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# Duke Energy Carolinas LLC

**Primary Credit Analyst:**
Obioma Ugboaja, New York + 1 (212) 438 7406; obioma.ugboaja@spglobal.com

**Secondary Contact:**
Sloan Millman, CFA, New York + 1 (212) 438 2146; sloan.millman@spglobal.com

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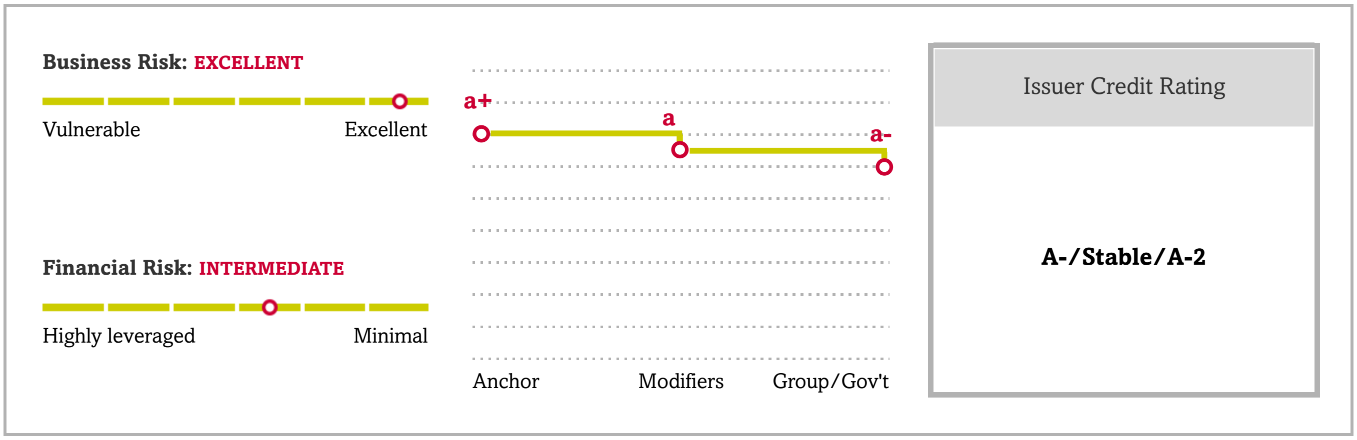
# Duke Energy Carolinas LLC




## Credit Highlights

### Overview

| Key strengths | Key risks |
|---|---|
| Duke Energy Carolinas LLC (DEC) is a lower risk vertically integrated utility with regulatory diversity in North and South Carolina. | DEC's service territory is prone to hurricanes and severe storms. This risk is partially offset by the recent passage of storm securitization legislation that permits recovery for certain storm recovery costs. |
| The 2019 settlement reached between DEC and the North Carolina Department of Environmental Quality (NCDEQ) reduces legal uncertainties associated with the company's ash pond closure strategy. | There is potential for regulatory lag to delay the recovery of the company's costs, and future cost recovery for coal-ash costs as per the terms of the NCDEQ settlement has not yet been determined. |
| DEC provides electric service to about 2.7 million customers, which supports cash flow stability. | We expect the revised U.S. tax code will weaken the company's cash flow metrics in 2020. |
| DEC has generally managed regulatory risk effectively, primarily in North Carolina, which accounts for about 70% of the company's retail rate base. | Environmental and operating risks associated with the company's coal-fired and nuclear power generation assets |

***The 2019 NCDEQ settlement is modestly favorable for DEC's credit quality.*** In December 2019, DEC entered into a settlement agreement with the NCDEQ and certain community groups under which DEC agreed to excavate five of the six remaining coal ash basins in North Carolina with ash moved to on-site lined landfills. At the one remaining basin, uncapped basin ash will be excavated and moved to lined landfills. We view this development as modestly favorable for DEC's credit quality because, although the settlement reduces legal uncertainties for DEC, the company will still have to receive adequate cost recovery for coal ash from its regulators. Hence, future cost recovery for coal ash costs is something we will monitor.

***We view the passage of storm cost securitization legislation as favorable for DEC's credit quality.*** The passage of Senate Bill (SB) 559 means that DEC can use a new financing measure to recover restoration costs incurred in 2018, due to several storms and hurricanes experienced in its service territory. Upon receipt of a financing order from the North Carolina Utilities Commission (NCUC), DEC may issue storm recovery bonds that are secured through a dedicated storm recovery charge, with a true-up mechanism that is separate and distinct from the utility's base rate.

***We continue to monitor the regulatory environment in South Carolina.*** In 2019, the Public Service Commission of South Carolina (PSCSC) issued an order granting DEC's request for a retail rate increase but denying recovery of certain coal ash costs. DEC has since filed a notice of appeal with the state Supreme Court, and the issue is still pending. The PSCSC order signals a potential change in the consistency and predictability of that state's regulatory construct. About 30% of DEC's retail rate base is in South Carolina.

***We expect DEC's financial measures to weaken compared with historical levels.*** This primarily reflects the company's elevated capital spending, the revised U.S. tax code, and dividends to parent Duke Energy Corp. The company recently revised upward its capital spending budget such that capital spending for the 2020-2023 period is approximately $2.7 billion higher than our previous forecast. Partially offsetting this is the pending DEC rate case. DEC filed a general rate case with the NCUC on Sept. 30, 2019, requesting approximately $445 million, premised on a 10.3% return on equity using 53% of capital structure. We expect tax givebacks to customers stemming from the revised U.S. tax code to offset a significant portion of this rate request. Overall, we expect DEC's funds from operations (FFO) to debt to weaken and range from about 23%-24%, compared with historical levels, which averaged about 26%.

**Outlook: Stable**

The stable outlook on DEC is tied to that of its parent, reflecting our view that Duke Energy Corp.'s consolidated financial measures will remain above our downgrade threshold, including FFO to debt consistently above 15% throughout our forecast period. The stable outlook also assumes parent Duke Energy will continue to commit to its present level of credit quality and will effectively manage regulatory risk across its key regulatory jurisdictions.

### Downside scenario

We could lower our ratings on Duke Energy and its subsidiaries over the next 24 months if consolidated financial measures weakened, including FFO to debt falling below 15%. We could also lower the ratings if Duke Energy's business risk increased because of additional regulatory lag or more stringent environmental rules related to its coal exposure, if we concluded that the company's regulatory risk management in its key states had weakened, or if the company shifted its strategic focus away from its predominantly lower-risk regulated utility operations.

### Upside scenario

Although unlikely, we could raise our ratings on Duke Energy and its subsidiaries over the next 24 months if consolidated FFO to debt were consistently above 20%.

## Our Base-Case Scenario

**Assumptions**

- Consistent use of regulatory cost recovery mechanisms.
- New base rates resulting from the company's ongoing rate case in North Carolina.
- Storm securitization financing.
- Capital spending averaging about $3.4 billion annually throughout our forecast period.

**Key Metrics**

| | 2019a | 2020e | 2021e |
|---|---|---|---|
| FFO to debt (%) | 28.3 | 23-24 | 23-24 |
| Debt to EBITDA (x) | 3 | 3.2-3.5 | 3.2-3.5 |
| Cash FFO to interest | 8.4 | 7 | 7 |

a--Actual. e--Estimate.

- Dividends to parent ranging from $275 million to $550 million.
- Negative discretionary cash flow throughout our forecast period.

## Company Description

DEC engages in the generation, transmission, distribution, and sale of electricity and serves about 2.7 million electric customers in North Carolina and South Carolina. DEC is a wholly owned subsidiary of Duke Energy and contributes about 35% of Duke Energy's regulated EBITDA.

## Business Risk: Excellent

Our assessment of DEC's business risk profile reflects the company's lower-risk electric utility operations that benefit from a generally constructive regulatory framework, track record of reliable electric service, and large customer base. The company has some geographic and regulatory diversity given that its operations are concentrated in two states (North and South Carolina). Our assessment also accounts for DEC's generation mix. The company has about 20,000 megawatts (MW) of generation capacity, and its generation mix primarily reflects coal, nuclear, and natural gas. Coal-fired sources account for about 33% of DEC's owned generation, with nuclear, gas, and hydro sources accounting for 26%, 24%, and 16%, respectively. The company's dependence on coal exposes it to environmental risks and its ownership of nuclear generation assets exposes the company to higher operating risks associated with its nuclear-generation fleet.

### Peer comparison

**Table 1**

**Duke Energy Carolinas LLC--Peer Comparison**

**Industry sector: electric**

| | **Duke Energy Carolinas LLC** | **Georgia Power Co.** | **Alabama Power Co.** | **Florida Power & Light Co.** | **Virginia Electric & Power Co.** |
|---|---|---|---|---|---|
| Ratings as of Feb. 25, 2020 | A-/Stable/A-2 | A-/Negative/A-2 | A/Negative/A-1 | A/Stable/A-1 | BBB+/Stable/A-2 |
| | --Fiscal year ended Dec. 31, 2018-- | --Fiscal year ended Dec. 31, 2018-- | --Fiscal year ended Dec. 31, 2018-- | --Fiscal year ended Dec. 31, 2018-- | --Fiscal year ended Dec. 31, 2018-- |
| **(Mil. $)** | | | | | |
| Revenue | 7,300.0 | 8,420.0 | 6,032.0 | 11,786.3 | 7,619.0 |
| EBITDA | 3,519.6 | 3,694.8 | 2,540.9 | 5,967.5 | 3,494.2 |
| FFO | 2,934.0 | 2,901.5 | 2,114.3 | 5,010.5 | 2,795.3 |
| Interest expense | 662.6 | 576.3 | 465.6 | 664.0 | 648.9 |
| Cash interest paid | 496.6 | 493.3 | 320.6 | 542.0 | 570.9 |
| Cash flow from operations | 2,519.9 | 2,787.5 | 1,874.3 | 4,165.5 | 2,816.3 |

**Table 1**

**Duke Energy Carolinas LLC--Peer Comparison (cont.)**

**Industry sector: electric**

| | Duke Energy Carolinas LLC | Georgia Power Co. | Alabama Power Co. | Florida Power & Light Co. | Virginia Electric & Power Co. |
|---|---|---|---|---|---|
| Capital expenditure | 2,671.0 | 3,122.9 | 2,145.8 | 5,118.5 | 2,353.8 |
| FOCF | (151.1) | (335.4) | (271.4) | (953) | 462.5 |
| DCF | (901.1) | (1,731.4) | (1,070.6) | (1,453) | (1.5) |
| Cash and short-term investments | 33.0 | 4.0 | 313.0 | 112.0 | 29.0 |
| Debt | 11,484.4 | 15,464.0 | 8,655.4 | 12,906.5 | 12,751.4 |
| Equity | 11,683.0 | 14,323.0 | 7,725.5 | 21,014.0 | 13,047.0 |
| **Adjusted ratios** | | | | | |
| EBITDA margin (%) | 48.2 | 43.9 | 42.1 | 50.6 | 45.9 |
| Return on capital (%) | 8.4 | 9.1 | 10.3 | 10.4 | 8.6 |
| EBITDA interest coverage (x) | 5.3 | 6.4 | 5.5 | 9.0 | 5.4 |
| FFO cash interest coverage (x) | 6.9 | 6.9 | 7.6 | 10.2 | 5.9 |
| Debt/EBITDA (x) | 3.3 | 4.2 | 3.4 | 2.2 | 3.6 |
| FFO/debt (%) | 25.5 | 18.8 | 24.4 | 38.8 | 21.9 |
| Cash flow from operations/debt (%) | 21.9 | 18.0 | 21.7 | 32.3 | 22.1 |
| FOCF/debt (%) | (1.3) | (2.2) | (3.1) | (7.4) | 3.6 |
| DCF/debt (%) | (7.8) | (11.2) | (12.4) | (11.3) | (0.0) |

FFO--Funds from operations. FOCF--Free operating cash flow. DCF--Discretionary cash flow.

## Financial Risk: Intermediate

We assess DEC's financial measures using our medial volatility table, reflecting the company's lower-risk vertically integrated electric operations and management of regulatory risk. Our base-case scenario includes capital spending averaging about $3.4 billion annually throughout our forecast. In addition, our forecast incorporates dividends to the parent ranging from $275 million to $550 million. After incorporating the recent South Carolina rate case, pending North Carolina rate case, the effects of U.S. tax reform, and storm cost securitization, we expect DEC's financial measures will remain consistent with the lower end of the range for the intermediate financial risk profile category. As such, we use a negative comparable ratings analysis modifier to account for DEC's financial measures that reflect the lower end of the range for the intermediate financial risk profile category. Specifically, we expect FFO to debt to average about 23%-24%. Furthermore, given the DEC's elevated capital spending, we expect negative discretionary flow throughout our forecast period, indicative of its external funding needs.

### Financial summary

**Table 2**

**Duke Energy Carolinas LLC--Financial Summary**

| **Industry sector: electric** | | | | | |
|---|---|---|---|---|---|
| | **--Fiscal year ended Dec. 31--** | | | | |
| | **2019** | **2018** | **2017** | **2016** | **2015** |
| **(Mil. $)** | | | | | |
| Revenue | 7,395.0 | 7,300.0 | 7,302.0 | 7,322.0 | 7,229.0 |
| EBITDA | 4,026.8 | 3,519.6 | 3,749.5 | 3,652.5 | 3,511.1 |
| FFO | 3,437.3 | 2,934.0 | 3,103.5 | 3,271.1 | 2,732.0 |
| Interest expense | 732.5 | 662.6 | 661.1 | 659.4 | 625.1 |
| Cash interest paid | 467.5 | 496.6 | 453.1 | 441.4 | 437.1 |
| Cash flow from operations | 2,721.5 | 2,519.9 | 2,617.4 | 2,968.6 | 2,361.9 |
| Capital expenditure | 2,684.0 | 2,671.0 | 2,479.0 | 2,182.0 | 1,895.0 |
| FOCF | 37.5 | (151.1) | 138.4 | 786.6 | 466.9 |
| DCF | (237.5) | (901.1) | (486.6) | (1,213.4) | 65.9 |
| Cash and short-term investments | 18.0 | 33.0 | 16.0 | 14.0 | 13.0 |
| Gross available cash | 18.0 | 33.0 | 16.0 | 14.0 | 13.0 |
| Debt | 12,157.6 | 11,484.4 | 10,326.2 | 9,741.4 | 9,062.3 |
| Equity | 12,811.0 | 11,683.0 | 11,361.0 | 10,772.0 | 11,606.0 |
| **Adjusted ratios** | | | | | |
| EBITDA margin (%) | 54.5 | 48.2 | 51.3 | 49.9 | 48.6 |
| Return on capital (%) | 9.8 | 8.4 | 11.5 | 11.6 | 11.2 |
| EBITDA interest coverage (x) | 5.5 | 5.3 | 5.7 | 5.5 | 5.6 |
| FFO cash interest coverage (x) | 8.4 | 6.9 | 7.8 | 8.4 | 7.2 |
| Debt/EBITDA (x) | 3.0 | 3.3 | 2.8 | 2.7 | 2.6 |
| FFO/debt (%) | 28.3 | 25.5 | 30.1 | 33.6 | 30.1 |
| Cash flow from operations/debt (%) | 22.4 | 21.9 | 25.3 | 30.5 | 26.1 |
| FOCF/debt (%) | 0.3 | (1.3) | 1.3 | 8.1 | 5.2 |
| DCF/debt (%) | (2.0) | (7.8) | (4.7) | (12.5) | 0.7 |

FFO--Funds from operations. FOCF--Free operating cash flow. DCF--Discretionary cash flow.

## Liquidity: Adequate

As of December 2019, we assess DEC's liquidity as adequate to cover its needs over the next 12 months. We expect the company's liquidity sources to exceed uses by 1.1x or more and that it will meet our other requirements for such a designation. DEC's liquidity benefits from stable cash flow generation and ample availability under the parent's master credit facilities, which totals $8 billion. In addition, we use maintenance capital spending, recognizing that DEC has the ability to reduce capital spending in times of stress. Furthermore, DEC meets our other requirements for an adequate liquidity assessment, including having well-established and solid relationships with multiple banks and a satisfactory standing in the credit markets. Overall, we expect DEC can withstand a low-probability, high impact event while managing to meet its external funding needs.

| Principal Liquidity Sources | Principal Liquidity Uses |
| --- | --- |
| • Cash FFO of about $2.7 billion,<br>• Credit facilities of $1.5 billion, and<br>• Minimal cash | • Current long-term debt maturities of $458 million over the next 12 months,<br>• Assumed maintenance capital spending of $2.2 billion, and<br>• Dividends of about $550 million |

### Debt maturities

- 2020:$450 million
- 2021:$500 million
- 2022:$824 million
- 2023:$1 billion

## Covenant Analysis

### Compliance expectations

We expect DEC to comply with the terms of its covenant agreements throughout our forecast period, even with a 10% decline in EBITDA.

### Requirements

DEC is part of Duke Energy's master credit facility. The master credit facility includes a covenant that requires DEC's total-debt-to-total-capitalization ratio to not exceed 65%.

### Environmental, Social, And Governance

Approximately 57% of DEC's total electric generation fleet capacity of roughly 20 gigawatts (GW) is fossil fuel-based (33% coal, 24% natural gas), which exposes it to the ongoing cost of operating older units in the face of disruptive technological advances and the potential for changing environmental regulations that might require significant capital investments. Historically, the company has faced significant environmental, social, and financial repercussions from closing its coal ash ponds in North Carolina, but is mitigating this risk through the state's regulatory framework, which allows coal ash remediation costs to be recovered. But, the potential for future regulatory disallowances related to the company's coal ash remediation still poses some risk. In addition, the company's carbon-free nuclear generation portfolio increases its operating risk and exposes it to longer-term nuclear waste storage risks despite the company's long-term track record of achieving safe operational standards for its nuclear fleet. Overall, we assess DEC's environmental risk as higher than most peers given its environmental exposure, including those related to its coal exposure and hurricanes. Social and governance risk factors are in line with peers. We view DEC's ability to deliver safe and reliable electric services to customers as a positive social factor. And DEC's board of directors is capably engaged in risk oversight on behalf of all stakeholders.

## Group Influence

Our rating on DEC incorporates our view of the company as a core subsidiary of Duke Energy, meaning that we view DEC as highly unlikely to be sold and as integral to the group's overall strategy. In addition, DEC is closely linked to Duke Energy's name and reputation, and it has strong long-term support of the group's senior management. Because we assess DEC as not sufficiently insulated from its parent, the issuer credit rating on the company is in line with Duke's 'a-' group credit profile.

## Issue Ratings - Subordination Risk Analysis

### Capital structure

DEC's capital structure consists of nearly $12 billion, reflecting a mix of first mortgage bonds and senior unsecured long-term debt.

### Analytical conclusions

We rate DEC's senior unsecured debt the same as our issuer credit rating on the company because it is unsecured debt of a qualifying investment-grade regulated utility.

## Issue Ratings - Recovery Analysis

- We assign recovery ratings to first-mortgage bonds (FMB), which, depending on the rating category and the extent of the collateral coverage, can result in issue ratings being notched above an issuer credit rating on a utility.
- DEC's FMBs benefit from a first-priority lien on substantially all of the utility's real property owned or subsequently acquired. Collateral coverage of over 1.5x supports a recovery rating of '1+' and an issue rating one notch above the issuer credit rating.

## Reconciliation

**Table 3**

**Reconciliation Of Duke Energy Carolinas LLC Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. $)**

| | --Fiscal year ended Dec. 31, 2019-- | | | | | | |
|---|---|---|---|---|---|---|---|
| **Duke Energy Carolinas LLC reported amounts** | | | | | | | |
| | **Debt** | **EBITDA** | **Operating income** | **Interest expense** | **S&P Global Ratings' adjusted EBITDA** | **Cash flow from operations** | **Capital expenditure** |
| | 11,723.0 | 3,431.0 | 2,026.0 | 463.0 | 4,026.8 | 2,709.0 | 2,714.0 |
| **S&P Global Ratings' adjustments** | | | | | | | |
| Cash taxes paid | -- | -- | -- | -- | (122.0) | -- | -- |
| Cash taxes paid: Other | -- | -- | -- | -- | -- | -- | -- |
| Cash interest paid | -- | -- | -- | -- | (433.0) | -- | -- |

**Table 3**

| Reconciliation Of Duke Energy Carolinas LLC Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. $) (cont.) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Reported lease liabilities | 308.0 | -- | -- | -- | -- | -- | -- |
| Operating leases | -- | 47.0 | 4.5 | 4.5 | (4.5) | 42.5 | -- |
| Accessible cash and liquid investments | (18.0) | -- | -- | -- | -- | -- | -- |
| Capitalized interest | -- | -- | -- | 30.0 | (30.0) | (30.0) | (30.0) |
| Share-based compensation expense | -- | 30.8 | -- | -- | -- | -- | -- |
| Asset retirement obligations | 144.6 | 235.0 | 235.0 | 235.0 | -- | -- | -- |
| Nonoperating income (expense) | -- | -- | 94.0 | -- | -- | -- | -- |
| EBITDA: Other income/(expense) | -- | 283.0 | 283.0 | -- | -- | -- | -- |
| Depreciation and amortization: Other | -- | -- | (283.0) | -- | -- | -- | -- |
| Total adjustments | 434.6 | 595.8 | 333.5 | 269.5 | (589.5) | 12.5 | (30.0) |
| **S&P Global Ratings' adjusted amounts** | | | | | | | |
| | **Debt** | **EBITDA** | **EBIT** | **Interest expense** | **Funds from operations** | **Cash flow from operations** | **Capital expenditure** |
| | 12,157.6 | 4,026.8 | 2,359.5 | 732.5 | 3,437.3 | 2,721.5 | 2,684.0 |

## Ratings Score Snapshot

### Issuer Credit Rating

A-/Stable/A-2

### Business risk: Excellent

- **Country risk:** Very low
- **Industry risk:** Very low
- **Competitive position:** Excellent

### Financial risk: Intermediate

- **Cash flow/leverage:** Intermediate

### Anchor: a+

### Modifiers

- **Diversification/portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Satisfactory (no impact)

- **Comparable rating analysis:** Negative (-1 notch)

**Stand-alone credit profile : a**

- **Group credit profile:** a-
- **Entity status within group:** Core (-1 notch from SACP)

## Related Criteria

- General Criteria: Group Rating Methodology, July 1, 2019
- General Criteria: Hybrid Capital: Methodology And Assumptions, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | Utilities: Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property, Feb. 14, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

**Business And Financial Risk Matrix**

| | Financial Risk Profile | | | | | |
|---|---|---|---|---|---|---|
| **Business Risk Profile** | Minimal | Modest | **Intermediate** | Significant | Aggressive | Highly leveraged |
| **Excellent** | aaa/aa+ | aa | **a+/a** | a- | bbb | bbb-/bb+ |
| Strong | aa/aa- | a+/a | a-/bbb+ | bbb | bb+ | bb |
| Satisfactory | a/a- | bbb+ | bbb/bbb- | bbb-/bb+ | bb | b+ |
| Fair | bbb/bbb- | bbb- | bb+ | bb | bb- | b |
| Weak | bb+ | bb+ | bb | bb- | b+ | b/b- |
| Vulnerable | bb- | bb- | bb-/b+ | b+ | b | b- |

| Ratings Detail (As Of February 28, 2020)* | |
|---|---|
| **Duke Energy Carolinas LLC** | |
| Issuer Credit Rating | A-/Stable/A-2 |
| Senior Secured | A |

| Ratings Detail (As Of February 28, 2020)*(cont.) | |
|---|---|
| Senior Unsecured | A- |
| **Issuer Credit Ratings History** | |
| 20-Nov-2019 | A-/Stable/A-2 |
| 20-May-2019 | A-/Negative/A-2 |
| 12-Jan-2017 | A-/Stable/A-2 |
| 27-Oct-2015 | A-/Negative/A-2 |
| 02-Apr-2015 | A-/Stable/A-2 |

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.