



Methodology

*Rating Companies in the Non-Regulated
Electric Generation Industry*

MAY 2011



Insight beyond the rating.

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All DBRS ratings and research are available in hard-copy format and electronically on Bloomberg and at DBRS.com, our lead delivery tool for organized, Web-based, up-to-the-minute information. We remain committed to continuously refining our expertise in the analysis of credit quality and are dedicated to maintaining objective and credible opinions within the global financial marketplace.



Rating Companies in the Non-Regulated Electric Generation Industry

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Introduction to DBRS Methodologies

- In general terms, DBRS ratings are opinions that reflect the creditworthiness of an issuer, a security or an obligation. They are opinions based on an analysis of historic trends and forward-looking measurements that assess an issuer's ability and willingness to make timely payments on outstanding obligations (whether principal, interest, dividend or distributions) with respect to the terms of an obligation.
- DBRS rating methodologies include consideration of general business and financial risk factors applicable to most industries in the corporate sector as well as industry-specific issues and more subjective factors, nuances and intangible considerations. Our approach is not based solely on statistical analysis but includes a combination of both quantitative and qualitative considerations.
- The considerations outlined in DBRS methodologies are not intended to be exhaustive. In certain cases, a major strength can compensate for a weakness and, conversely, there are cases where one weakness is so critical that it overrides the fact that the company may be strong in most other areas.
- DBRS rating methodologies are underpinned by a stable rating philosophy, which means that in order to minimize the rating changes due primarily to economic changes, DBRS strives to factor the impact of a cyclical economic environment into its rating as applicable. Rating revisions do occur, however, when it is clear that a structural change, either positive or negative, has transpired or appears likely to transpire in the near future.
- As a framework, DBRS rating methodologies consist of several components that together form the basis of the ultimate ratings assigned to individual securities. Assessments typically include the industry's business risk profile, the company's general business risk profile, the company's financial risk profile and considerations related to the specific security.
- To some extent, the business risk and financial risk profiles are interrelated. The financial risk for a company must be considered along with the business risks that it faces. In most cases, an entity's business risk will carry more weight in the final issuer rating than will its financial risk.

Business and Financial Risk Overview

- On a high-level macro basis, DBRS has a consistent approach to determining the issuer rating of an entity that is common across many industries. (See the appendix for the definition of "issuer rating.") Our high-level approach can be broken into three stages, as shown on the opposite page.
- Where applicable, DBRS uses the concept of business risk ratings (BRRs) as a tool in assessing the business strength of both industries and individual companies within many methodologies across the corporate finance area. DBRS typically assesses five areas to establish the overall BRR for an industry:
 - Profitability and cash flow.
 - Competitive landscape.
 - Stability.
 - Regulation.
 - Other inherent industry considerations.
- Although there is an overlap in some instances (to some degree, in the long term, all five factors tend to relate to profitability and stability), DBRS has found that considering these five measures in a separate fashion is a useful way of approaching this analysis.
- Using the same factors across different industries provides a common base with which to compare the business risks of various industries, even when they are distinctly different. In all cases, DBRS uses historic performance and our experience to determine an opinion on the future, which is the primary focus. For additional discussion on industry BRRs, please refer to the Industry Business Risk Ratings and Industry Business Risk Rating Definitions sections in the appendix.



- It is important to note that the ratings for company-specific business and financial risks as provided under Stage 2 of this document should not be taken as final issuer ratings. For example, an individual company may fit into the “A” range with respect to the analysis of its business risk, but its financial metrics could be more in the BB category. It would be incorrect to believe that the final issuer rating in this case would be either “A” or BB. In determining the final issuer rating, both of these two major areas must be considered. For additional discussion on this topic, please refer to the Interrelationship between Business and Financial Risk section in the appendix.

Three Stages of DBRS Rating Analysis

Stage 1: Industry Business Risk Rating

Consider the overall business risk rating (BRR) for the industry.



Stage 2: Issuer Rating

Consider the strength of the individual issuer:

- First assessing how the company’s BRR compares with the industry BRR.
- Then assessing the company’s financial risk.

Taken together, these factors will determine the company’s issuer rating.



The **long-term rating** puts more emphasis on business risk than the short-term rating does.



The **short-term rating** stresses financial risk as well as business risk, but places more emphasis on financial risk and liquidity than the long-term rating does.

Stage 3: Rating the Security

Consider covenant and ranking issues that exist for specific securities, using the issuer rating to determine specific security ratings.





Stage 1: Industry Business Risk Rating for the Non-Regulated Electric Generation Industry

This methodology applies to corporate non-regulated electric generators (i.e., companies that sell electricity from multiple and dispersed power-generating assets to wholesale customers/markets) and does not apply to regulated utilities that may also generate electricity (covered in the methodology *Rating Companies in the North American Energy Utilities (Electric and Natural Gas) Industry*) or electric-generation projects comprising a single (or few) asset(s) (covered in the methodology *Rating Project Finance*).

For the non-regulated electric generation industry, DBRS views the BRR as being BBB. This recognizes a wide variety of factors and traits, including the following:

- While the BRR of BBB is targeted to generators with material levels of price support (physical or financial contracts), it encompasses a large variety of proven fuel and technology types.
- One unique characteristic sets the power generation industry apart from all other types of commodity producers and has a significant impact on how the markets operate: the product (electricity) cannot be stored efficiently and must be consumed when produced.
- Wholesale electric markets are driven largely by regional supply and demand dynamics. This is a function of the historical development of the industry (i.e., integrated utilities largely generated their own power in their service territories) and the difficulty and cost of building long-distance transmission lines. As such, unlike crude oil (global market) or natural gas (continental market in North America), power markets remain largely regional (albeit with some inter-regional flows).
- Electricity is an essential product critical to the functioning of the broader economy; in developed markets, the general correlation between power demand and economic growth is not expected to materially diverge.
- Environmental regulation and/or legislation will become more stringent over time, leading to higher capital and/or operating costs. The ability for any generator to pass on these higher costs will be dependent on the regions in which they operate.

Based on the five major categories used by DBRS in assessing industry BRRs, the rationale for this assessment is as follows.

INDUSTRY PROFITABILITY AND CASH FLOW

- Profitability is generally average versus other industries, although this varies with the business model and degree of unhedged exposure to market risk for inputs and outputs.
- Profitability should correlate to the business model, in that a heavily contracted generation portfolio with lower business risk should generate lower profits (with less volatility) over the longer term than a higher-risk generation portfolio with significant merchant exposure.
- Profitability and cash flow are heavily influenced by how a generator's individual assets stack up competitively within the regions in which it operates, which is driven by a number of factors, including the age and type of generating asset and the asset's position vis-à-vis the overall fuel mix of the region in which it operates.



INDUSTRY COMPETITIVE LANDSCAPE

- The competitive landscape is viewed as similar to other industries. Although competition is similar to other commodity businesses, there are significant barriers to entry, including the capital-intensive nature of the industry, the very long lead times in the development process and the difficulty in receiving approvals to construct new facilities. The addition of new supply is susceptible to political and social issues (e.g., NIMBY – not in my backyard).
- Transmission constraints can also act as a natural barrier to entry within a region. Regional competition is affected by the fact that the produced commodity (electricity) cannot be efficiently stored.
- In North America, market structures vary by region, which may or may not follow provincial or state boundaries.
- Because different markets are affected by local supply and demand influences specific to the region, market structures may display different characteristics from region to region, which can affect a company's operational performance and predictability of cash flow.

INDUSTRY STABILITY

- The industry has a level of volatility that is average compared with most industries. Profitability can vary with both commodity pricing and production volumes. However, volatility is often mitigated to a level below other industries through the prudent use of medium- to longer-term sales contracts or hedging arrangements.
- Power generators, particularly in Canada, are generally more contracted or hedged (for price) than other types of commodity-based businesses, resulting in greater stability than most other commodity sectors; however, power generators tend to carry more debt, which acts as an offset.
- Renewable-energy generators also have a distinct production risk linked to the variable nature of their respective resources, particularly for hydroelectric, wind-powered and solar-powered generators.

INDUSTRY REGULATION

- 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 expected future environmental regulation. Given this oversight, regulation of the non-regulated electric generation industry is viewed as more stringent than other industries.
- From a business risk perspective, regulation can have both positive (barriers to entry) and negative (costs associated with operational and environmental compliance) characteristics.

OTHER INHERENT INDUSTRY CONSIDERATIONS

- The overall area of other inherent industry risks remains close to the industry average.
- Environmental risk is becoming more relevant given the political and social focus on climate change. Although the future form of environmental regulation or legislation is currently not known with any certainty, it is expected to become more onerous (and costly) over the next decade for thermal generators (particularly coal-fired).
- While the movement to address climate change issues lost momentum during the recent financial crisis, DBRS expects some form of North American-wide legislative and/or regulatory requirements to come into force this decade, whether it be cap and trade, a carbon tax or some other form of command and control regulation.
- The extent of any impact (negative or positive) on any one generator will depend heavily on both the composition of its generating fleet and the regional dynamics where those assets are located. Although some generators may be negatively affected under future environmental rules, renewable-energy generators could benefit over the longer term under the same rules.

Stage 2: Issuer Rating

To move from the generic industry BRR toward the issuer rating for a specific company, two tasks must be performed. Specifically, we must determine the business risk and the financial risk for the individual company.

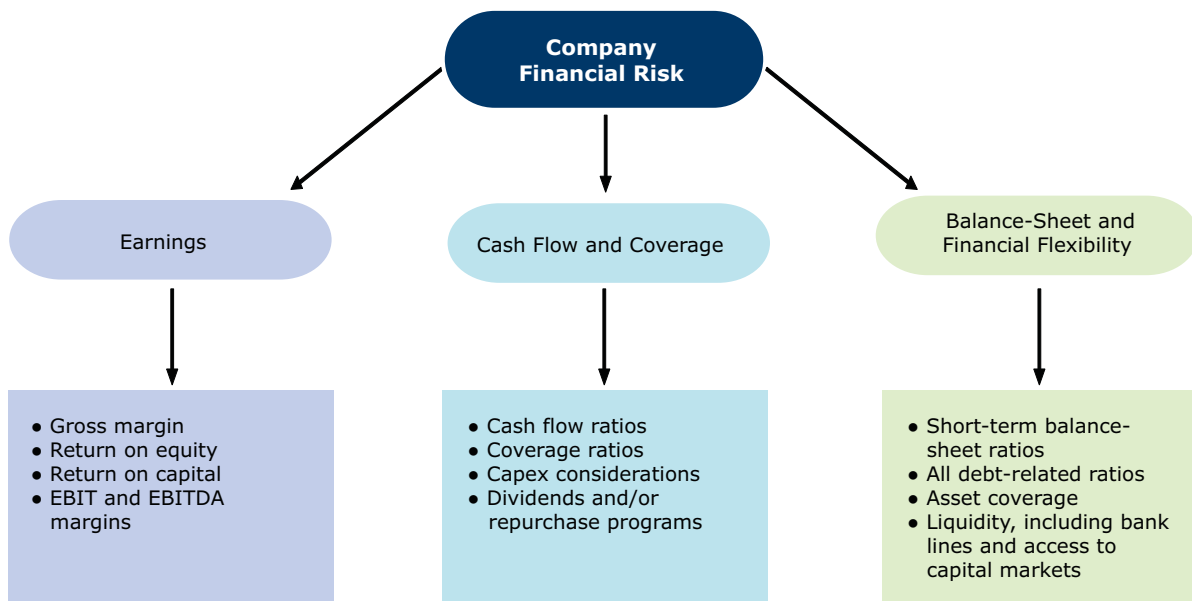
BUSINESS RISK PROFILE

- The business risk profile of the issuer may be better or worse than the industry average due to the presence of unique attributes or challenges that exist at the issuing entity. While not exhaustive, the list of critical factors outlined in the previous section could result in a specific issuer rating being different from the industry BRR.
- This methodology also provides some guidance on which factors are considered the most critical for the industry in question. Issuers may also have meaningful business lines in addition to the base business that extend beyond their most prominent industry, which could add significant attributes or challenges.

FINANCIAL RISK PROFILE

- The graphic below is a visual display of the key financial risk profile considerations that are discussed in the Company-Specific Financial Risk Factors section of this methodology, although even the detail provided there is not meant to be exhaustive.
- The discussion will note that DBRS often makes calculation adjustments in key ratios for risks related to a variety of areas. In some cases, a relationship with a parent or associated company will also be important.

Key Financial Risk Metrics





Company-Specific Business Risk Factors

- We now consider if an individual company in the non-regulated electric generation industry would be better, worse or the same as the industry BRR. Our focus here is on the critical business risk factors that relate to this industry in particular. The five critical factors used to determine the industry BRR are applied by DBRS to compare numerous industries and are thus more general in nature.
- By analyzing these key drivers (which will vary on an industry-by-industry basis), the essential strengths and challenges of each industry are captured in an accurate fashion, and transparency is provided. The analysis below is connected to the industry BRR in that the industry BRR establishes where an average company would be considered to score on the matrix. For example, an industry with a BRR of BBB would mean that the following matrix describes the scoring of an average company within the BBB column.

Company-Specific Business Risks – Critical Factors

Rating Business Strength	A Superior	BBB Adequate	BB Weak	B Poor
Competitive Position/ Asset Composition	<ul style="list-style-type: none"> • Generating fleet comprises newer assets. • Predominantly base-load assets. • Very low operating cost base. • Fleet favourably positioned compared with market fuel mix. • Very long-lived assets (i.e., hydroelectric). 	<ul style="list-style-type: none"> • Age of generating fleet average. • Primarily base-load assets, with some mid-merit and/or peaking. • Low operating cost base. • Fleet reasonably positioned compared with market fuel mix. • Some long-lived assets. 	<ul style="list-style-type: none"> • Generating fleet primarily older assets. • Mix of mid-merit and peaking assets. • Higher operating cost base. • Fleet not well positioned compared with market fuel mix. • Minimal long-lived assets. 	<ul style="list-style-type: none"> • Older generating fleet. • Primarily peaking units. • High operating cost base. • Fleet poorly positioned compared with market fuel mix. • Primarily comprises assets with shorter useful lives.
Contractual/Hedging/ Integration Position	<ul style="list-style-type: none"> • Almost exclusively contracted output with strong investment-grade counterparties with a long average tenor. • Nil to minimal fuel price risk. • Reasonable vertical integration with sizable retail customer base. • If trading activities, very limited downside risk. 	<ul style="list-style-type: none"> • Significant level of contracted output with investment-grade counterparties with a moderate to average tenor. • Some level of fuel price risk. • May have some vertical integration with modest retail customer base. • If trading activities, largely limited downside risk. 	<ul style="list-style-type: none"> • Minimal contracted output, reasonable counterparties, with a shorter average tenor. • Significant fuel price risk. • Not vertically integrated. • If trading activities, some downside risk. 	<ul style="list-style-type: none"> • Minimal to no contracted output. • Very significant fuel price risk. • Trading activities incorporate significant risk. • Not vertically integrated.



Company-Specific Business Risks – Critical Factors

Rating	A Superior	BBB Adequate	BB Weak	B Poor
Business Strength				
Market Structure and Environment	<ul style="list-style-type: none"> Operates in very established wholesale markets, with significant transparency and operating history. Tight reserve margins. Strong long-term demand correlated to robust economic conditions. 	<ul style="list-style-type: none"> Operates in an established wholesale market, with reasonable transparency and operating history. Adequate reserve margins. Moderate long-term demand correlated to modest economic conditions. 	<ul style="list-style-type: none"> Operates in a less established wholesale market that has been operating for a shorter period of time. High reserve margins. Weak long-term demand correlated to weaker economic conditions. 	<ul style="list-style-type: none"> Operates in a newly established wholesale market. Very high reserve margins. Contracting to flat power demand over the longer term, correlated to poor economic conditions.
Diversification	<ul style="list-style-type: none"> High fuel and technology diversification. High geographic diversification in regions with low price correlation. 	<ul style="list-style-type: none"> Average fuel and technology diversification. Average geographic diversification, with some regional price correlation. 	<ul style="list-style-type: none"> Lower fuel and technology diversification. Minimal geographic diversification, concentrated price correlation. 	<ul style="list-style-type: none"> Minimal fuel and technology diversification. Highly concentrated in one geographic area.
Operational Expertise	<ul style="list-style-type: none"> Very strong asset operator. Extensive history of minimal unplanned outages. Highly experienced asset developer, with long track record of developing assets on time and on or under budget. 	<ul style="list-style-type: none"> Strong asset operator. Moderate level of unplanned outages. Experienced asset developer, with good track record of developing assets on time and on budget. 	<ul style="list-style-type: none"> Weaker asset operator High level of unplanned outages. Less experienced asset developer, with a shorter track record and less success in past development. 	<ul style="list-style-type: none"> Poor asset operator. Very high level of unplanned outages. Minimal to no experience as an asset developer.
Environmental Exposure	<ul style="list-style-type: none"> Primarily renewable power assets. Minimal to no carbon dioxide emissions. Thermal assets operate in a regional market dominated by thermal generators. 	<ul style="list-style-type: none"> Mix of fuels (coal, natural gas, renewables). Some carbon dioxide emissions. Thermal assets operate in a region with thermal generation comprising a majority of the fuel mix. 	<ul style="list-style-type: none"> Primarily a thermal generator. Significant carbon dioxide emissions. Thermal assets operate in a region in which thermal comprises a minority of the fuel mix. 	<ul style="list-style-type: none"> Highly concentrated in thermal generation. Major emitter of carbon dioxide. Thermal assets operate in a region dominated by renewables.

PRIMARY BUSINESS RISK CONSIDERATIONS

Competitive Position/Asset Composition

A number of factors can influence an asset's or a fleet of assets' competitive position and affect the predictability of cash flow, including the type and age of the assets as well as the assets' position vis-à-vis the overall fuel mix of the region in which the assets operate.

- In general, how competitively or cost-efficiently the assets can produce power will determine how frequently a power generator's asset or fleet of assets will dispatch in a particular wholesale market. Base-load assets, such as coal-fired plants, nuclear power and some hydroelectric plants, usually operate during most hours of the day since the marginal cost of production for these units is likely to be the lowest and generating assets of these types are designed to operate uninterrupted for long periods of time.



- In contrast, mid-merit or intermittent assets, such as combined-cycle gas-fired plants, which can be ramped up and down, may operate only during portions of the day to respond to peak demand.
- Peaking units, such as combustion turbines, which are only used during periods of extreme demand, normally operate approximately a few hundred hours per year because these assets have the highest cost of production.
- While the production profiles of renewable-energy generating facilities are governed by their respective resources (which can vary throughout the day and/or seasonally), hydroelectric facilities with storage can be more flexible and can fall into the base-load, mid-merit or peaking categories.
- Generators with significant hydroelectric operations generally experience very high levels of reliability, with low forced outage rates, attributable to a stable, proven technology that has been in use for decades and the fact that there is no thermal component to the production process. If properly maintained, hydroelectric facilities can feature very long asset lives compared with other generating assets.

Since generation fleets with higher capacity factors are usually more competitive because these assets are able to generate better margins by operating during more hours of the day, DBRS views a fleet with a greater weighting of base-load assets as a positive rating consideration.

- Generating fleets comprising longer-lived and newer assets are more highly rated in this methodology.
- Depending on the fleet's competitive position relative to the service area fuel mix, mid-merit assets may compete with traditional base-load assets.
- The market share or relative generation footprint of a generator in each service area is also a consideration, with superior market intelligence accruing to market share leaders.

Contractual/Hedging/Integration Position

Power generators generally operate in competitive environments where profitability varies with commodity pricing (both outputs and inputs) and production volumes.

- Having a well-hedged portfolio or contractual position reduces the volatility of earnings and cash flow. Companies that have almost exclusively contracted their output with strong investment-grade counterparties for an average length of ten years or more and also have their fuel costs hedged to match the length of their contracts tend to have levels of business risk lower than the industry average.
- DBRS understands that some generators will have some level of price and/or fuel risk exposure to take advantage of any potential market upside. Generally, price and fuel exposure becomes more problematic and results in higher business risk as you move down the spectrum from base-load to mid-merit to peaking facilities.
- In periods of strong demand and high power prices, companies that have portfolios with a significant mix of contractual output and some non-contractual output benefit from the upside. Generators with more intermittent output and expected shorter asset lives (e.g., wind generation) typically have a significant portion or all of their output contracted for longer tenors to reduce cash flow volatility.
- For renewable-energy producers selling under fixed-volume contracts, the contracted volumes are typically below the average expected production levels to protect the generator with renewable resource risk from being unable to produce committed sales volumes.
- Investment-grade generators are expected to limit marketing and trading activities such that the risk of downside losses are well within the financial capacity of the generator to absorb. Furthermore, 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.



Market Structure and Environment

In North America, market structures vary by region, which may or may not follow provincial or state boundaries.

- Because different markets are affected by local influences specific to the region, market structures may display different characteristics from region to region, which can affect a company's operational performance and predictability of cash flow.
- In analyzing regional markets, DBRS considers the history and transparency of the framework as well as the economic condition of the region. A company operating within a well-established, transparent wholesale market, supported by a healthy economy and growing customer base, with high barriers to entry and little to no competition would likely be highly rated under this factor.
- Other key factors include items such as reserve margins in the region as well as interconnected areas, the level of interconnection, the availability and dynamics of transmission, the liquidity of the market and the availability and tenor of hedging opportunities.

Diversification

Business risk is reduced with a greater degree of diversification of geographic regions, markets, business operations and/or fuel types because the risk that a company's operations will be severely or unexpectedly affected as a result of a negative development in any one of the above factors is lessened.

- Operations in a number of regions can insulate a generator from regional dynamics that can affect supply, demand and pricing, including end-user composition (industrial, commercial, residential), regional fuel mix and fuel-pricing dynamics, degree of interconnection with other regions, regional economic profile, weather, and regulatory and/or political factors.
- Consequently, a power generator with operations located in a number of different regions would likely be viewed as having lower business risk under this factor than a company concentrated in one geographic region.
- Similarly, because changes in the price or availability of a fuel type can result in operational and cash flow volatility and subsequently increase the level of risk in a company's credit profile, DBRS believes that fuel-type diversification can help mitigate a company's risk by reducing its reliance on a particular fuel source and thus its exposure to changes in price or availability. However, DBRS views an overweighting in hydro-electric assets as a positive for business risk if contracted and geographically diversified.
- The size of a generator can play a role. Although there are no absolute size requirements for specific rating levels, size affects diversification since they are positively correlated.

Operational Expertise

Strong operational expertise remains a key factor in determining the profitability of power generators, whether assets are base load, mid-merit or peaking.

- Power generators that have an extensive history of minimal unplanned outages tend to have high availability factors, which are important for a participant with significant base-load generation assets and highly contracted output.
- For generators with contractual arrangements, penalties/incentives are paid/received if actual availability falls/exceeds the specified availability for the assets. Therefore, it is important that the generator ensure its assets have minimal unplanned outages and its planned outages be scheduled during off-peak season to reduce the impact on cash flow.
- DBRS will also assess the track record of developers in developing and constructing power assets on time and on budget. This is particularly important for developers of more complex power assets such as nuclear plants and some coal plants, which are prone to cost overruns and extensive delays.

Environmental Exposure

Environmental risk is expected to become more pronounced in the near to medium term for power generators. While the movement to address climate change issues lost momentum during the recent financial crisis, DBRS expects some form of North American-wide legislative and/or regulatory requirements to come into force this decade, whether it be cap and trade, a carbon tax or some other form of command and control regulation.

- While carbon dioxide emissions garner significant attention, sulphur dioxide, nitrogen oxide and mercury are also by-products that continue to draw scrutiny.



- The Canadian federal government has stated it will coordinate environmental policies with the United States in order to facilitate consistent continental regulation. However, in 2010 the Canadian federal government announced plans specific to coal-fired facilities. The proposal, if enacted, would, by 2015, require coal plants to meet the emission standards of natural gas-fired plants. This would apply to new coal-fired facilities as well as to existing ones (by the later of their 45th year of operation or the end of their power purchase agreement (PPA) terms). This 45-year window for existing facilities would allow for a more orderly transition and avoid significant amounts of “stranded” investments. With this proposal, it appears the federal government will follow the United States, with the exception of coal-fired plants.
- The extent to which future environmental policies could negatively affect a generator varies considerably and depends significantly on the generation mix in their respective core markets.
- For a generator with significant coal-fired generation in a region that is dominated by coal-fired production, the cost increase of any environmental regulation would increase the cost base of most generators, likely muting a negative impact on margins. The opposite is also true, where an owner of a coal-fired plant in a largely renewable-energy region could be significantly exposed. The impact on generators with large portfolios producing low (or no) levels of emissions (hydroelectric, wind, nuclear) would be either neutral or positive, depending on the region in which they operate.

ADDITIONAL FACTORS

Capital Requirements

DBRS recognizes the importance of operators maintaining and/or upgrading their assets to minimize unplanned outages and prolong the life of the assets. As such, modest to average and predictable levels of maintenance capital are required.

- Where companies pursue large expansionary projects requiring significant capital, DBRS will assess how the capital project fits into its current portfolio of assets and into the region in which it will operate. The extent of the company’s flexibility to alter the timing and scale of a significant project is also a consideration.
- DBRS will also assess the financing plans for such growth projects and the related impact on the company’s financial and credit profile. Generally, DBRS would expect growth capital expenditures for assets with a risk profile consistent with the current portfolio to be financed on a basis consistent with the company’s existing capital structure. An analysis of construction risk mitigation is also an area of focus for a company that takes on significant capital expenditures.
- If extensive capital investments are expected, this factor can become a primary consideration.

COMMON BUSINESS CONSIDERATIONS

- There are two major considerations that were not included with the prior analysis but can have a meaningful impact on an individual company in any industry: country risk and corporate governance (which includes management). These areas tend to be regarded more as potential negative issues that could result in a lower rating than otherwise would be the case, although DBRS would certainly consider exceptional strength in corporate governance as a rating attribute.
- In most cases, our focus on the two areas is to ensure that the company in question does not have any meaningful challenges that are not readily identifiable when reviewing the other business risk considerations and financial metrics outlined in this methodology.

Country Risk

- Governments often intervene in their economies and occasionally make substantial changes that can significantly affect a company’s ability to meet its financial obligations; therefore, considerations include the company’s main location or country of operation, the extent of government intervention and support and the degree of economic and political stability.
- As such, the sovereign rating itself may in some cases become a limiting factor in an entity’s rating, particularly when the sovereign has a lower rating and the entity does not have meaningful diversification outside its domestic economy.



Corporate Governance

- Effective corporate governance requires a healthy tension between management, the board of directors and the public. There is no single approach that will be optimal for all companies.
- A good board will have a profound impact on a company, particularly when there are significant changes, challenges or major decisions facing the company. DBRS will typically assess factors such as the appropriateness of board composition and structure, opportunities for management self-interest, the extent of financial and non-financial disclosure and the strength or weakness of control functions. For more detail on this subject, please refer to the DBRS criteria *Evaluating Corporate Governance*.
- With respect to the pivotal area of management, an objective profile can be obtained by assessing the following: the appropriateness of core strategies; the rigour of key policies, processes and practices; management's reaction to problem situations; the integrity of company business and regulatory dealings; the entity's appetite for growth, either organically by adding new segments or through acquisition; its ability to smoothly integrate acquisitions without business disruption; and its track record in achieving financial results. Retention strategies and succession planning for senior roles can also be considerations.

Company-Specific Financial Risk Factors

KEY METRICS

- Recognizing that any analysis of financial metrics may be prone to misplaced precision, we have limited our key metrics to a small universe of critical ratios. For each of these ratios, DBRS provides a range within which the issuer's financial strength would be considered as supportive for the same level of business risk as the non-regulated electric generation industry. For example, a company where the outlook for both business risk and financial risk metrics falls within the BBB category would, all else being equal, be expected to have an issuer rating in the BBB range.
- To be clear, the ratings in the matrix below should not be understood as the final rating for an entity with matching metrics. This would only be the case to the extent that the business risk of the company and a wide range of other financial metrics were also supportive. The final rating is a blend of both the business risk and financial risk considerations in their entirety.
- DBRS notes that given the unique features of hydroelectric generation assets (very long asset lives, low forced outage rates, low operating costs (excluding capital)), generators with a geographically diversified portfolio of contracted hydroelectric assets are generally better positioned to maintain higher levels of debt than their peers.

Non-Regulated Electric Generation Industry Financial Metrics

Key Ratio	A	BBB	BB	B
Cash flow-to-debt	> 35%	15% to 35%	7% to 15%	< 7%
Debt-to-capital	< 30%	30% to 50%	50% to 65%	> 65%
EBITDA interest coverage	> 7.0x	4.0x to 7.0x	2.0x to 4.0x	< 2.0x

- While the data in the above table are recognized as key factors, they should not be expected to be fully adequate to provide a final financial risk rating for any company. The nature of credit analysis is such that it must incorporate a broad range of financial considerations, and this cannot be limited to a finite number of metrics, regardless of how critical these may be.
- DBRS ratings are based heavily on future performance expectations, so while past metrics are important, any final rating will incorporate DBRS's opinion on future metrics, a subjective but critical consideration.
- It is also not uncommon for a company's key ratios to move in and out of the ranges noted in the ratio matrix above, particularly for cyclical industries. In the application of this matrix, however, DBRS is typically focusing on multi-year ratio averages.



- Notwithstanding these potential limitations, the key ratios are very useful in providing a good starting point in assessing a company's financial risk.
- It is important to note that actual financial ratios for an entity can and will be influenced by both accounting and accounting choices. In Canada, this will include the shift to International Financial Reporting Standards (IFRS). DBRS acknowledges that IFRS and other accounting choices will have an impact on the financial metrics of the companies that it covers. The financial risk factors include ratios based on data from company financial statements that are based on Canadian Generally Accepted Accounting Principles (GAAP) and U.S. GAAP, for the most part. When company financial statements are based on GAAP in other countries, including IFRS, the ratios and ranges may need to be redefined.
- Recognizing that the metrics in the table above do not represent the entire universe of considerations that DBRS examines when evaluating the financial risk profile of a company, the following provides a general overview that encompasses a broader range of metrics and considerations that could be meaningful in some cases.

Overall Considerations in Evaluating a Company's Financial Risk Profile

In addition to the information already provided with respect to key financial metrics, the following financial considerations and ratios are typically part of the analysis for the non-regulated electric generation industry. As it is not possible to completely separate business and financial risks, note that many of the following ratios will relate to both areas.

EARNINGS

- DBRS earnings analysis focuses on core earnings or earnings before non-recurring items and in doing so considers issues such as the sources, mix and quality of revenue; the volatility or stability of revenue; the underlying cost base (e.g., the company is a low-cost producer); optimal product pricing; and potential growth opportunities. Accordingly, earnings as presented in the financial statements are often adjusted for non-recurring items or items not considered part of ongoing operations.
- DBRS generally reviews company budgets and forecasts for future periods. Segmented breakdowns by division are also typically part of DBRS analysis. Notwithstanding the focus on core earnings, note that actual net earnings is also a consideration in our analysis given the direct impact that this has on the capital structure.

Typical Earnings Ratios

- Gross margin.
- Operating margin.
- Return on common equity.
- EBITDA-to-interest (gross and/or net).
- EBIT-to-interest (gross and/or net).

CASH FLOW AND COVERAGE

- DBRS cash flow analysis focuses on the core ability of the company to generate cash flow to service current debt obligations and other cash requirements as well as on the future direction of cash flow. From a credit analysis perspective, insufficient cash sources can create financial flexibility problems, even though net income metrics may be favourable.
- DBRS evaluates the sustainability and quality of a company's core cash flow by focusing on cash flow from operations and free cash flow before and after working capital changes. Using core or normalized earnings as a base, DBRS adjusts cash flow from operations for as many non-recurring items as relevant. As with earnings, the impact that non-core factors have on cash flow may also be an important reality.



- In terms of outlook, DBRS focuses on the projected direction of free cash flow, the liquidity and coverage ratios and the company's ability to internally versus externally fund debt reduction, future capital expenditures and dividend and/or stock repurchase programs, as applicable.

Typical Cash Flow Ratios

- Cash flow-to-debt.
- Cash flow-to-capital expenditures.
- Dividend/distribution payout ratio.

BALANCE-SHEET AND FINANCIAL FLEXIBILITY CONSIDERATIONS

- As part of determining the overall financial risk profile, DBRS evaluates various other factors to measure the strength and quality of the company's assets and its financial flexibility. From a balance-sheet perspective, DBRS focuses on the quality and composition of assets, including goodwill and other intangibles; off-balance-sheet risk; and capital considerations such as the quality of capital, appropriateness of leverage to asset quality and the ability to raise new capital.
- DBRS also reviews the company's strategies for growth, including capital expenditures and plans for maintenance or expansion, and the expected source of funding for these requirements, including bank lines and related covenants. Where the numbers are considered significant and the adjustments would meaningfully affect the credit analysis, DBRS adjusts certain ratios for items such as operating leases, derivatives, securitizations, hybrid issues, off-balance-sheet liabilities and various other accounting issues.

Typical Balance-Sheet Ratios

- Current ratio.
- Debt-to-capital.
- Debt-to-EBITDA.

Stage 3: Rating the Security

With respect to Stage 3, the following comments describe how the issuer rating is used to determine ratings on individual securities:

- DBRS uses 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 DBRS rating. For more detail on this subject, please refer to DBRS rating policy entitled "[Underlying Principles](#)."
- In some cases, issued debt is secured by collateral. This is more typical in the non-investment-grade spectrum. For more detail on this subject, please refer to [DBRS Rating Methodology for Leveraged Finance](#).
- The existence of holding companies can have a meaningful impact on individual security ratings. For more detail on this subject, please refer to the criteria [Rating Parent/Holding Companies and Their Subsidiaries](#).

Appendix

INDUSTRY BUSINESS RISK RATINGS

- DBRS uses the concept of business risk ratings (BRRs) as a tool in assessing the business strength of both industries and individual companies within many methodologies across the corporate finance area. (DBRS does not typically use this approach for most financial, government and public finance sectors, where the industry is more challenging to define and this approach is not as useful.)
- The BRR is assessed independently of financial risk, although in some cases there are subtle but important links. As an example, the very low business risk profile of many regulated utilities has historically allowed this sector to operate with debt levels that would not be acceptable for most other industry sectors. Given this reality, it is difficult to consider the utility industry's BRR without acknowledging to some degree that the industry operates with sizable debt levels. This type of relationship exists with many industries, although typically to a much lesser degree.
- When a BRR is applied to an industry, there is an acknowledgment that this is a general assessment and there may in fact be a wide disbursement in the business strength of individual entities within the industry. Nonetheless, this assessment is beneficial to enabling DBRS to clearly delineate our industry opinion and is a useful tool when comparing different industries. An industry BRR is defined as being representative of those entities that the market would consider as "established," meaning that the group of companies being considered would have at least reasonable critical mass and track records. As such, the BRR for an industry does not consider very small players, start-up operations or entities that have unusual strengths or weaknesses relative to the base industry.
- DBRS methodologies note whether they apply to global industries or more specific countries or regions. When analyzing individual credits, DBRS considers the degree to which regional considerations may differ from the geographic area applicable within the industry methodology. Many entities have business units that transcend industries and in these cases, more than one BRR would be considered, including the possible benefits or challenges that may exist when all businesses are analyzed as part of a combined group.
- The BRR is a tool that provides additional clarity regarding the business risk of the industry overall, but it should be viewed as just one aspect in the complex analysis of setting ratings and should by no means be seen as either a floor or ceiling for issuers within a given industry. Although DBRS does not anticipate volatility in an industry's BRR, changes are possible over time if there are meaningful structural developments in the industry. When such a change does occur, DBRS will make this clear and note any impact on related individual ratings within the industry as applicable.
- DBRS assesses five areas to establish the overall BRR for an industry. Although there is an overlap in some instances (to some degree, in the long term, all five factors tend to relate to profitability and stability), DBRS has found that considering these five measures in a separate fashion is a useful way of approaching its analysis. In all cases, DBRS uses historic performance and our experience to determine an opinion on the future, which is the primary focus.

Industry Profitability and Cash Flow

- When ratios such as return on equity, return on capital and a variety of cash flow metrics are considered, some industries are simply more profitable than others. While standard economics would suggest a reversion to the mean through new competitors, this often occurs at a very slow pace over a long time horizon and in some cases may not occur at all because of barriers to entry.
- The benefits from above-average profits and/or cash flow are substantial and include internal capital growth, easier access to external capital and an additional buffer to unexpected adversity from both liquidity and capital perspectives.
- Some industries and their participants have challenges or strengths in areas such as research and development (R&D), brand recognition, marketing, distribution, cost levels and a potentially wide variety of other tangibles and intangibles that affect their ability in the area of profitability.

Industry Competitive Landscape

- The competitive landscape provides information regarding future profitability for the industry and thus somewhat crosses over into the profitability and cash flow assessment, but competition is deemed worthy of separate consideration because of its critical nature.
- Participants in industries that lack discipline, produce commodity-like products or services, have low barriers to entry and exhibit ongoing pricing war strategies generally have difficulty attaining high profitability levels in the longer term. Certain industries benefit from a monopoly or oligopoly situation, which may relate to regulation.

Industry Stability

- This factor relates primarily to the degree of stability in cash flow and earnings, measuring the degree to which the industry and its participants are affected by economic or industry cycles. Stability is considered critical as industries with high peaks and troughs have to deal with higher risk at the bottom of a cycle. As such, to some degree, industries with lower but stable profitability are considered more highly than industries with higher average profitability that is more cyclical.
- Some of the key factors in considering stability include the nature of the cost structure (fixed or variable), diversification that provides counter-cyclical and the degree to which the industry interrelates with the overall economy. Depending on the industry, economic factors could include inflation or deflation, supply and demand, interest rates, currency swings and future demographics.

Industry Regulation

- Where applicable, regulation can provide support through stability and a barrier to entry, but it can also cause challenges and change the risk profile of an industry and its participants in a negative way, including the reality of additional costs and complications in enacting new strategies or other changes.
- As part of its analysis of regulation, DBRS also considers the likelihood of deregulation for a regulated industry, noting the many examples where this transition has proven to be a major challenge in the past.

Other Inherent Industry Considerations

- Each industry has its own set of unique potential risks that, even if managed well, cannot be totally eliminated. Specific risks, the ability to manage them and the range of potential outcomes vary industry by industry. Two of the most common risks are changing technology and operational risks.
- Some of the other more common risks are in the areas of legal, product tampering, weather, natural disasters, labour relations, currency, energy prices, emerging markets and pensions.



INDUSTRY BUSINESS RISK RATING DEFINITIONS

DBRS specifies the BRR for an industry in terms of our **Long-Term Obligations** rating scale. When discussing industry BRRs for an industry, DBRS typically provides either one specific rating or a limited range (such as BBB (high)/BBB). Using a range recognizes the fact that, by their nature, industry BRRs are less precise than a specific corporate or security rating as they represent an overall industry. In addition to relating to the industry level, these definitions also apply to the business risk of individual companies, which will fall more often in the very high and low categories (AA/AAA and B) than would be the case for an entire industry.

Industry Business Risk Ratings (BRRs)

Rating	Business Strength	Comment
AA/AAA	Exceptional	An industry BRR of AA/AAA is considered unusually strong, with no meaningful weakness in any individual area. It may include pure monopolies that are deemed essential (the primary case being regulated utilities, where the risk of deregulation is believed to be very low). Common attributes include product differentiation, high barriers to entry and meaningful cost advantages over other industries or entities. These and other strengths provide exceptional stability and high profitability. It would be quite rare for an industry to have a BRR in this category.
A	Superior	Industry BRRs at the "A" level are considered well above average in terms of stability and profitability and typically have some barriers to entry related to capital, technology or scale. Industries that have, by their nature, inherent challenges in terms of cyclical, a high degree of competition and technology risks would be unlikely to attain this rating category.
BBB	Adequate	Industry BRRs at the BBB level include many cyclical industries where other positive considerations are somewhat offset by challenges related to areas such as commodity products, labour issues, low barriers to entry, high fixed costs and exposure to energy costs. This rating category is considered average and many industries fall within it, with key considerations such as overall profitability and stability typically considered as neither above or below average.
BB	Weak	An industry at the BB level has some meaningful challenges. In addition to high cyclical, challenges could include the existence of high technology or other risks. Long-standing industries that may have lost their key strengths through factors such as new competition, obsolescence or the inability to meet changing purchaser demands may fit here. The culmination of such factors results in an industry that does not generally score well in terms of stability and profitability. For an entire industry, this is typically the lowest BRR level.
B	Poor	While not common, there are cases where an industry can have a BRR of B. Such industries would typically be characterized by below-average strength in all or virtually all major areas.



INTERRELATIONSHIP BETWEEN FINANCIAL AND BUSINESS RISK

Having in mind the prior discussion on the typical importance that DBRS places on certain financial metrics and business strengths for the non-regulated electric generation industry, we provide some guiding principles pertaining to the application of DBRS methodologies, the first one being that, in most cases, an entity's business risk will carry more weight in the final rating than its financial risk.

Based on this underlying concept, we provide the additional guidance for individual companies with varying business risks:

- **For an Entity with a Business Risk of AA (Exceptional):** A company with a business risk of AA will almost always be able to obtain an investment-grade issuer rating. When financial metrics are in the BBB range, an entity with a business risk of AA would typically be able to attain an "A"-range issuer rating.
- **For an Entity with a Business Risk of "A" (Superior):** Unless financial strength fails to exceed the B range, superior business strength will typically allow the final issuer rating to be investment grade. Very conservative financial risk may in some cases allow the final issuer rating to be within the AA range, but this should not be considered the norm.
- **For an Entity with a Business Risk of BBB (Adequate):** At this average level of business risk, the level of financial risk typically has the ability to result in a final issuer rating from as high as "A" to as low as B.
- **For an Entity with a Business Risk of BB (Weak):** At this weak level of business risk, conservative financial risk can, in some cases, take the final issuer rating into the BBB investment-grade range.
- **For an Entity with a Business Risk of B (Poor):** It is not typically possible for a company with a business risk of B to achieve a final investment-grade issuer rating.

DEFINITION OF ISSUER RATING

- DBRS Corporate rating analysis begins with an evaluation of the fundamental creditworthiness of the issuer, which is reflected in an "issuer rating". Issuer ratings address the overall credit strength of the issuer. Unlike ratings on individual securities or classes of securities, issuer ratings are based on the entity itself and do not include consideration for security or ranking. Ratings that apply to actual securities (secured or unsecured) may be higher, lower or equal to the issuer rating for a given entity.
- Given the lack of impact from security or ranking considerations, issuer ratings generally provide an opinion of default risk for all industry sectors. As such, issuer ratings in the banking sector relate to the final credit opinion on a bank that incorporates both the intrinsic rating and support considerations, if any.
- DBRS typically assigns issuer ratings on a long-term basis using its **Long Term Obligations** Rating Scale; however, on occasion, DBRS may assign a "short-term issuer rating" using its **Commercial Paper and Short Term Debt** Rating Scale to reflect the issuer's overall creditworthiness over a short-term time horizon.

SHORT-TERM AND LONG-TERM RATINGS

- For a discussion on the relationship between short- and long-term ratings and more detail on liquidity factors, please refer to the DBRS policy entitled "**Short-Term and Long-Term Rating Relationships**" and the criteria *DBRS Commercial Paper Liquidity Support Criteria for Corporate Non-Bank Issuers*.

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