Section 3: Finance/Fair Return

Q. (Section 3) Please provide any DBRS documents that describe its generic policies towards regulated Canadian and US utilities.

A. Attachment A is DBRS' *Global Methodology for Rating Companies in the Regulated Utility and Independent Power Producer Industries*, dated January 2024.

DBRS' Rating Methodology
January 2024

MORNINGSTAR | DBRS

Methodology

Global Methodology for Rating Companies in the Regulated Utility and Independent Power Producer Industries

Morningstar DBRS
January 2024

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Scope and Limitations

This methodology represents our current approach for rating companies in the regulated utility and independent power producer (IPP) industries globally. It includes consideration of historical and expected business and financial risk factors as well as industry-specific issues, regional nuances, and other subjective factors and intangible considerations. Our approach incorporates a combination of both quantitative and qualitative factors. This methodology provides guidance regarding our methods used in the sector and should not be interpreted with formulaic inflexibility but rather should be understood in the context of the dynamic environment in which it is intended to be applied. The methods described herein may not be applicable in all cases; the considerations outlined in our methodologies are not exhaustive and the relative importance of any specific consideration can vary by issuer. In certain cases, a major strength can compensate for a weakness and, conversely, a single weakness can override major strengths of the issuer in other areas. We may use, and appropriately weight, several methodologies when rating issuers that are involved in multiple business lines.

Introduction to Morningstar DBRS Methodologies

- We publish rating methodologies to give issuers and investors insight into the rationale behind our rating opinions.
- In general terms, our ratings are opinions that reflect the creditworthiness of an issuer, a security, or an obligation. Our ratings assess an issuer's ability to make timely payments on outstanding obligations (whether principal, interest, or preferred share dividends), consistent with the terms of those obligations. In some cases (e.g., non-investment-grade corporate issuers), our ratings may also address recovery prospects for a specific instrument given the assumption of an issuer default.

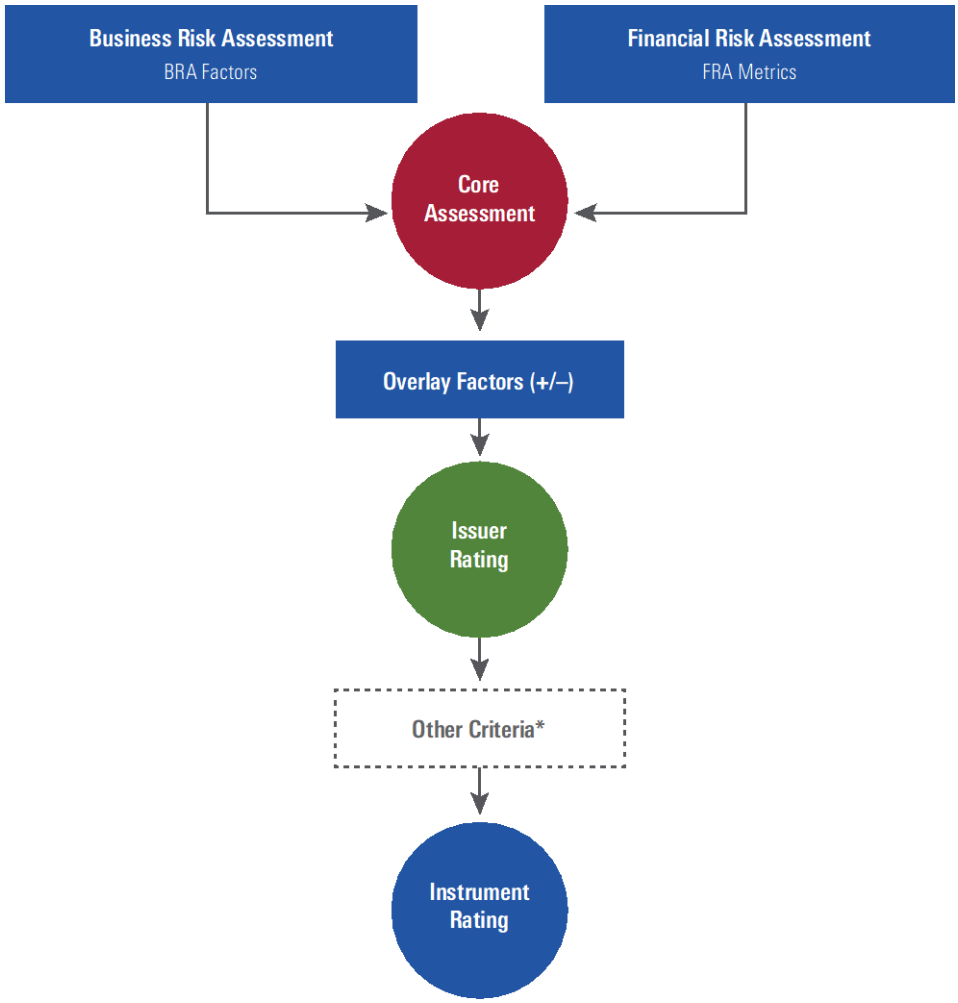
Contents

- We operate with a stable rating philosophy; in other words, we strive to factor the impact of a cyclical economic environment into our ratings wherever possible, which minimizes rating changes caused by economic cycles. Rating revisions do occur, however, when more structural changes, either positive or negative, have occurred or appear likely to occur in the foreseeable future.
- We also publish criteria, which are an important part of the rating process. Criteria typically cover areas that apply to more than one industry. Both methodologies and criteria are publicly available on our website.
- Three criteria are used in the ratings of virtually every corporate issuer and are incorporated by reference into this methodology: (1) *Morningstar DBRS Criteria: Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings*; (2) *DBRS Morningstar Global Criteria: Common Adjustments for Calculating Financial Ratio*s; and (3) *DBRS Morningstar Global Criteria: Rating Corporate Holding Companies and Parent/Subsidiary Rating Relationships*.

Overview of the Morningstar DBRS Rating Process

- As illustrated below, there are generally four key components to our corporate rating process: (1) the Business Risk Assessment (BRA), (2) the Financial Risk Assessment (FRA), (3) overlay considerations, and (4) specific instrument considerations.
- The BRA captures the major business risk aspects of the issuer and is determined by assessing each of the BRA factors outlined in the industry-specific BRA grid. The FRA pertains to financial soundness and is determined by assessing each of the FRA factors. Throughout the FRA and BRA determination process, we perform a consistency check of these factors relative to the issuer's rated industry peers.
- The BRA and FRA are then combined to derive the issuer's core assessment. For investment-grade credits, the BRA will have greater weight than the FRA in determining the core assessment.
- The core assessment may then be adjusted up or down, as applicable, if any of the general or sector-specific overlay factors is deemed applicable and material to the credit profile in order to arrive at the issuer rating, which represents our assessment of the issuer's likelihood of default.
- The issuer rating is then used as the basis for specific instrument ratings, which may differ from the issuer rating because of seniority or, in the case of non-investment-grade issuers, expected recovery considerations. (See the Rating the Specific Instrument and Other Criteria section below.)

Our Rating Analysis Process



Source: Morningstar DBRS.
* Depending on the instrument, "other criteria" may include *DBRS Morningstar Global Criteria: Recovery Ratings for Non-Investment-Grade Corporate Issuers* or *DBRS Morningstar Global Criteria: Preferred Share and Hybrid Security Criteria for Corporate Issuers*, for example. Please refer to the section below entitled Rating the Specific Instrument and Other Criteria for a list of these criteria, as well as other criteria that may be applicable at any stage of the rating process.

Regulated Utility Segment

- The global regulated utility segment comprises rate-regulated utilities whose primary businesses typically operate within a monopoly franchise area and may include one or more of the following business lines: (1) regulated electric generation, transmission, and distribution; (2) natural gas transmission and distribution; and (3) water and waste-water utilities.
- We may also use this methodology for utilities that are nonregulated but effectively share many features with a regulated utility, such as operating as a natural monopoly, providing an essential service, and/or having strong market power (e.g., district energy). For these entities, the Regulation and Operating Efficiency factors are not applicable and are instead replaced by the Competitive/Contractual Position.
- Per the three-tier Industry Risk Assessment (IRA) system (i.e., "A," BBB, or BB), this industry's IRA is "A."[1]
- For the electric-related utilities, there are three broad business areas: generation, transmission, and distribution. Some utilities are fully integrated and participate in all three, while others may be involved in only one or two segments.
- Regulated utilities are typically monopolistic. Because of the large number of fixed costs, one large utility firm can generally provide service at a lower cost than two or more firms serving the same customer base. Utilities are generally regulated by an administrative tribunal (i.e., a government agency) created by statute to assist ratepayers in obtaining reliable energy services on a cost-effective basis. Rate-setting mechanisms generally ensure that utilities receive adequate revenue to recover all costs prudently incurred to provide service and a return on capital.
- Utilities are typically regulated under either a traditional cost-of-service (COS) framework or some form of incentive regulation mechanism (IRM).
- The risks associated with environmental regulation are growing, particularly for the electric industry; however, for a regulated utility, future cost increases attributable to environmental regulation should be recoverable from ratepayers.
- Long-term threats include competition from new distributed energy resources (such as solar and geothermal power) and small-scale power generation sources located close to end users that provide an alternative to traditional electric power generation as well as the transmission and distribution grid.
- Water and waste-water utilities typically operate under similar regulatory frameworks to other regulated distribution utility operations; however, water and waste-water sector regulations can vary widely given that regulation may be at the municipal level rather than the national/state/provincial level. In addition, capital spending may be more volatile for water and waste-water utilities.

1. The IRA is a general indication of an industry's business risk using just three categories of our long-term rating scale (i.e., BB, BBB, and "A"). It results from a relative ranking of most industries that have a methodology from us largely based on (1) profitability and cash flow, (2) competitive landscape, (3) stability, (4) regulation, and (5) other factors. An "industry," for the purposes of the IRA, is defined as firms that are generally the larger, more established firms within the countries where the majority of our rated issuers are based. The BRA grid (see the Regulated Utility BRA section) is calibrated with the assistance of the IRA, which positions an average firm in the industry onto the BRA grid in an approximate way.

Regulated Utility BRA

BRA Factors

The BRA grid below shows the factors we use in determining the BRA. While these factors are shown in general order of importance, depending on a specific issuer's business activities, this ranking can vary by issuer.

Regulated Utility – BRA Factors

Regulation (For Regulated Entities Only) – The quality of the regulatory regime is typically the most important BRA factor, as it lays the foundation for utilities' earning capacity, cost recovery mechanisms, and capital structure. A supportive regulatory framework contributes to stable cash flow and earnings, underpinned by a fair rate of return and a full and timely recovery of costs. To determine the BRA for regulation, we review eight considerations (see Appendix 1) to assess the regulatory framework in which the utility conducts its business. The eight considerations include the following: (1) deemed equity ratio, (2) allowed return on equity (ROE), (3) energy cost recovery, (4) capital cost recovery (CCR) and operating cost recovery (OCR), (5) COS versus IRM, (6) political interference, (7) stranded cost recovery, and (8) rate freeze.

AA	A	BBB	BB/B
• Highly supportive regulatory framework with the weighted-average relevant key regulatory risk factors in Appendix 1 considered to be "excellent."	• Supportive regulatory framework with the weighted-average relevant key regulatory risk factors in Appendix 1 considered to be "good" or better.	• Reasonable regulatory framework with the weighted-average relevant key regulatory risk factors in Appendix 1 considered to be "satisfactory" or better.	• Poor regulatory framework with the weighted-average relevant key regulatory risk factors in Appendix 1 considered to be "below average" and/or "poor."

Competitive/Contractual Position (For Nonregulated Entities Only) – For applicable nonregulated entities, we focus on the contractual and market position. Contractual arrangements can mitigate a company's business risk. Earnings and cash flows from companies that are contractually secured on a long-term basis by strong counterparties are generally more stable and predictable, and may eliminate volume and commodity risk while mitigating the risk of near-term recontracting. Nevertheless, companies with significant exposure to energy activities that result in exposure to price and/or volume carry higher earnings volatility and risk. We also take into consideration the monopolistic nature of the market.

AA	A	BBB	BB/B
• Not applicable.	• Largely contracted on a long-term basis. • Minimal recontracting and early contract termination risk. • Minimal merchant energy operations. • Fuel and purchase energy costs are fully passed through with an automatic adjustment mechanism on a quarterly basis. • Some volume risk exists but is mitigated by a high portion of rates being fixed.	• Partly contracted on a medium-term basis. • Moderate recontracting and early contract termination risk. • Modest exposure to merchant energy operations. • Fuel and purchase energy costs are fully passed through, subject to review. • Some volume risk exists but is mitigated by historically stable throughputs.	• Partly contracted on a short-term basis. • High recontracting and early contract termination risk. • Significant exposure to merchant energy operations. • Fuel and purchase energy costs are not fully passed through. • Volume risk exists because of a high portion of rates being variable.

Diversification (Products/Markets) (For Both Regulated and Nonregulated Entities) – We view the electricity transmission segment as having the lowest risk, as the transmission grid forms the backbone of the industry and generally represents the smallest portion of the average residential electricity bill. As a result, there is strong political will to support the transmission owner to maintain safe, reliable operation of the system. The electricity distribution and gas transmission/distribution segments generally entail modestly higher risk, as the distribution segment accounts for a greater portion of the average residential bill, and the gas segment is exposed to integrity management risk. The generator segment has the highest risk, as it is exposed to fuel risk and higher operating risk than that of other segments; it also represents the highest portion of the electricity bill, which makes it more susceptible to political risk especially in a rising power cost environment. Diversification across low-risk multiline businesses is positive, limiting the impact of changes in one particular segment. We also view diversification across multiple regulatory regimes as positive, as this limits the impact of negative regulatory decisions in one jurisdiction. This is particularly true if a utility has sizable operations in multiple jurisdictions versus a utility with a significant portion of its operations in one area while having multiple smaller operations in others.

AA	A	BBB	BB/B
• Utility has operations in multiple regulatory jurisdictions. • Primarily electric transmission. • Well-diversified utility with a range of businesses throughout the utility value chain (natural gas transmission and distribution, electricity transmission and distribution).	• Electric or gas distribution, water or waste-water distribution/services, or an integrated utility or generator with a low-risk profile.	• Integrated utility or generator with a moderate-risk profile.	• Integrated utility or generator with a high-risk profile.

Franchise and Customer Mix (For Both Regulated and Nonregulated Entities) – Operating in stable and economically strong service areas generally results in revenue stability and low accounts-receivable write-offs, as well as minimizing political interference risk in a rising electricity rate environment. We consider both the economic strength of a utility's customer base and the size of the customer base when assessing whether customers will be able to absorb rate increases. Customers in an economically strong service territory are more able to absorb higher rate increases, while a larger customer base would allow capital and operating costs to be spread out over a greater number of customers. Utilities with a higher proportion of residential and commercial customers and load also possess the ability to better weather economic downturns and demonstrate more stable operating performances than utilities with a greater exposure to industrial customers and load, which are more inclined to seek lower-cost or more reliable suppliers and are prone to economic cyclicality. However, utilities with a large residential customer base are generally more sensitive to weather conditions, exposing the utilities to greater volume risk.

AA	A	BBB	BB/B
• Economically vibrant service territory, with income that is significantly above the national average. • Utility has a significant customer base (i.e., large metropolitan area or province/state). • Customer and load mix predominantly residential and commercial.	• Economically strong service territory, with income above the national average. • Utility has a sizable customer base. • Customer and load mix heavily weighted toward residential and commercial.	• Economically stagnant service territory, with income that is in line with the national average. • Utility has a reasonably sized customer base. • Customer and load mix a balance of residential and commercial versus industrial.	• Economically weak service territory, with income that is below the national average. • Utility has a small customer base. • Customer and load mix weighted toward cyclical industrials.

Operating Efficiency (Inputs and Costs) (For Regulated Entities Only) – Utilities with a proven track record of superior operating efficiency generally sustain profitability above their respective regulatory return parameters (i.e., the allowed or deemed ROE as distinct from the actual ROE, which is the company's reported ROE as presented in regulatory filings) and record above-average profitability relative to their peers. Improving operating efficiency also helps minimize political interference (e.g., in the form of the creation of stranded costs, a rate freeze, or regulatory lag in the recoupment of costs) in recovering rising input costs and refurbishment costs for aging infrastructure. We note that while a bigger utility (by asset or rate base) should possess a stronger ability to achieve economies of scale as well as raise funds and execute capital projects, it may be under extra scrutiny by the regulator to meet higher thresholds.

AA	A	BBB	BB/B
• Actual ROE has significantly exceeded the allowed ROE as a result of continued operating efficiency. • Strong ROE outperformance is expected to be well sustained in the foreseeable future through incremental cost savings accruing to the company. • Utility is of large comparative size, allowing for significant economies of scale.	• Actual ROE has been in line with the allowed ROE, or a difference between the allowed ROE and the actual ROE has not been material. • ROE performance is expected to remain in line with the allowed ROE for the foreseeable future. There is no expectation of material incremental cost savings arising in the foreseeable future. • Utility is of sufficiently large size to achieve economies of scale.	• Actual ROE has been somewhat below the allowed ROE, and this negative ROE performance relative to allowed ROE is expected to continue for the foreseeable future with no expectation of any material incremental cost savings. • Utility is of reasonable size to achieve some economies of scale.	• The utility has generated much lower actual ROE than the allowed ROE, and this negative ROE performance relative to allowed ROE is expected to continue for the foreseeable future with no expectation of any material incremental cost savings. • Small utility that can only achieve modest, if any, economies of scale.

Regulated Utility FRA

FRA Metrics

The FRA grid below shows the metrics we use to determine the FRA. While these FRA metrics are shown in general order of importance, depending on an issuer's activities, the ranking can vary by issuer. This section also addresses financial considerations not directly captured by the FRA metrics but nonetheless important to the financial soundness of an issuer. When deemed deficient or, on rarer occasions, favourable to the credit profile, we would generally incorporate such considerations into the rating through one of the overlay factors outlined in the Overlay Factors section of this methodology.

- Our ratings are primarily based on future performance expectations, so while past metrics are important, any final rating will incorporate our on future metrics, a subjective but critical consideration.
- It is not unusual for a company's metrics to move in and out of the ranges noted in the grid below, particularly for cyclical industries. In the application of this matrix, we look beyond the point-in-time ratio.
- Financial metrics depend on accounting data whose governing principles vary by jurisdiction. We may adjust financial statements to permit comparisons with issuers using different accounting principles (e.g., U.S. GAAP versus IFRS).
- Appendix 3 to this methodology provides definitions for the FRA metrics in the table below as well as a discussion of common financial statement adjustments for regulated utilities. Please refer to *DBRS Morningstar Global Criteria: Common Adjustments for Calculating Financial Ratios* for further information.

- Liquidity can be an important credit risk factor, especially for lower-rated, non-investment-grade issuers. While ratios such as the current or quick ratio can give an indication of certain short-term assets in comparison with short-term liabilities, we will typically review all material sources of liquidity (including cash on hand, cash flow from operations, availability of bank and capital market funding, etc.) in comparison with all material short- and medium-term uses of liquidity (such as operations, capital expenditures (capex), mandatory debt repayments, share buybacks, dividends, etc.).
- Profitability, particularly in the medium term, can be an important differentiator of credit risk. We may assess profitability through a variety of metrics, including return on capital.
- While free cash flow (i.e., net of changes in working capital, dividends, capex, etc.) can be volatile and, on occasion, negative, we may use this concept and/or other cash flow metrics, such as cash flow from operations, to assess a company's ability to generate cash to repay debt.
- We considers an issuer's financial policies, including factors such as its targeted financial leverage, its dividend policy and the likelihood of share buybacks, or other management actions that may favour equityholders over creditors.
- While market pricing information (such as market capitalization or credit spreads) may be of interest to us, particularly where the information suggests that an issuer may have difficulty in raising capital, it does not usually play a material role in our more fundamental approach to assessing credit risk.

The following table represents financial metrics related to fully regulated utilities with only modest exposure to nonregulated operations. Significant exposure to nonregulated operations would result in increasingly stringent financial metrics criteria at the various rating levels.

Regulated Utility – FRA Metrics				
Metric	**AA**	**A**	**BBB**	**BB/B**
Cash flow-to-debt (%)	> 17.5	12.5 to 17.5	10.0 to 12.5	0.0 to 10.0
Debt-to-capital (%)	< 55	55 to 65	65 to 75	75 to 90
EBIT-to-interest (x)	> 2.8	1.8 to 2.8	1.5 to 1.8	1.0 to 1.5

Blending the BRA and FRA into a Core Assessment

- The core assessment is a blend of the BRA and FRA. In most cases, the BRA will have greater weight than the FRA in determining the issuer rating.
- At the low end of the rating scale, however, particularly in the B range and below, the FRA and liquidity factors play a much larger role, and the BRA would, therefore, typically receive a lower weighting than it would at higher rating levels.
- In addition, we also take into consideration the volatility of a company's FRA in arriving at the final rating. A company with more volatile credit metrics than its industry peers may be rated lower than it would otherwise be based on a blend of the BRA and FRA. The lower rating reflects the higher risk, especially in a downturn, associated with the increased volatility.

Overlay Factors

The overlay factors are the last consideration in the determination of the issuer rating. When deemed relevant and material to the analysis of an issuer, an overlay factor positively or negatively modifies the core assessment derived from the combination of the BRA and FRA, with the impact of a single factor

potentially ranging from less than one notch to as much as several notches in the case of more significant factors. We consider both sector-specific and general overlay factors, which are outlined in the two sections that follow.

Sector-Specific Overlays

Capital Spending

- Utilities are capital-intensive businesses, especially when nuclear generation is involved. A utility might undertake large capital projects to either meet growing demand in a high-growth franchise area or replace significant aging assets. Particularly for multiyear capital spending programs, the risk of cost overruns and weaker financial metrics can be high.

Energy Supply Considerations

- The provision of utility services depends on the presence of adequate supplies of energy (e.g., natural gas and electricity) to meet end-user demand. We may penalize utilities (including distributors) that have a history of service interruptions because of inadequate or unreliable energy supply.

Ownership

- The existence of a highly rated parent typically does not result in a lift to a stand-alone utility's rating; however, we may impute some level of implicit support (see *DBRS Morningstar Global Criteria: Guarantees and Other Forms of Support*) in a utility's rating if it is owned by a highly rated city, despite no explicit guarantee being in place, given the potential unique circumstances of the city-utility relationship.

Retail Exposure and Other Business Exposure

- Distribution companies may be required to provide retail services to customers, such as electricity supply. Under this framework, utilities, depending on commercial arrangements, could be exposed to significant market risk. Key areas of analysis, therefore, include hedging policies, counterparty risk, and the size of the operation. Rates are, however, generally passed on to ratepayers, thereby reducing the risk to the utility.
- If the utility has other nonregulated businesses and these businesses are sizable but not sufficiently material to be assessed under a different methodology, we will also assess the risk profile of these businesses and will make an adjustment to the overall risk profile of the utility accordingly.

Competitive Environment

- We assess the degree of competition from other forms of energy or any other potential threats to natural monopoly, including material development of new distributed energy resources and small-scale power generation sources close to end users that could ultimately provide an alternative to the traditional electric power transmission and distribution grid.

General Overlays

Strategic Advantage or Impediment

- Strategic advantage or impediments not otherwise captured by BRA factors may include an exceptional brand, a unique product or process, or unusually large or small operations.

Parent-Subsidiary Relationship

- Various aspects of an issuer's corporate structure have the potential to positively or negatively influence the rating of that issuer. This may include the potential presence of structural subordination when the issuer is a holding company or the possibility of implicit support from a strong parent when the issuer is an important subsidiary of a broader corporate group. For more details, refer to *DBRS Morningstar Global Criteria: Rating Corporate Holding Companies and Parent/Subsidiary Rating Relationships* and *DBRS Morningstar Global Criteria: Guarantees and Other Forms of Support.*

Other Financial Considerations

- Beyond the FRA metrics, many other financial factors reviewed as part of the rating process may point to material sources of credit risk. Such factors may include (1) a strained liquidity position; (2) unusually high cash flow volatility relative to peers; (3) considerable uncertainty in the issuer's financial outlook owing, for example, to a recent large acquisition, an aggressive acquisition strategy, or a rapidly changing competitive environment; (4) unduly large unfunded pension liabilities; or (5) weak financial policies as evidenced, for example, by a significant currency mismatch in the issuer's business or debt structure or significant refinancing risk. In contrast, substantial financial resources or other noncore valuable assets that can easily be monetized, if necessary, could potentially provide uplift to a rating.

Environmental, Social, and Governance (ESG) Considerations

- ESG factors may affect a credit rating and/or the related credit analysis. The impact of ESG factors may vary across industries, sectors, or asset classes and is described in the *Morningstar DBRS Criteria: Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings*. Where an ESG factor is material to a corporate rating, but is not otherwise addressed in a BRA/FRA factor or other overlay, we will reflect the impact of the ESG factor on the rating through this general ESG overlay.

Sovereign Risk

- The issuer rating may, in some cases, be constrained by the credit quality of a sovereign. If the issuer operates in a lower-rated country or operates in multiple countries but a material amount of its business is conducted in that lower-rated country, we may reflect this risk by lowering the issuer rating. Please refer to Appendix C of the *Global Methodology for Rating Sovereign Governments* for further information.

Independent Power Producer Segment

- IPPs are companies that produce and sell electricity to wholesale customers/markets from multiple and dispersed power-generating assets that use a variety of proven fuel and technology types. Note that electric-generation projects comprising a single (or few) asset(s) are covered in the *Global Methodology for Rating Project Finance*.
- Per the three-tier IRA system (i.e., "A," BBB, or BB), the IRA for IPPs is BBB.[2]
- The IPP industry is primarily characterized by (1) power price volatility, although the impact varies for each company depending on the degree of merchant (uncontracted, unhedged) exposure; (2) fuel cost volatility (for gas-fired generation); (3) unpredictability with respect to utilization factors (for run-of-river hydro, wind, and solar); (4) the use of long-term power contracts (power purchase agreements (PPAs)) and short-term hedges, particularly with investment-grade counterparties, for the offtake of electricity and input factors, such as fuel, to partially mitigate the merchant exposure; (5) significant barriers to entry, including large capital requirements, long developmental lead times, and a new facility approval process susceptible to regulatory, political, and social issues; and (6) the significant influence of government policy, which could vary by country, state, and/or province.
- Electricity is an essential product critical to the functioning of the broader economy, whose demand is correlated with general economic growth. Electricity is unique among commodity products in that it cannot be stored efficiently and must be consumed when produced. However, this may gradually change in coming years as energy storage becomes economical.
- Base-load assets (using coal, nuclear fuel, or hydro resources, in some cases) typically operate all day. Mid-merit or intermittent assets (such as combined-cycle gas-fired plants) typically operate only at peak times during the day, whereas peaking units (such as combustion turbines) typically only operate at peak times during the year.
- Wholesale electric markets are driven largely by regional supply and demand dynamics. These dynamics reflect, among other things, the cost of access to transmission lines as well as political issues among jurisdictions. Power markets remain largely regional (albeit with some interregional flows). Transmission constraints can also act as a natural barrier to entry within a region.
- Power generators with a heavily contracted generation portfolio are more likely to experience less volatility in profitability and cash flow compared with ones with significant merchant exposure. In addition, the average length of contracts, the recontracting risk, and the credit strength of counterparty(ies) play a key part in our analysis of power contracts. Short-term hedges also mitigate the exposure to merchant risk of a generator. However, we view short-term hedges as higher risk than long-term PPAs as the hedges are short in nature and some of the hedges could entail risk associated with certain output obligations.
- Operational expertise is an important credit consideration. In the event of a prolonged non-force majeure outage, power generators remain liable for their contracted output. Sustained low output levels could have a material negative impact on cash flow and profitability and, hence, on the issuer's rating.

2. The IRA is a general indication of an industry's business risk using just three categories of our long-term rating scale (i.e., BB, BBB, and "A"). It results from a relative ranking of most industries that have a methodology from us largely based on (1) profitability and cash flow, (2) competitive landscape, (3) stability, (4) regulation, and (5) other factors. An "industry," for the purposes of the IRA, is defined as firms that are generally the larger, more established firms within the countries where the majority of our rated issuers are based. The BRA grid (see below) is calibrated with the assistance of the IRA, which positions an average firm in the industry onto the BRA grid in an approximate way.

- Geographic and technological diversification are also important credit considerations. The stability of any individual operator can arise from diversification by operating region, by customer, by fuel, weather effects, and regulatory and political factors.
- Profitability and cash flow are partially influenced by fuel cost and the efficiency of a generator's assets compared with other assets in the same region (e.g., age, type of generating asset, and the asset's position compared with the overall fuel mix of the region in which it operates). Lower production cost producers will have a competitive advantage over higher-cost producers in the same wholesale market.
- Renewable-energy generators have a distinct production risk linked to the variable nature of their respective resources, particularly for hydroelectric, wind-powered, and solar-powered generators.
- The industry is operationally regulated, particularly with respect to the permitting of new facilities, the operations of existing assets (i.e., safety and emissions) and environmental regulation; therefore, assessing the issuer's track records in capital project execution is essential.
- Natural gas-fired and oil-based generation is subject to risks associated with rising energy prices. These risks include, but are not limited to, liquidity issues, supply disruptions, and much higher marginal costs for the power generator.
- Coal-fired generation faces significant unexpected costs with respect to complying with greenhouse gas emission reduction regulations or the potential of being shut down.
- In addition, evolving government policies, particularly related to long-term energy planning, continue to drive the growth strategy for electric generation companies and the resulting generation mix of their respective regions. For example, environmental targets and renewable generation credits have led to significant investments in the renewable energy sector.
- Environmental regulation and/or legislation has become more stringent over time, leading to higher capital and/or operating costs. The ability for any generator to pass on these higher costs is dependent on the regions in which they operate.
- In North America, market structures vary by region, which may or may not follow provincial or state boundaries.

Independent Power Producer BRA

BRA Factors

The BRA grid below shows the factors we use in determining the BRA. While these factors are shown in general order of importance, depending on a specific issuer's business activities, this ranking can vary by issuer.

Independent Power Producer – BRA Factors

Contractual/Hedging/Position – Long-term PPAs are defined as power contracts that are longer than 10 years, which, when combined with a large base of strong investment-grade counterparties, can significantly mitigate a producer's exposure to commodity price risk and payment default risk. Additionally, if a contract has a take-or-pay feature on a substantial portion of its capacity, this can significantly reduce power production risk, subject to plant availability. If a contract is reasonably priced compared with the current and future spot market prices in which it operates, the recontracting risk will also be mitigated. These factors together form a good basis to measure the quality and stability of cash flow over the period of the contractual arrangement and beyond. Short-term hedges also mitigate exposure to merchant risk but are riskier than PPAs.

A	BBB	BB	B
• Most capacity under long-term PPAs. • Significant capacity payments. • Very strong investment-grade counterparties. • Very long remaining contract tenor versus the term of the debt. • Contracted pricing is highly protected from inflation risk. • Minimal recontracting price risk. • Minimal early contract termination risk.	• Significant portion of capacity under PPAs . • Considerable capacity payments. • Good investment-grade counterparties. • Long remaining contract tenor versus the term of the debt. • Contracted pricing is reasonably protected from inflation risk. • Some recontracting risk. • Low-to-modest early contract termination risk.	• Modest portion of capacity under PPAs. • Modest capacity payments. • Below investment-grade counterparties. • Modest remaining contract tenor versus the term of the debt. • Contracted pricing is exposed to inflation risk. • High recontracting risk. • High early contract termination risk.	• No-to-minimal capacity under PPAs. • No or minimal capacity payments. • Below investment-grade counterparties. • Short remaining contract tenor versus the term of the debt. • Contracted pricing is significantly exposed to inflation risk. • Very high recontracting risk. • Very high early contract termination risk.

Size and Cost Competitiveness – Size is an important factor to assess the risk profile of an IPP. Larger power producers may have more leverage when negotiating contracts, greater access to the capital markets, stronger liquidity, better operational and geographical diversification, and could even influence prices in some markets. A low-cost producer tends to compete better in the energy and capacity markets, with a better ability to cope with price volatility than higher-cost producers.

A	BBB	BB	B
• Large size within the respective market. • Low-cost producer.	• Medium size within the respective market. • Average-cost producer.	• Small size within the respective market. • High-cost producer.	• Very small size within the respective market. • Very high-cost producer.

Market Structure – The market structure and environment in which an issuer competes play an important role in determining the profitability of an IPP. A regulated market where power prices are set or influenced by the regulator (or governmental policies) will have different implications for IPPs than a market where power prices are determined by demand and supply fundamentals. Similarly, an environment where bilateral capacity contracts are allowed will have a different impact on IPPs than in a capacity-auction market. We view markets with weak demand, surplus of supply, high degree of political intervention, or lack of liquidity as being higher-risk.

A	BBB	BB	B
• Strong long-term demand in the region in which the issuer competes with tight reserve margins.	• Reasonable long-term demand in the region in which the issuer	• Modest long-term demand in the region in which the issuer	• Weak long-term demand in the region in which the issuer competes with very high reserve margins.

• Low political risk/interference. • Very high barriers to entry in the markets in which the issuer competes.	competes with adequate reserve margins. • Modest political risk/interference. • High barriers to entry in the markets in which the issuer competes.	competes with high reserve margins. • High political risk/interference. • Low barriers to entry in the markets in which the issuer competes.	• Very high political risk/interference. • Very low barriers to entry in the markets in which the issuer competes.

Diversification – We view geographical, fuel, and technological diversification as positive factors. Geographical diversification can reduce the concentration risk related to regulatory and political intervention within a single market or jurisdiction. Fuel and technological diversification can reduce the risk of operational outages caused by technological complexity (such as for nuclear), water flow/wind/weather conditions (hydro/wind/solar), or fuel cost volatility (natural gas and oil).

A	BBB	BB	B
• High fuel and technology diversification. • Minimal fuel supply risk. • High geographic diversification. • Low correlation in pricing among respective markets.	• Average fuel and technology diversification. • Modest fuel supply risk. • Average geographic diversification. • Some correlation in pricing among respective markets.	• Low fuel and technology diversification. • High fuel supply risk. • Minimal geographic diversification. • High correlation in pricing among respective markets.	• Minimal fuel and technology diversification. • Very high fuel supply risk. • Highly concentrated in one geographic area. • Very high correlation in pricing among respective markets.

Operational Expertise – Operational expertise refers to the ability of an IPP to develop and manage its power projects on time and within budget, and to maintain its operating assets and facilities in good working conditions in order to reduce outages and/or meet availability targets under contract. Good operational expertise can prevent prolonged or unplanned outages and thus reduce the risk of loss of production. We give higher scores for IPPs with good track records of project development and asset operations.

A	BBB	BB	B
• Very strong asset operator. • Extensive history of minimal unplanned outages. • Highly experienced asset developer with a long track record of developing assets on time and on or under budget.	• Strong asset operator. • Moderate level of unplanned outages. • Experienced asset developer with a good track record of developing assets on time and on budget.	• Weaker asset operator. • High level of unplanned outages. • Less experienced asset developer with a shorter track record and less success in past development.	• Poor asset operator. • Very high level of unplanned outages. • Minimal to no experience as an asset developer.

Asset Conditions and Complexity – Asset conditions refer to the quality and the remaining life of the assets. Other things being equal, the higher the quality and the longer the remaining life of an asset, the greater the cash flow generated to service debt. Good asset conditions also reduce future maintenance capex, which could improve the free cash flow for an IPP. Complexity refers to operational complexity; for example, a nuclear reactor would have a higher degree of operational complexity than a gas-fired generator, which means higher operational risk for nuclear operations.

A	BBB	BB	B
• Maintained in excellent working conditions. • Very long-term average asset life. • Simple asset complexity.	• Maintained in good working conditions. • Long-term average asset life. • Modest asset complexity.	• Maintained in below-average working conditions. • Short-term average asset life. • High asset complexity.	• Maintained in poor working conditions. • Very short-term average asset life. • Very high asset complexity.

Independent Power Producer FRA

FRA Metrics

The FRA grid below shows the metrics we use to determine the FRA. While these FRA metrics are shown in general order of importance, depending on an issuer's activities, the ranking can vary by issuer. This section also addresses financial considerations not directly captured by the FRA metrics, but nonetheless important to the financial soundness of an issuer. When deemed deficient or, on rarer occasions, favourable to the credit profile, such considerations would generally be incorporated into the rating through one of the overlay factors outlined in the Overlay Factors section of this methodology.

- Our ratings are primarily based on future performance expectations, so while past metrics are important, any final rating will incorporate our opinion on future metrics, a subjective but critical consideration.
- It is not unusual for a company's metrics to move in and out of the ranges noted in the grid below, particularly for cyclical industries. In the application of this matrix, we look beyond the point-in-time ratio.
- Financial metrics depend on accounting data whose governing principles vary by jurisdiction. We may adjust financial statements to permit comparisons with issuers using different accounting principles (e.g., U.S. GAAP versus IFRS).
- Appendix 3 to this methodology provides definitions for the FRA metrics in the table below as well as a discussion of common financial statement adjustments for IPPs. Please refer to *DBRS Morningstar Global Criteria: Common Adjustments for Calculating Financial Ratios* for further information.
- Liquidity can be an important credit risk factor, especially for lower-rated non-investment-grade issuers. While ratios such as the current or quick ratio can give an indication of certain short-term assets in comparison with short-term liabilities, we will typically review all material sources of liquidity (including cash on hand, cash flow from operations, availability of bank and capital market funding, etc.) in comparison with all material short- and medium-term uses of liquidity (such as operations, capex, mandatory debt repayments, share buybacks, dividends, etc.).
- Profitability, particularly in the medium term, can be an important differentiator of credit risk. We may assess profitability through a variety of metrics, including return on capital.
- While free cash flow (i.e., net of changes in working capital, dividends, capex, etc.) can be volatile and, on occasion, negative, we may use this concept and/or other cash flow metrics, such as cash flow from operations, to assess a company's ability to generate cash to repay debt.
- We consider an issuer's financial policies, including factors such as its targeted financial leverage, its dividend policy and the likelihood of share buybacks, or other management actions that may favour equityholders over creditors.
- While market pricing information (such as market capitalization or credit spreads) may be of interest to us, particularly where it suggests that an issuer may have difficulty in raising capital, this information does not usually play a material role in our more fundamental approach to assessing credit risk.

Independent Power Producer – FRA Metrics

Metric	A	BBB	BB	B
Cash flow-to-debt (%)	> 35	15 to 35	7 to 15	0 to 7
EBITDA-to-interest (x)	> 7.0	4.0 to 7.0	2.0 to 4.0	1.0 to 2.0
Debt-to-capital (%)	< 30	30 to 50	50 to 65	65 to 90

- In addition to the standard key credit metrics, for high-growth companies that have large expansionary projects with low construction execution risk and long-term power purchase contracts with high-quality counterparties, we may also consider the companies' key credit metrics on a run-rate basis to address the timing mismatches between debt servicing obligations and the receipt of revenue that can arise during the development phase. Typically, adjustments are made to the incremental debt, interest expense, EBITDA, and/or incremental cash flows associated with the new expansionary projects.

Blending the BRA and FRA into a Core Assessment

- The core assessment is a blend of the BRA and FRA. In most cases, the BRA will have greater weight than the FRA in determining the issuer rating.
- At the low end of the rating scale, however, particularly in the B range and below, the FRA and liquidity factors play a much larger role, and the BRA would, therefore, typically receive a lower weighting than it would at higher rating levels.
- In addition, we also take into consideration the volatility of a company's FRA in arriving at the final rating. A company with more volatile credit metrics than its industry peers may be rated lower than it would otherwise be based on a blend of the BRA and FRA. The lower rating reflects the higher risk, especially in a downturn, associated with the increased volatility.

Overlay Factors

The overlay factors are the last consideration in the determination of the issuer rating. When deemed relevant and material to the analysis of an issuer, an overlay factor positively or negatively modifies the core assessment derived from the combination of the BRA and FRA, with the impact of a single factor potentially ranging from less than one notch to as much as several notches in the case of more significant factors. We consider both sector-specific and general overlay factors, which are outlined in the two sections that follow.

Sector-Specific Overlays

Capital Requirements

- For companies that pursue large expansionary projects, we will assess the risk associated with the size and complexity of the capital project and how the capital project fits into its current portfolio of assets and into the region in which it will operate. We will assess the company's ability and expertise to undertake such a large capital project. The extent of the company's flexibility to alter the timing and scale of a significant project is also a consideration.
- We will also assess the financing plans for such growth projects and the related impact on the company's financial and credit profile. Generally, we would expect growth capex for assets with a risk profile consistent with the current portfolio to be financed on a basis consistent with the company's existing leverage target. An analysis of construction risk mitigation is also an area of focus for a company that takes on significant capex.

Marketing and Trading Activities

- Companies that engage in marketing and trading activities that go beyond the scope of clearing a generator's own production (i.e., making large speculative bets) would be viewed negatively from a business risk perspective.

Power Retail and Other Business Exposure

- Power generators with significant power retail operations could have a different risk profile than a pure power producer. Retail operations tend to have higher risk than pure power producers because of intense competition due to low barriers to entry and generally weaker credit-counterparties, particularly if substantial retail loads consumed by industrial customers. We recognize, however, that retail operations could provide a natural hedge to a power generator. Retail operations without contracts or long-term contracts (two to five years) could expose the company to high churn rates.
- We will assess the risk of a power generator's retail operations and will adjust the rating score accordingly. If a power generator has other businesses and these businesses are sizable but not sufficiently material to be assessed under a different methodology, we will also assess the risk profile of these businesses and will make an adjustment to the overall risk profile of the power generator accordingly.
- We will also assess potential risks associated with rising fuel costs such as natural gas; if these risks are likely and material, their impacts could be reflected in the rating assessment.

General Overlays

Strategic Advantage or Impediment

- Strategic advantages or impediments not otherwise captured by BRA factors may include an exceptional brand, a unique product or process, or unusually large or small operations.

Parent-Subsidiary Relationship

- Various aspects of an issuer's corporate structure have the potential to positively or negatively influence the rating of that issuer. This may include the potential presence of structural subordination when the issuer is a holding company or the possibility of implicit support from a strong parent when the issuer is an important subsidiary of a broader corporate group. For more details, refer to *DBRS Morningstar Global Criteria: Rating Corporate Holding Companies and Parent/Subsidiary Relationships* and *DBRS Morningstar Global Criteria: Guarantees and Other Forms of Support*.

Other Financial Considerations

- Beyond the FRA metrics, many other financial factors reviewed as part of the rating process may point to material sources of credit risk. Such factors may include (1) a strained liquidity position; (2) unusually high cash flow volatility relative to peers; (3) considerable uncertainty in the issuer's financial outlook owing, for example, to a recent large acquisition, an aggressive acquisition strategy or a rapidly changing competitive environment; (4) unduly large unfunded pension liabilities; or (5) weak financial policies as evidenced, for example, by a significant currency mismatch in the issuer's business or debt structure or significant refinancing risk. In contrast, substantial financial resources or other noncore valuable assets that can easily be monetized, if necessary, could potentially provide uplift to a rating.

ESG Considerations

- ESG factors may affect a credit rating and/or the related credit analysis. The impact of ESG factors may vary across industries, sectors, or asset classes and is described in the *Morningstar DBRS Criteria: Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings*. Where an ESG factor is material to a corporate rating, but is not otherwise addressed in a BRA/FRA factor or other overlay, we will reflect the impact of the ESG factor on the rating through this general ESG overlay.

Sovereign Risk

- The issuer rating may, in some cases, be constrained by the credit quality of a sovereign. If the issuer operates in a lower-rated country or operates in multiple countries but a material amount of its business is conducted in that lower-rated country, we may reflect this risk by lowering the issuer rating. Please refer to Appendix C of *Global Methodology for Rating Sovereign Governments* for further information.

Rating the Specific Instrument and Other Criteria

- The issuer rating is an indicator of the likelihood of default of an issuer's debt and forms the basis for rating specific instruments of an issuer, where applicable. We use a hierarchy in rating long-term debt that affects issuers that have classes of debt that do not rank equally. In most cases, lower-ranking classes would receive a lower rating from us. For more detail on this subject, please refer to the general rating information contained in our *Credit Ratings Global Policy*.
- In addition to this methodology, the following criteria may be used from time to time in determining a rating.
    - For non-investment-grade corporate issuers, we assign a recovery rating that reflects the seniority and expected recovery of a specific instrument, under an assumed event of default scenario, by notching up or down from the issuer rating in accordance with the principles outlined in *DBRS Morningstar Global Criteria: Recovery Ratings for Non-Investment-Grade Corporate Issuers*.
    - Preferred share and hybrid considerations are discussed in *DBRS Morningstar Global Criteria: Preferred Share and Hybrid Security Criteria for Corporate Issuers*.
    - For a discussion on the relationship between short- and long-term ratings and more detail on liquidity factors, please refer to our policy *Short-Term and Long-Term Rating Relationships* and *DBRS Morningstar Global Criteria: Commercial Paper Liquidity Support for Nonbank Issuers*.
    - Guarantees and other types of support are discussed in *DBRS Morningstar Global Criteria: Guarantees and Other Forms of Support*.

Appendix 1: Regulation

- To determine the BRA for regulation (see the Regulated Utility BRA section), we review the eight considerations found below, which assess the regulatory framework in which the utility conducts its business.
- The ranking of the factors is based on a five-point scale (excellent, good, satisfactory, below average, and poor).
- The first four factors are generally of greater importance than the others when assessing regulatory risk.
- While Considerations 1 to 5 can differ between utilities operating in the same jurisdiction, we typically view Considerations 6, 7, and 8 as the same for all utilities within the same jurisdiction.

Consideration 1: Deemed Equity Ratio

Definition		
The deemed equity ratio is the percentage of equity investment in the rate base on which a utility could earn a return. In general, the higher the deemed equity ratio, the higher the earnings for a utility.		
Score	**Item (%)**	**Definition**
Excellent	50.00+	• The deemed equity ratio represents 50.00% or more of the utility's rate base. • The treatment of the deemed equity ratio is consistent historically.
Good	45.00 to 49.99	• The deemed equity ratio represents 45.00% to 49.99% of the utility's capital structure. • The treatment of the deemed equity ratio is consistent historically.
Satisfactory	40.00 to 44.99	• The deemed equity ratio represents 40.00% to 44.99% of the utility's capital structure. • The treatment of the deemed equity ratio has not been consistent historically.
Below Average	35.00 to 39.99	• The deemed equity ratio represents 35.00% to 39.99% of the utility's capital structure. • The treatment of the deemed equity ratio has not been consistent historically.
Poor	Below 35.00	• The deemed equity ratio represents less than 35.00% of the utility's capital structure. • The treatment of the deemed equity ratio has not been consistent historically.

Consideration 2: Allowed ROE

Definition		
Allowed ROE is a measurement of returns on the deemed equity portion of the rate base. The regulator assesses and sets an allowed ROE based on a utility's business risk level. These allowed ROE levels assume a current North American or Western European inflationary environment.		
Score	**Item (%)**	**Definition**
Excellent	10+	• An allowed ROE is set at 10.00% or higher. • The regulatory treatment of allowed ROE has been consistent historically.
Good	9.00 to 10.00	• An allowed ROE is set at 9.00% to 10.00%. • The regulatory treatment of allowed ROE has been consistent historically.
Satisfactory	8.00 to 8.99	• An allowed ROE is set at 8.00% to 8.99%. • The regulatory treatment of allowed ROE has been consistent historically.
Below Average	7.00 to 7.99	• An allowed ROE is set at 7.00% to 7.99%. • The regulatory treatment of allowed ROE has not been consistent historically.
Poor	Below 7.00	• An allowed ROE is set at below 7.00%. • The regulatory treatment of allowed ROE has not been consistent historically.

Consideration 3: Energy Cost Recovery

Definition		
Fuel and purchased energy (F&PE) cost recovery certainty and the timing of recovery are critical in our assessment of a regulatory system within a certain jurisdiction. We look at the following factors: (1) whether F&PE costs are fully passed through to the customers, (2) how often a utility is allowed to adjust the F&PE costs in retail rates charged to customers, and (3) if there is a mechanism within a jurisdiction to allow utilities to make F&PE cost adjustments with no or minimal regulatory review. In addition, we focus on the generation mix within a certain market. A high power cost market could have an impact on the utility's ability to recover the purchased power costs in a timely manner. We note that this factor is not applicable for water and waste-water utilities.		
Score	**Item**	**Definition**
Excellent	Monthly/bimonthly	• F&PE costs are fully passed through. • Adjustment is made on a monthly basis. • There is an automatic adjustment mechanism. • The jurisdiction is in a favourable generation mix market, resulting in low power cost.
Good	Quarterly	• F&PE costs are fully passed through. • Adjustment is made on a quarterly basis. • There is an automatic adjustment mechanism. • The jurisdiction is in a favourable generation mix market, resulting in low power cost.
Satisfactory	Quarterly with regulatory review	• F&PE costs are fully passed through. • Adjustment is made on a quarterly basis. • F&PE cost deferrals are subject to some regulatory review. • The jurisdiction is in a good generation mix market.
Below Average	Annually with automatic adjustment	• F&PE costs are fully passed through, or utilities have minimal exposure to energy price volatility. • Adjustment is made on an annual basis and is subject to minimal or some regulatory review. • The jurisdiction is in a relatively high power cost market.
Poor	Annually with no automatic adjustment mechanism	• F&PE costs are fully passed through or utilities have minimal exposure to energy price volatility. • Adjustment is made on an annual basis. • F&PE cost deferrals are subject to regulatory review. • The jurisdiction is in a relatively high power cost market.

Consideration 4: Capital and Operating Cost Recoveries

Definition

In assessing CCR and OCR, we focus on the likelihood of a utility's capex being added to its rate base, along with the timing of such an addition. In addition, we focus on cost-inflation adjustments that could affect the timing of the OCR. In particular, we look at the following factors: (1) the utilization of future test periods for rate decisions, (2) whether the spending is allowed to be added to the rate base during the construction or will only be added when the project is completed, (3) the level of upfront capital spending required without regulatory approval, (4) the degree of regulatory lag and uncertainty with respect to the CCR, (5) whether or not there is a reasonable mechanism to deal with cost overruns, and (6) the degree of volume risk for the recovery of both capital and operating costs.

Score	Item	Definition
Excellent	Minimal CCR and OCR lag risk	• Work-in-progress costs can be added to the rate base if capex is significant. • Interim base-rate increases have been frequently authorized. • Future test periods are fully incorporated for rate-case decisions. • Rate cases are typically decided well within one year unless the rate cases are litigated or unusual circumstances occur. • There is a reasonable mechanism to deal with cost overruns. • No volume risk.
Good	Reasonable CCR and OCR lag risk	• Capital costs are added to the rate base after completion of work. • Interim base-rate increases have been authorized from time to time. • Future test periods are at least partially incorporated for rate-case decisions. • Rate cases are typically decided within one year unless the rate cases are litigated or unusual circumstances occur. • There is a reasonable mechanism to deal with cost overruns. • Some volume risk exists but is mitigated by either a high portion of rates being fixed or the use of deferral accounts.
Satisfactory	Modestly elevated CCR and OCR lag risk	• Capex is generally preapproved by the regulator, but there is some modest upfront capital spending before regulatory approval. • Interim base-rate increases have been rarely authorized. • Historical test periods are commonly incorporated for rate-case decisions. • Rate cases are typically decided within one year unless the rate cases are litigated or unusual circumstances occur. • There is a reasonable mechanism to deal with cost overruns. • Some volume risk exists but is mitigated by historically stable throughputs.
Below Average	Below-average CCR and OCR lag risk	• There is significant upfront capital spending before regulatory approval. • Interim base-rate increases have been rarely authorized. • Historical test periods are commonly incorporated for rate-case decisions. • Rate-case decisions typically take more than one year because of frequent court cases and other circumstances. • There are some mechanisms to deal with cost overruns. • Some volume risk exists due to a high portion of rates being variable.
Poor	Significant CCR and OCR lag risk	• Capex is generally not preapproved by the regulator. • Capital costs are added to the rate base after completion of work. • Utilities face significant regulatory lag risk with respect to the CCR and the OCR. • There is no meaningful mechanism to deal with cost overruns. • Rates are fully variable with no fixed components.

Consideration 5: COS Versus IRM

Definition		
In general, under COS, regulated utilities are allowed to recover prudently incurred operating costs and earn a reasonable return on their investment. Under IRM, revenue requirements for the year are based on a COS base year, adjusted for inflation (using the CPI) and subtracting a productivity factor, which is set by the regulator. This forces utilities to maintain their operational efficiency to achieve allowed ROE. We view COS as lower risk than IRM. In addition, we also consider the length of an IRM period between COS years. Our scoring system gives a higher score for a shorter IRM period.		
Score	**Item**	**Definition**
Excellent	COS	• The COS regime allows utilities to recover prudently and reasonably incurred operating costs.
Good	IRM (three years or shorter)	• The IRM regime is a maximum of three years between COS years. • For an IRM period of more than three years, there are reasonable mechanisms in place to mitigate unexpected capital investment and operating costs (i.e., downside protection). In addition, key IRM assumptions, including CPI and productivity factors, are reasonable.
Satisfactory	IRM (four- to five-year framework)	• The IRM period is four to five years.
Below Average	IRM (six- to 10-year framework)	• The IRM period is six to 10 years.
Poor	IRM (10-plus years)	• The IRM period is more than 10 years.

Consideration 6: Political Interference

Definition	
Political interference refers to political risk that could occur within a jurisdiction. Political interference could be in the following forms: (1) influence on the regulator's ability to independently and impartially arrive at a decision, (2) passing legislation to override a decision made by the regulator, and (3) the regulator is elected instead of appointed.	
Score	**Definition**
Excellent	• There is no government influence on the regulatory decision-making process. • There has been no adverse legislation in the regulated utility sector. • The regulator is appointed.
Good	• There is a low degree of government influence on the regulatory decision-making process. • There has been no adverse legislation in the regulated utility sector. • The regulator is appointed.
Satisfactory	• There is a low degree of government influence on the regulatory decision-making process. • There has been no adverse legislation in the regulated utility sector. • The regulator is appointed or elected.
Below Average	• There is a modest degree of government influence on the regulatory decision-making process. • There has been no adverse legislation in the regulated utility sector. • The regulator is appointed or elected.
Poor	• There is a high degree of government influence on the regulatory decision-making process. • There has been some adverse legislation in the regulated utility sector. • The regulator is appointed or elected.

Consideration 7: Stranded Cost Recovery

Definition
Stranded costs occur when a utility has already incurred costs (F&PE, operating cost, or capital spending) and faces uncertainty as to when it can recover these costs. In some cases, stranded costs are written off if it is certain that these costs cannot be recovered. We look at the following factors: (1) whether stranded costs exist and their magnitude, (2) the likelihood of recovering stranded costs, (3) the frequency and materiality of writedowns, and (4) the time it takes to recover these costs.

Score	Item	Definition
Excellent	No stranded cost	• No stranded costs associated with legitimate or reasonable costs incurred by utilities.
Good	Full recovery	• Some stranded costs exist. • Stranded costs are fully recovered in a timely manner. • No historical stranded cost writedowns.
Satisfactory	Occasional writedowns	• Some stranded costs exist. • Stranded costs are recovered but subject to some regulatory lag. • Occasional writedowns.
Below Average	Frequent writedowns	• Some stranded costs exist. • Stranded costs are sometimes recovered. • Frequent writedowns. • Takes considerable time to recover costs.
Poor	Frequent significant writedowns	• Significant stranded costs exist. • Stranded costs are not fully recovered. • Significant writedowns occur. • Significant regulatory lag associated with the recovery.

Consideration 8: Rate Freeze

Definition
A rate freeze refers to a fixed retail rate that is charged to customers during a period of time (more than two years) set by a regulator. We do not typically penalize a utility for rate freezes that are part of an acquisition settlement agreement, as they are temporary in nature and only for a set period. During the rate-freeze period, utilities are exposed to increases in operating and energy costs. The longer the rate-freeze period or the more frequency with which a rate freeze occurs within a jurisdiction, the riskier it is for the utility.

Score	Item	Definition
Excellent	Never	• Rates are never frozen.
Good	Potential	• Rates have the potential to be frozen.
Satisfactory	Occasional	• Rates are occasionally frozen. • The frozen period is fewer than three years.
Below Average	Frequently	• Rates are frequently frozen. • The frozen period is fewer than three years.
Poor	Rate freeze	• Rates are currently frozen. • The frozen period is three years and longer.

Appendix 2: Independent System Operators

Independent System Operators (ISO) are typically not-for-profit organizations[3] responsible for managing the electricity market within a jurisdiction. The role of an ISO typically includes (1) balancing the demand and supply of electricity, (2) dispatching power from facility owners, and (3) planning for the system's future transmission and generation needs.

We consider ISOs to have two important similar characteristics as a regulated utility: (1) ISOs provide an essential service and (2) operating costs of an ISO are recovered through tariffs approved by a regulator and charged to participants in the electricity market. Unlike a regulated utility, however, the business of an ISO is not capital intensive and, as they are not-for-profit organizations, operate on a cost-recovery basis. As such, when assessing the FRA of an ISO, we do not focus on the FRA metrics.

We also take into consideration the independence of the ISO from governmental and political interference. If we determine an ISO receives support from the government (i.e., financial support or major legislative directives), we will apply the *DBRS Morningstar Global Criteria: Guarantees and Other Forms of Support*, and the ratings of the ISO could then be uplifted to, or capped by, the ratings of the corresponding government.

When evaluating an ISO, we assess, among other criteria, the major factors outlined below.

3. This appendix only applies to not-for-profit ISOs.

BRA Factors

Regulation/Legislation – In assessing the regulatory and legislative framework for an ISO, we focus on the ability of the ISO to pass on all costs to market participants and the timeliness of the recovery. To determine the BRA for regulation/legislation, we review five considerations (see Appendix 1) to assess the regulatory/legislative framework in which the ISO conducts its business. The five considerations include the following: (1) CCR and OCR, (2) COS versus IRM, (3) political interference, (4) stranded cost recovery, and (5) rate freeze.

AA	A	BBB	BB/B
• Highly supportive regulatory/legislative framework with the majority of relevant key regulatory risk factors in Appendix 1 considered to be "excellent."	• Supportive regulatory/legislative framework with the majority of relevant key regulatory risk factors in Appendix 1 considered to be "good" or better.	• Reasonable regulatory/legislative framework with the majority of relevant key regulatory risk factors in Appendix 1 considered to be "satisfactory" or better.	• • Poor regulatory/legislative framework with the majority of relevant key regulatory risk factors in Appendix 1 considered to be "below average" and/or "poor."

Franchise and Customer Mix – As the operating costs of an ISO are recovered from market participants, we assess the economic strength of an ISO's jurisdiction as well as the number of customers in order to determine the likelihood of the ISO's being able to recover its costs. Jurisdictions with a higher proportion of residential and commercial customers also possess the ability to better weather economic downturns than those with a greater number of industrial customers, which are more inclined to seek lower-cost or more reliable suppliers and are prone to economic cyclicality.

AA	A	BBB	BB/B
• Economically vibrant service territory, with income that is significantly above the national average. • ISO has a significant customer base (i.e., large metropolitan area or province/state). • Customer and load mix predominantly residential and commercial.	• Economically strong service territory, with income above the national average. • ISO has a sizable customer base. • Customer and load mix heavily weighted toward residential and commercial.	• Economically stagnant service territory, with income that is in line with the national average. • ISO has a reasonably sized customer base. • Customer and load mix a balance of residential and commercial versus industrial.	• Economically weak service territory, with income that is below the national average. • ISO has a shrinking customer base. • Customer and load mix weighted toward cyclical industrials.

FRA Factors

In assessing the FRA of an ISO, we focus on the liquidity in place for the ISO's day-to-day operations. We also review the annual surplus and deficit of an ISO to determine if it is consistently under-collecting from market participants, as (1) costs are then not fully recovered from market participants and (2) the accumulated deficit may become stranded and will have to be absorbed by the ISO.

Appendix 3: FRA Ratio Definitions and Common Adjustments for the Regulated Utility and Independent Power Producer Industries

The FRA metrics cited in the table above are defined below, with a discussion of common adjustments that are made for the regulated utility and IPP industries. For related definitions and a broader discussion of the common adjustments made to the accounting data to permit ratio comparability between issuers, please refer to *DBRS Morningstar Global Criteria: Common Adjustments for Calculating Financial Ratios*.

CASH FLOW-TO-DEBT = CASH FLOW FROM OPERATIONS/TOTAL DEBT

Cash flow from operations = core net income + depreciation + amortization + deferred taxes + other noncash items from income statement (before changes in noncash working capital items).

Total debt = short-term debt + long-term debt + hybrid debt portion + preferred share debt portion + capital leases.

DEBT-TO-CAPITAL = TOTAL DEBT/TOTAL CAPITAL

Total capital = short-term debt + long-term debt + total hybrids + total preferred equity + total common equity + minority interest.

EBIT-TO-INTEREST = EBIT/GROSS INTEREST EXPENSE

EBIT = revenue – cost of goods sold – selling, general, and administrative expenses – depreciation – amortization.

Gross interest expense = all interest expense + debt hybrid interest expenses + capitalized interest.

EBITDA-TO-INTEREST = EBITDA/GROSS INTEREST EXPENSE

EBITDA = revenue – cost of goods sold – selling, general, and administrative expenses.

We may adjust certain inputs used in the calculation of the FRAs in order to better assess such metrics relative to an issuer's peers. In the regulated utility and IPP industries, we typically adjust debt and interest expense amounts for operating leases, notwithstanding that these amounts may not be material. Additionally, in rare cases, we also consider net debt amounts in the case of large companies with a long history of maintaining significant cash or equivalents on the balance sheet.

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