

Microgrids: a new growth opportunity – how can you benefit?

Global insight & learnings:

Player Landscape – Business Models & Value Chains – Key Markets – Future Trends – Case Studies

A new Delta-ee Multi-Client Study

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What we mean by Microgrids

With an increasingly distributed energy system, rapidly falling energy storage costs and a growing demand for flexibility and energy autonomy, **microgrids** are fast becoming a key topic of commercial relevance.

Microgrids come in many shapes and sizes, but most incorporate the following basic characteristics:

- 1) **Distributed electricity generation & storage** (e.g. gas engines, micro-turbines, solar PV, fuel cells, batteries)
- 2) **Local electricity consumers** (e.g. commercial buildings, industrial facilities, housing)
- 3) **Dynamic system control**, which monitors local electricity generation and demand profiles and reactively optimises the assets connected to the micro-grid (e.g. in order to minimise running costs, maximise onsite consumption, etc.)

But who is deploying microgrids today, and who will be in the future? What business models will they deploy? Where is the value for different players? And how will falling energy storage costs enable greater penetration of microgrids?

This study will answer all these questions – and more – and will help subscribers to make commercial and strategic decisions regarding their participation within this rapidly evolving field.

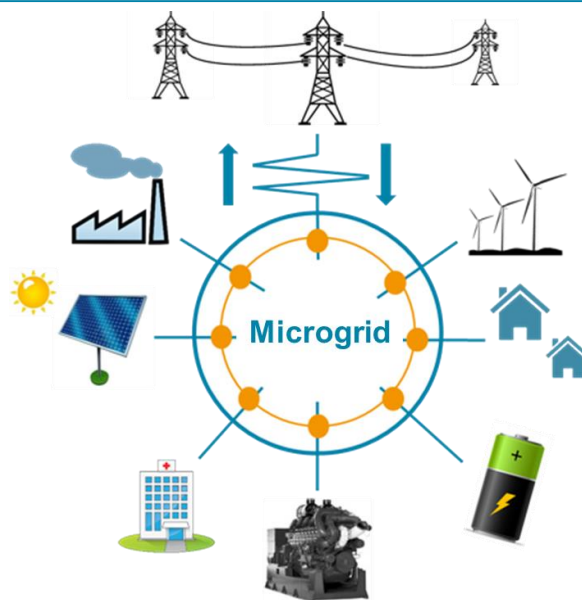
Scope of Study

Geography: Global*, with insight and learnings from world-wide case studies & players – and detailed analysis on key focus countries

Scale: Distribution-grid (i.e. typically 10s of kWe to 10s of MWe scale)

Sectors: Multi-residential, commercial buildings & industrial facilities

Technologies: All 'distributed power' generation technologies (i.e. gas engines, micro-turbines, fuel cells, solar PV, micro-wind), plus a focus on the role energy storage can play.



Key Subscriber Benefits

This study will help subscribers to:

- ▶ Develop business models which maximise a) the value to you, and b) the appeal to your customers.
- ▶ Develop the right strategy for your company.
- ▶ Understand the size of the opportunity associated with microgrids.
- ▶ Identify partnership opportunities with key players in the microgrid space
- ▶ Determine where to develop microgrid propositions, and in which applications.

* Early subscribers can influence focus countries
Experts in new energy

Key questions:

1 Definitions: what are microgrids?

- What is a microgrid, what is their scale and what benefits do they provide?
- What technologies and software are best placed to be integrated within microgrids?

2 How will the market evolve?

- What are the key regulatory and other market drivers promoting and hindering microgrids?
- Which applications and markets are most attractive for microgrid deployment?

3 Players, value chain & business models

- What are the key customer propositions and business models?
- Player landscape: Who is doing what in this space? (Inc. equipment manufacturers, software developers, network companies)
- Characterise the customer value chain: who delivers what, and to whom?
- What are the specific roles for energy storage, including batteries and thermal stores?

Study deliverables & why is this research new and different?

The Study will include the following features:

- ▶ **50 - 70 pages of primary research**, rich in information, data and new insight, produced in Delta-ee's typical user-friendly style.
- ▶ A clear focus on:
 - ▶ The identification of 'value' – what is the magnitude, and who can access it?
 - ▶ Business models which can be deployed to access this value
- ▶ Three levels of reporting:
 - 1 page Management Summary
 - 4-5 page Executive Summary
 - The full report, including Annexes.
- ▶ On-site Delta-ee presentation of Study findings.

Investment

The investment fee is available upon request.

'Early Bird' subscribers will benefit from a 20% discount. Contact Delta-ee for more information.



Timeline & Why Delta-ee

Timeline

We are commencing the research in early January, 2017.

The final report will be delivered during Q2 2017.

There may be an opportunity for subscribers to influence the focus of the Study during the early stages.

Please contact Delta-ee for more information.

Delta-ee helps energy companies, network operators, policy makers and product manufacturers navigate the transformation to a more distributed, service-oriented energy future.

Why Delta-ee?

- ▶ Delta-ee has been researching DP markets for over 10 years.
- ▶ We have an established Research Service analysing the global gas engine market on an ongoing basis, with detailed analysis on 20 countries and 6 global regions.
- ▶ See <http://www.delta-ee.com/research/distributed-power-research-service.html> for more information.
- ▶ We have completed many bespoke consulting studies for clients including manufacturers, energy companies and investors covering topics ranging from marketing sizing and forecasting to policy insight, business model evaluation and emerging applications.
- ▶ Our DP research is used by our clients to facilitate many different strategic functions, including: Market Entry Strategies, Partner Identification, Commercial Due Diligence and Product Development.

www.delta-ee.com

Selected Delta-ee clients



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