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CREDIT OPINION
30 March 2020

Update

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RATINGS

Duke Energy Progress, LLC

Domicile	North Carolina, United States
Long Term Rating	A2
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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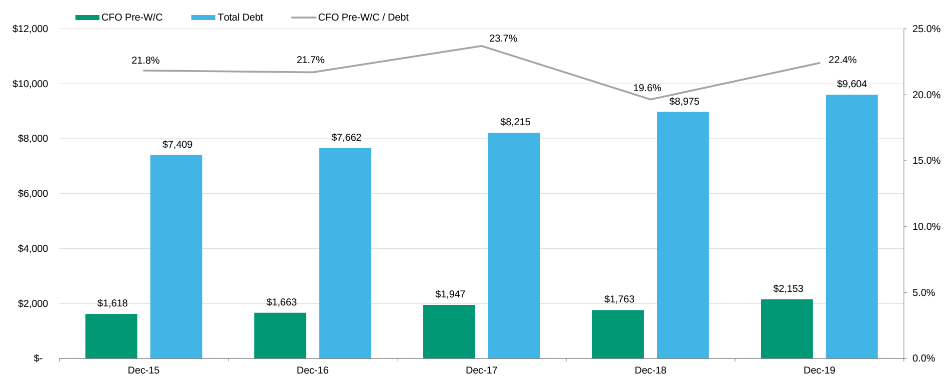
Duke Energy Progress, LLC

Update to credit analysis

Summary

Duke Energy Progress, LLC's credit reflects its business and operating risk profile as a fully regulated utility with service territories in historically credit supportive environments in both North and South Carolina, although challenges have recently emerged. The company's 2018 financial metrics were impacted by severe storm activity; in 2019 they rebounded to what we expect are more sustainable levels.

Exhibit 1
Historical CFO Pre-WC, Total Debt, and CFO Pre-WC to Debt ($MM)



Source: Moody's Financial Metrics

Credit strengths

» Credit supportive regulatory environments

» Reasonable financial credit metrics

» Position as part of the Duke Energy corporate family

Credit challenges

» Uncertainty regarding ability to fully recover coal ash remediation spending with a return in all jurisdictions

» Storm prone service territory and uncertain impact of coronavirus

» Capital expenditures for coal ash basin remediation and T&D upgrades will remain substantial

Rating outlook

The stable rating outlook reflects the utility's relatively low business risk profile, historically credit supportive regulatory frameworks, and our expectation that the company will be able to sustain CFO pre-WC to debt ratios the low 20% range. The outlook assumes Duke Energy Progress' sizeable capital expenditure program will be well managed and that debt levels will be maintained at levels appropriate for the utility's current credit quality. The stable outlook also reflects our expectation that the company will continue to be able to recover the majority of its coal ash closure and remediation costs with a full return, as well as its storm restoration expenditures, in rates. However, regulatory lag and the lingering impacts of federal tax reform may continue to pressure metrics.

Factors that could lead to an upgrade

» A reduction in leverage, possibly due to lower spending for capital expenditures

» A ratio of CFO pre-WC to debt above 25% on a sustained basis

Factors that could lead to a downgrade

» A decline in the credit supportiveness of the regulatory environments in North or South Carolina

» A ratio of CFO pre-WC to debt below 20% on a sustained basis

Key indicators

Exhibit 2
Duke Energy Progress, LLC [1]

	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19
CFO Pre-W/C + Interest / Interest	6.9x	6.7x	6.9x	5.9x	7.1x
CFO Pre-W/C / Debt	21.8%	21.7%	23.7%	19.6%	22.4%
CFO Pre-W/C – Dividends / Debt	21.8%	17.8%	22.2%	17.7%	22.4%
Debt / Capitalization	42.5%	41.9%	45.7%	46.1%	45.4%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics

Profile

Duke Energy Progress, LLC is a vertically integrated electric utility serving approximately 1.6 million customers in North Carolina and South Carolina. Duke Energy Progress is a subsidiary of intermediate holding company Progress Energy, Inc. and parent company Duke Energy Corporation (Duke Energy).

Detailed credit considerations

Generally credit supportive regulatory environments

Duke Energy Progress has service territories in both North and South Carolina, two fully regulated states with generally credit supportive regulatory environments. Both states have historically authorized somewhat above average equity layers and returns and have mechanisms in place for the timely recovery of fuel costs. However, a reliance on traditional base rate case proceedings, rather than riders or trackers for the recovery of other increased costs or investment, leaves utilities in both states susceptible to regulatory lag. We are also closely watching the regulatory treatment of coal ash remediation spending.

In North Carolina, the North Carolina Utilities Commission (NCUC) in February 2018 authorized an approximate $193 million (6%) annual increase in base rates (reduced by $43 million for four years to return excess state income tax) incorporating a return on equity (ROE) of 9.9% and a 52% equity ratio. The final order authorized a partial settlement agreement between Duke Energy Progress and the NCUC Public Staff with regard to certain, traditional rate making parameters, including the ROE and equity ratio, and also resolved the outstanding issues of coal ash and storm cost recovery discussed below.

The February 2018 North Carolina order incorporated recovery of the majority of deferred coal ash remediation costs (approximately $234 million) over five years with an ability to earn a return at Duke Energy Progress' weighted average cost of capital (debt and equity). The NCUC also authorized recovery and return for $51 million (out of $80 million requested) of deferred storm costs incurred for Hurricane Matthew (a 2016 storm). We view the ability to reach a settlement agreement on traditional ratemaking parameters, and the approval for the recovery of coal ash and storm costs with a return, as credit positive. We note however that the decision has been appealed by the state Attorney General and the Public Staff, and that the NCUC has recently taken a different position in the case of another smaller utility operating in the state. In the case of Virginia Electric and Power Company (A2 stable), the NCUC authorized recovery of coal ash spending, but over a ten-year period rather than five, with no return during the amortization period.

In October 2019, Duke Energy Progress filed a base rate case in North Carolina requesting an approximate 12% increase in revenue premised on a 53% equity ratio and a 10.3% return on equity. The filing also seeks recovery of $530 million of coal ash remediation costs deferred from September 2017 - February 2020 over five years. The utility requested rates become effective no later than September 2020; however, the procedural schedule will likely be pushed out due to the impact of COVID-19.

In South Carolina, in May 2019 the Public Service Commission of South Carolina (PSCSC) denied recovery of the majority of the Duke Energy Progress' incremental South Carolina allocated spending on coal ash recovery. The company has appealed this decision. On a positive note, the South Carolina order did continue authorization of the utility's ability to earn a full weighted average cost of capital return on the approved portion of its coal ash remediation spending, which included costs incurred through 2016. The order also shortened the recovery period to five years, versus a previously approved fifteen years.

Our stable outlook assumes Duke Energy Progress will continue to be allowed to recover the majority of its coal ash remediation spending, and that it will be able to earn a return on the deferred balance.

Part of the Duke corporate family

Duke Energy Progress' credit profile reflects its position as part of the Duke corporate family and the largest utility system in the Carolinas, benefitting from fuel purchasing power and joint generation dispatch synergies with affiliate Duke Energy Carolinas.

Financial metrics are expected to remain supportive of credit quality

After declining due primarily to storm related activity in 2018, Duke Energy Progress' cash flow coverage metrics have begun to show the positive impact of recent rate case activity and the recovery of some prior coal ash remediation spending. Although there will continue to be lag in the recovery of coal ash spending, we expect the company will file frequent rate cases to mitigate this impact. Assuming the continuation of reasonably supportive rate treatment and prudent financial policy, we expect that Duke Energy Progress will maintain a CFO pre-WC to debt ratio at or near the lower end of the range of 22% to 30% indicated for a score of "A" on this factor in our Regulated Electric and Gas Utility rating methodology.

We note however, that the rapid and widening spread of the coronavirus outbreak, and the associated deteriorating global economic outlook, are creating a severe and extensive credit shock across many sectors. While the regulated framework provides a tremendous amount of insulation and support for utilities, a material reduction in customer demand can lower revenues, affect the timeliness of cost recovery and constrain utility cash flow until the next rate case and/or rate adjustment. Longer term, recessionary pressures may increase regulatory resistance to rate increases, which could also negatively impact credit metrics.

Capital expenditures are expected to moderate somewhat in the near-term, but remain substantial

Over the 2015-2017 period, Duke Energy Progress' annual capital expenditures (inclusive of coal ash remediation spending) were about $1.9 billion per year. In 2018 and 2019, annual spending inclusive of coal ash remediation increased to about $2.5 billion. While spending is expected to moderate somewhat in 2020 and 2021, it will remain robust, at around $2.1 billion and before increasing in the latter part of the company's five-year plan. Most of the investment can be attributed to new generation requirements, transmission and distribution system upgrades, and coal ash basin remediation costs.

Payments for coal ash related asset retirement obligations have risen from zero in 2014, to $109 million in 2015, about $200 – 230 million per year in 2016 – 2018, and $390 million in 2019. In 2020, we anticipate environmental spending, inclusive of coal ash remediation, will be about $450 million before subsiding to an annual rate of about $200 million in 2021 and beyond. The decline is reflective the completion of work at "high-risk" ash remediation sites in 2019, and a settlement reached with the North Carolina

Department of Environmental Quality (NCDEQ) that allows the majority of the remaining expenditures to occur over a period of 15-20 years.

Continued regulatory lag and uncertainty regarding the recovery of coal ash spending could maintain some negative pressure on coverage metrics

In 2014, Duke recognized a $3.5 billion Asset Retirement Obligation (ARO) for its estimated obligations to close its North Carolina coal ash basins, including approximately $1.8 billion at Duke Energy Progress. In the second quarter of 2015, after publication of the EPA's final Coal Combustion Rules, Duke incrementally increased the ARO by $1 billion as it created additional obligations for the company in South Carolina, Indiana, and Kentucky, putting its total ARO at $4.5 billion. In December of 2019, Duke reached an agreement with the NCDEQ establishing the means and timeframes for remediation of its remaining coal ash basins, which included full excavation of the majority of the ash over a period of 15-20 years. As of December 31, 2019, Duke had spent approximately $2.5 billion, including $1 billion at Duke Energy Progress, and its total ARO was estimated at $6.3 billion, including $2.4 billion at Duke Energy Progress.

Duke Energy Progress' coal ash basin closure and remediation spending is not recovered via trackers or other automatic cost recovery provisions and must be recovered via base rate case filings. As result, there will likely continue to be regulatory lag in the recovery of these costs, and there is an increased risk that recovery of, or a return on, the spending may be denied.

Currently, as a result of the rate base like treatment of the majority of Duke Energy Progress' spending for coal ash remediation, we view these costs as being akin to a capital expenditure. Depending on the outcome of its pending North Carolina rate case, and South Carolina coal-ash related appeals, we may modify our treatment of the portion of expenditures that are not recoverable, or for which a return is not authorized.

ESG considerations

Environmental considerations incorporated into our credit analysis for Duke Energy Progress are primarily related to carbon regulations. Duke Energy Progress has a moderate carbon transition risk within the regulated utility sector because as an integrated utility its generation ownership places it at a higher risk profile than transmission and distribution companies. As of December 31, 2019, approximately 27% of Duke Energy Progress' 12,994 MW generation portfolio is coal fired. In 2019, energy from Duke Energy Progress' owned capacity was generated 47% from nuclear fuel, which lowers the company's carbon footprint, 35% from oil and natural gas, and 16% from coal. Social risks are primarily related to health and safety as well as demographic and societal trends. Corporate governance considerations include financial policy and we note that a strong financial position is an important characteristic for managing environmental and social risks.

Liquidity analysis

Duke Energy Progress maintains an adequate liquidity profile. For the year ended December 31, 2019, Duke Energy Progress generated approximately $2.2 billion of cash from operations (CFO), invested approximately $2.5 billion in capital expenditures (including coal ash remediation spending) and made no distributions, resulting in negative free cash flow (FCF) of approximately $290 million. In 2018, Duke Progress generated approximately $1.9 billion of CFO, invested approximately $2.4 billion in capital expenditures and distributed $175 million in dividend payments, resulting in negative FCF of approximately $767 million. Going forward, we expect Duke Energy Progress to remain cash flow negative and that shortfalls will continue to be funded via a combination of internal and external sources.

Duke Energy Progress' additional liquidity sources include its access to funding from the Duke parent company's commercial paper program through the Duke system money pool, and from direct borrowings from the money pool. As of December 31, 2019, the utility also has $1.25 billion of direct borrowing capacity under Duke Energy's master five-year credit facility, of which $791 million was available. Under a 2015 plea agreement with the U.S. Department of Justice, Duke Energy Progress is required to maintain $250 million of available capacity under the master credit facility related to violations at North Carolina facilities with coal ash basins. In March 2020, Duke extended its $8.0 billion master credit facility by one year to March 2025. Duke Energy's master credit facility does not contain a material adverse change clause for new borrowings. The facility contains a single financial covenant requiring Duke Energy and its utility subsidiaries to maintain a consolidated debt to capitalization ratio of no more that 65%, except for Piedmont Natural Gas Company (Piedmont). The debt to capital covenant level for Piedmont is 70%. As of December 31, 2019, each company was reported to be in compliance with this covenant and we estimate Duke Energy Progress' ratio to be about 50%.

Duke Energy Progress' nearest long-term debt maturities are $300 million of first mortgage bonds due in September 2020 and a $700 million term loan due in December 2020.

Rating methodology and scorecard factors

Exhibit 3

Rating Factors

Duke Energy Progress, LLC

Regulated Electric and Gas Utilities Industry Scorecard [1][2]	Current FY 12/31/2019		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	A
b) Consistency and Predictability of Regulation	Aa	Aa	Aa	Aa
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	A	A	A	A
b) Sufficiency of Rates and Returns	Baa	Baa	Baa	Baa
Factor 3 : Diversification (10%)				
a) Market Position	Baa	Baa	Baa	Baa
b) Generation and Fuel Diversity	A	A	A	A
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	6.6x	Aa	6.6x - 7x	Aa
b) CFO pre-WC / Debt (3 Year Avg)	21.9%	Baa	21% - 23%	A
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	20.8%	A	16% - 20%	A
d) Debt / Capitalization (3 Year Avg)	45.7%	Baa	42% - 46%	A
Rating:				
Scorecard-Indicated Outcome Before Notching Adjustment		A2		A2
HoldCo Structural Subordination Notching	0	0	0	0
a) Scorecard-Indicated Outcome		A2		A2
b) Actual Rating Assigned		A2		A2

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 12/31/2019
[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics

Appendix

Exhibit 4

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19
As Adjusted					
FFO	**1,767**	**1,814**	**2,018**	**2,198**	**2,322**
+/- Other	(149)	(151)	(71)	(435)	(169)
CFO Pre-WC	**1,618**	**1,663**	**1,947**	**1,763**	**2,153**
+/- ΔWC	216	516	(524)	93	86
CFO	**1,834**	**2,179**	**1,423**	**1,856**	**2,239**
- Div	-	300	124	175	-
- Capex	1,887	1,977	1,943	2,448	2,529
FCF	**(53)**	**(98)**	**(644)**	**(767)**	**(290)**
(CFO Pre-W/C) / Debt	21.8%	21.7%	23.7%	19.6%	22.4%
(CFO Pre-W/C - Dividends) / Debt	21.8%	17.8%	22.2%	17.7%	22.4%
FFO / Debt	23.9%	23.7%	24.6%	24.5%	24.2%
RCF / Debt	23.9%	19.8%	23.1%	22.5%	24.2%
Revenue	5,290	5,277	5,129	5,699	5,957
Cost of Good Sold	1,944	1,799	1,571	1,853	1,974
Interest Expense	276	294	333	362	350
Net Income	517	580	702	570	768
Total Assets	25,470	26,876	28,305	30,376	33,349
Total Liabilities	18,477	19,583	20,427	22,011	24,183
Total Equity	6,993	7,293	7,878	8,365	9,166

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months
Source: Moody's Financial Metrics

Exhibit 5

Peer Comparison Table [1]

	Duke Energy Progress, LLC (P)A2 Stable			Dominion Energy South Carolina, Inc. Baa2 Stable			Duke Energy Carolinas, LLC A1 Stable			Georgia Power Company Baa1 Stable		
	FYE	FYE	FYE	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM
(in US millions)	Dec-17	Dec-18	Dec-19	Dec-17	Dec-18	Dec-19	Dec-17	Dec-18	Dec-19	Dec-17	Dec-18	Dec-19
Revenue	5,129	5,699	5,957	3,070	2,762	1,929	7,302	7,300	7,395	8,310	8,420	8,408
CFO Pre-W/C	1,947	1,763	2,153	1,228	653	647	2,844	2,862	3,143	2,474	2,549	2,852
Total Debt	8,215	8,975	9,604	5,524	5,360	4,237	10,463	11,665	12,151	12,267	10,586	13,708
CFO Pre-W/C / Debt	23.7%	19.6%	22.4%	22.2%	12.2%	15.3%	27.2%	24.5%	25.9%	20.2%	24.1%	20.8%
CFO Pre-W/C – Dividends / Debt	22.2%	17.7%	22.4%	16.5%	9.0%	14.6%	21.2%	18.1%	23.6%	9.7%	10.9%	9.3%
Debt / Capitalization	45.7%	46.1%	45.4%	47.4%	50.3%	48.6%	41.6%	43.3%	42.2%	44.7%	37.8%	42.8%

[1] All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade
Source: Moody's Financial Metrics

Ratings

Exhibit 6

Category	Moody's Rating
DUKE ENERGY PROGRESS, LLC	
Outlook	Stable
Issuer Rating	A2
First Mortgage Bonds	Aa3
Senior Secured	Aa3
Senior Unsecured Shelf	(P)A2
ULT PARENT: DUKE ENERGY CORPORATION	
Outlook	Stable
Issuer Rating	Baa1
Sr Unsec Bank Credit Facility	Baa1
Senior Unsecured	Baa1
Jr Subordinate	Baa2
Pref. Stock	Baa3
Commercial Paper	P-2
PARENT: PROGRESS ENERGY, INC.	
Outlook	Stable
Senior Unsecured	Baa1

Source: Moody's Investors Service

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