Energy trilemma emphasis shift towards sustainability by 2020

The potential for a robust global climate deal at the Paris Climate Summit in December 2015 is driving an increased emphasis on renewables and clean tech in the next five years according to energy companies surveyed in PwC’s new *global power and utilities survey*.

Evaluating the classic energy trilemma between security, affordability and sustainability, survey respondents appear to anticipate a more robust climate deal than has been achieved before – with sustainability/cleaner energy moving up from 61% of their focus in the trilemma now to 81% in just five years.

Security of supply remains the foremost priority, with the shift in focus towards sustainability largely at the expense of affordability. This emphasis change is biggest in South America a move from 54% to 83% and smallest in Asia Pacific – 55% to 66%.

The report also finds that power utilities businesses around the world are reporting a difficult transition as energy transformation takes hold with increased concern about immediate risks to the power system as well as challenges adjusting to longer-term changes.

In the short-term period to 2020, concerns about nearly all of the major risks facing the power sector are rising. Alongside the leading risks of regulatory uncertainty and the difficulties of attracting investment, companies are moving to high alert on other key risks:

- Sophisticated cyberattack – 75% concerned for 2020, up from 40% now
- Fuel availability/supply risk – 77% expect this to be a moderate to very high concern in 2020, up from 66% in 2015.
- Blackouts – 74% concerned for 2020, up from 68% now.
- Emissions/air pollution - 75% concerned for 2020, up from 53% now.

The survey reflects a sector that is mindful of the challenges facing it but is uncertain about how successfully they can be addressed. For example, in the case of the key issue of technological change, more survey participants say their company is struggling to respond effectively than are dealing with it successfully – 38% versus 25% with the remainder somewhere in between. And the survey finds a mixed outlook on how sustainable existing strategies will be:
43% of those in North America and 35% in Europe say that current power sector company business models are already broken and the need for change is already urgent.

The urgency of business model change is perceived to be less elsewhere – 71% globally accept that current business models won’t be sustainable but think change can be gradual.

But 58% say there is a medium to high probability that the sector will face a ‘downward’ or even ‘death spiral’ from disintermediation, technology disruption and customer behaviour, with power utility companies and current energy systems undergoing a major decline.’

Norbert Schwieters, global power and utilities leader, PwC, said:

“Looking ahead, we think predictions of a ‘death spiral’ for companies in the power and utilities sector are overdone. But, the dangers facing the sector are intensifying and companies will need to stay ahead of change. The challenge will be to make timely moves to gain the most of the market opportunity of ‘old energy’ systems and business models while, at the same time, transitioning to the new business models required as energy transformation takes hold.

“Areas that are of limited or only emerging importance to the sector at the moment, such as smart city, smart home and smart community infrastructure, local energy systems, electric vehicles and off-grid solutions, will become increasingly important alongside an increased emphasis on capabilities such as product innovation, big data platforms, digitisation and online security.”

The report also includes a new Power & Utilities Market Disruption Index, based on survey respondents’ assessment of disruption in five key areas:

- At a global level, the index rises by 42% between 2015 and 2020.
- Europe remains the most disrupted region in 2020 but, because it is already experiencing a relatively high degree of disruption, the 2015–2020 rise of 33% is one of the smallest.
- Survey participants in North America anticipate the biggest disruption index increase, up 64% to take the region to disruption levels comparable with Europe by 2020.
- All regions record significant increases in the index. North America moves above the Asia Pacific region to second place in the ranking by 2020.

Norbert Schwieters, global power and utilities leader, PwC, said:

“Market and new competitive disruption is gathering pace in power markets around the world and it’s expected to intensify in the next five years. Less than one in three said their market is relatively undisrupted now but hardly any expect that situation to continue to be the case by 2020. It’s arising from a combination of policy, technological and customer change and creating a transformation in how we think about, produce and use electricity.”

ENDS

¹The Power & Utilities Market Disruption Index

Graphics and details of the full Power & Utilities Disruption Index are on the PwC website and are obtainable from the PwC media team. The index is based on survey respondents’ assessment of disruption in five key areas – policy and regulation, customer behaviour, competition, the production service model (the infrastructure, products and services provided by the sector), and distribution channels (how the sector reaches and delivers to customers). For each one it is possible to identify developments that are happening now and which, if they accelerate or impact in combination, could intensify disruption. The Disruption Index is a composite measure of a basket of these five disruption factors.
Note to Editors
The 14th 2015 Power and Utilities Survey is based on research conducted between January and March 2015 with senior executives from 70 utility companies in 52 countries across Europe, the Americas, Asia Pacific, Middle East and Africa.

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