



Power transactions and trends

2016 review and 2017 outlook

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Overview

Power transactions and trends Q4 2016

Value driven by investment in networks, with renewables emerging as a key investment strategy

2016 is now over – a year where, more than ever before, the market was split between those who have electricity and those who do not. In developed markets, continued overcapacity remains a blockage to new greenfield deals, whereas in developing markets, the scale of the opportunities is becoming more and more obvious over time, with around 100 GW of new capacity scheduled to be required in Africa and the Asia-Pacific region alone. The year saw strong P&U deal activity across regions, with investment in regulated networks and renewables leading the way:

The appeal of both asset classes, mainly in developed markets, is demonstrative of the current imbalance between the limited supply of projects in developed countries with excess capacity and low wholesale prices, and the amount of capital available and ready to be deployed in these regions. Sellers in developed markets are benefiting from unprecedented competition for good assets, and emerging markets are beginning to take advantage of the capital available.

2016 also heralded the entry of material new energy deals in the market, with renewable energy technologies once considered risky or experimental beginning to emerge. These technologies have now earned a firm place in the investment landscape as a main strategy for many investors looking to diversify early and become part of the future value chain. See our interviews with senior members of China Three Gorges and Bank of America Merrill Lynch (BofAML) in this edition of *Power transactions and trends* (PTT).



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US\$89.3b

value in regulated networks – 46% of total deal value



US\$28.4b

value in renewable energy assets – 15% of total deal value

2016 trends

Networks continue to command high premiums

As the sector's most sought-after assets, networks continue to command high premiums in all regions. Some of the year's most noteworthy M&A examples include the:

- **US\$18.4b** acquisition of Energy Future Holdings Corporation, an energy services provider in Texas, by Next Era Energy

- **US\$14.4b** acquisition of a 61% stake in National Grid Gas Distribution by a consortium led by Macquarie Infrastructure and Real Assets
- **US\$12.6b** acquisition of a 50.4% stake in Ausgrid, an Australian transmission and distribution (T&D) company, by Industry Funds Management Pty Ltd and AustralianSuper

Renewable energy M&A rose to a new high



multibillion-dollar renewable energy deals in 2016

Deals across all segments of renewable energy remained high in 2016. In the Americas alone, 46 transactions totaled US\$8.3b.

While Latin America is sparking interest – as discussed by China Three Gorges' Wu Shengliang in our interview on page 19 – it was the US that saw most deals. The country is attracting significant investment by foreign players, including those from Canada, Europe, Australia and New Zealand, who are targeting higher returns than possible at home. Most in demand are assets backed by quality counterparty power purchase agreements (PPAs) that offer stable returns and allow the widest possible range of capital to participate.

Value of generation assets declines further

The market remains tough for independent power producers (IPPs) due to continued market oversupply, trading at discounts in all regions:

Americas: discount of 2% to long-term historic averages

Asia-Pacific: discount of 17% to long-term historic averages

Europe: discount of 13% to long-term historic averages

IPPs are expected to remain flat in 2017.

New energy businesses hit mainstream investment agenda

As we predicted some 18 months ago, we saw a shift in investors' appetite toward new energy businesses in 2016 and a subsequent increase in deal activity in this space. 2016 saw some of the world's biggest utilities make moves into new energy technologies:

- **Enel** announced it would acquire a 100% stake in US-based Demand Energy, a developer and operator of energy storage systems and software.
- **E.ON** invested in Kite Power Solutions, a UK-based start-up working in high-altitude wind power generation technology.
- **Innogy** expanded its energy storage focus by acquiring photovoltaic (PV) and storage company BELECTRIC Solar & Battery.
- **National Grid** procured 201 MW of energy storage capacity for US\$86.4m.

2017 outlook

Europe will continue to be a tough market, sending investors overseas

Most of Europe's P&U deal activity in 2016 was driven by regulated network sales. We saw M&A in both generation and renewable energy decline as investors and utilities had to tackle more complex deals. For example, Engie SA, the French utility, acquired OpTerra Energy Services, a US-based company that provides a comprehensive set of energy and sustainability management services, for an undisclosed consideration in Q1 2016. Centrica, a UK-based utility, acquired Neas Energy A/S, a Denmark-based energy asset management company, for US\$244m in a bid to bring synergies to its current energy marketing and trading activities. In 2017, we expect investors to continue to look abroad, most likely to the Asia-Pacific region, to deploy capital, and for opportunistic investments and divestments to be competitive.

The US will require careful attention

As the most dominant country in the Americas P&U sector, the US will be the subject of much investor scrutiny in 2017. Rising interest rates and President Trump's energy policy changes are likely to affect the investment



climate – though to which degree will remain to be seen. It's worth noting though that, ultimately, the US market is oversupplied and does not require additional generation capacity, with opportunistic renewable investments, gas peaking plays and new energy investments the most likely deals.

Capital will flow into Asia-Pacific

With the investment conditions in Europe and the US likely to send investors in these markets scouting for overseas opportunities, the Asia-Pacific market is emerging as one of the top targets for investment houses, utilities and funds with a global focus.

Historically, investment interest has been solely in large, non-complex deals, with more difficult transactions left on the table. But, as international investors rush in, simple deals are drying up, and we may see more complex deals done in 2017, requiring sharper skills within deal teams to capture full value. The stage is set for the Asia-Pacific region, along with the Middle East, to host the world's most interesting deals in 2017.

Reforms make emerging nations investment hot spots

In 2017, we expect continued investor interest in the energy sectors of India, Mexico, and several countries in Africa and the Middle East. Diverse international players are attracted to these emerging hot spots as governments move to enact reforms to improve the competitiveness of their energy sectors and provide an avenue for excess global capital to be deployed. Some of the more notable deals in emerging markets in 2016 included the following:

- ▶ Tata Power Renewable Energy, an Indian power company, acquired Welspun Renewables Energy, a solar power developer, for US\$1.4b.
- ▶ Infraestructura Energetica Nova, a Mexican energy infrastructure developer, acquired Ventika Wind Power Project, a wind farm with a cumulative capacity of 252 MW, for US\$852m.

- ▶ I Squared Capital, a US-based energy fund, acquired the Latin American business of Duke Energy Corporation, consisting of power generation and T&D facilities, for US\$1.2b.
- ▶ Guangdong Yudean Group, a Chinese business engaged in wind generation, and YTL Power International Berhad, a Malaysian investment holding company, acquired 45% and 15% stakes respectively in Attarat Power Company, a Jordan-based company engaged in the management of a 554 MW power plant, for US\$1.3b.

Energy market reforms will continue to create new and interesting opportunities for investors in 2017.

Client perspective

Competition sees capital shift

Investors take stakes in Australia's traditional and new energy assets

A shortage of global P&Us investment opportunities has shifted investor focus to Australia. The country's energy market stands to benefit, with keen interest in both traditionally attractive regulated assets and relatively new energy technologies. **Matthew Rennie** spoke to **Tom Butcher** from BofAML for his view.

Safe, stable and sizeable assets

As a managing director who co-heads BofAML's Transport, Infrastructure, and P&U team in Australia, Tom Butcher has played a role in many of the deals in Australia's power and utilities sector over the past two years. He says that, as one of the few stable Organization for Economic Cooperation and Development (OECD) economies with multiple, large assets on offer, Australia is a very attractive investment destination.

"Strategic and financial investors with billions in equity to invest are challenged to find suitably large and executable opportunities in North America, and are pursuing only selective opportunities in South America," Butcher explains. "Europe has regular deal flow, but these transactions can be complex and, often, you need a local partner, which can limit the opportunity. Asia is still an emerging focus. This leaves the UK and Australia as the two key markets that offer up the kind of big, multibillion-dollar transactions these investors seek."

Long gone are the days when Australia was considered too remote and inconsequential to attract investors seeking power and utilities assets. This has changed, says Butcher, with many international utilities and investment funds having an active local presence to better pursue the high-quality and large opportunities on offer. Investors are further encouraged by a falling Australian dollar, continuing regional growth and a stable regulatory environment.

Investment appetite broadens in a competitive market

Butcher says that many investors continue to favor the market's largest, multibillion-dollar deals that are sold through government or private sector sale processes. Competitive market dynamics and the search for value means players are also pursuing alternative opportunities, such as unregulated assets, smaller-sized investments or those with complex execution aspects, which limit the number of bidders.

"Investors are still seeking large, straightforward deals, but demand far exceeds supply," he says. "We are seeing an increase in transactions that are more complex to execute. They might need a different approach that breaks up businesses or involves partnerships."

"There are some deals that seem too hard and haven't been able to close for various reasons. Our view is that there is greater interest in these harder deals, and they may well get done in the next 12 to 24 months."

Butcher also senses a broadening of interest. "Safe bet" regulated assets remain favored - Butcher expects significant interest in the lease of New South Wales energy distributor Endeavor in 2017.

But he says there is also ample interest in investment in new energy technologies. "Relatively new technologies such as energy storage, solar farms and other renewable power generation assets are no longer too challenging for many investors," says Butcher.

"The most experienced overseas investors, in particular, see these as a huge opportunity, not a risk. They feel very confident in the investment thesis over the long term and are confident of superior risk-adjusted returns being generated. These assets have a place in investment portfolios and sit comfortably alongside lower-risk assets, such as regulated networks."

These shifting priorities have created interesting investment conditions, says Butcher. "There's a lot of moving parts and, with the right knowledge, you can make sound investment decisions and do extremely well. For an industry known historically as being a bit boring, all of a sudden, it's quite dynamic and exciting, and is set to continue to evolve for many years to come."



Tom Butcher is a managing director in BofAML Investment Banking Division and is Co-Head of Transport, Infrastructure and P&U for Australia. Tom has 15 years of experience and has advised on more than AU\$100b of transactions in the transport, infrastructure and power and utilities sectors. His experience includes strategic advice, trade sales, privatizations, public and private market M&A, principal investment, financing, and debt and equity capital market issuances.



Power transactions and trends Q4 2016

Europe

Networks drive deal value as generation continues to struggle

At first glance, it appears Europe's P&U sector experienced a strong 2016, hosting deals worth US\$51b – the highest yearly deal value since 2012.

However, in Q4, nearly 82% of the quarter's total deal value occurred in T&D, accounting for US\$22.7b in deals. While investment in T&D has grown from US\$15.5b in 2015 to US\$29.1b in 2016, investment in generation dropped from US\$1.4b to US\$.4b and investment in renewables also dropped from US\$18.6b to US\$12.2b.

In 2016, wholesale electricity prices, which have fallen 55% since 2011, sunk to levels not seen for 12 years, creating increased challenges for the generation sector. During the first nine months of 2016, E.ON reported net losses of US\$9.3b, including US\$6.3b of impairment charges. Both RWE and E.ON separated their loss-making conventional generation businesses from profitable regulated networks and renewable businesses.

While the dynamics of the European electricity market are challenging, investors are looking to complete more complex transactions in order to deliver returns. In November, Enel announced a US\$5b investment in the digitization of its grid assets. In December, E.ON invested in Kite Power Solutions, a UK-based start-up working in high-altitude wind power generation technology. In August, Innogy expanded its energy storage focus by acquiring PV and storage company BELECTRIC Solar & Battery. That same month, National Grid procured 201 MW of energy storage capacity for US\$86.4m.

Given the challenges in the European market, we expect investors to deploy capital into international markets in 2017, bringing a competitive edge in their knowledge of nontraditional complex transactions.



Q4 2016 highlights

- **Retail assets targeted in geographical expansion:** utilities, including Engie and Edison S.p.A, are acquiring retailers across the continent to achieve operational synergies and scale.
- **Financial investors focus on T&D assets:** after 10 quarters of limited activity, financial investors invested US\$22b in Europe in Q4, acquiring gas and electricity T&D assets in some of the region's top deals of the quarter.
- **Stakeholders privatize assets to raise cash:** after a failed process, Greece plans a fresh tender to sell gas network operator DESFA. In Switzerland, Alpiq Grid Beteiligungs AG divested a 30.3% equity holding of transmission grid Swissgrid AG to BKW Netzbeteiligung.
- **Increased presence in electric vehicle infrastructure:** challenges in core businesses are driving investment in nontraditional opportunities, including electric vehicle infrastructure. E.ON has established a business unit to expand into electric vehicle charging infrastructure. Innogy also announced a new eMobility business unit to develop solutions for electric vehicle charging points, payment systems and network infrastructure in the US and Europe.



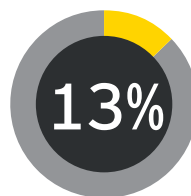
US\$27.8b

total deal value for Q4,
up 81% from Q4 2015

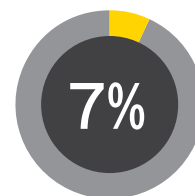


US\$22.7b

Q4 deal value of T&D
transactions



drop in valuation
of generation assets
in Q4

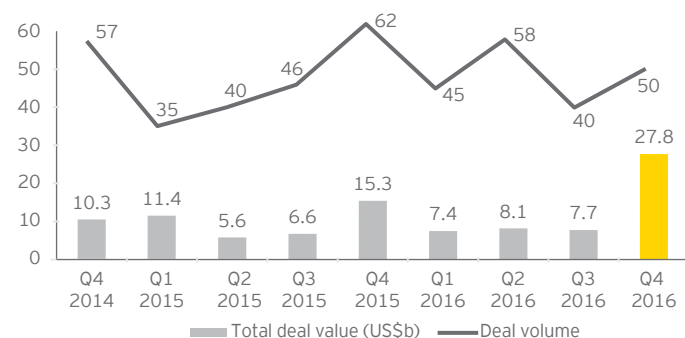


US\$1.6b

drop in deal value from
2015 to 2016, excluding
all T&D transactions

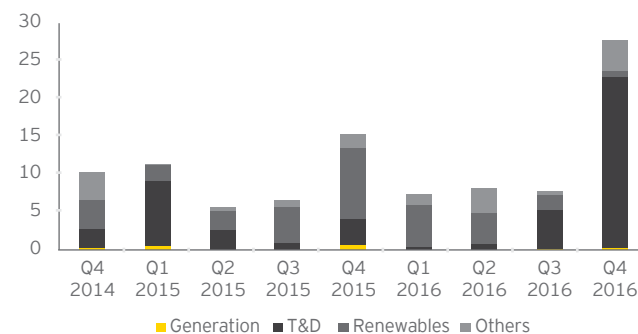


Chart 1
Europe deal value and volume
(Asset and corporate-level deals, Q4 2014-Q4 2016)



Source: EY analysis based on Mergermarket data.

Chart 2
Europe deal value by segment
(By subsector, US\$b, Q4 2014-Q4 2016)



Source: EY analysis based on Mergermarket data.

Transaction snapshot: financial investors buy T&D assets and boost deal value

Nearly 82% of the quarter's total deal value occurred in T&D, with both gas and electricity assets targeted. The acquisition of a 61% stake in National Grid Gas Distribution for US\$14.4b by a consortium led by Macquarie Infrastructure and Real Assets was the largest deal of Q4, contributing more than half (52%) of total quarterly deal value. Financial investors supported the growing deal value in Q4, investing US\$23.9b, of which US\$21.5b was investment in T&D.

By deal volume, it was the renewables segment that came out on top, accounting for 42% of all deals. As in Q3, corporate buyers dominated here, doing deals worth US\$521m – double the amount invested by financial investors.

Cross-border deals made up 71% of total deal value. The UK, the Czech Republic and Greece attracted US\$19.2b worth of M&A from foreign investors.

Top five Europe deals, Q4 2016

Announcement date (2016)	Target	Target country	Bidder	Bidder country	Deal value (US\$m)	Bidder rationale	Segment
8 December	National Grid Gas Distribution Ltd (61% stake)	UK	Consortium led by Macquarie Infrastructure and Real Assets	Australia	14,398	Divestment will help national grid to rebalance toward higher-growth markets, strengthen their balance sheet and support a sustainable dividend policy	T&D: gas
14 December	Réseau de Transport d'Electricité (49.9% stake)	France	Caisse des Depots et Consignations and CNP Assurances S.A.	France	4,350	Divestment will help parent company EDF raise cash and support capital needs	T&D
17 October	Energeticky a Prumyslový Holding, a.s. (35% stake)	Czech Republic	EP Investment S.a.r.l. and EP Investment 2 S.a.r.l.	Luxembourg	2,045	Deal will help inorganic growth of EPH	Other: integrated
17 October	Energeticky a Prumyslový Holding, a.s. (30% stake)	Czech Republic	Energeticky a Prumyslový Holding, a.s.	Czech Republic	1,645	Deal will help EP Investment and Miles Limited to consolidate their ownership positions	Other: integrated
6 December	EP Infrastructure, a.s. (30% stake)	Czech Republic	Consortium of investors led by Macquarie European Infrastructure Fund 5	UK	1,645	Deal will boost financial and strategic position of EPIF	T&D: gas



Valuations snapshot

Regulated assets continue to command high valuations

Regulated assets were trading at a premium of 13.6% in Q4, based on average FY2 earnings-per-share (EPS) multiples. However, these figures are decreasing quarter on quarter, with Q4 valuations 11% lower than those of Q3. While this change is small, it could signal the emerging impact of disruptive technologies on investor confidence in T&D valuations over the longer term.

Valuations of **generation assets** and IPPs decreased in Q4, trading at a discount of 13% to the long-term average enterprise value/earnings before interest, taxes, depreciation and amortization (EV/EBITDA) values. As wholesale prices remain depressed and utilities face increasing regulatory pressures, many are divesting non-profitable business operations. E.ON and RWE spun off their conventional generation businesses in 2016 to focus on regulated networks, energy services and renewable business opportunities. Utilities are also shedding coal businesses. Vattenfall sold its German coal generation business to a Czech consortium in September. In December, EDF announced plans to sell its coal trading business to Jera and plans to divest US\$11b of coal assets by 2020.

Some European governments have moved to end uncertainty in nuclear generation. Germany approved draft legislation allowing nuclear plant operators to externalize their nuclear waste storage liabilities into a ring-fenced fund, fixing the cost of storing nuclear waste in exchange for an average 35% premium to the book value of the liabilities. This should see utilities, such as E.ON and RWE, offset risks and perform better. The UK Government's September approval of the Hinkley Point C nuclear power plant has also helped bring clarity to nuclear investment.

Conventional power generators and international energy providers are acquiring **retail assets** to diversify operations and create synergies for a declining generation sector. In November, Engie announced plans to enter the UK retail market, while Italy's Edison S.p.A plans to acquire the Italian retail business of Eni. In December, UK-based generator Drax announced plans to buy energy retailer Opus for US\$437m. Increasing regulatory scrutiny and pressure to decrease retail tariffs may introduce a complicated operating environment for retailers in 2017; however, international expansion helps achieve increased scale. According to a report from Ofgem, the UK's power regulator, 14 new retailers entered the market between April 2015 and March 2016.

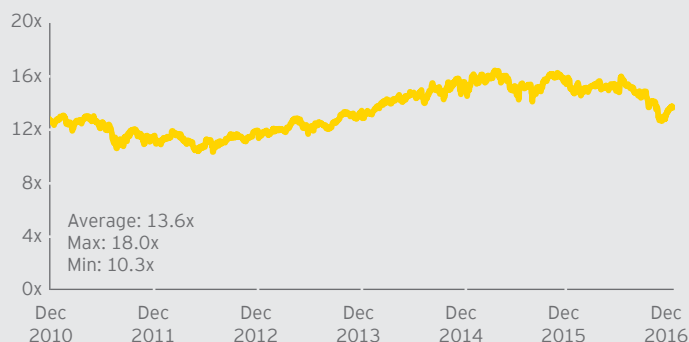
Renewable energy assets continue to attract attention with high volumes and low values. Investors acquired US\$12.2b of these assets this year. The IPOs of Dong and Innogy remained the year's largest IPOs in the sector. More greenfield and brownfield investment is expected in the segment as governments shift toward a cleaner energy mix.

Regulated T&D

Chart 3

Average price/earnings (P/E) trading multiples for select T&D utilities

(On FY2 consensus EPS estimates, 2010-Q4 2016)



Sources: Bloomberg; EY analysis.

Generation and IPPs

Chart 4

Average EV/EBITDA trading multiples for select IPPs

(On FY2 consensus EBITDA estimates, 2011-Q4 2016)



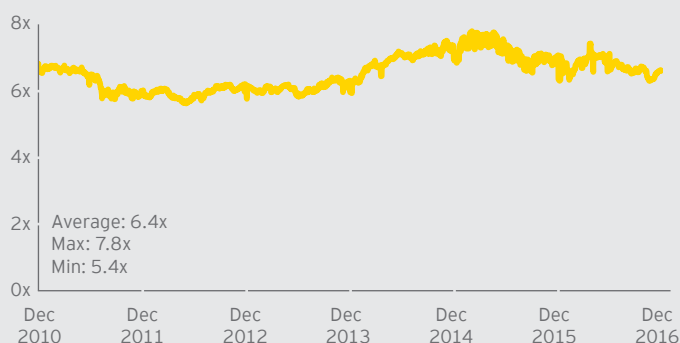
Sources: Bloomberg; EY analysis.

Integrated and diversified

Chart 5

Average EV/EBITDA trading multiples for select diversified utilities

(On FY2 consensus EBITDA estimates, 2010-Q4 2016)



Sources: Bloomberg; EY analysis.



M&A hot spots and capital outlook

Deals in renewable energy and new technologies to drive M&A

The ongoing transformation of Europe's P&U sector is reshaping M&A strategy. In 2017, the impacts of political changes, such as Brexit, the Italian referendum and other elections, will become more visible. We see four key themes emerging that will help drive the sector:

- 1. Financial investors doing big-ticket deals:** in 2016, financial investors made deals worth US\$37.7b, including seven multibillion-dollar transactions. As European utilities struggle with weaker balance sheets, more big M&A will be fueled by financial investors.
- 2. Investments moving toward nontraditional opportunities:** as revenue from traditional business diminishes, utilities will seek different energy opportunities to increase investment yields. In July, E.ON partnered with Solarwatt to introduce electricity storage systems to Germany. German utility SWW Wunsiedel is planning to deploy a large-scale battery storage system to help balance the local grid.
- 3. Growth in renewable energy investment increasing:** ambitious programs to boost renewable energy capacity will drive investment. In the first half of 2017, Spain will hold a reverse bidding capacity auction to award 3 GW of renewable energy capacity. Greece now requires new large renewable energy capacity to be based on competitive tenders. France has reset its 2023 renewable energy targets, planning to increase solar energy capacity to 20.2 GW.
- 4. More focus on customer relationships and energy services:** utilities are making strategic investments in digitization and data analytics to support an enhanced customer relationship. RWE is reportedly testing blockchain technology for EV charging and a platform that allows consumers to trade green energy independently of utilities. Fortum is also planning a pilot in 2017 to test connected home technology that will allow customers to manage their electrical appliances over the internet.



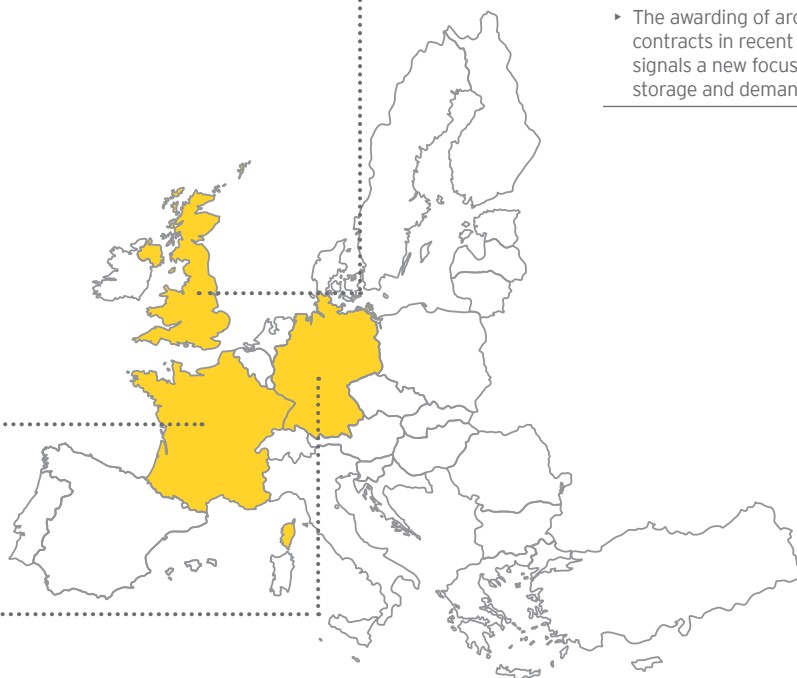


France

Q4 deal value	Q4 deal volume	Capital outlook
US\$4,471m	4	<ul style="list-style-type: none"> ▶ New renewable energy targets will triple solar energy to 20.2 GW by 2023. ▶ The launch of a 3 GW solar tender in August will spike renewable energy investment.

United Kingdom

Q4 deal value	Q4 deal volume	Capital outlook
US\$15,941m	8	<ul style="list-style-type: none"> ▶ Continued coal power plant retirements raise concerns around security of supply and may boost new gas-fired generation, pending an increase in capacity prices to support private investment. ▶ A government plan will invest US\$75b in utilities by 2020, with half of the funding from the private sector. ▶ The awarding of around 3.2 GW of energy storage contracts in recent capacity mechanism auctions signals a new focus on energy services, energy storage and demand-side response.



Germany

Q4 deal value	Q4 deal volume	Capital outlook
US\$294m	7	<ul style="list-style-type: none"> ▶ Nuclear policy changes will remove uncertainty and reduce risks for utilities. ▶ Federal incentives for renewable energy investment, especially in solar, have been scaled back, though local policies should support continued growth. ▶ Introduction of capacity auctions for renewables will encourage cost competitiveness in construction, but may slow growth.

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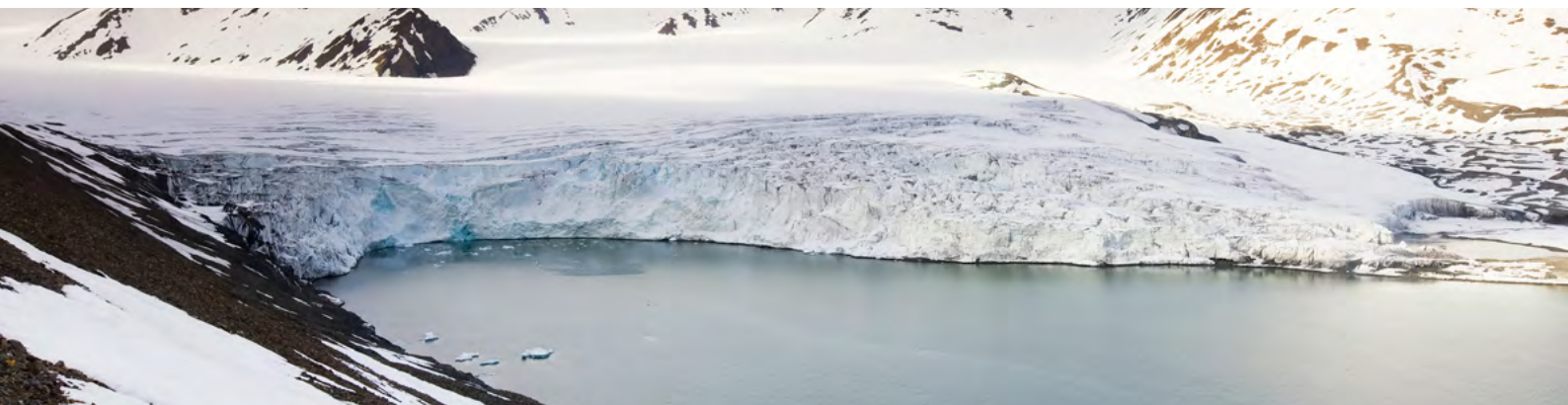
Asia-Pacific

Increased investment sentiment drives total yearly deal value to US\$41b

Asia-Pacific P&U deal value reached US\$23b in Q4, more than four times that achieved in Q3 (US\$5.7b).

The region's sector offers diverse investment opportunities, including development of conventional generation assets in countries with a supply and demand imbalance, including India, China and Indonesia; energy reforms in Japan, South Korea, the Philippines and Malaysia; a number of large T&D opportunities; and an increasing number of opportunities in renewable generation.

Given that Asia-Pacific is one of the only regions that offers a range of diverse investment opportunities with a stable political environment for investment, we expect capital to flow into this region in 2017. As traditional, low complexity, large-scale deals become scarce, investors will need to tackle more complex deals. Our interview with Tom Butcher from BofAML highlights these points.



Q4 2016 highlights

- **Integrated utilities and traditional generation assets attract multibillion-dollar investments:** in Q4, utilities from China and the Philippines acquired US\$8.4b of generation and integrated utility assets. In China alone, utilities bought US\$3.4b of generation assets, taking advantage of low valuations as the shift toward renewables continues. In December, India's National Thermal Power Corporation announced it would replace 11 GW of old coal power generation capacity with new, more efficient coal generation capacity by 2020 at an estimated investment of US\$500b.
- **Inbound renewable energy opportunities attract diverse investors:** in Q4, brownfield deals totaled just US\$603m compared with US\$1.2b in Q3. In comparison, greenfield renewable energy projects increased in value from US\$3.5b in Q3 to US\$4b in Q4. In November, Ireland's Mainstream Renewable Power agreed to build and operate wind projects in Vietnam worth more than US\$2.2b. In December, Shell announced plans to form a new company to invest in renewable energy in the Philippines, while Apple signed PPAs to acquire 285 MW of wind energy from China's Goldwind.
- **Chinese utilities diversify overseas:** 2016 saw Chinese utilities acquire assets worth US\$12b in cross-border transactions, including US\$4.3b in Q4. Notable deals included Shanghai Electric's US\$2.3b acquisition of a 66.4% stake in Pakistan's K-Electric and China General Nuclear Power Group's purchase of 14 wind energy plants from Ireland-based Gaelectric.

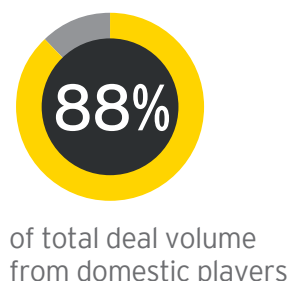
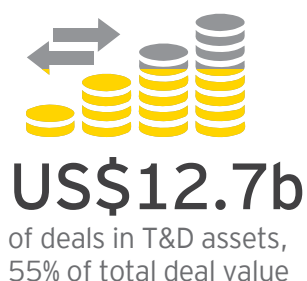
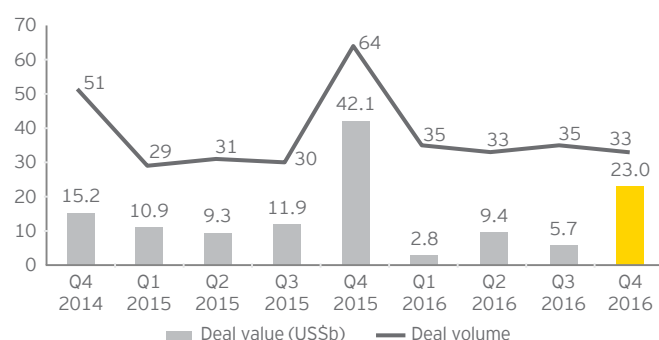


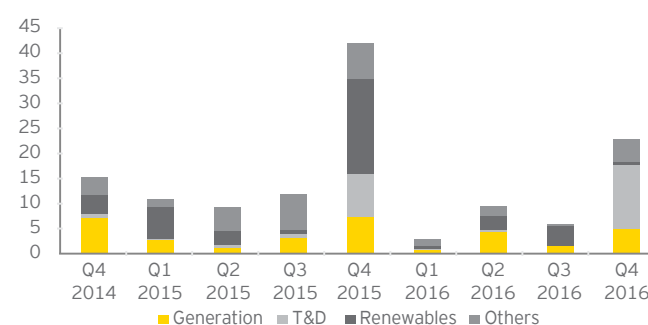


Chart 6
Asia-Pacific deal value and volume
(Asset and corporate-level deals, Q4 2014-Q4 2016)



Source: EY analysis based on Mergermarket data.

Chart 7
Asia-Pacific deal value by segment
(US\$b, Q4 2014-Q4 2016)



Source: EY analysis based on Mergermarket data.

Transaction snapshot

M&A in regulated assets in Australia drive deal value

Regional deal activity began slowly in 2016 but picked up by Q4, which saw most of the year's P&U investment. The revival was due largely to the acquisition of a 50.4% stake in Ausgrid by Industry Funds Management and AustralianSuper for US\$12.6b – a deal that contributed more than half (about 55%) of the quarter's activity.

Inbound investment was dominated by domestic investors, who contributed 88% of total deal volume. Corporate investors conducted 31 of the region's 33 deals, with utilities in China, India and the Philippines accounting for

US\$7.2b of M&A. However, most deal value was driven by financial investors, who acquired assets worth US\$12.6b, with the focus on large investments in regulated segments with long-term stable cash flows.

In contrast to other regions, Asia-Pacific's generation segment was attractive to investors and contributed US\$5.1b of deal value in Q4. Most interest was in China, where the National Energy Administration expects coal power generation capacity to grow by 19% by 2020.

Across the region, deals in renewable energy were high in number (10) but low in average value (US\$52.1m).

Top five deals, Q4 2016

Announcement date (2016)	Target	Target country	Bidder	Bidder country	Deal value (US\$m)	Bidder rationale	Segment
20 October	Ausgrid (50.4% stake)	Australia	Industry Funds Management Pty Ltd. and AustralianSuper	Australia	12,574	Aligns to low risk, stable returns yield capital strategy	Distribution
31 October	K-Electric Ltd (66.4% stake)	Pakistan	Shanghai Electric Power	China	2,342	Aligns with strategy to enter south Asian market	Other: integrated
15 October	Huaneng Shandong Power Generating Co., Ltd. (80% stake); Huaneng Jilin Power Generation Co., Ltd.; Huaneng Heilongjiang Power Generation Co., Ltd.; Huaneng Henan Zhongyuan Gas Turbine Power Co., Ltd. (90% stake)	China	Huaneng Power International Inc.	China	2,246	Strategic alignment to scale and improve profitability	Generation
28 November	Datang International Power Generation Co., Ltd. (14.78% stake)	China	China Datang Corporation	China	1,443	Enhances core competitiveness of the power generation business	Other: integrated
4 October	GNPower Mariveles Coal Plant Ltd. Co. (66.1% stake), GNPower Dinginin Ltd. Co. (40% stake)	Philippines	Aboitiz Power Corporation	Philippines	1,200	Increases installed capacity and will increase earnings	Generation

Source: EY and Mergermarket analysis.



Chart 8

Average P/E trading multiples for select T&D utilities
(On FY2 consensus EPS estimates, Q4 2007-Q4 2016)

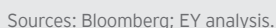


Chart 9

Average EV/EBITDA trading multiples for select IPPs
(On FY2 consensus EBITDA estimates, Q4 2009-Q4 2016)



Chart 10

Average EV/EBITDA trading multiples for select diversified utilities (excluding Japan)
(On FY2 consensus EBITDA estimates, Q4 2013-Q4 2016)



T&D and renewables attract premiums

Renewable energy assets are also continuing to attract investor attention. In November, the Australian CleanTech Index gained 2.6% and outperformed the wider market, rising from 55.55 to 56.99 points over the month. Throughout the region, clear government support for renewable energy is boosting investment. China aims to double its solar capacity by 2020 from 2015 levels and increase wind capacity by 50% during the same period. We expect the valuations of renewable assets to remain high and investment to increase in this segment in 2017.

Integrated utilities are trading at a discount of 0.3% to long-term average EV/EBITDA compared with two-year forward estimates. These utilities faced increased competition and regulatory scrutiny in liberalized markets. In South Korea, analysts estimate that the Government's decision to reduce power tariffs could weaken KEPCO's consolidated annual funds from operations/debt to 26% to 28% in 2017-18 from earlier estimates of 30% to 32% in 2016.



We forecast four key investment trends for 2017:

-
- A photograph showing a steep, rocky slope covered in patches of snow. The slope descends towards a body of water. Several icebergs are visible floating in the water near the shore. The foreground shows dark, jagged rocks and some snow. The water is a greyish-blue color.

India

Q4 deal value	Q4 deal volume	Capital outlook
US\$164m	4	<ul style="list-style-type: none"> Solar capacity of 7.7 GW is expected to come online in 2017, which may trigger increased M&A activity as domestic investors prefer operational assets with proven returns. India's Government plans a US\$1.8b investment in T&D infrastructure to allow access to grid-connected solar power capacity. The introduction of the Ujwal DISCOM Assurance Yojna reform scheme should improve the financial health of distribution companies, increasing the valuations of T&D utilities.

China

Q4 deal value	Q4 deal volume	Capital outlook
US\$5,876m	20	<ul style="list-style-type: none"> China will remain a leading renewables market, driven by big investments and government plans to generate 1.9t KWh of electricity from clean energy sources by 2020. Investment in T&D infrastructure must ramp up to manage increased installed renewable capacity and existing idle capacity. The National Energy Administration says 15% of installed capacity was idle in 2015. Chinese utilities will continue to be a global leader in P&U deal activity. They conducted US\$9.2b in deals in Q4, including US\$7.6b in Asia-Pacific.

Australia

Q4 deal value	Q4 deal volume	Capital outlook
US\$12,574m	1	<ul style="list-style-type: none"> With high penetration of rooftop solar, solar plus battery storage investment should accelerate. High retail electricity prices will boost investment in microgrids. In December, Carnegie Clean Energy's unit Energy Made Clean formed a joint venture with Lendlease to focus on solar, battery storage and microgrid projects. After the successful sale of Ausgrid, Western Australia is planning to sell a majority stake in Western Power via a public float.

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Client perspective

Three-pronged investment strategy for China Three Gorges

Utility giant China Three Gorges Corporation (CTG) is one of the global energy sector's biggest players right now. EY's **Alex Zhu** spoke to **Wu Shengliang**, Executive Vice-President of CTG International and CEO of CTG Europe, to find out what's next on the company's investment agenda.

CTG's mission dedicates the company to clean energy, and it primarily develops and operates hydropower generation projects, most notably China's Three Gorges Dam.

CTG Europe, as the company's international markets investment platform, is mainly focused on developing CTG's investment opportunities in Europe and North America.

Like many other Chinese power players, CTG is increasing its focus on outbound investment, which Wu says is driven by more than just a scarcity of domestic opportunities.

"Chinese companies are taking a more international approach, not just because we need overseas investment opportunities, but because we need to learn how to compete at a global level," says Wu. "CTG's overarching mission is to be one of the world's leading clean energy companies and this means we must look overseas."

With this in mind, Wu says CTG's future investment priorities fall into three main categories:

1. Developed markets, specifically North America and Europe

Mature markets with strong technology in clean energy, particularly offshore wind power, are in CTG's sights.

"We want to be a leader in offshore wind, at least in China. China's energy strategy aims to achieve 5 GW of offshore wind capacity by 2020. CTG is developing 4 GW of this capacity. As Europe is a leader in offshore wind, participating in this market will help us better understand the segment. We are keen to transfer the relevant knowledge back to China."

This rationale was a big driver of CTG's acquisition of an 80% stake in Germany's WindMW GmbH in June 2016, Europe's biggest utilities deal of Q2 2016.

2. Hydro-rich regions

CTG specializes in hydroelectricity. However, most of China's major hydro projects are set for completion by 2022, says Wu. This has prompted a shift in focus to overseas markets, with Brazil as the company's key target.

"Brazil is the world's second-biggest hydro market after China. We hope to do business there over the long term," says Wu. "Africa is also an area of focus. We have a long-term strategy for investment in the continent."

3. Neighboring countries

China's growing demand for energy is stifled by its limited natural resources. CTG plans to meet the country's need for power by developing hydropower generation in neighboring countries and transporting the power generated to China via grid interconnections. Wu says this initiative is a good fit with China's One Belt One Road economic strategy.

Projects are already underway in Laos and Pakistan, while Myanmar is also of interest to CTG.

Evolving risk awareness

Wu notes that CTG has evolved its approach to managing investment risk over the past five years.

"We've always been very good at managing project risk but, when coming to countries with political volatility, there is still a need to gather experiences in terms of managing country risk and also industrial cycle risk," he explains.

Co-investing with local utilities has helped to understand some specific markets better, as highlighted by CTG's partnership with EDP Portugal to develop projects in Europe and South America.

"We invested in Brazil in 2015 at an economic low point of the country. We considered that it was worth entering this resource-rich country when investments were cheap, knowing that the market would pick up soon. We believe our investment in Brazil is a win-win situation. This project not only benefits CTG but the local community, which is an important component of our company's mission."



Wu Shengliang is Executive Vice-President of CTG International, CEO of CTG (Europe) and Director of EDP Portugal. He has worked in the power and utilities sector for more than 20 years, including in hands-on operational roles and, more recently, in investment and M&A strategy. He led CTG's successful acquisition of EDP Portugal and Meerwind in Germany.





Power transactions and trends Q4 2016

Americas

Q4 deal value drops after a strong start to 2016

In 2016, the Americas P&U sector achieved a six-year deal value high of more than US\$99b, due mostly to investor confidence and abundant capital at the beginning of the year.

Most of the activity in the first three quarters was investment in regulated T&D assets and renewable generation opportunities. Despite a strong start, the total Q4 deal value of US\$13.9b was a significant drop when compared with the Q3 deal value of US\$26.3b. The focus in Q4 continued to be investments in T&D, trading at a 13% premium and contributing US\$5.5b of deal value, equating to 40% of the total Q4 deal value.

In 2017, M&A activity, especially in the US, will be influenced by policy decisions and potential interest rate increases. While the new market dynamic will impact investment and valuations, the rate of change will depend upon firm monetary policy action.

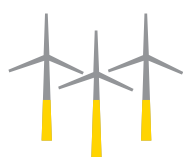
Q4 2016 highlights

- **Brazil and Argentina emerge as hot investment destinations:** urgent need for critical infrastructure is attracting foreign investors, with Brazil and Argentina hosting deals worth US\$5.7b in Q4. Most activity was by Canada- and US-based infrastructure funds, European utilities and domestic investors. In November, Argentina auctioned 1.3 GW of renewable capacity, while December saw the Brazilian Development Bank (BNDES) and Inter-American Development Bank agree to finance US\$900m of renewable energy and energy-efficiency projects in Brazil. The funding supplements a US\$175m commitment by the International Finance Corporation to support development of renewable energy in the country.
- **Renewable assets attract foreign buyers:** in Q4, 18 renewable energy transactions totaled US\$3.7b. Most were in the US, where foreign investors, primarily from Canada, Europe, Australia and New Zealand, sought higher returns than those at home. Assets backed by PPAs are commanding higher valuations due to their stable returns. For example, the acquisition by US-based solar energy firm 8point3 Energy Partners of a 34% stake in First Solar's Desert Stateline facility attracted 8,810 US\$/KW compared with a median 560 US\$/KW for disclosed renewable power plant transactions in the Americas.
- **Oversupply puts continued pressure on IPPs:** with low gas prices putting downward pressure on wholesale prices, coal IPPs are facing challenges. Coal power generator Illinois Power Generating Company filed for bankruptcy in December 2016. Similarly, gas IPPs are under pressure and looking to strengthen their portfolios. In Q4, Texas-based gas generator Calpine Corp. acquired Noble Americas Energy Solutions' retail business for US\$1b in a deal that allows Calpine to complement its wholesale generation business with electricity retailing.



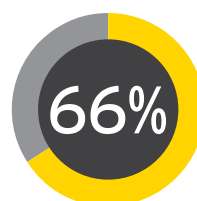
US\$13.9b

total deal value for Q4 in the region, almost half that of Q3

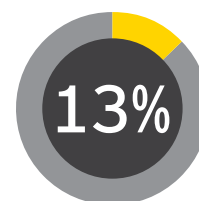


US\$5.5b

total deal value in the T&D segment, 40% of the Q4 total



deal value contributed by corporate investors



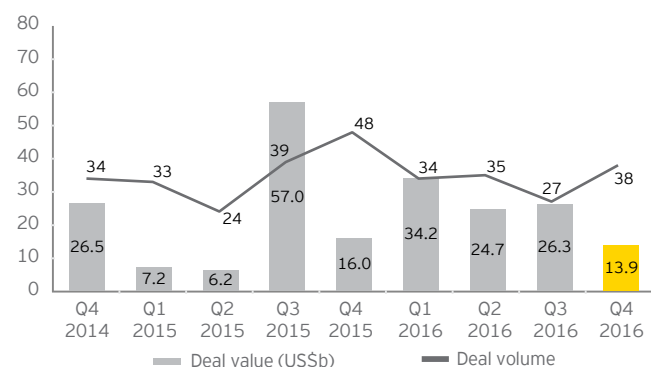
premium on historical average of T&D valuations



Chart 11

Americas deal value and volume

(Asset and corporate-level deals, Q4 2014-Q4 2016)

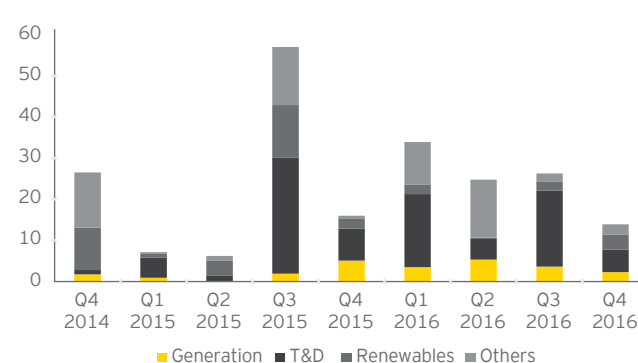


Source: EY analysis based on Mergermarket data.

Chart 12

Americas deal value by segment

(By subsector, US\$b, Q4 2014-Q4 2016)



Source: EY analysis based on Mergermarket data.

Transaction snapshot

Corporate investors dominate a slower quarter

After a strong first three quarters, M&A in P&U slowed to US\$13.9b in Q4, with much of this (US\$9.1b) contributed by six multibillion-dollar deals. T&D assets remained most sought after, contributing 40% of the regional deal value in Q4. Investors are not daunted by the high premiums of these assets, as seen in the November acquisition of Brazilian power distribution company Celg-D by Enel SpA for US\$680m, which reflects a 28% premium.

As in Q3, a majority of Q4 deal activity was driven by corporate investors, who acquired US\$9.3b in assets, totaling 67% of total deal value. Financial investors took advantage of low natural gas prices to buy gas generation assets, which made up most of their US\$4.6b worth of Q4 deals. Cheap gas continues to put pressure on coal generation, and we expect more distressed merchant coal generators in 2017.

Top five deals, Q4 2016

Announcement date (2016)	Target	Target country	Bidder	Bidder country	Deal value (US\$m)	Bidder rationale	Segment
31 October	Oncor Electric Delivery Company LLC (19.97% stake)	US	NextEra Energy, Inc.	US	2,427	Makes NextEra 100% owner of Oncor, thus enhancing its customer base in Texas	T&D
1 November	Ravenswood Generating Station; Kibby Wind facility; Ironwood generating facility; Ocean State Power facility	US	LS Power Equity Advisors LLC	US	2,200	Adds 3.9 GW to the LS Power portfolio, aligned to strategy of expansion in the northeast market in the US	Generation
10 October	Duke Energy Corporation (Latin American business, excluding Brazil)	Argentina, Chile, Ecuador, Guatemala, Peru, El Salvador	ISQ Global Infrastructure Fund	US	1,200	Aligned with ISQ Global's strategy to diversify into select emerging markets	Other: integrated
10 October	Duke Energy Corporation (Brazilian business)	Brazil	CTG	China	1,200	Aligned with CTG's strategy to become Brazil's leading clean energy player	Renewables: hydro
1 November	TransCanada Corporation (New England hydroelectric power portfolio)	US	Great River Hydro, LLC (an affiliate of ArcLight Capital Partners)	US	1,065	Enhances renewable energy footprint of ArcLight Capital Partners	Renewables: hydro

Source: EY analysis based on Mergermarket data.



Valuations snapshot

Regulated and renewable assets still safe havens for investors

In the US, we expect the changing political landscape to influence the economy and ultimately determine the investment landscape for 2017. If political changes do not influence the pending interest rate increase, increases will cause pressure on utilities' valuations in the coming quarters. According to analyst reports, utilities have traded at a premium P/E multiple to the S&P 500 for the past five years, but energy policy uncertainty in 2017 is likely to see them underperform.

In Q4, **merchant generator** assets were trading at average EV/EBITDA two-year forward estimates of 7.0x in Q4 compared with 7.1x long-term average EV/EBITDA two-year forward estimate values. This represented a quarterly decline of 2% compared with 13% in Q3 and may indicate an expectation of new policies that support conventional generation assets. Even so, these assets continue to face a challenging operating environment driven by oversupply and low wholesale electricity prices.

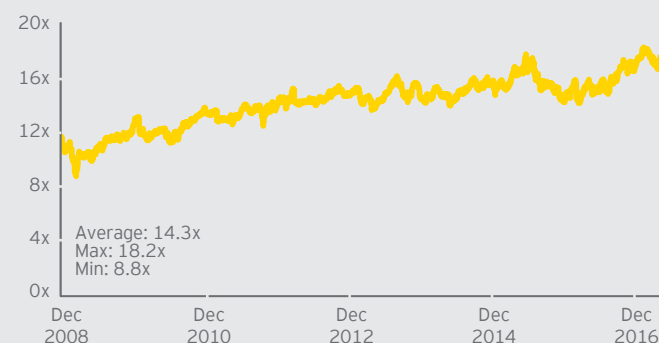
Regulated assets continue to command premiums in the region. There was a 13% rise in two-year P/E forward estimates of T&D utilities in Q4 compared with long-term averages (2007-16). Analysts estimate that most regulated utility transactions are not pricing in the expected rise in interest rates in the US. This could prompt a modest short-term decline in valuations.

Valuations of **integrated utilities** were also high, trading at an average EV/EBITDA two-year forward estimates of 8.1x in Q4 compared with long-term average EV/EBITDA two-year forward estimates of 7.8x. Integrated utilities are increasingly undertaking investments to offset exposure to generation assets by diversifying into regulated T&D and retail assets.

Investors continue to display faith in **renewable energy** assets. While the US segment faces uncertain long-term federal policy, elsewhere in the region, investment sentiment remains bullish toward renewables. For example, Engie has announced plans to invest US\$1.2b in solar projects in Chile. The average renewables deal size also increased 6% in Q4 to US\$245.7m from US\$231.7m in Q3.

Regulated T&D

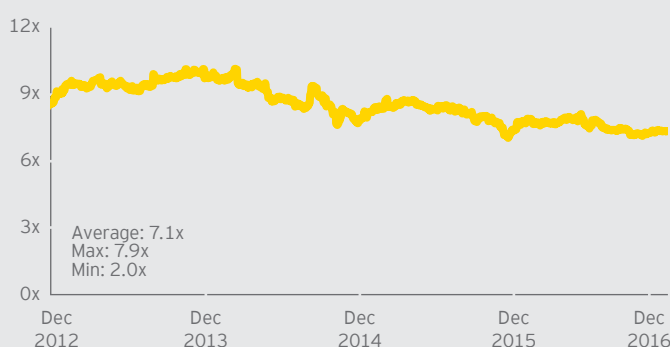
Chart 13
Average P/E trading multiples for select US regulated utilities
(On FY2 consensus EPS estimates, 2008-Q4 2016)



Sources: Bloomberg; EY analysis.

Generation and IPPs

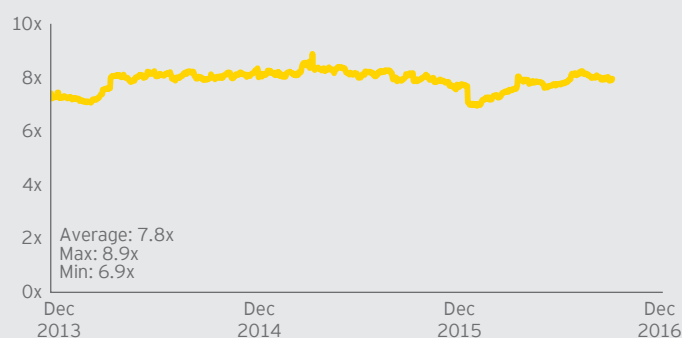
Chart 14
Average EV/EBITDA trading multiples for select IPPs
(On FY2 consensus EBITDA estimates, 2013-Q4 2016)



Sources: Bloomberg; EY analysis.

Integrated and diversified

Chart 15
Average EV/EBITDA trading multiples for select diversified utilities
(On FY2 consensus EBITDA estimates, 2013-Q4 2016)



Sources: Bloomberg; EY analysis.



M&A hot spots and capital outlook

Renewables, regulated assets and new technologies to drive activity

We see four key investment themes behind M&A in the Americas in 2017:

- 1. Financial investors seek merchant assets:** as in 2016, we expect financial investors to keep acquiring generation assets at a discount, particularly as IPPs sell off coal generation businesses to optimize portfolios and reduce risks. In December, FirstEnergy put on sale its generation assets with a book value of US\$1.2b.
- 2. Utilities expand presence in regulated and gas generation:** regulated assets in T&D, and retail and gas generation assets, have become attractive targets for large utilities as they diversify their portfolios to offset stagnant electricity demand and take advantage of cheap gas prices. Recently, it was reported that Spain's Iberdrola SA was showing interest in acquiring WGL Holdings, the parent of natural gas utility Washington Gas.
- 3. Wind energy generation on investment agenda:** Southern Company plans to develop 3 GW of wind projects in the US by 2020 and expects to invest about US\$1b in wind generation over the next five years. In December, E.ON, which has already built 3 GW of wind capacity, announced it will set up a 228 MW onshore wind farm in Texas. Uruguay plans to build 1.5 GW of wind capacity by the end of 2017. In Brazil, BNDES approved US\$320m in financing for wind projects to be commissioned in 2017. DONG Energy and Eversource Energy have partnered in offshore wind generation of estimated capacity 2 GW in the US.
- 4. New and disruptive technologies to attract the attention of investors:** utilities will continue to invest in new and disruptive technologies. In May, Southern Company agreed to acquire energy technology company PowerSecure International in a US\$415m deal to help meet customers' energy needs using advanced technologies. In July, Pacific Gas & Electric (PG&E), a California-based utility, entered into a partnership with SolarCity, an energy service company in California, to install smart inverters and battery storage systems for residential rooftop solar customers. PG&E has also introduced a solar community program for its customers who can pay a premium to source their electricity from solar energy without installing rooftop solar at their homes.



US

Q4 deal value	Q4 deal volume	Capital outlook
US\$8,161m	23	<ul style="list-style-type: none"> Policy uncertainty and an imminent interest rate hike could increase operating costs of utilities in the coming quarters. Renewable energy investment should remain stable in the medium term, with production tax credits for solar and wind not set to phase out until 2020; however, policy decisions may influence the outcome. In the absence of the Federal Clean Power Plan, we expect state policies to fire growth in renewables. Massachusetts has mandated its private utilities to procure 16% of their sales load generation from renewable sources beginning in 2018, with the target increasing 2% per year to reach a 2050 target of 80%.

Brazil

Q4 deal value	Q4 deal volume	Capital outlook
US\$4,062m	10	<ul style="list-style-type: none"> Heightened activity in renewables, especially wind energy, will drive P&U investment. Investment by Chinese utilities and private equity funds keen to diversify their portfolios is set to continue. Some utilities will rebalance their portfolios toward core domestic markets, as seen by Duke Energy's sale of Brazilian assets to focus on US-regulated business.

Argentina

Q4 deal value	Q4 deal volume	Capital outlook
US\$1,678m	3	<ul style="list-style-type: none"> Following its successful tender of 2 GW of renewable energy in October, Argentina will hold another auction in Q2 2017 as part of its aim to achieve an energy mix with 20% renewables by 2025. Investments in renewables will continue in the medium term.

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Power transactions and trends Q4 2016

Africa and the Middle East

Investment shaped by reforms and renewables

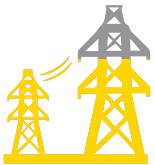
Regional M&A increased in 2016, but greenfield deals still dominate P&U transactions in Africa and the Middle East, attracting US\$8.7b (disclosed value) of investment during 2016. Chinese and European utilities with a high-risk appetite are keen to diversify into these high-growth markets.

In the Middle East, utilities are investing outbound, in search of growth as low commodity prices create economic pressures in the Gulf. In December, Qatar's Nebras acquired a 35.5% stake in Indonesia's PT Paiton Energy. In November, Dubai-based Phanes Group agreed to build 300 MW of new solar PV capacity in Nigeria. UAE clean energy company Masdar announced plans to begin investing in solar projects across India, Pakistan and Algeria in 2017.

Africa's urgent need for power and abundant natural resources is attracting investment in innovative energy solutions. In December, Lumos Global, a Nigeria-focused, off-grid solar installer, raised US\$90m to expand its presence in Nigeria. Africa-focused Off Grid Electric has raised US\$7.5m to expand the footprint of its consumer brand Zola and scale operations in Rwanda.

Q4 2016 highlights

- **Middle East governments committed to energy reforms:** in January 2017, Oman removed subsidies and introduced cost-reflective tariffs for customers using more than 150 MWh of electricity per annum. Kuwait will increase electricity and water tariffs for large consumers, while Saudi Arabia plans to cut electricity and water subsidies by US\$53b by 2020.
- **Renewables top capital agenda:** Kenya will spend US\$7.85b on 11 green energy power plants with a total capacity of 720 MW by 2020. In December, Jordan announced its third renewable energy tender for 200 MW and 100 MW wind energy capacity. In December, the African Development Bank announced US\$100m in financing to seed the creation of a new pan-African renewable energy debt fund.
- **Growing interest in digital and smart technologies:** in November, the Bahrain Electricity and Water Authority agreed to partner with Siemens to modernize its grid infrastructure. The Qatar General Electricity and Water Corporation is partnering with Belgian consultancy Elia Grid to develop smart grid expertise. In November, South African telecom MTN partnered with Huawei to launch a smart water metering solution. In Nigeria, Kaduna Electric is deploying 20,000 smart meters.



267 GW

additional power capacity (66% increase) required to meet Middle East demand by 2030



US\$53b

invested in new renewable energy across Africa and the Middle East since 2011



US\$27b

green fund launched by Dubai to fund global sustainability projects



4.6 GW

total capacity brought to financial close by the Power Africa initiative since 2013

Key investment announcements, Q4 2016

Investor	Target country	Project description	Segment
Consortium including Industrial and Commercial Bank of China and China Construction Bank	UAE	Debt financing of US\$2.89b to set up a 2,400 MW clean coal power plant in Dubai	Generation: coal
Korea Electric Power Corporation (South Korean utility)	UAE	Signed agreement with Emirates Nuclear Energy Corporation to invest US\$900m in nuclear capacity in the country	Generation: nuclear
Consortium of lenders including Islamic Development Bank, Natixis, National Bank of Abu Dhabi and First Gulf Bank	UAE	Investing US\$924 to build 800 MW Mohammed bin Rashid Al Maktoum Solar PV Phase III	Renewables: solar
Endeavour Energy (Australian utility)	Ghana	Equity investment of US\$552m to set up 200 MW Amandi gas- and oil-fired power project	Generation: oil and gas
Utico (UAE-based private utility)	UAE	Investing US\$326m to set up water utility projects across the country	Others: water and waste water
GreenWish Partners	Nigeria	Estimated investment of US\$150m to set up 100 MW solar capacity by 2017	Renewables: solar
African Development Bank-led infrastructure fund Africa50	Nigeria	Providing equity funding of US\$150m to set up 100 MW Nova Scotia Power solar PV project	Renewables: solar
Kuwait Fund for Arab Economic Development	Egypt	Debt financing of US\$115.5m to set up desalination plant	Others: water and waste water

Transaction snapshot

Financial investors acquire small stakes in renewables and water assets

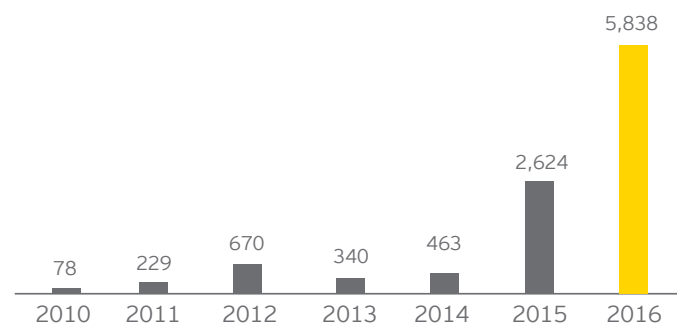
During 2016, M&A in Africa and the Middle East picked up after a long period of slow activity. Deals remain small in value and volume when compared with those in other regions, but they signal increasing confidence of investors in the region's P&U assets, particularly in renewable energy.

In Q4, financial investors acquired minority stakes in renewables and water-related assets:

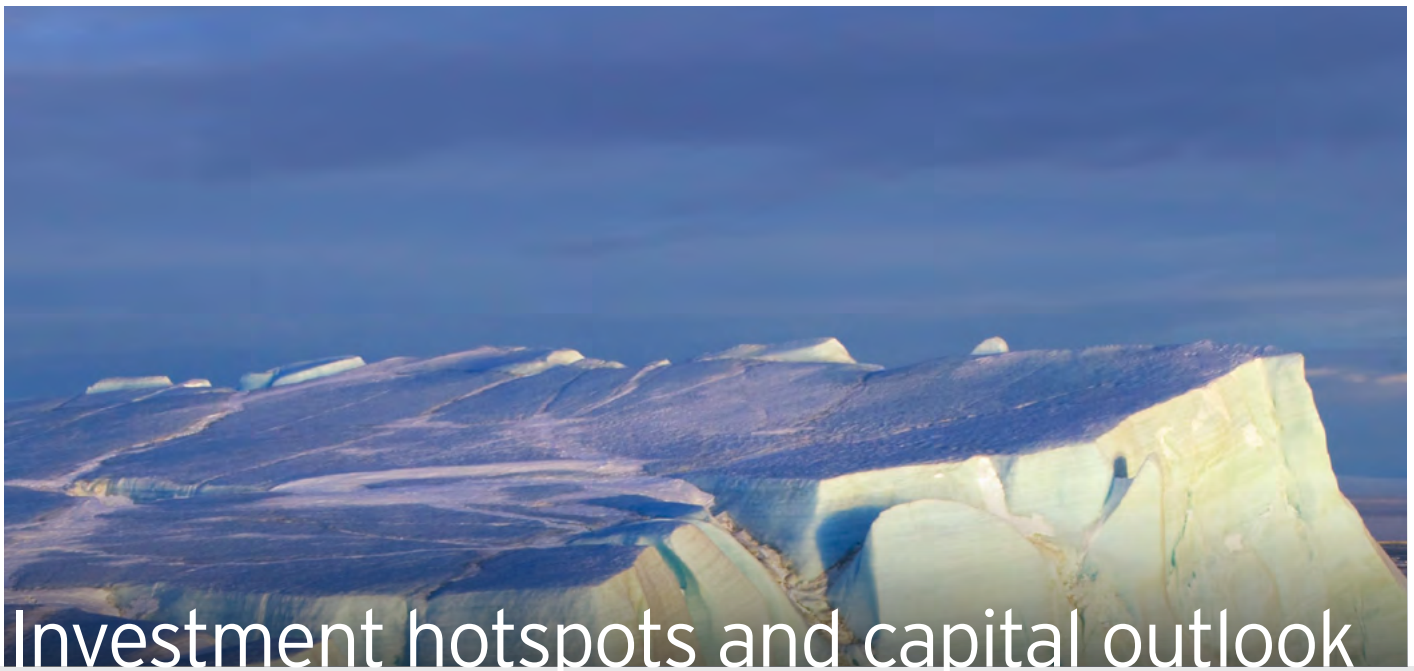
- Asma Capital, a Bahrain-based investment firm, announced plans to acquire a minority stake for US\$147m in Utico, the UAE's private utility.
- In November, International Finance Corporation acquired an 11.89% interest in ACWA Power's 160 MW Noor 1 concentrated solar power plant for US\$20m.

Chart 16

Renewables M&A deal value in Africa and the Middle East (US\$m)



Sources: Bloomberg New Energy Finance; EY analysis.



Investment hotspots and capital outlook

Renewables and innovative technologies to dominate

We expect increased investment in renewables and innovative energy solutions in 2017, particularly by foreign players.

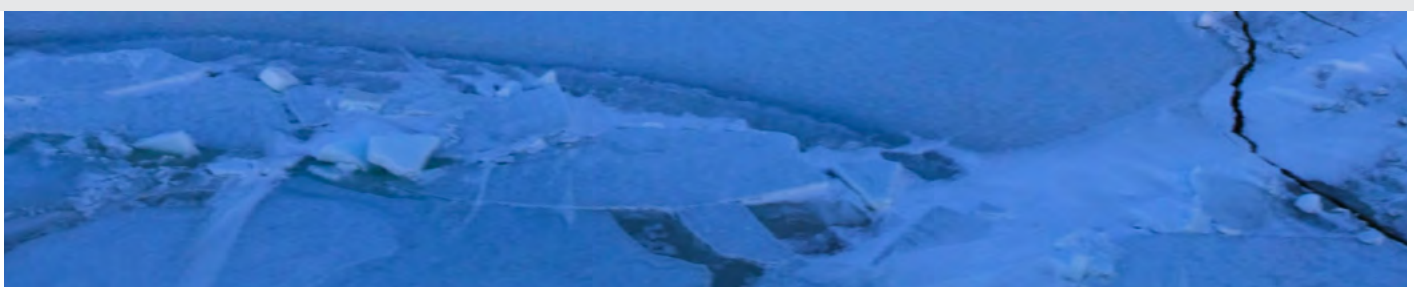
► **Boost for renewables:** rising electricity demand and growing policy support will create more greenfield investments:

- Morocco plans to build 800 MW solar plants in 2017.
- Kenya has already set a target of achieving 720 MW of renewable energy by 2020.
- Tunisia plans to attract US\$429m in foreign investment to build 320 MW of renewable energy by 2020.
- Ethiopia plans to increase total wind power capacity from 4,180 MW to 17,000 MW by 2020.
- The UAE has raised its 2021 renewable energy target from 24% to 26% to fight climate change.
- Egypt is planning to build solar thermal plants with an estimated capacity of 250 MW.

In EY's latest *Renewable Energy Country Attractiveness* report, five of the region's countries – South Africa, Morocco, Egypt, Kenya and Jordan – secured places in the top 40 most attractive destinations for renewable energy (South Africa made the top 10).

► **More interest in smart and off-grid solutions:** we expect more investment in off-grid and smart solutions, with the huge gap in power demand and supply, especially in Africa, presenting attractive opportunities. In November, French telecom giant Orange and Engie announced plans to deploy solar kits in Senegal, Côte d'Ivoire and Cameroon. In September, US solar developer Renewvia Energy said it would install pay-as-you-go solar microgrids in Sub-Saharan Africa.

► **Foreign players to drive growth:** tough economic conditions across the region mean that new energy investments in Africa and the Middle East are likely to be driven by foreign players, including multilateral development banks, Chinese and European utilities, and large infrastructure financial funds. In 2017, Kenya will launch a framework for public-private partnerships to help attract private investment.





Saudi Arabia

The Kingdom plans to unbundle the state-controlled Saudi Electricity Company, with a view to eventual privatization of the separated businesses. Solar capacity will be boosted by a tender for 300 MW in 2018, followed by others for 900 MW in 2019 and 750 MW in 2020.

Morocco

Morocco's renewable energy segment remains at the forefront of the region's clean energy investments. The Moroccan Agency for Solar Energy plans to launch tenders for two solar power plants with a combined capacity of 800 MW in 2017.

Kenya

Kenya Power plans to invest US\$2.2b by 2020 in developing infrastructure, modernizing the transmission and distribution network, reducing electricity losses, realigning resources and improving power supply and service.

The Chinese Government has agreed to invest up to US\$970m in developing Kenya's geothermal capacity over the next 30 years.

South Africa

Despite Eskom's decision not to sign further PPAs, South Africa's sector still attracts investor interest, particularly in wind. About 5.6 MW of wind energy is expected to be installed by 2020.

Source: EY analysis.

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Data source and industry scope

The EY analysis and perspectives within *Power transactions and trends* are based on global financial releases and Mergermarket data, as well as global engagements conducted by EY member firms over the period 2012 to 2016. They provide an up-to-date assessment of outcomes and trends in the global utilities industry. For more information on the methodology employed in the preparation of this report, please contact:

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