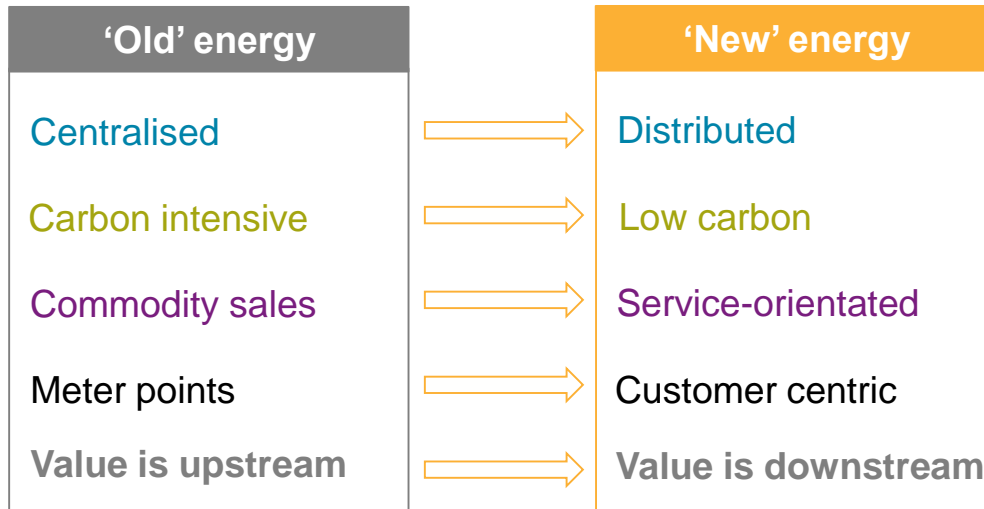
Delta-ee Energy Storage Research Service

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Delta-ee: Advisory services to succeed in the transition from 'old' energy to 'new' energy

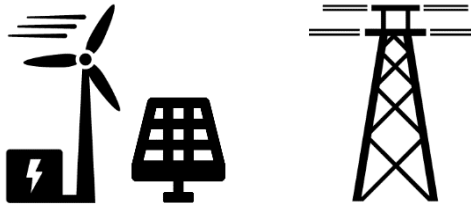


- ▶ Currently the market primarily focuses on using Lithium technologies for applications with PV.
- ▶ While storage tech is important, the bankability of projects currently is determined by other factors:

- ▶ Location



- ▶ Application

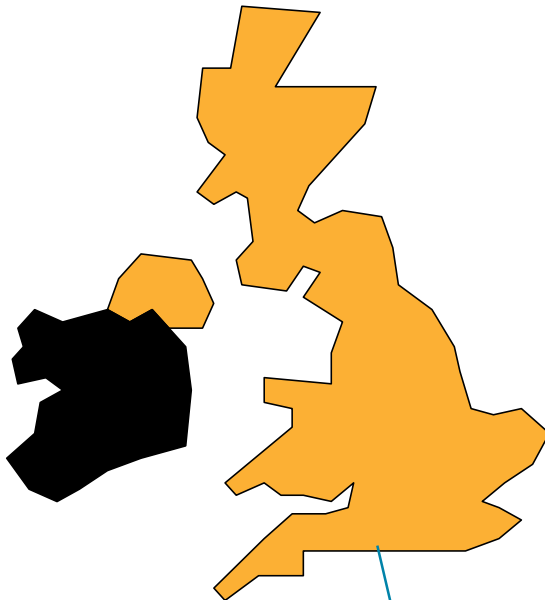


- ▶ Attractive markets for utility scale PV and energy storage: Australia, Canada, France, South Africa, US, UK
- ▶ Key applications: Islanded grids / Microgrids, RE integration, need to expand capacity

UK: While the economics for large scale PV co-located with battery do not stack up, the interest is growing.

Current Drivers:

- ▶ Microgrid / islanded grid applications
- ▶ Expansion of renewable generation capacity in areas with more grid constraints (especially South West)
- ▶ Enables use of assets for ancillary services



The Somerset Project (2016)

0.5MWh ES with 0.5 MW PV



French Island tender (2016) distribution of solar PV capacity (total 51.8 MW, 33 projects) – Planned energy storage capacity not yet published

Toucan Project, French Guyana, 2014 2 MW / 4.5 MWh (EDF Renewable Energy, Nidec, Fiamm).

French Guyana
5.2 MW
2 Projects

Corsica
18 MW
8 Projects

Alata Solar Smart Grid, Corsica, 2015, 2.4 MW / 4.3 MWh (ENGIE, SCLE SFE)

La Reunion
8.5 MW
9 Projects

2016
ZNI
Tender
Results
(PV)

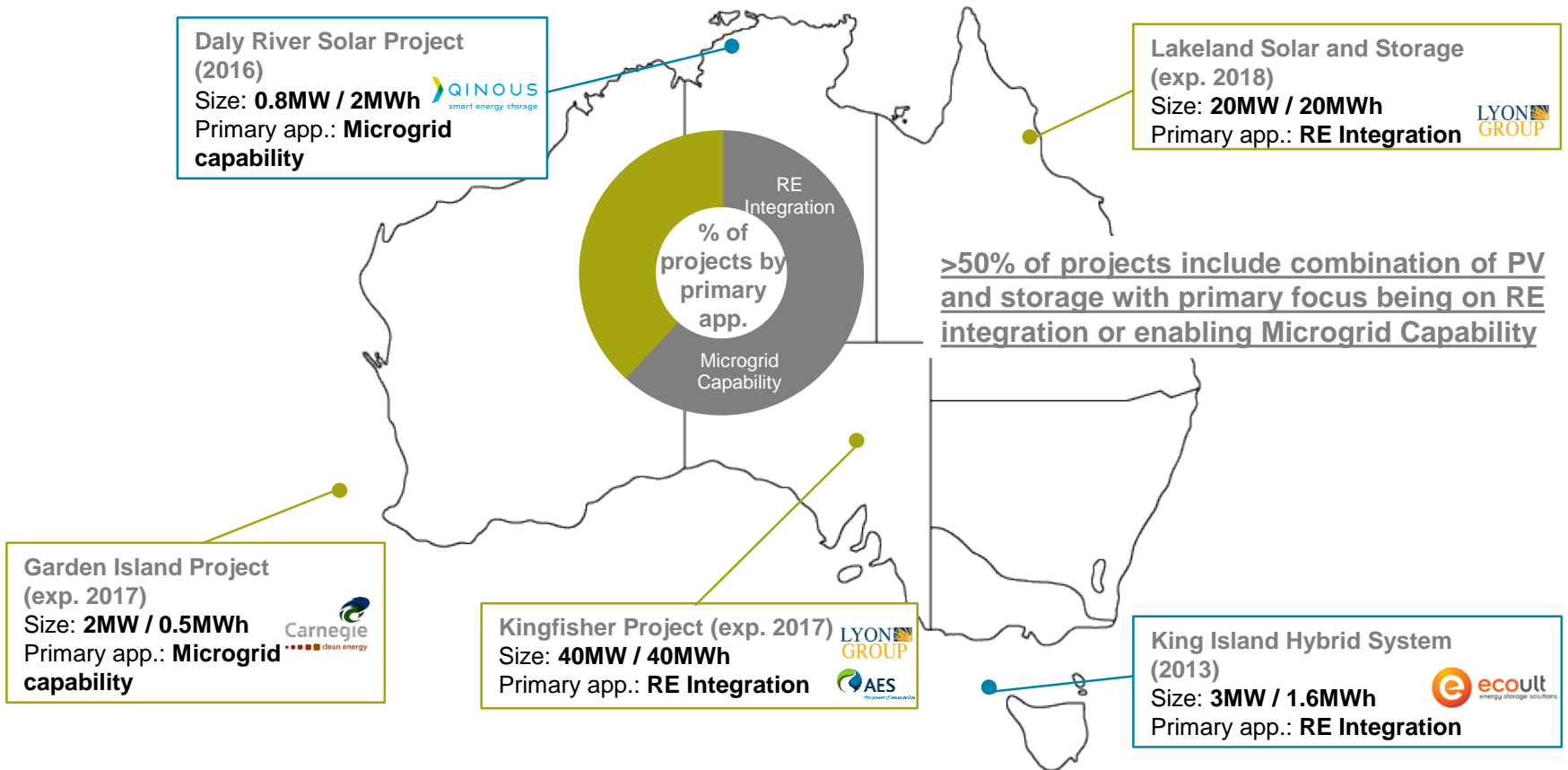
Bardzour, La Reunion, 2014, 4.5 MW / 9 MWh (Ingeteam, Saft)

Guadeloupe
9 MW
6 Projects

La Martinique
11.1 MW
8 Projects

PEGASE, La Reunion 2009, 1 MW / 7.2 MWh (EDF Renewable Energy, Bourbon Lumiere, NGK)

Existing and announced projects including PV with battery ES



Contact us to find out more!

Contact the Delta-ee Energy Storage Team to find out more:



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