



HOULIHAN LOKEY

POWER AND UTILITIES MARKET SNAPSHOT

Quarter Ending March 31, 2019



Introduction

Dear Clients and Friends,

Houlihan Lokey is pleased to present its Power and Utilities Market Snapshot for the quarter ending March 31, 2019.

We have included relevant news, recent M&A transaction announcements, and other industry insights to help you stay ahead in this evolving industry. We hope you find this quarterly update to be informative and that it serves as a valuable resource to you in staying abreast of the market. If there is additional content you would find useful for future updates, please don't hesitate to call or email us with your suggestions. We look forward to staying in touch with you.

Regards,

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Our Power & Utilities Group service offerings include:

- Mergers and Acquisitions
- Capital Markets
- Board Advisory Services
- Financial Restructuring
- Transaction Opinions
- Portfolio Valuation and Fund Opinions
- Tax and Financial Reporting Valuation
- Transaction Advisory Services
- Dispute Resolution Services
- Strategic Consulting



Houlihan Lokey is the trusted advisor to more top decision-makers than any other independent global investment bank.

Corporate Finance

2018 M&A Advisory Rankings All U.S. Transactions

	Advisor	Deals
1	Houlihan Lokey	207
2	Goldman Sachs & Co	197
3	JP Morgan	154
4	Morgan Stanley	135
5	Jefferies LLC	117

Source: Thomson Reuters

No. 1 U.S. M&A Advisor

Top 10 Global M&A Advisor

Leading Capital Markets Advisor

Financial Restructuring

2018 Global Distressed Debt & Bankruptcy Restructuring Rankings

	Advisor	Deals
1	Houlihan Lokey	63
2	PJT Partners Inc.	45
3*	Moelis & Co.	36
3*	Lazard	36
3*	Rothschild & Co.	36

Source: Thomson Reuters
* Denotes tie

No. 1 Global Restructuring Advisor

1,000+ Transactions Completed

Valued at More Than \$2.5 Trillion
Collectively

Financial Advisory

1999 to 2018 Global M&A Fairness Advisory Rankings

	Advisor	Deals
1	Houlihan Lokey	1,073
2	JP Morgan	971
3	Duff & Phelps	728
4	Bank of America Merrill Lynch	660
5	Morgan Stanley	659

Source: Thomson Reuters. Announced or completed transactions.

No. 1 Global M&A Fairness Opinion
Advisor Over the Past 20 Years

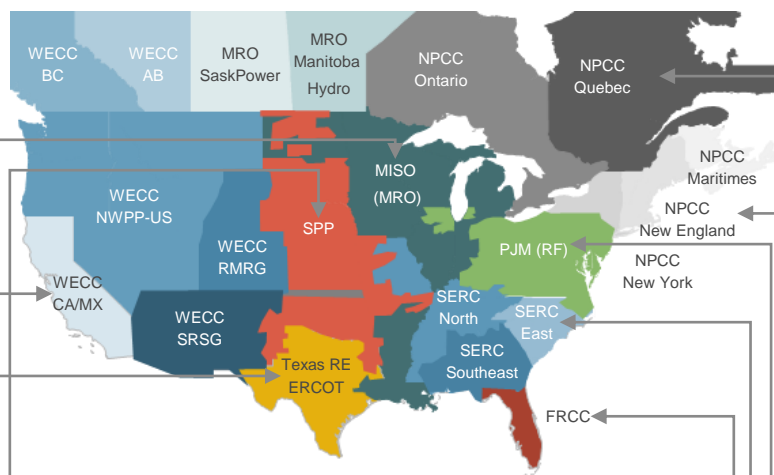
1,000+ Annual Valuation
Engagements

Selected Transactions

<p>has confirmed a Chapter 11 Plan of Reorganization</p> <p>Creditor Advisor</p>	<p>has confirmed a pre-packaged Chapter 11 Plan of Reorganization of its IPH GenCo subsidiary</p> <p>Creditor Advisor</p>	<p>has confirmed a Chapter 11 Plan of Reorganization</p> <p>Creditor Advisor</p>	<p>has completed a term loan financing at its wind power subsidiary</p> <p>Invenery Wind Power LLC</p> <p>Financial Opinion</p>	<p>has been acquired by Danielson Holding Corporation pursuant to a Chapter 11 Plan of Reorganization</p> <p>Creditor Advisor</p>
<p>REMA Subsidiary</p> <p>has confirmed a "pre-arranged" Chapter 11 Plan of Reorganization</p> <p>Secured Noteholder Advisor</p>	<p>has confirmed a Chapter 11 Plan of Reorganization</p> <p>Creditors Committee Advisor</p>	<p>has confirmed a Chapter 11 Plan of Reorganization</p> <p>Secured Creditor Advisor</p>	<p>has been acquired by a wholly-owned subsidiary of</p> <p>Hanwha Chemical</p> <p>Sellside Advisor & Fairness Opinion</p>	<p>Entergy New Orleans</p> <p>has confirmed its Chapter 11 Plan of Reorganization</p> <p>Secured Noteholder Advisor</p>

Tombstones included herein represent transactions from 2004 forward.

United States and Canada Update



Overall United States and Canada Market

- March 26: U.S. Senate blocked vote of Green New Deal resolution.
- March 22: FERC initiated broad examination of policies regarding transmission incentives such as return on equity adders.
- February 20: Vistra increased purchase price for Cirus Energy to \$378 million (plus debt) after unsolicited offer (initial purchase price of \$328 million).
- February 12: AEP has agreed to purchase Sempra's renewable energy business for \$1.1 billion.
- February 1: CenterPoint Energy and Vectren Corporation completed merger worth \$27 billion.
- January 28: Platts Analytics believes that more than 7 GW of utility-scale and grid connected batteries will be operating in U.S. by 2022, bolstered by several states having enacting or strengthening policies to support batteries.

Northeast Power Coordinating Council (NPCC)

- March 25: Emera agreed to sell its Maine operations to ENMAX Corporation for \$1.3 billion.
- March 14: New York filed \$350 million incentive plan for energy storage systems.
- March 12: ISO-NE wholesale power prices jumped 28% in 2018 due to higher gas demand.
- February 21: 78.0 percent of capacity additions in NYISO are expected to be renewables, according to S&P Global Market Intelligence.
- January 18: New York awarded \$1.5 billion for 20 solar, wind, and energy storage projects. The projects total over 1,650 MW of capacity and are expected online by 2022.

Pennsylvania-New Jersey-Maryland Interconnection

- March 25: Dominion unveiled a \$26 billion growth capex plan from 2019-2023 focused on VA utility investment.
- February 15: S&P Global Market Intelligence expects PJM to gain 6,200 MW of net generating capacity in 2019 led by gas and renewables.

SERC Reliability Corporation

- March 27: A Kentucky-based coal mining company has offered TVA \$129 million for 1,150 MW coal plant.
- March 22: Southern Co. received \$3.7 billion loan guarantee from U.S. DOE for Vogtle nuclear project.
- February 4: Companies submitted bids for South Carolina Public Service Authority ranging from \$7.9 billion to \$9.2 billion. As of April 1, S&P Global believed that Duke Energy was well positioned to acquire it based on geographical synergies.

Florida Reliability Coordinating Council

- March 5: Legislation was filed seeking to transition state to 100% renewable energy by 2050.
- February 11: Legislation was introduced to deregulate Florida electricity market by 2025.

Southwest Power Pool, RE

- February 27: Regulators approve first commercial solar farm in North Dakota (200 MW).
- February 19: Wind capacity additions are expected to dominate additions for second year in a row (almost 80%), according to S&P Global Market Intelligence.

Western Electricity Coordinating Council

- March 22: New Mexico becomes third state to adopt clean power law. The law boosts renewable portfolio standard to 50% by 2030 and 100% by 2045.
- PG&E Fallout
- March 28: Major PG&E creditors have floated \$35 billion deal that would allow PG&E to exit bankruptcy within a year.
 - February 20: S&P ratings warn that other California utilities could be downgraded to junk status.
 - January 28: PG&E filed for Chapter 11 bankruptcy.
 - January 22: S&P downgraded Edison International, SDG&E, and SoCalEd because of catastrophic wildfires risk in California.
 - January 21: In the wake of investigations into the cause of wildfires in Northern California, PG&E entered into a commitment letter for \$5.5 billion in debtor-in-possession financing.

Midcontinent Independent System Operator

- March 27: Vistra is backing Illinois legislation that would spark redevelopment of current coal plants with ~500 MW of solar storage (~\$450 million investment).
- February 14: Wind additions are expected to make up ~75% of new capacity coming online in 2019, according to S&P Global Market Intelligence.

Texas Reliability Entity

- March 5: Officials at ERCOT said the record low margin between supply and growing demand for electricity will increase likelihood of rotating power outages in summer of 2019.

International Update

Potential Impacts of No-Deal Brexit

- Limited impact of changes due to U.K. importing less than 6% of annual power demand.
- Return to explicit auctions for power pricing.
- Exit EU's cap and trade scheme (replaced by an effective U.K. carbon tax of £34/tonne).

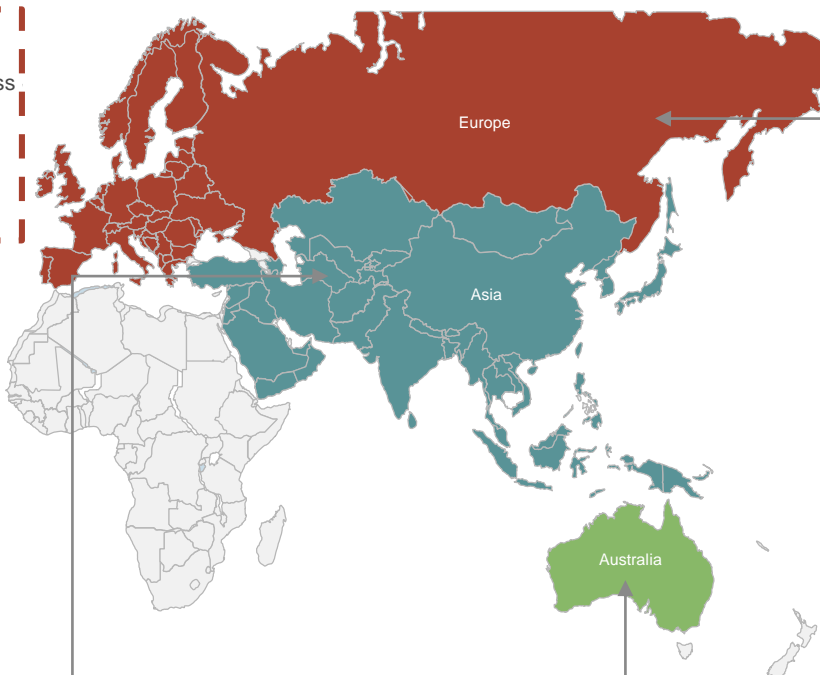


Latin America

- January 28: After slumping in 2018 amid economic and political uncertainty, the Latin American green bond market is expected to double this year.

Asia and Middle East

- March 4: Hanwha Q Cells asked the U.S. to block imports of solar cells and panels from JinkoSolar, LONGi Green Energy, and REC Solar because of patent infringement.
- February 21: China may reconsider subsidies for some PV projects, this coming after less than a year after policies changed to cool off demand.
- January 17: Saudi Arabia will solicit renewable projects in 2019 as part of initiative to develop 60,000 MW of clean energy over next 10 years.



Europe

- March 18: Aquila Capital gained rights to 700 MW of renewable projects in Spain, which is expected to see major growth in subsidy-free renewables development.
- March 7: SolarPower Europe expects solar installations to double in the EU in 2019 and 2020.
- March 6: Germany's four biggest electricity grid operators are expected to increase issuance of green bonds and similar securities to finance billions of infrastructure investments by 2030.
- February 26: Spanish utility Iberdrola increased capital expenditure forecast to €34 billion from 2018-2022.
- February 26: German utility received EU approval for takeover of Innogy renewables business and E.ON. The €40 billion asset swap would make RWE the third biggest renewables generator in Europe.
- January 28: A German government-appointed commission has proposed closing roughly one-third of Germany's remaining hard coal and lignite-fired power stations by 2022 and closing the remainder by 2038 at the latest.

Australia

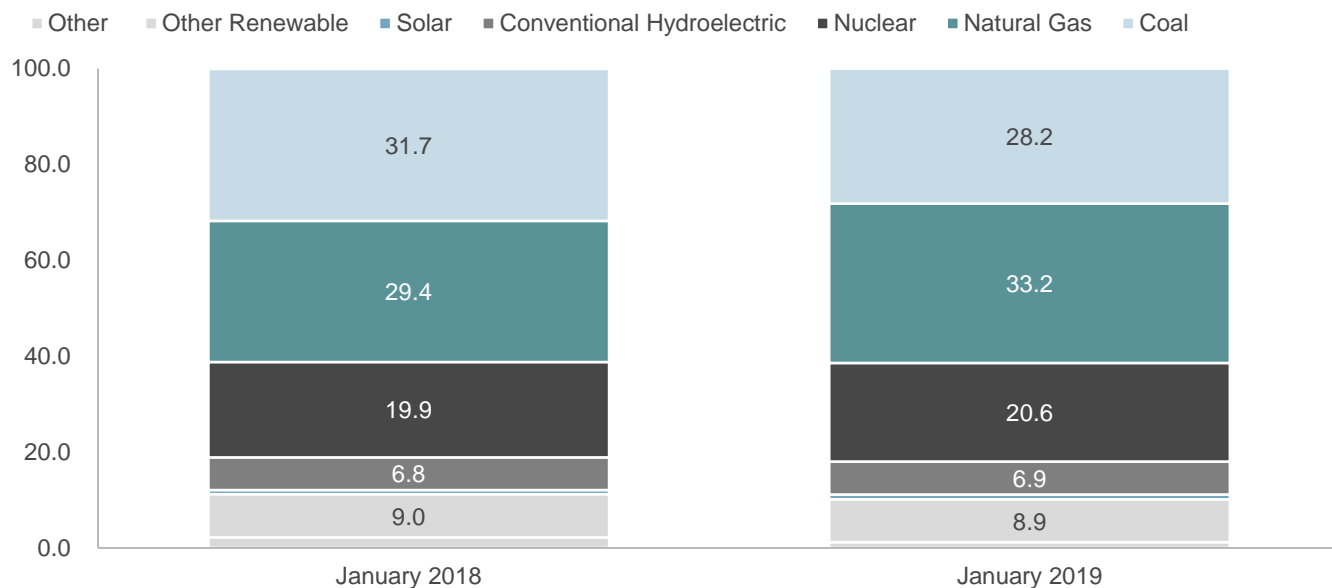
- February 28: Snowy Hydro received government approval and funding to proceed with second phase of hydro project, which once complete, will provide 2,000 MW of generation.

Overall Global Market

- March 13: The steep price declines in the solar industry sparked demand outside of China that will boost global solar installations by up to 35% in 2019, according to Daqo New Energy CEO.
- March 13: Shell plans to become the world's largest electricity company by 2035, according to the *Financial Times*. Since late 2017, Shell has acquired U.K. power supplier, European electric vehicle charging company, and a stake in a German battery firm. According to Bernstein, Shell must ramp up its M&A activity to achieve this.
- January 28: Global corporate renewables deals doubled in 2018. 121 companies signed long-term deals for 13.4 GW of wind, solar, and other renewables.

U.S. Generation

U.S. Generation Fuel Mix (%)



U.S. Generation by Fuel Type (million MWh)

	January 2019	YOY Change	YOY Change
Coal	101.0	(17.9)	(15.1)%
Natural Gas	118.9	8.9	8.1%
Nuclear	73.7	(0.9)	(1.3)%
Other	4.3	(4.1)	(49.0)%
Conventional Hydroelectric	24.5	(1.1)	(4.1)%
Solar	3.7	0.2	7.2%
Other Renewable	31.9	(2.0)	(5.8)%
Hydroelectric Pumped Storage	(0.3)		
Total Generation (Net of Pumped Storage)	358.0	(16.9)	(4.5)%
Total Renewable	60.1	(2.8)	(4.4)%
Total Non-Renewable	297.9	(14.1)	(4.7)%

As of March 28, 2019

"Other renewable" includes wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, Geothermal, and wind.

"Other" includes petroleum liquids, petroleum coke, blast furnace gas, manufactured and waste gases derived from fossil fuels, nonbiogenic municipal waste, batteries, hydrogen, purchased steam, sulfur, tire-derived fuel, and other miscellaneous energy sources.

Sources: U.S. Energy Information Administration; SNL Energy.

About Houlihan Lokey

Houlihan Lokey (NYSE:HLI) is a global investment bank with expertise in [mergers and acquisitions](#), [capital markets](#), [financial restructuring](#), [valuation](#), and [strategic consulting](#). The firm serves corporations, institutions, and governments worldwide with offices in the United States, Europe, the Middle East, and the Asia-Pacific region. Independent advice and intellectual rigor are hallmarks of the firm's commitment to client success across its advisory services. Houlihan Lokey is [ranked](#) as the No. 1 M&A advisor for all U.S. transactions, the No. 1 global restructuring advisor, and the No. 1 global M&A fairness opinion advisor over the past 20 years, according to Thomson Reuters. For more information, please visit www.HL.com.

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Madrid

Milan

Paris

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Sydney

Tokyo

HLI

LISTED

NYSE

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Product Expertise	Dedicated Industry Groups	Financial Sponsors
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Financial Restructuring	Data & Analytics	Private Equity Firms
Financial Advisory	Energy	Hedge Funds
Strategic Consulting	Financial Institutions	Capital Alliances
	Healthcare	
	Industrials	
	Real Estate, Lodging & Leisure	
	Technology•Media•Telecom	

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