

Article Title: Criteria | Corporates | Project Finance: Project Finance Construction And Operations Counterparty Methodology Data: (EDITOR'S NOTE: —This article has been superseded by "General Project Finance Rating Methodology," published Dec. 14, 2022, except in jurisdictions that require local registration.) 1. This criteria article describes S&P; Global Ratings' methodology and assumptions for assessing counterparty risk associated with revenue, construction, equipment supply, operations and maintenance, and raw material supply agreements (construction and operations counterparties) relating to project finance globally. Contract counterparty risk is one of the key factors considered when analyzing and assigning ratings to project finance securities. The reliance on third parties to make payments or perform under a wide range of agreements such as revenue, construction, equipment supply, operations and maintenance, or raw material supply, is a common feature in project finance issues. The criteria aims to improve the transparency of how we assess construction and operations counterparty risk for project finance. This article is one of five that comprise our project finance criteria. The other four are: Project Finance Framework Methodology, Sept. 16, 2014 (This article describes how the individual articles, including this one, interrelate and how we determine the project finance issue credit rating.); Project Finance Transaction Structure Methodology, Sept. 16, 2014; Project Finance Operations Methodology, Sept. 16, 2014; and Project Finance Construction Methodology, Nov. 15, 2013. 2. The criteria are intended to enhance the comparability of ratings on project finance issues with ratings in other sectors (see "Understanding S&P; Global Ratings' Rating Definitions" published June 3, 2009 ) and improve transparency about how we assign ratings. The criteria constitute specific methodologies and assumptions under our "Principles of Credit Ratings", published on Feb. 16, 2011. 3. This paragraph has been deleted. I. SCOPE OF THE CRITERIA 4. These criteria are applied to all new and existing project finance debt issues. II. SUMMARY OF THE CRITERIA 5. The construction and operations counterparty framework and the link between the rating on a security and the rating on a counterparty applies to the analysis of all construction and operations counterparties in project finance ratings that rely on a contract to transfer and mitigate a material risk (see ¶18) for the period of the project covered by the contract to which they are a counterparty. Examples of the types of contracts whose counterparty is considered within the scope of these criteria include government concessions, offtake contracts, purchase contracts, construction agreements, operating and maintenance agreements, and supply or procurement agreements. 6. These criteria are an input to the project finance methodology where a material risk is transferred to a counterparty. They provide an estimate of the exposure to the project should the counterparty become insolvent or for any other reason can no longer accept the risk assigned to it under the respective contract. The counterparty risk is matched to the term of the contract it is a counterparty to and to any enduring obligations. 7. These criteria do not apply to financial counterparties. The implications of financial counterparties—including bank accounts, liquidity or credit support facilities, interest rate swaps, and currency swaps—on credit quality are covered by "Counterparty Risk Framework: Methodology And Assumptions," published on March 8, 2019. 8. Notable features of these criteria include: Defining the concept of Counterparty Dependency Assessment (CDA) (see ¶13) as a constraining factor ('weak link') on the project finance issue credit rating; Establishing the Issuer Credit Rating (ICR) or credit estimate on the construction and operating counterparty as the starting point for determining the CDA (see ¶23); Explaining that the starting point at which a CDA may be adjusted upward or downward to arrive at a final CDA based on: i) Replaceability of the counterparty (see ¶ 20); ii) Ability, incentives, and disincentives for the counterparty to perform its designated role under various types of duress (see ¶ 39); iii) Credit enhancement (see ¶ 27); and iv) Contract type (refer to Part IV). See table 1. Table 1 Summary Of Counterparty Dependency Assessments (CDA) Relative To Contract Type

TYPE OF CONTRACT	OBLIGATION	Counterparty Revenue (concession or offtaker)	Construction	Equipment supplier	Operations and maintenance	Raw material supply	Irreplaceable CDA is equated to counterparties' ICRs or credit estimates	Replaceable (Subpart VI.C)	CDA is linked to basket of offtake counterparties (Subpart IV.A.1)	CDA uplifted by up to two categories from counterparty ICR, reflecting credit enhancement and type of construction (Subpart IV.B & table 3)	CDA uplifted by up to two categories from counterparty ICR, reflecting credit enhancement and availability of viable alternate suppliers (Subpart IV.C & table 5)	No CDA assigned, as de-linked subject to number of alternate parties and credit support equal to one month's fees (Subpart IV. D)	CDA is de-linked or uplifted by up to two
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notches from counterparty ICR, reflecting availability of viable alternate suppliers (Subpart IV.E & table 6) EXCEPTIONS Counterparty with regulatory or legal support CDAs may be raised for counterparties rated 'BB' and lower (§39 & table 2) N/A N/A N/A N/A Unwilling counterparty CDA capped at one category lower than the counterparty ICR, subject to a maximum 'bb+' (Subpart IV.A.3) N/A N/A N/A N/A CDA--Counterparty Dependency Assessment. ICR--Issuer Credit Rating. N/A--Not applicable. 9. This paragraph has been deleted. 10. This paragraph has been deleted. 11. This paragraph has been deleted. III. METHODOLOGY 12. Project finance structures typically depend on the cash flow from a single asset, or cash flows from a small portfolio of assets, to support debt obligations. Project finance structures utilize contractual arrangements to establish obligations and risk allocation among the project and the project's various counterparties. The credit quality of project finance transactions takes into account the financial capacity and operating capability of counterparties to accept risk and perform under these contracts. 13. The issue rating assigned to the project finance issue incorporates the counterparty dependency assessment (CDA) as a weak link. The CDA is an analytic tool used to assess the creditworthiness of counterparties (refer to the Glossary) that take material risks (see ¶18) and potentially expose the credit of the project to the risk of the counterparty failure. 14. The criteria set out a four-step process (see chart 1) in assessing how risks posed by construction and operations counterparties may constrain the issue rating on a project: Identify the material construction and operations contracts (see ¶ 18 for definition of "material"). Determine the replaceability or irreplaceability of material construction and operations counterparties (see ¶20). Identify the type of contract obligation i.e. revenue (concession or offtaker), raw material supply, equipment supplier, operation or construction (Part IV). For irreplaceable counterparties, the CDA is linked to the counterparties' ICRs and is raised where the service is regulated or essential and there is regulatory or legal support of payments (see ¶39). The CDA is lowered when the counterparty is an unwilling participant in the contract (see ¶41). For replaceable counterparties, the CDA may be raised dependent on the presence of substitute counterparties and the level of credit enhancement provided (see ¶27). 15. Where a material risk is transferred to a counterparty through a contract, we assess whether the counterparty can be replaced (see ¶20 and Part IV) and over what period the CDA applies. The role of material counterparties and the risk exposure can vary over the project's lifetime. For example, a construction contract covers the construction phase, although some terms (e.g. warranties or defects liability) may continue beyond construction. Similarly, credit quality, economic and industry cycles, incentives linked to the project, changes in market position, or reputation concerns may change a counterparty's willingness to meet contractual obligations over a project's life. 16. In cases where S&P; Global Ratings does not have a rating on the construction and operations counterparties, a credit estimate is assigned to those counterparties. Chart 1 A. Assigning A Counterparty Dependency Assessment (CDA) 17. A CDA is assigned where a construction or operations counterparty is material (see ¶20) or cannot easily be replaced without significant time or cash flow impact (see subpart VI.C). A CDA applies only to that part of the project's life covered by the relevant phase's contract. For example a construction company might only be a counterparty during the construction phase and for any warranty or defects liability period covered by the contract; the CDA would be assigned for the relevant time period. B. Materiality 18. A material counterparty is one that significantly affects the timeframe or cash available to service debt through construction and/or operation of the project. Examples include: concession or offtake contracts that govern all or substantially all of the project's revenue; construction contracts governing the major construction tasks and any significant construction activities; operations and maintenance contracts; and raw material supply contracts that cover the supply of critical and major inputs to the operating process. 19. As an example, during the construction phase, a significant effect would be the failure to deliver the project on time, being one month late or more than 10% over budget compared to the initial schedule and budget. During the operations phase, a significant effect encompasses counterparties whose failure to perform negatively impacts the project's capacity to deliver service, resulting in either reduction of cash flows by 10%, or interruptions to operations lasting more than one day. C. Replaceability 20. Replacement language in the contract is not sufficient for a counterparty to be assessed as replaceable for the purposes of this criteria. For S&P; Global Ratings to consider a counterparty as replaceable under the criteria, all of the following conditions need to be met: Alternative contractors with similar skills must be available and able to provide the same service or

product at a similar price and quality (see ¶24). Specialist skills may limit the field of possible alternatives; The original contractors must have priced the contract appropriately. We believe that top-tier, or well-run second-tier operators that have extensive local experience in delivering on time and budget, are likely to engage in contracts that are more attractive to replacements than operators with less experience that may under-price risk; The contract must allow the termination and replacement of the failed party, with sufficient time to appoint a replacement without disrupting cash flows supporting the project's debt-service payments (see ¶ 31); Contracts with suppliers and subcontractors, licenses, permits, and project records must be assignable or transferable without undue delay; and The project management must have the skills and ability to manage (see ¶ 26) and fund the replacement (see ¶ 47).

21. Examples of irreplaceable counterparties include: Where the counterparty provides essential specialist skills, and the time to source replacement services and or equipment from another supplier would be too long to prevent significant cash flow deterioration that would likely lead to a project default. Where the construction or operations counterparty assumes greater risk than its peers would normally accept, thereby limiting the field of alternative contractors.

22. For an explanation of the impact of replaceability, see the types of counterparties in Part IV. Availability and willingness

23. S&P; Global Ratings' CDA for an irreplaceable counterparty equates to the long-term ICR, credit estimate, or rating that reflects the nature of the obligation of the counterparty, whether public or confidential, unless adjusted for regulatory or legal support of payments (see ¶ 39) or unwillingness of the counterparty (see ¶41).

24. The likelihood of the availability and willingness of an alternative party to step into the project functions if the original party resigns, is unable to perform, or is removed for any reason at any time during the life of the rated debt is assessed. The structural and market features, adequacy of the fee to attract a substitute party, the availability of alternative parties in that sector or region, and the specific characteristics of the assets that may hinder an orderly transition of the function are assessed.

25. Sufficient time to replace a failed contractor depends on the market conditions and particular project circumstances. It generally takes more than two weeks to find an alternative contractor for simple projects, and longer for more complex projects. Any delay may result in the demobilization of other sub-contractors, resulting in higher replacement costs and negatively affecting the project's credit profile.

26. To replace a counterparty, project management must have the capacity to monitor performance in real time to quickly identify any failures and to act swiftly. Monitoring can also be provided by independent experts that are explicitly charged with ongoing project oversight on behalf of the project company.

D. Credit Enhancement For Counterparty Replacement

27. The sufficiency of any credit enhancement provided by the counterparty is assessed relative to the funding required to replace the counterparty. Credit enhancement may take the form of secure cash deposits, or unconditional and irrevocable instruments from a financial institution or insurance companies payable on demand (for example, letters of credit and guarantees).

28. To be assessed as replaceable under the criteria, the contractor credit enhancement should cover the cost of replacing the contractor should they fail or become insolvent(see ¶48). The quantum of each credit-enhancement instrument reflects the amount needed to offset the cash flow derived from the counterparty's role and function, the likelihood of failure to perform, and any resulting cash flow consequences of mitigating the damage caused. Contractual retentions (refer to the Glossary) can provide cash, but there is a risk that there may not be sufficient cash retained at the time of a failure, and as such, they are not counted as credit enhancement until funded.

29. S&P; Global Ratings' credit-enhancement analysis recognizes that some components do not need to be backed by an on-demand instrument. For example, an increased margin needed to attract an alternative contractor is a replacement cost for construction counterparties (see ¶48), and is payable over the remaining life of the construction period. This can be funded by alternative means, provided the funding is timely and unconditional.

30. Arrangements to directly pay subcontractors (see ¶48), or a credit enhancement covering all or part of the subcontractor's fees, may mitigate the risk of subcontractor payments getting caught up in any contractor bankruptcy. In cases where credit enhancement is provided by subcontractors and is assignable, or for the benefit of the project's company, this amount is included in our analysis.

31. Credit-enhancement instruments that are poorly drafted or contain conditionality are reviewed with reference to the likelihood of funds required to fund a timely replacement. While the CDA of a counterparty will reflect any implicit or explicit support from its parent, a failure of the contractor signifies that the support is exhausted, and as such any undertakings

provided by the contractor or its parent are too highly correlated in a bankruptcy or similar action and, hence, do not mitigate the risk. 32. The credit enhancement in this criteria deals only with the insolvency risk of the counterparty. In total, the project financing actual credit enhancement and construction support will normally be higher than as calculated under this criteria and include support for project level liquidated damages. IV. TYPES OF COUNTERPARTIES A. Revenue Contract/Offtake Counterparties 33. Analysis of a counterparty revenue risk is key for forecasting expected cash flows for the term of the project finance debt. Revenue contracts often match or exceed the term of the rated debt. For example, government concessions and some power projects' revenue contracts are for terms of 30 years or more. Commodity projects often have shorter terms. The CDA assigned differentiates between: Irreplaceable counterparties (see ¶21), which cannot be replaced by virtue of their market or contract position. These counterparties include government concession granters and monopoly market operators. These counterparties typically are contracted for the entire term of a project, as without their support there is no market for a project's output. In many cases, a project may be unable to sell its product to another party in the event of a default by an irreplaceable counterparty on the senior unsecured debt. Replaceable counterparties, which may cover only part of the output or only a portion of the project's life, or can be replaced in predetermined circumstances (see ¶36). 34. The criteria acknowledge there are situations where laws or regulation require ongoing payments and services under a contract, even when the counterparty may be in default under its debt obligations (see ¶39). 1) Replaceable counterparties: multiple commodity and energy offtakers 35. Multiple offtake agreements are common in commodity and some energy projects. In these instances, the criteria base the CDA on the weighted average counterparties' ICR or credit estimate and calculation of the proportion of revenue. The CDA will reflect the revenue basket's characteristics over time. These characteristics change over time as a result of composition, allocation, and the credit strength of the contract counterparties. 36. A project may have long-term contracts for most, but not all, of its revenue. The residual revenue may be sourced from short-term contracts or the spot market. In cases where a counterparty (s) represents less than 15% of project revenues, and that counterparty is either unrated or its ICR or credit-estimate is more than one rating category (three notches) lower than the weighted average creditworthiness of the other counterparties, the revenues of the weak or unrated counterparty (s) is excluded from the basket. The costs associated with the production for the weak counterparty are included, however, in the analysis of project cash flows. The CDA in this circumstance is calculated on the basis of the revenue-weighted basket of higher-rated counterparties that cover at least 85% of revenue. 37. Where sales are done at market or under short-term arrangements, the CDA will reflect the credit risk determined by the weighted trading exposure, market risk, and contracting policy of the project, as assessed under project finance ratings methodology for that sector. 38. In cases where a highly-rated intermediary assumes the credit risk of the revenue or offtake customers, S&P; Global Ratings assigns the CDA of the intermediary if the credit substitution instrument meets rating criteria for the type of credit substitution, such as letter of credit, bond, or guarantee. 2) Regulatory or legal support may enhance a revenue counterparty's CDA 39. In situations where the service or product delivered is a regulated essential service--such as power--the criteria would assign a CDA higher than the counterparty ICR or credit estimate in circumstances described in table 2. This applies in cases where: the contract does not terminate on the default of an offtaker and where a regulator would maintain the contract as part of ongoing operations; or payments would continue due to their essentiality, regulatory support, or commercial incentives. Table 2 Maximum CDA For Revenue Counterparties With Regulatory Support, Or, Which Continues To Pay After Default SCENARIO COUNTERPARTY RATING CAP ON UPLIFT TO CDA FROM COUNTERPARTY ICR OR CREDIT ESTIMATE Regulatory or legal precedent to support counterparty payments (¶40) Investment grade No uplift Regulatory or legal precedent to support counterparty payments (¶40) 'bb' category One notch Regulatory or legal precedent to support counterparty payments (¶40) 'b' category Two notches Counterparty enters bankruptcy or defaults on unsecured debt (¶40) -- Reflecting prospects on continued payment, and capped at 'ccc+' CDA--Counterparty Dependency Assessment. ICR--Issuer credit rating. 40. In cases where there is regulatory and legal precedent to support payments or services for a specific counterparty or similar type of counterparty, the CDA will be elevated, as shown in table 2. Regulatory support is more valuable for below-investment-grade counterparties, and of limited value for an

investment-grade counterparty. A counterparty entering into bankruptcy or defaulting on its unsecured debt does not automatically fail to perform under the project contract. For example, an electric utility is likely to continue to produce or purchase, and, in turn, supply power even in bankruptcy. The CDA would reflect the reasons for the default and assesses the prospects of the counterparty continuing to meet its obligations to either provide a service or pay for the project's output. In such cases, a CDA as high as 'ccc+' might be maintained on the counterparty. The potential level of an offtake counterparty's CDA is limited under increasing duress, in default on its senior unsecured debt, or in bankruptcy, to 'ccc+'. 3) Unwillingness may weaken a revenue contract counterparty's CDA 41. There can be delays in payment, including under bona fide commercial disputes. Further, in some cases, a counterparty can be consistently late with payments, despite no dispute over the amount of the payment. The criteria assess commercial, political, and other incentives that can lead to a project sponsor or parent being reluctant to pursue legal remedies. 42. In cases where a counterparty is consistently late with payments, the risk is assessed by analyzing the cash flow impact and weak-linking the issue rating. For projects where there has been a delay in payment, a counterparty has a history of late payments, or delays are common market practice, S&P; Global Ratings incorporates payment delays in liquidity and cash flow analysis at the project level. In addition, S&P; Global Ratings will cap the CDA view at one category below the counterparty ICR or equivalent on the counterparty, with a maximum CDA of 'bb+'. For a government-related entity (GRE), our analysis may equate the CDA to at most, its SACP (standalone credit profile) or credit estimate. 43. Circumstances which may lead to this analytical approach include: When there has been a demonstrated practice of late payments. For example, some regional governments are well known for paying late on "commercial contracts" while paying promptly on external debt. Situations in which we assess a counterparty to be an "unwilling participant" in a contract. An example of an unwilling participant is a local authority that undertook a public-private partnership (PPP) transaction, but where the local authority, or its executive, is publicly against the concept. In our view, the authority may seek to terminate or frustrate the contract. B. Construction Contract Counterparties 44. Unlike revenue contracts, construction contracts generally cover a relatively short period of time, usually ranging from a few months to four years, although some provisions, including warranties, often extend for longer periods. In most circumstances, a replacement should be able to complete construction if the initial counterparty fails. However, in some circumstances this may affect the project's viability, and therefore we apply our replacement analysis in these situations (see ¶120). If counterparty substitution is possible, we will increase the CDA from the construction counterparty's ICR or credit estimate based on the degree of credit enhancement relative to the cost of replacing the counterparty and or its subsidiaries as described in table 3. 45. An irreplaceable construction counterparty's CDA is equated to their counterparty's ICR or equivalent. An example of an irreplaceable construction counterparty is a head construction contractor that has only a small field of replacement contractors available, reflecting the nature of the task. Also, contractors performing under a "turn-key construction contract" (as defined in the Glossary), where the builder takes design and performance risk, or contracts providing specialist design or construction skills are considered not replaceable. Table 3 Maximum Contract CDA For A Replaceable Construction Counterparty

Type of construction*	MAXIMUM EFFECT TO CDA ON CONSTRUCTION COUNTERPARTY
Simple-to-moderately complex building Civil or heavy engineering	No credit enhancement
Builder's ICR or credit estimate	Builder's ICR or credit estimate
Credit enhancement covers costs sufficient to cover replacement of main contractor	+2 notches
Credit enhancement covers cost to replace main contractor and a minor subcontractor	+1 notches
Credit enhancement covers costs sufficient to cover replacement of main contractor and a major subcontractor	+4 notches
Credit enhancement covers 1.5x costs to replacement of main contractor and a major subcontractor	+2 notches
Credit enhancement covers 1.5x costs to replacement of main contractor and a major subcontractor	+5 notches
Credit enhancement covers 1.5x costs to replacement of main contractor and a major subcontractor	+3 notches
Credit enhancement covers 1.5x costs to replacement of main contractor and a major subcontractor	+6 notches (two categories)
Credit enhancement covers 1.5x costs to replacement of main contractor and a major subcontractor	+4 notches

\*Industrial and more complex construction types do not qualify as replaceable. CDA--Counterparty Dependency Assessment. ICR--Issuer Credit Rating. 46. Simple-to-moderately complex projects are able to attract a wider field of potential contractors. Second-tier contractors generally are able to complete more basic building projects as effectively as top-tier builders. Reflecting a wider field, replacement contractors generally can be found for simple projects. Builders typically complete simple projects faster and for less money than they would for more complex projects.

Reflecting this wider field for replacement and simpler nature of the task, the CDA is higher for these projects under each scenario for a given builder's ICR than for more complex construction tasks. Examples of simple-to-moderately complex buildings include: Schools Military barracks Hospitals Examples of civil or heavy engineering include: Gas pipelines Road works (not including tunnels or bridges) Power-generation plants (civil components, not equipment suppliers)

1) Calculating construction credit enhancement 47. Contractor credit enhancement is measured against the estimate of all costs to replace and complete the project, as if the contractor did not fail (see table 4). Determining a cost estimate involves interviews with contractors and the independent expert (IE), any IE analysis on requirements to replace a builder or operator, and analysis of comparable projects in the jurisdiction. Table 4 Calculating The Credit Enhancement To Replace A Construction Contractor TYPE OF CONSTRUCTION (SEE ¶46) SIMPLE-TO-MODERATELY COMPLEX BUILDING CIVIL OR HEAVY ENGINEERING Search and re-contracting costs (including legal costs) Market based Market based Time-based costs to cover the period from notification of failure to securing a replacement. At least half a month of the project's total fixed costs At least one month of project's total fixed costs Subcontractor fee allowance (only for head contractor, not subcontractor) One month's subcontractor fees One month's subcontractor fees Higher margin on counterparty's own costs (Can be contributed up to six months later than replacement time) Additional 4% of contractor's fee Additional 10% of contractor's fee Amount of credit enhancement required Sum of above Sum of above 48. The cost of replacing a contractor or subcontractor relates to the state of the relevant market and is calculated on the total cost of construction. It includes: Searching and re-contracting costs, including any legal fees and offtake contractor review required as typical for the market in which the project is being constructed; Time-based costs to cover the period from notification of failure to securing a replacement contractor measured at the peak cost period; An allowance of at least one month's subcontractor fees, paid to the main contractor but not passed on to subcontractors matching the subcontractor payment cycle; and A higher margin on the contract, reflecting the new counterparty's strong bargaining position and added risk absorbed through taking on the failed counterparty's obligations. 2) Multiple construction counterparties 49. Where there are multiple construction contractors without one head contractor taking overall construction risk, the sharing of risk of contractor failure is based on whether the contract obligations are "joint and several" or "several". 50. In projects where construction responsibility is spread between multiple parties, and the contract obligations are "joint and several" (refer to the Glossary), the CDA is linked to the ability to replace the higher-rated or credit-estimated party because, in cases of an insolvency of the weaker party, the more creditworthy party is expected to replace the weaker party. The more creditworthy party could finish the project if sufficient funds are available. The credit enhancement required would be equivalent to the exposure of both contractors rather than only the higher-rated or credit-estimated parties. Given there is a high degree of correlation, no uplift is provided for the joint and several obligations. 51. In situations where the obligations are "several" (refer to the Glossary), the counterparty risk will be linked to the CDA of the weaker party (refer Table 3 for replaceable counterparty), if the weaker party is critical to the task completion. C. Equipment Supply Counterparties 52. An irreplaceable equipment supplier is a supplier with specialist skills, and where the time to source replacement equipment from another supplier would be too long to prevent a significant disruption in cash flows or the project's default. A counterparty with specialist skills, or a counterparty that takes greater risk than would normally be accepted by its peers, is also an irreplaceable counterparty (see table 5). Table 5 Contract CDA For An Equipment Supplier SCENARIO MAXIMUM EFFECT ON EQUIPMENT SUPPLIER'S ICR OR CREDIT ESTIMATE Specialist supplier or bespoke design Supplier's ICR or credit estimate Alternate suppliers available with capacity to meet delivery but may require some minor adjustments to the design configuration +2 notches Generic equipment available from a range of suppliers who have capacity to deliver timely +1 category Equivalent equipment from multiple suppliers readily available without delay +6 notches (two categories) CDA--Counterparty Dependency Assessment. ICR--Issuer Credit Rating. 53. A CDA of up to six notches (two categories) can be achieved for suppliers above the equipment supplier's ICR, where there is a market for alternative technology and there is a high confidence in sourcing comparable alternatives in a timely manner at a similar cost. The amount of uplift is greatest where there are several viable alternatives available--for example, replacement solar panels. 54. For

non-material equipment that is widely available, no CDA is to be applied. D. Operations And Maintenance Counterparties 55. Specialist services or operations and maintenance contractors that are irreplaceable are assigned a CDA equivalent to the counterparty's ICR. An example is a long-term service agreement covering proprietary technology by an original equipment manufacturer. 56. No CDA will be applied where credit enhancement equal to one month's fees is available and if the field of replacements is large or the task is simple. This category includes counterparties that perform general maintenance tasks during the operations phase and there is a wide field of competent alternatives with excess capacity to undertake the contract and deliver at the expected performance levels. The replacement scenario will assume the project covers any increased margin. E. Raw Material Suppliers 57. The ability of a project to mitigate raw material pricing risk through commercial contracts is key to cashflow stability for the term of the project finance debt. Analysis of raw material commercial contracts is similar to that for equipment supply contracts (see table 6). Table 6 Contract CDA For A Raw Material Supplier SCENARIO MAXIMUM EFFECT ON RAW MATERIAL SUPPLIER'S ICR OR CREDIT ESTIMATE Specialist supplier or raw material or alternative's quality and delivered cost will adversely impact project cash flows by 10% or more Supplier's ICR or credit estimate One or two alternative suppliers available, with capacity to meet delivery and quality at similar cost. +2 notches Raw material from multiple suppliers, readily available without delay No CDA required CDA--Counterparty Dependency Assessment. ICR--Issuer Credit Rating. V. FREQUENTLY ASKED QUESTIONS Can we assign a rating to a project if a construction counterparty is unrated? 58. For an irreplaceable counterparty, the Counterparty Dependency Assessment (CDA) equates to the long-term ICR, credit estimate, or a rating that reflects the nature of the obligation of the counterparty, whether public or confidential, unless adjusted for regulatory or legal support of payments. Therefore, an irreplaceable counterparty must have a long-term ICR, credit estimate, or rating that reflects the nature of the obligation of the counterparty, whether public or confidential in order for the transaction to be rated. 59. For counterparties such as a construction counterparty, if counterparty replaceability is possible as outlined in this criteria, we will increase the CDA from the construction counterparty's ICR or credit estimate based on the degree of credit enhancement relative to the cost of replacing the counterparty and or its subsidiaries as set out in the criteria. 60. If a construction counterparty is unrated and there is no credit estimate available, provided that the counterparty is assessed as replaceable and counterparty substitution is possible, we would assess the counterparty using Appendix C ("How We Determine A Rating Input For A Security For The Purpose Of Its Inclusion In CDO Evaluator") of "Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs," published on Aug. 8, 2016. Where we can meaningfully determine the CDA using Appendix 2 of the notching for CDOs, we would use the resulting CDA, which would be updated and reviewed as required in any credit review process, as an input in our analysis under this criteria on the basis of replaceability noted above. VI. GLOSSARY Counterparty Dependency Assessments (CDA) S&P; Global Ratings' assessment of the risk a counterparty poses to a project financing that takes into account: the credit quality of the counterparty; any credit enhancement, factors that may increase or decrease risk in the context of the project, such as the ability to replace the party; the role being performed; and any differences between the default risk on the counterparty's financial debt and the counterparty's obligations to the project. The CDA is not a rating, but S&P; Global Ratings' assessment of the risk a counterparty poses to a project financing takes into account: the credit quality of the counterparty; any credit enhancement; factors that may increase or decrease risk in the context of the credit of the project, such as the ability to replace the party; the type of commercial role being performed by the counterparty; any differences between the default risk on the counterparty's financial debt; and the counterparty's obligations to the project. We do not assign outlooks to CDAs, nor place them on CreditWatch. The CDAs are assigned on a scale ranging from 'aaa' to 'd', which parallels the issuer credit rating (ICR) scale, 'AAA' to 'D'. S&P; Global Ratings uses lowercase letters for CDAs to indicate their status as a component of a rating rather than as a rating in and of itself. We refine the CDAs by using "+" and "-" signs to graduate the scale in the same way we do for ICRs. Concession agreement An agreement between a government entity and a project, whereby the government grants the project the right to build and operate an asset for a specific period of time. The concession agreement may involve a payment from the government entity to the project for providing a service, or it may allow the

project the right to capture revenues from third parties for providing a service. Credit enhancement Third party support supplied to a project from a contractor that, in this criteria, can be used to cover the cost of replacement of a failed contractor to cover immediate cash costs while other remedies are pursued. The form is normally an unconditional, irrevocable, letter of credit payable on demand. Credit substitution Where one party substitutes its credit for that of another(s). Force majeure (FM) A set of conditions that excuse a contracted party from meeting its contractual obligations. These conditions are usually events beyond the party's control, are difficult to predict, and can disrupt a project's operations and devastate its cash flow. Typical conditions include: "acts of God", such as defined in each contract (fire, floods, earthquakes, and freezing weather; civil disturbances such as strikes; and government actions such as a change of law). Joint & several obligation An obligation of two or more parties for which each party is equally liable for payment. Liquidated damages (LD) Amounts defined in contracts that a contractor will pay in the event that an agreed performance requirement has not been met. LOC Letter of credit Offtaker A party that contractually agrees to take the product of the project under a contract. PPP Public-private partnership; also known as a P3 or a private finance initiative (PFI). This type of project usually involves a private entity who is financing, constructing, and operating public sector infrastructure. Retentions Amounts held back under a construction contract from amounts payable, and which are used in lieu of providing credit enhancement in some circumstances. Several obligation An obligation of two or more parties for which each party is only liable for its respective share of payment. Sponsor A party that is developing or financing a project. A sponsor may or may not be an equity participant in the project. Step-in rights Lenders or offtaker rights under predetermined circumstances, where lenders or offtakers can step into the shoes of the management to operate the project. Turnkey construction contract A type of construction contract in which a contractor agrees to deliver an asset that is ready for use. In addition to the risk of building the project to a budget and schedule the contractor assumes the risk that the plant will perform as designed and agrees to compensate the project for an amount related to the present value of the underperformance for the life of the project. In effect, the contractor needs only to turn over the keys at the end of construction.

**REVISIONS AND UPDATES** This article was originally published on Dec. 20, 2011. These criteria became effective on Dec. 20, 2011. The publication of the criteria followed our request for comment "Project Finance Construction And Operations Counterparty Methodology," published Aug. 16, 2011. There was no material change to the criteria as detailed in the request for comment, although some minor changes were made. Changes introduced after original publication: Following our periodic review completed on Nov. 18, 2015, we updated contact information, updated criteria references, and deleted outdated sections that appeared in paragraphs 3, 9, 10, and 11, which were related to the initial publication of our criteria and no longer relevant. In addition, we included a "Frequently Asked Questions" section as Section V. Following our periodic review completed on Nov. 15, 2016, we updated criteria references Following our periodic review completed on Nov. 14, 2017, we updated the contact list and criteria references. On Oct. 31, 2019, we republished this criteria article to make nonmaterial changes to criteria references. On Oct. 28, 2020, we republished this criteria article to make nonmaterial changes to criteria references.

**RELATED CRITERIA AND RESEARCH** Related Criteria Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019 Project Finance Framework Methodology, Sept. 16, 2014 Project Finance Transaction Structure Methodology, Sept. 16, 2014 Project Finance Operations Methodology, Sept. 16, 2014 Project Finance Construction Methodology, Nov. 15, 2013 Principles Of Credit Ratings, Feb. 16, 2011 Related Research S&P; Global Ratings Definitions, Aug. 7, 2020 These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as Standard & Poor's Ratings Services' assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment.