

# Disruption and the energy market

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# Disruptive forces

- Technology
- New business models, eg
  - Appliance manufacturer (wants their appliances in more houses, and ongoing data and relationship) and new home builder ('free' and convenient EE/smart/storage/RE packages)
- New competitors from other sectors (often big, agile, customer focused or image-focused)
- Extreme climate events impacting on existing energy sector – fire, flood, extreme weather
- Customer attitudes
- Uncertainty about how customers will behave, and volatility of shifts

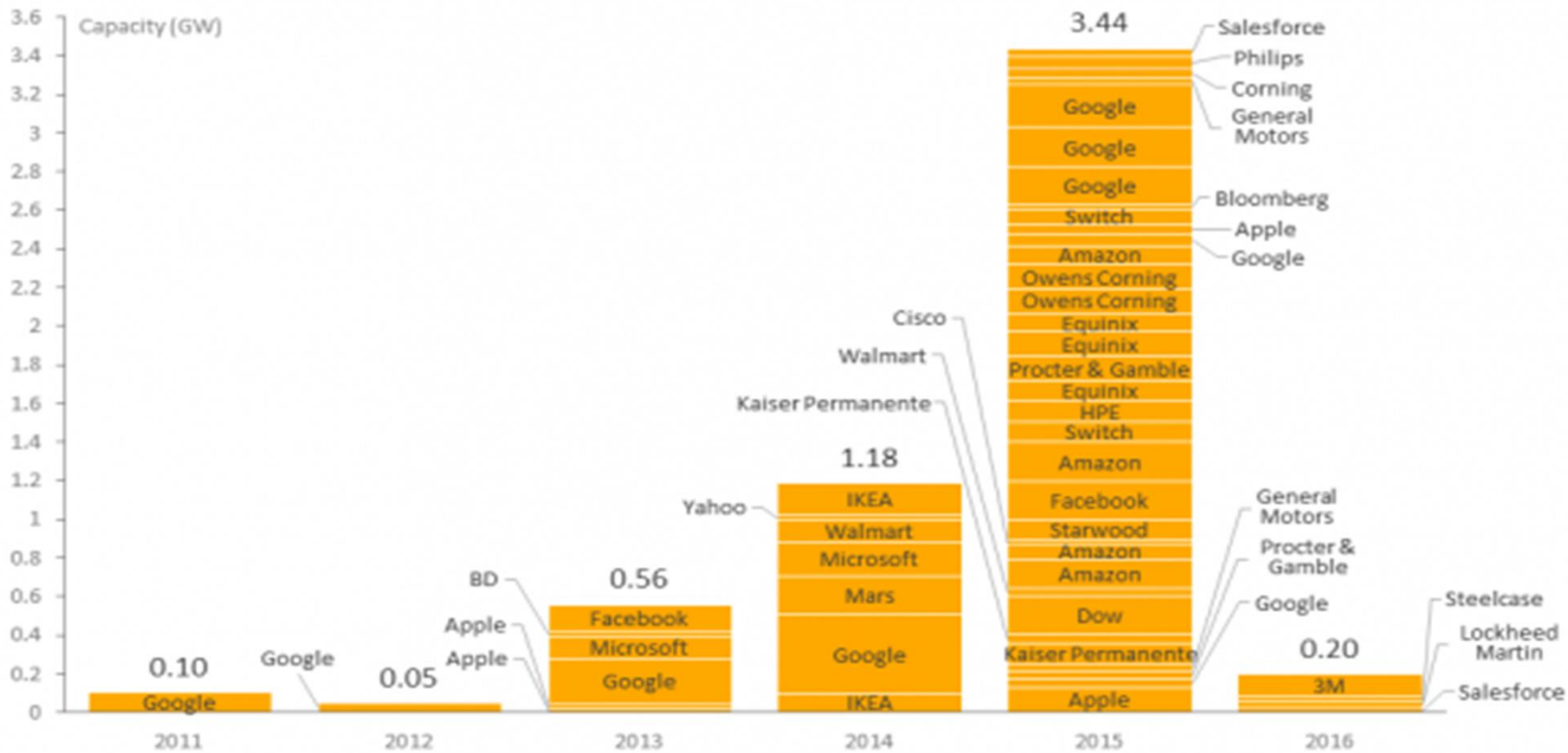
Diverse, efficient energy service solutions are emerging. Centralised systems still have a role, but distributed ones are gaining. Combinations of solutions often work best, and there will be ongoing transition

FACTOR	CENTRALISED	DISTRIBUTED
Economies of scale		
Flexibility of roll-out		
Capital required, risk, subsidies		
Innovation and 'learning from experience'		
Planning, construction timeframes		
Resource suitability		
Resilience to failures, changing conditions		
Environmental, social impacts		
Overall system efficiency		



# Corporate Renewable Deals 2011 – 2016

Note names of new investors – what motivates them?



Publicly announced contracted capacity of corporate Power Purchase Agreements, Green Power Purchases, Green Tariffs, and Outright Project Ownership in the United States and Mexico, 2011 – 2016. Excludes on-site generation such as rooftop solar PV. Last updated: February 11, 2016.

Guardian article (J Robertson, 26/2/16, Queensland solar homes are using more grid electricity than non-solar, says Energex boss) why the lack of decline of PV hhold electricity use? Will it occur in milder summers? Will storage or building/appliance upgrades change it? Will PV owners act?

## Energy consumption has been decreasing in the SEQ home

