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Favorable clean energy policies at federal and state and local levels, opportunistic investments in blossoming technologies, and a disciplined focus on capital deployment is driving M&A.

Multibillion-dollar deals drive deal value in Q3

The deal value in Q3 increased 26% from Q2 to reach US\$72.8b - highest in the last eight quarters. There were 11 multibillion-dollar deals constituting 73% of the total deal value. Strategic investors drove the majority of the deal value with total US\$40.3b deals in Q3. The increasing focus of corporates to create long-term sustainable value drove US\$36.9b investments in gas and electricity networks. The broader energy transition agenda drove US\$11.5b investments in renewables. The financial investors bet big on emerging technologies – acquiring assets worth US\$8.8b in energy services including storage, EVs and waste-to-energy.

Utilities are focusing on improving their ESG profiles

The upcoming COP26 meeting is set to strengthen focus on sustainable growth and thus drive more interest in environmental, social and governance (ESG) initiatives of corporates. The boardrooms are already redrawing their agendas to not only set clear targets aligned with energy transition agenda but also improve on their disclosures. Recently, the Tennessee Valley Authority (TVA), a utility with the sixth-largest generation capacity in the US, announced target to reach net-zero carbon emissions by 2050.

Utilities are trying to sell off their fossil fuel generation assets, focusing on keeping nuclear, renewables and regulated businesses in their portfolios. The deep-pocketed financial investors are taking advantage of the scenario and are snapping at discount assets that are critical for grid stability. Recently, the Public Service Enterprise Group (PSEG) sold off its 13 gas-fired plants to ArcLight Capital, a private equity (PE) investor, for US\$1.9b against a book value of US\$4.5b for these assets.

Hydrogen to play key role in the race to net zero

Gas utilities are increasingly betting on hydrogen to help them transition to clean energy companies. Snam SpA, an Italian gas utility, is turning itself into a hydrogen power company from a gas pipeline company. Snam is spending half its four-year, US\$8.6b investment budget on getting its infrastructure ready for hydrogen. Avangrid, which is also exploring hydrogen technology to meet the decarbonization goals, has submitted ideas for five different green hydrogen projects to the Department of Energy in response to the DOE's Energy Earthshots Initiative.

Utilities are eyeing minority stake sale to fund their expansive capital plans

Many US utilities are cashing their higher valuations by selling off minority stakes to financial institutions. Such transactions are helping utilities to establish a better credit profile and avoid issuing shares for their extensive capital plans. Duke Energy sold off its 19.9% stake in Duke Energy Indiana to GIC Private Limited in January 2021. Similarly, FirstEnergy is working with advisers to sell a minority stake in its transmission business in a bid to raise US\$2.5b from the potential sale. American Electric Power (AEP) is also exploring options to sell off its stake in Kentucky Power and use the proceeds to fund its US\$2b North Central wind project in Oklahoma.

Foreign investors are vying for opportunities in the growing US market

Rising inflation and low interest rates have created a competitive environment and spurred up valuations with the utilities in EY Americas P&U analysis valued the highest across all geographies in Q3. Investors are seeking to capitalize on the supportive federal policies on green infrastructure spend, with US\$6.1b cross-border deals in the US in Q3 and US\$15.5b year-to-date (YTD) cross-border deals. Most foreign funds poured into renewable energy (US\$0.4b) and energy services (US\$5.3b) in Q3.

Asian companies are opportunistically, aggressively pushing to capitalize on the favorable policy environment in the US, bringing with them advanced technology and an option for the domestic US companies to leverage their position in Asian markets. SK E&S, a Korean natural gas company, acquired Key Capture Energy with an aim to grow its battery storage portfolio in Texas, New York and MISO markets, which have plans to retire the bulk of their coal-fired plants. Going forward, we expect heightened activity of foreign and domestic players to snap up clean energy and emerging technology assets in the US to create global businesses.

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Mega deals across the globe drive deal value to US\$72.8b in Q3

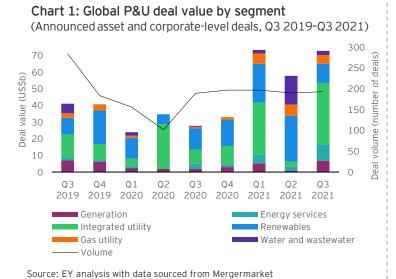
Total deal value increased 2.6x year over year to reach US\$72.8b from US\$27.9b in Q3 2020 – driven by 11 multibillion-dollar deals in Q3 2021.

Strategic investors drove the deal value with total US\$40.3b deals in Q3. Most of these deals were aligned with the decarbonization agenda – with total US\$31.5b investments across networks and renewable assets.

Strategic and financial investors scouted for infrastructure assets with stable long-term returns across the globe resulting in US\$36.9b deals in networks. The two largest announced deals of the quarter were for Ausnet Services, an Australian transmission and distribution (T&D) company operating gas and electricity networks in Victoria. APA Group, an Australian gas transmission company, has offered US\$13.4b for these assets, while Brookfield Energy, a Canadian asset management company, is competing with a US\$13.06b offer.

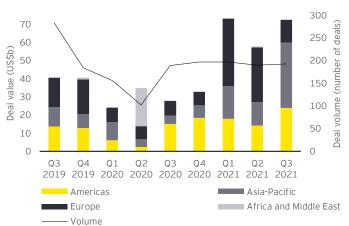
	Q3 2021	Q3 2020
Global deal value	US\$72.8b	US\$27.9b
Largest segment	Integrated US\$36.9b	Renewables US\$12.5b
Largest region	Asia-Pacific US\$36.0b	Americas US\$15.0b
Total deals	193	189

Note: All transaction information is EY analysis with data sourced from Mergermarket.



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Chart 2: Global P&U deal value and volume by region (Announced asset and corporate-level deals, Q3 2019-Q3 2021)



Source: EY analysis with data sourced from Mergermarket

¹Publicly disclosed investments

Energy transition agenda remains at the heart of dealmaking in Q3

Strategic investors drive US\$8.3b investments in renewables in Q3, totaling US\$40.5b YTD, more than twice the total investments in this asset class by financial investors.

Strategic investors rebalance their portfolios to drive energy transition agenda

Corporate investors acquired US\$8.3b of renewable assets in Q3, as compared to US\$3.2b acquisitions by financial investors. Enel acquired the 527 MW Italian hydroelectric business of ERG for US\$1.23b in order to consolidate its position as a clean energy leader. SSE sold off its 33.3% stake in gas distribution operator Scotia Gas Networks Limited for US\$1.7b in a bid to focus on its core low-carbon electricity business. Hanwha Solutions, a South Korean chemical maker, announced plans to acquire a 100% stake in RES Mediterranee, a French company engaged in wind and solar power energy, for US\$860m in a bid to enter the global renewable energy market.

Privatization was the key theme behind multibillion-dollar deals

Ausnet Services, the Australian networks company whose 48% stake is government owned saw two bids for acquisition from strategic as well as financial buyers. DEPA Infrastructure, owner of Italian gas distribution assets, was privatized by selling the government-owned stake for US\$0.87b to Italgas. Italgas plans to support DEPA's transition to biomethane and hydrogen gas.

The government of Colombia sold its 51.4% stake in Interconexion Electrica SA for US\$9.4b to ease fiscal pressure due to COVID-19 pandemic. The Brazilian state of Amapa sold concession for water and sewage services in the urban areas of the state's 16 municipalities to a consortium led by Equatorial Energia, a T&D company, for US\$0.18b.

Rising regulatory pressure sees asset sell off in water and wastewater segment

In the largest water and wastewater deal of the quarter, Macquarie Group agreed to buy a majority stake in Southern Water for US\$1.39b, pledging to transform the UK utility that has faced criticism and fines for polluting local rivers. The group plans to invest US\$2.7b through 2023 to improve customer satisfaction and eliminate environmental pollution.

In the US, a subsidiary of Essential Utilities acquired wastewater system of the Village of Bourbonnais, for US\$30m. The subsidiary has committed to investing at least US\$9m into system upgrades that will provide valuable infrastructure and reliability improvements for the Bourbonnais community.

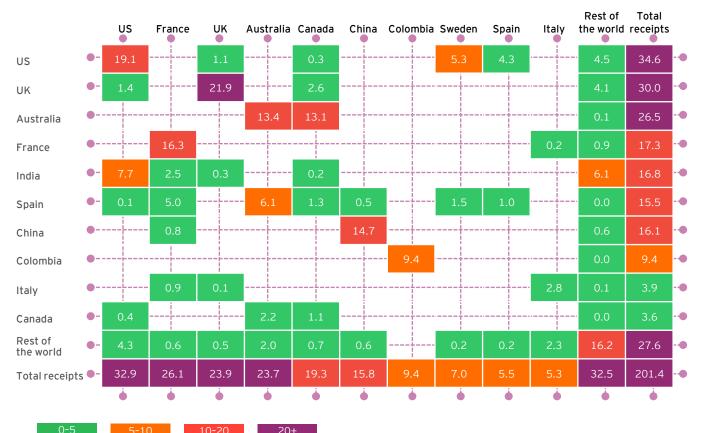
Corporates' bet big on low-carbon hydrogen technologies

Avangrid announced plans to construct a 20 MW electrolyzer and hydrogen storage facility for its Connecticut gas and electric utilities, powered by renewable energy from offshore wind. Edison SpA entered into a memorandum of understanding (MoU) with Snam SpA, an Italian energy infrastructure operator, to build a 220 MW green hydrogen project powered by solar energy. Iberdrola is partnering with Fertiberia to set up 800 MW of green hydrogen production capacity in Spain, with US\$2b investment through 2027. US gas utilities continue to refine and enhance their long-term sustainable investment strategies addressing environmental, social and governance issues as this remains a key consideration within the investment community. Utilities have announced more than 26 hydrogen pilot projects to transport hydrogen through their networks – a strategy that could prolong the life of their assets in an increasingly decarbonizing world. National Grid US also shared its vision to make New York a hub for green hydrogen driven by its high energy demand and potential for setting up offshore wind facilities.

US and UK emerge as hot spots of deals driven by US\$41b domestic deals

Investment activity globally by country, YTD (US\$b)

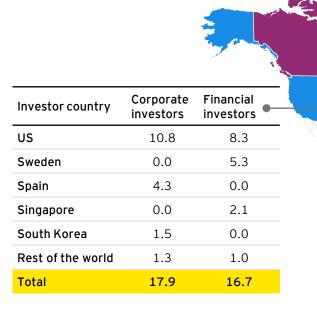




Source: EY analysis with data sourced from Mergermarket

Note: Numbers may not add to total due to rounding.

Americas investment flow by country and investor, YTD (US\$b)



0.0	2.2	
1.1	0.0	
0.0	0.4	
1.1	2.6	
	0.0 1.1 0.0	1.1 0.0 0.0 0.4

Investor country	Corporate investors	Financial investors	
Colombia	9.4	0.0	
Total	9.4	0.0	
	Corporate	Financial	
Investor country	investors	investors	
Investor country Brazil	•		
	investors	investors	

1.1

1.3

Total

Target regions

■USA ■Canada ■ Brazil ■ Colombia



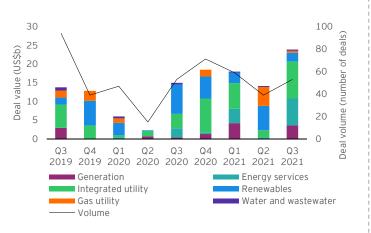
Deals in networks and energy services drive investments to two-year high in the region

There were 53 deals in the Americas, with cumulative deal value of US\$23.9b, a 69% increase from Q2. Deal value was driven by megadeals in energy services and networks assets. The deals in renewable assets drove deal volume with 17 deals but of small value totaling US\$1.9b.

Privatization of state assets drove the largest deal in the region, where Ecopetrol, a Colombian oil and gas major, agreed to acquire a 51.4% stake in Interconexion Electrica SA (ISA), a government-owned networks company, for US\$9.4b. The proposed price/shares equates to 7.9x EV/EBITDA, representing a rich 30% premium to ISA's historical average.

The largest deal in the US was also driven by privatization, where Sweden-based investment firm EQT acquired Covanta Holding Corporation, a waste-to-energy generator in North America, for US\$5.3b - a 37% premium to Covanta's unaffected share price a day prior to initial media speculation of a transaction.

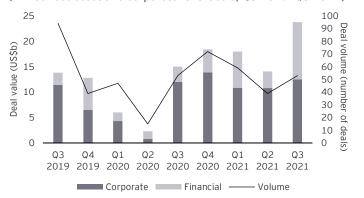
Chart 3: Americas deal value and volume by segment (Announced asset and corporate-level deals, Q3 2019-Q3 2021)



Source: EY analysis with data sourced from Mergermarket

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Chart 4: Americas deal value and volume by investor type (Announced asset and corporate-level deals, Q3 2019-Q3 2021)



Energy services attract majority of deal activity

Three deals in energy services totaled US\$7.1b - the highest in last two years. In a special purpose acquisition company (SPAC) transaction, Athena Technology acquired Heliogen, a company that provides Al-enabled CSP (concentrated solar power), for US\$1.8b. In another transaction with undisclosed value, SK E&S, a South Korean district heating company, acquired Key Capture Energy, a utility scale energy storage developer based in the US.

Investors acquire US\$3.6b generation assets

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There were 11 deals in generation assets led by US\$2.6b investment by financial investors. In the largest generation deal, PSEG sold its 6.7 GW of gas-powered plants to ArcLight Energy Partners for US\$1.92b in a bid to grow regulated utility business mix and exit from competitive generation business.

Latin America saw highest deal activity in last two years with total US\$11.8b deals

Increased focus by Asian energy companies to acquire assets in the US power market

Asian energy companies are acquiring assets across renewables, gas and storage (US\$4.6b YTD) in a bid to capitalize on favorable policies and a large, transparent US market.

These companies bring with them advanced technology and option for US companies to leverage their leadership position and strengthen their footprint in Asian markets. For example, SK Group, a South Korean conglomerate that acquired a stake in Key Capture Energy (KCE), plans to leverage its expertise in large-scale power trading and battery and software capabilities to grow KCE's business in the US.

Energy transition drives the largest deal in South America

The US\$9.4b acquisition of a stake in Interconexion Electrica SA was driven by the need of Ecopetrol to diversify its portfolio to cleaner assets, capitalizing on synergies in technology and capital structure of the two companies.

Highest number of Latin America deals in Colombia and Brazil

There were a total 21 deals in Latin America in Q3. Colombia attracted two deals in integrated utility and generation worth US\$9.4b. Brazil attracted 13 deals totaling US\$1.6b across renewables and integrated utility segments.

Chart 5: US deal value and volume by segment (Announced asset and corporate-level deals, Q3 2019-Q3 2021)

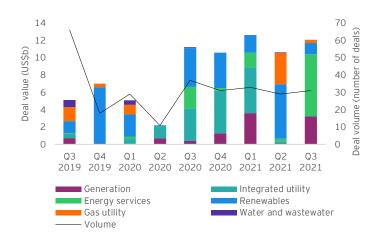


Chart 6: Canada deal value and volume by segment (Announced asset and corporate-level deals, Q3 2019-Q3 2021)

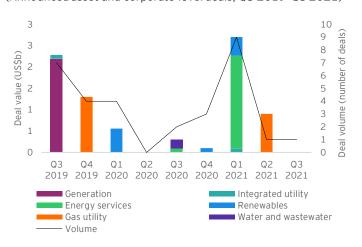
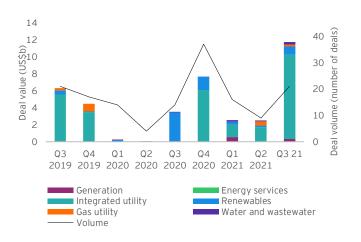


Chart 7: Latin America deal value and volume by segment (Announced asset and corporate-level deals, Q3 2019-Q3 2021)



Source: EY analysis with data sourced from Mergermarket

Notable deals in the Americas - Q3 2021

Date announced	Target	Target country/ bidder country	Bidder	Deal value (US\$b)	Bidder rationale	Segment
US						
14 July	Covanta Holding Corporation	US/Sweden	EQT Partners AB	5.30	Aligns with bidder's strategy to invest in energy transition and circular economy growth	Energy services
12 August	PSEG Fossil LLC	US/US	ArcLight Capital Partners, LLC (Parkway Generation and Generation Bridge II)	1.90	Aligns with bidder's strategy to acquire premier gas-fired plants	Generation
7 July	Heliogen, Inc.	US/US	Athena Technology Acquisition Corp.	1.85	To help Heliogen become a publicly traded company	Energy services
9 August	Constellation Energy Nuclear Group LLC (49.99% stake)	US\US	Exelon Generation Company, LLC	0.89	Sale is pursuant to a put agreement entered into by EDF and Exelon in April 2014	Generation
11 August	Temple Generation I, LLC	US\Thailand	Banpu Power Public Company Limited; BKV Corporation, LLC	0.43	Aligns with bidder's strategy to create long- term sustainable value	Generation
11 August	Array Technologies, Inc.	US\US	Blackstone Group Inc.	0.35	To promote clean energy transition of the bidder	Renewables
23 August	530 MW Utah Solar Portfolio (50% stake)	US\US	Clearway Energy, Inc.	0.34	To diversify the bidder's renewables portfolio	Renewables
16 July	LNG Indy, LLC	US\US	Kinder Morgan, Inc.	0.31	To increase bidder's future growth and business opportunities in renewable natural gas (RNG)	Gas utility
14 September	Village of Bourbonnais (wastewater system)	US\US	Essential Utilities Inc.	0.03	To expand bidder's contributions in the community by investing in water and wastewater systems	Water and wastewater
28 July	Blue Sky Utility LLC (67% stake)	US\Israel	Nofar Energy Ltd.	0.03	To expand global operations and renewables portfolio of the bidder	Renewables
8 September	Key Capture Energy, LLC (95% stake)	US\South Korea	SK E&S Co., Ltd.	ND	Expand bidder's presence in international storage market	Energy services

Source: EY analysis with data sourced from Mergermarket Note: Numbers may not add to total due to rounding.

Note: ND*: Not disclosed

Notable deals in the Americas – Q3 2021

Date announced	Target	Target country/ bidder country	Bidder	Deal value (US\$b)	Bidder rationale	Segment
South Ame	rica					
2 August	Interconexion Electrica SA (51.4% stake	Colombia\ Colombia	Ecopetrol SA	9.38	To speed up bidder's business model transformation under decarbonization agenda	Integrated
16 July	Chile Renovables (49% stake)	Chile\US	Global Infrastructure Partners, LLC	0.44	To decarbonize bidder's portfolio by increasing investment in wind, solar and battery assets	Renewables
20 July	Brasil PCH S.A. (51% stake)	Brazil\UAE	Mubadala Investment Company PJSC	0.39	To expand bidder's presence in Brazil	Renewables
20 August	Saavi Energia, S. DE R.L. DE C.V.	Mexico\US	Global Infrastructure Partners, LLC	0.28	To broaden the renewable and commercial footprint of the bidder in Mexico	Generation
4 September	Compass Gas e Energia S.A. (7.68% stake)	Brazil\Brazil	BC Gestao de Recursos Ltda; Prisma Capital; Bradesco Vida e Previdencia S.A.; Nucleo Capita	0.23	Aligns with bidder's strategy of diversification of portfolio	Gas utility
2 September	Companhia de Agua e Esgoto do Amapa	Brazil\Brazil	Equatorial Energia SA; Sonel Ambiental e Engenharia S.A.	0.18	Aligns with bidder's strategy to enter sanitation business	Water and wastewater

Canada					
15 September Silfab Solar, Inc.	Canada/ Canada	ARC Financial Corporation	0.00	Aligns with bidder's strategy to make strategic investments in growth-oriented businesses	Renewables

Source: EY analysis with data sourced from Mergermarket Note: Numbers may not add to total due to rounding.



Global valuations and TSR snapshot – Q3 2021

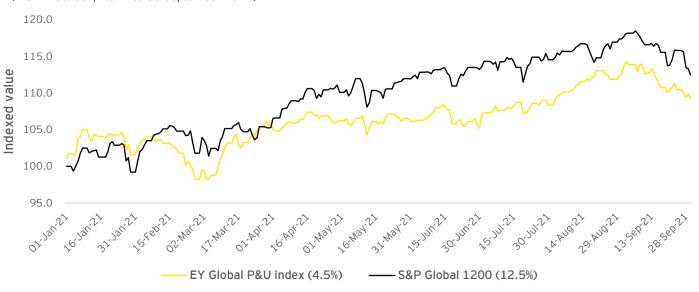
The global markets continued their upward trajectory with the S&P 1200 index returning 12.5% YTD. The EY Global P&U Utilities analysis recorded a total shareholder return (TSR) of 4.5% for YTD. The EY Asia-Pacific P&U analysis outperformed the broader market, as well as the other regions, with a return of 17.4%, bolstered by a robust 10% TSR in Q3. The renewables and generation sectors in Asia-Pacific, with 32.7% and 32.5% YTD returns, respectively, were the best performing sectors.

Water and wastewater utilities in the US were valued at a premium with EV/FY+1 EBITDA of 14.6x, followed by renewable utilities in the Europe with EV/FY+1 EBITDA of 14.4x.

Return over time - from base date

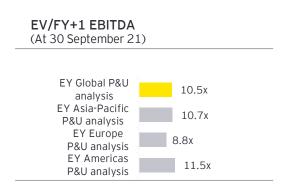
Chart 8: Total shareholder return by region

(From 1 January 2021 to 30 September 2021)



	Americas	Europe	Asia-Pacific		
	Q3 2021 TSR (%)				
Large market capitalization integrated	1.7	(2.9)	(0.4)		
Medium and small market capitalization integrated	(2.9)	5.2	7.8		
Gas utility	(3.1)	(0.3)	0.2		
Generation and retail	(13.6)	5.6	22.4		
Renewables	(6.8)	1.9	20.3		
Water and wastewater	9.2	3.7	6.2		
Average regional analysis	0.3	(0.9)	10.0		
Value of TSR more than the regional sector average					

Value of TSR less than the regional sector average



Source: EY analysis with data sourced from CapitalIQ

Americas valuations and TSR snapshot – Q3 2021

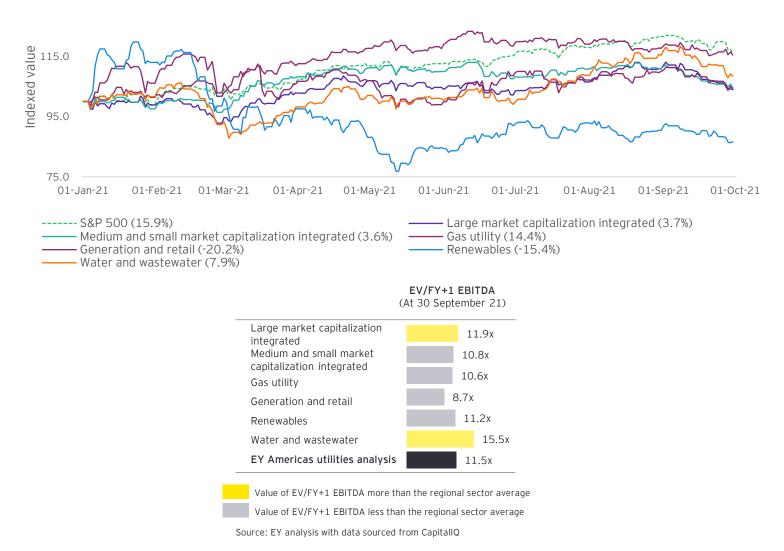
The EY Americas P&U analysis underperformed the broader market with a return of 0.3% for the quarter compared to 0.6% for the S&P 500. The gap between the YTD performance remained with S&P rising to 15.9% returns when compared to 3.3% returns for the EY Americas P&U utilities.

The best performing stocks for the quarter included Middlesex Water Company with a TSR of 26.1% and Otter Tail Corporation with a TSR of 15.5%.

Return over time - from base date

Chart 9: Total shareholder return by segment (From 1 January 2021 to 30 September 2021)





The utilities in EY Americas P&U analysis were valued the highest across all geographies in Q3 with a EV/FY+1 EBITDA of 11.5x, led by American Water Works Company, Inc. with EV/FY+1 EBITDA of 19.0x, and NextEra Energy, Inc., with EV/FY+1 EBITDA of 16.7x.

Generation and retail index was the lowest valued sector in the Americas, with EV/FY+1 EBITDA of 8.7x, compared to an average EV/FY+1 EBITDA of 8.1x over the past four guarters.



Rising regulatory pressure to drive investment agenda in the P&U sector

The P&U market remains ripe with M&A opportunities driven by increased regulatory oversight and energy transition agenda, which are driving investments to create long-term sustainable value in low-cost but clean energy options strategy.

Rising pressure to disclose climate threats will force utilities to realign their portfolios

The SEC is working toward improving its climate disclosure policies. President Biden has already introduced an executive order on climate-related financial risk. In the wake of the upcoming COP26 conference, utilities need to prepare for detailed disclosure of climate threats to their financial position. This pressure, coupled with the rising interest of investors to buy assets with good ESG profile, will push utilities to realign their portfolio and hive off fossil fuel generation assets in favor of cleaner energy assets.

Rising climate change risk is creating M&A opportunities in the US market

The recent storm Uri in Texas and wildfires in California have exposed utilities to increasing climate risk, adversely impacting their valuations and in many instances bringing about financial and operational distress. However, on the brighter side, most of the utilities in California have received favorable rulings on their general rate case filings, authorizing them to increase their revenue requirements. The California Public Utilities Commission has also approved spending on wildfire mitigation programs of utilities (e.g., US\$3.29b approved for Southern California Edison) and has allowed them to purchase liability insurance coverage for third-party wildfire-related claims. Thus, the market is ripe with opportunities where assets that have regulatory protection from natural disasters are available and above-average rate base growth opportunities at discounted valuations, creating favorable M&A opportunities.

Tightening of regulatory pressure on retail utilities could drive M&A

The rising bills of retail energy customers is driving governments to intervene into the market and tighten regulatory pressure on utilities. In Spain, the government has introduced immediate measures like a clawback on gas prices in excess of €20/MWh, a reduction of the gas price for the purpose of the last-resort tariff, and off-market auctions to assign power to smaller consumers, where the largest producers will have to be market-makers. As a result, utilities like Iberdrola, Endesa and Naturgy Energy Group saw their earnings dip.

Elsewhere, utilities are exploring ways to reduce this pressure by increasing their market presence. Hydro One, a Canada-based utility, is seeking consolidation opportunities worth US\$300m to improve grid efficiency and reduce costs of the system.

There will be continued focus by regulators on managing utility rate base growth and protecting affordability for ratepayers from cost shifts and customer bill impacts. Higher inflation can be potentially mitigated through economies of scale gains from operational and financial focus, which may drive M&A.

Water and wastewater sector to witness increase in M&A despite premium valuations

The water and wastewater sector has witnessed steady and frequently accelerating capital expenditure programs, favorable dividend policies, and the potential for a takeover driving its high premium values. However, with meaningful growth opportunities available due to municipal acquisitions and growing interest from ESG investors, we could see a surge in M&A activity in this sector over the coming quarters.

The largest deal in water and wastewater sector remains the mega merger of Suez and Veolia companies – a US\$15b deal that is undergoing regulatory scrutiny by EU antitrust regulators. However, the deal is catalyzing activity in the sector – recently, Inframark and ESG Operations, two leading infrastructure and utility operations and maintenance companies, merged to form Inframark-ESG, a premier provider of infrastructure-focused operations and maintenance (O&M) services to public and private clients across North America.

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