PROJECT FINANCE & INFRASTRUCTURE RATING METHODOLOGY

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Overview

Egan-Jones Ratings Company, Inc. ("Egan-Jones" or "EJR") is a credit rating agency established in 1995. Privately owned and operated without affiliation to any financial institution, Egan-Jones is respected for its timely, accurate evaluations of credit quality.

Egan-Jones ratings and research are available via e-mail, its website, and other distribution platforms. EJR is committed to continuously refining its expertise in the analysis of credit quality and is dedicated to maintaining objective and credible opinions within the global financial marketplace.

SEC Requirements

A general description of the procedures and methodologies used to determine credit ratings. The description must be sufficiently detailed to provide users of credit ratings with an understanding of the processes employed in determining credit ratings, including, as applicable, descriptions of: policies for determining whether to initiate a credit rating; a description of the public and non-public sources of information used in determining credit ratings, including information and analysis provided by third-party vendors; whether and, if so, how information about verification performed on assets underlying or referenced by a security or money market instrument issued by an asset pool or as part of any asset-backed or mortgage-backed securities transaction is relied on in determining credit ratings; the quantitative and qualitative models and metrics used to determine credit ratings, including whether and, if so, how assessments of the quality of originators of assets underlying or referenced by a security or money market instrument issued by an asset pool or as part of any asset-backed or mortgage-backed securities transaction factor into the determination of credit ratings; the methodologies by which credit ratings of other credit rating agencies are treated to determine credit ratings for securities or money market instruments issued by an asset pool or as part of any asset-backed or mortgaged-backed securities transaction; the procedures for interacting with the management of a rated obligor or issuer of rated securities or money market instruments; the structure and voting process of committees that review or approve credit ratings; procedures for informing rated obligors or issuers of rated securities or money market instruments about credit rating decisions and for appeals of final or pending credit rating decisions; procedures for monitoring, reviewing, and updating credit ratings, including how frequently credit ratings are reviewed, whether different models or criteria are used for ratings surveillance than for determining initial ratings, whether changes made to models and criteria for determining initial ratings are applied retroactively to existing ratings, and whether changes made to models and criteria for performing ratings surveillance are incorporated into the models and criteria for determining initial ratings; and procedures to withdraw, or suspend the maintenance of, a credit rating. Market participants are provided the opportunity to comment on the methodologies through the EJR's website (publicly available) for EJR's consideration.

Executive Summary

This document provides guidance on project finance and infrastructure transactions (collectively "Project Finance"). This document shall be used in conjunction with EJR's main Methodologies (https://egan-jones.com/), in which other rating approaches and methodologies may be considered as appropriate.

Project Finance is the long-term financing of infrastructure, energy and other large-scale projects based upon the projected cash flows of the project. Some projects may still be in the planning stages or be under construction, while others are already operational. The project debt is most commonly non-recourse and may be secured by a first priority lien on all of the project's equity and assets, including rights to revenue under the project's contracts, so that investors are able to assume control of a project in an event of default.

The Rating Approach

In most Project Finance transactions, the project is organized as a bankruptcy-remote special purpose entity, such that the investors' interest in the project is shielded from financial difficulties that may affect the project's parent or equity holders. Assets that have been financed using this structure include but are not limited to pipelines, refineries, power generation facilities (renewable and non-renewable), toll roads, airports, docking facilities, mines, and various industrial facilities. EJR's approach to evaluating Project Finance transactions focuses on the project's ability to produce a stable revenue stream so that it can meet its financial obligations. The below table provides a summary.

Operating Environment

Whether the project makes market sense, whether there is a need for the proposed facility, whether the environment will support the project, whether the proper licenses can be procured in a reasonable amount of time and at a reasonable cost, and ultimately whether investor can expect to see a return of their capital on time and in full. Factors vary by project, location, timing, and a variety of other variables.

Market Positioning/ Strategy

Projects that generate a substantial portion of their revenues from contracted sources are likely to be viewed as strong. EJR may evaluate the various counterparties to determine the quality of the project's cash flows. Although contracted cash flows should provide a project with a stable source of revenue, cash flows generated from weak counterparties could have a negative impact on a project's quality of cash flow. This is especially true if most cash flows are generated from counterparties whose credit quality is weaker than the project's credit quality.

Construction Process and Risk

In order for the project to meet its debt service payments, the project must typically be built on time and operate as originally expected. Construction is generally one of the most significant risks in a project because of the project's reliance on a limited number of assets to generate revenue.

Typically, a contractor with extensive experience building similar projects will be expected to complete construction on time and within budget. A contractor with limited experience constructing similar assets may have difficulty completing the project on time and within budget. The rating on a project's debt may be linked to the contractor's creditworthiness if EJR determines the contractor is irreplaceable or if there is a large amount of funding required to replace the contractor or break the EPC contract.

A strong project may be supported by a construction contract that includes financial bonuses and penalties for the contractor to build the project according to the original schedule and budget. Appropriate liquidated damages provisions that align the economic incentives of the contractor and the project, and compensate the project for any loss or delay in production are positive.

Operator

The project operator is responsible for managing the project's overall operations. It is responsible for ensuring the physical plant is well maintained and is operating in an optimal manner. EJR will generally review the operator's experience with similar assets in order to determine if it can operate the project efficiently. EJR might also consider the operator's contractual agreement with the project in order to ensure its interests are aligned with those of debt investors. An effective contract usually includes financial bonuses and penalties that are based on the overall performance of the project.

Technology

The technology selected by the sponsor has a direct impact on the overall success of the project. EJR believes projects that utilize proven technology are more likely to experience success than projects that rely on untested technology. Many projects that rely on new technology have encountered severe operational issues that resulted in payment defaults and minimal recovery values. EJR typically reviews independent engineer reports and feasibility studies to determine if the project's technology is considered proven.

Counter Parties

Projects rely on a number of counterparties in order to operate effectively and generate revenue. The rating on a project could be limited to counterparty's rating or credit assessment under certain situations. Specifically, ratings on a project may be linked to counterparty if such entity has agreed to purchase all of the project's production for a certain period of time. The rating on the project could also be limited to the counterparty if such entity is providing a unique service and cannot be replaced. Major counterparties in a typical project finance transaction may include:

- Power purchasers: This category typically includes PPA off takers or merchant markets. For an offtake that is contractually obligated to purchase energy from a power project for a certain period of time, would be viewed as strong as long as the offtake's corporate rating or credit assessment is equivalent to or higher than the rating on the securities.
- Suppliers: This category typically includes fuel providers for power plants or raw material suppliers that are critical to the normal functioning of the project. EJR may evaluate the operational capacity, replaceability and credit quality of suppliers if they provide a critical function.

- Service Providers: This category typically includes O&M, technology or original equipment providers. EJR may assess the replaceability of the service party, specifically evaluating if the service provided is standard with market rate contracts and if there are adequate funds for replacement. If either the services or the equipment provided is proprietary, then the operational ability and credit quality of the service provider may be a key credit constraint on the project debt's rating.

- Sponsors: While project debt ratings are generally de-coupled from the sponsor's rating, a weak transaction structure may expose the project debt to the credit risk of the sponsor. In some instances, a well-capitalized parent of a subsidiary that is a service provider will guaranty the obligations of that service provider for the benefit of the project, in which case EJR would typically assess the strength of that guaranty and the guarantor's creditworthiness.

A PPA that permits curtailment and is based strictly on energy payments, or an EPC agreement with a contractor that has experienced financial difficulties, offers limited warranties of short duration, and provides no guarantee from a creditworthy parent would be consider weak.

Financial Profile

The Financial Risk Profile is determined by reviewing the expected financial performance. The amount of debt to be issued is an important factor in determining whether the leverage is appropriate at a given rating level. Overall cashflow expectations, availability of reserves, and leverage metrics, such as debt service coverage and expected outstanding debt at time of issuance and at maturity, are also evaluated.

The transaction structure chosen by the sponsor directly affects the likelihood that debt holders will be paid interest and repaid their principal by the maturity date. EJR typically evaluates the characteristics that enable the project to exist on a standalone basis without a linkage to its sponsor or parent. Although details will vary by transaction, as a general matter the primary requirements for de-linking the rating of the project debt to the rating of the sponsor or parent are:

- The project entity is structured as a limited purpose, bankruptcy-remote entity

- The debt investors have a security interest in the assets and equity of the project

- The project is contractually entitled to a cash flow stream that can support the proposed debt service under varying levels of financial stress

Most project finance transactions utilize a special purpose vehicle ("SPV") as the issuer of non-recourse debt to reduce the risk that a project could be consolidated with a parent/sponsor in a bankruptcy or insolvency. The rating on the project debt may be limited to the sponsor's or parent's creditworthiness if EJR determines that the SPV is not adequately ring-fenced. In analyzing the debt repayment profile, EJR will generally rate transactions with fully amortizing structures with level debt service payments higher than transactions with a balloon payment that needs to be refinanced. EJR may also evaluate a project's cash management system. A strong project generally segregates project funds, and uses an investment grade banking institution with significant assets and experience in cash management as a trustee or depositary.

The financial risk profile is normally determined by evaluating the predictability and stability of the cash flows. Specifically, EJR typically evaluates the debt service coverage ratios and leverage metrics, refinancing risk, and the availability of liquidity. Each factor is described in detail below.

Debt Service Coverage & Leverage

EJR's general approach is to evaluate the project's operations, expenses, technology, and financial obligations, to gain insight into a project's cash flow profile. EJR may utilize various financial metrics when evaluating a project, but the primary driver is the debt service coverage ("DSC"). DSCs provide insight into the project's ability to service its financial obligations. EJR expects that an investment grade project could repay its debt under several scenarios, including those involving severe stress. The range of DSCs in the table below assumes that a project has a relatively stable cash flow profile. Projects that have volatile cash flows may need higher DSCs than projects with similar ratings and stable cash flows.

Median Debt Service Coverage Ratios

AA	A	BBB	BB	B	CCC
Over or equal to 3.5	1.80 - 3.50	1.30 - 1.80	1.15 - 1.30	1.00 - 1.15	Less than 1.00

While DSCs constitute a critical part of the analysis, an assessment of the project debt's amortization schedule may also significantly impact EJR's view of the financial risk profile. For example, in the case of Term Loan B structures with periodic 1% mandatory amortization, lower amounts of cash flows will be required to meet a targeted debt service amount than in a transaction where full amortization occurs within the same timeframe. In Term Loan B structures or similar transactions, it is difficult to compare financial metrics purely based on DSCs. Consequently, EJR may evaluate the project on the basis of residual debt remaining at maturity and the likelihood of the debt being serviced if refinanced at a higher rate. For gas- or coal-fired power assets, EJR may quantify financial risk by looking at the project in terms of debt/KW. Amortizing structures where the debt is completely paid off are considered the most stable. Interest-only structures with no or minimal expected amortization are considered the weakest, all other things being equal.

A. Refinancing Risk - For projects where the debt is not scheduled to fully amortize by the maturity date, EJR typically assesses that the amount of cash a project can generate after its maturity date may be compared to the expected outstanding debt at maturity to determine the likelihood it will be able to be refinanced. EJR believes that a project's debt will be refinanced if its post-maturity cash flows are reasonably expected to exceed the outstanding debt amount.

B. Liquidity Risk - Projects are operating assets and may experience intermittent operational problems. EJR generally expects investment grade projects to have significant liquidity, typically in the form of a debt service reserve account, to pay the project's financial obligations during periods when the project is offline or experiencing financial stress. Investment grade projects will likely have a debt service reserve account sized to pay interest for a six to twelve month period and distribution tests to trap cash in case the project experiences stress. The reserve account could either be cash-funded or back-stopped by a letter of credit from a financial institution whose rating or credit assessment does not act as a constraint on the project debt's rating.

Most projects also provide liquidity for maintenance expenses using a separate account either prefunded by the sponsor or funded and consistently replenished by project revenues over the course of the transaction. For some commodity related projects, there might also be a separate working capital account in order to provide the project with additional liquidity.

C. Sovereign Consideration - The ownership of a project by a sovereign or a project's exposure to sovereign credit risk may impact a project's credit quality. Sovereign risk may be considered when either the project or any material counterparty is located in a country with a hazardous environment for normal business activities or where the contractual basis of economic activities may not be honored.

After the initial rating is assigned, EJR typically continues to monitor the transaction until the notes are fully repaid. EJR's surveillance process for project finance transactions generally involves a periodic review of the following:

- Periodic reports to determine if all payment obligations are being met
- Trends in financial performance of the transaction
- Financial performance and condition of the operator or sponsor
- State of the industry to which the project pertains

The information gathered during surveillance will indicate whether the credit quality of the transaction has changed from the time of the initial rating assignment or the most recent review that may result in a change to the transaction's rating.

Limitations and Disclaimers

All EJR credit ratings and published methods are subject to certain limitations and disclaimers.

Information: Adequate information must be available to reach a view on the creditworthiness of the issuer, entity, or transaction in question. This includes publicly available information on the issuer, such as company financial and operational statistics, reports filed with regulatory agencies, and industry and economic reports. In addition, the rating process may incorporate data and insight gathered by EJR. If the available information appears insufficient to form a rating opinion, EJR may decide not to assign or maintain a credit rating.

Audit: Egan-Jones does not perform an audit in connection with any credit rating and may rely on unaudited financial information.

Usage: EJR's ratings remain its property at all times, and EJR has full discretion to determine if and when to withdraw a rating. Thus, EJR can choose to withdraw a rating at any time and for any reason, for example, due to a lack of information or a lack of market interest.

Methods: EJR does not intend to assume, and is not assuming, any responsibility or liability to any party arising out of, or with respect to, its published ratings methodology. Its ratings methodology documents are not intended to and do not form a part of any contract with anyone and no one shall have any right (contractual or otherwise) to enforce any of their provisions, either directly or indirectly. At its sole discretion, EJR may amend its ratings methodology documents and the processes described therein in any way and at any time as EJR may elect.

Disclosure of Ratings: Egan-Jones follows the applicable regulatory rules and requirements for the disclosure of ratings. Rating definitions and the terms of use of such ratings are available on the firm's website at www.EGAN-JONES.com. Published ratings, criteria, and methodologies are available from this site. Policies and procedures concerning conflicts of interest and other relevant topics are also available from this site.

Market participants are provided the opportunity to comment on the methodologies through the EJR's website (publicly available) for EJR's consideration.