



Debt Rating Drivers for Renewable Power Projects

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Assigning Debt Ratings to Renewable Power Projects

Rating Approach

Ratings Summary

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Coverage Ratio Profiles

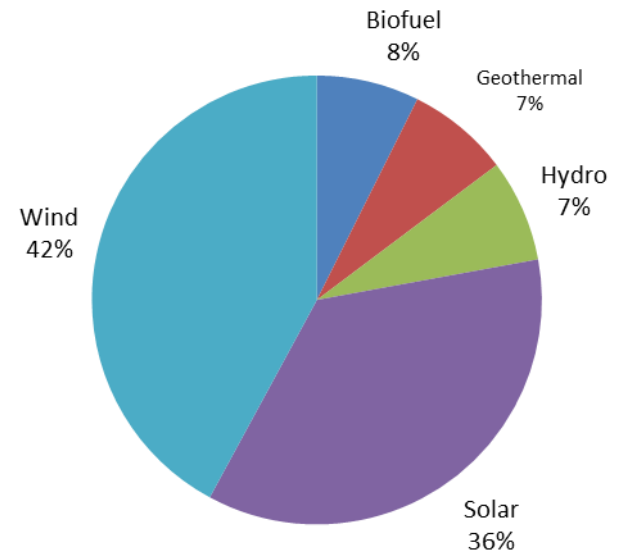
Rating Approach for Renewable Power Project Debt

- “Rating Criteria for Onshore Wind Farm Debt Instruments” dated April 16, 2012
- “Rating Criteria for Solar Power Projects” dated February 23, 2012
- “Rating Criteria for Thermal Power Projects” dated June 18, 2012
 - Available at <http://www.fitchratings.com>
 - Select: Sectors; Global Infrastructure & Project Finance; Criteria
- Credit rating indicates expectation of full and timely repayment of debt
 - Investment grade ratings are ‘BBB-’ and higher, reflecting very low probability of default
- Fitch evaluates qualitative and quantitative aspects of proposed debt financing
 - Estimate minimum level of cash cushion from operating cash flow
 - Primary quantitative metric is Debt Service Coverage Ratio (DSCR)
 - Cash Available for Debt Service (CADS) divided by Debt Service (DS)
 - Cash cushion indicated by extent CADS exceeds DS
 - As reflected by $DSCR > 1.00$ times (x)
- Considerable emphasis placed on renewable resource assessment and independent engineer reports

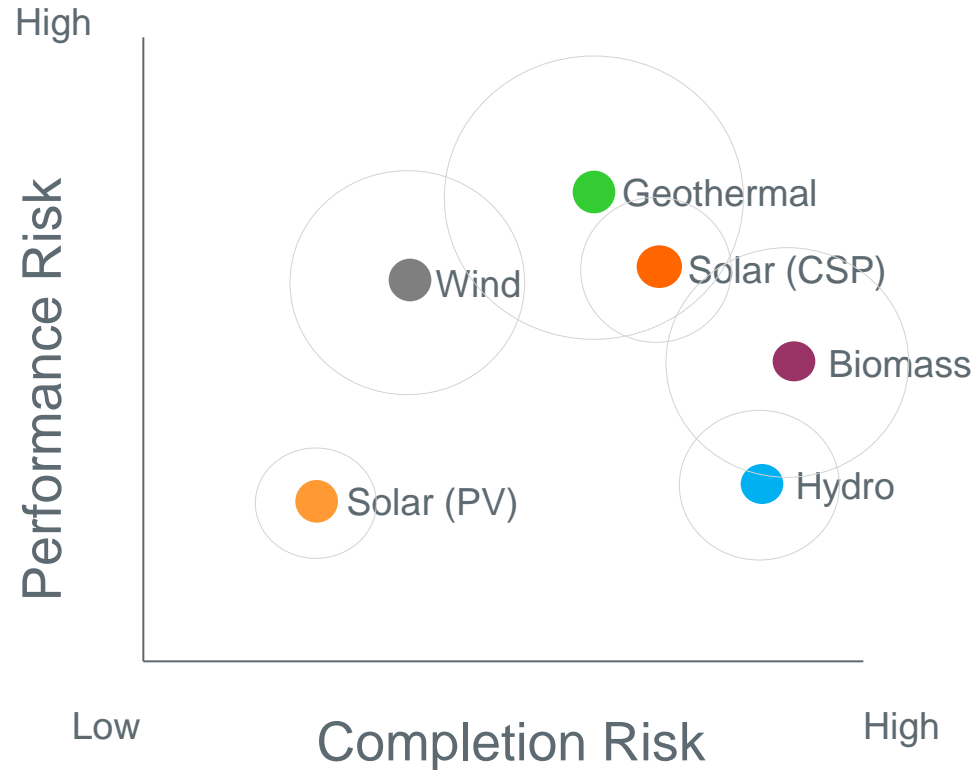
Renewable Power Projects Ratings Summary

- Fitch Ratings provides project finance ratings and credit assessments for numerous renewable energy technologies
 - North America, South America, Europe and Asia
- Over US\$44 billion in loan issuances and loan requests
 - Includes over 60 sponsor applications for the U.S. DOE Loan Guarantee Program
- Over 25 GW capacity
- Average debt of \$1,750/kW, \$416M/project
- Average debt tenor of 19 years
- Rating case average debt service coverage ratio of 1.45x

Renewable Power Projects

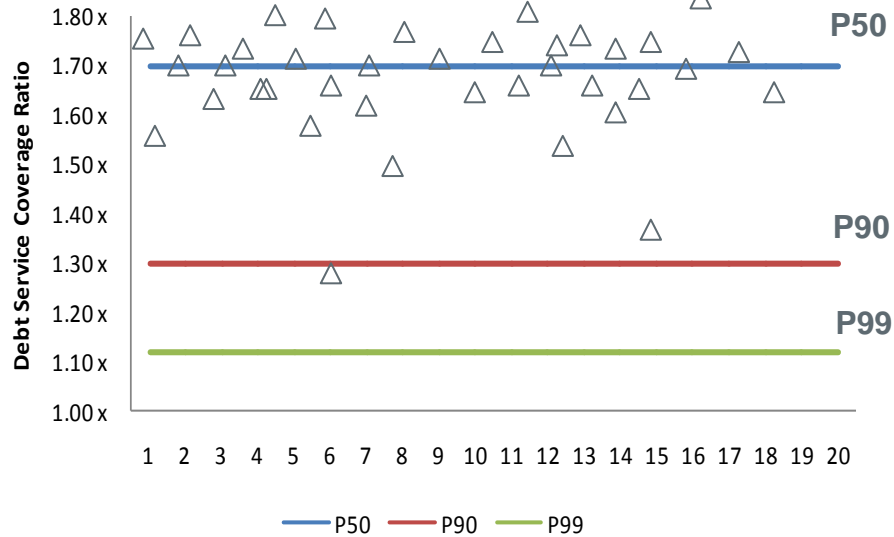


Renewable Power Technologies Risk Comparison

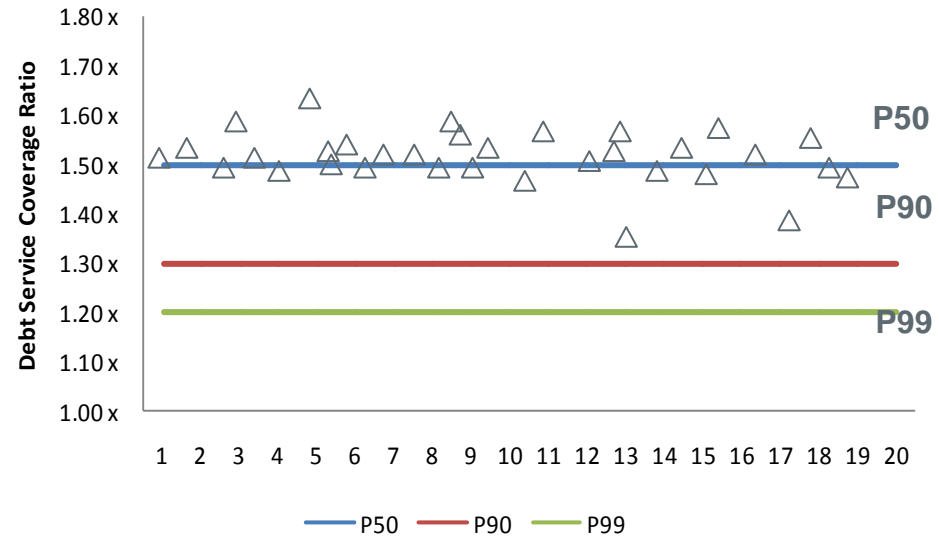


Renewable Energy Production Forecasts

Wind/Newer Project/Single Site



Solar/Established Project/Diversified Portfolio



Indicative Attributes for Investment Grade Renewable Power Projects

Risk	Project Attributes
Revenue Risk	<ul style="list-style-type: none"> (i) Long-term PPA with investment grade off-taker(s) (ii) Negligible or limited curtailment risk (iii) No merchant tail
Resource Risk	<ul style="list-style-type: none"> (i) Portfolio of geographically diverse sites (ii) Multiple years of on-site and reference location data (iii) Production forecast by experienced consultant
Technology Risk	<ul style="list-style-type: none"> (i) Proven track record with reliable performance at utility scale (ii) Experienced O&M contractor (iii) Sufficient O&M budget, favorable independent engineer opinion
Completion Risk	<ul style="list-style-type: none"> (i) Fixed-price EPC contract, experienced contractor (ii) IG manufacturer, proven supply capability (iii) Completion guarantees and liquidated damages
Structural Features	<ul style="list-style-type: none"> (i) Fully amortizing debt (ii) Sufficient distribution threshold (iii) Adequate liquidity and reserves

Financial Analysis

Fitch Base Case

- Energy production subject to 0%-10% adjustment (existing or greenfield)
- Availability adjustments usually based on technology, reflecting ramp up & aging
- O&M expense adjustments based on technology to reflect full life cycle costs

Single and combination stress cases

- Minimum energy production
- Break-even O&M expense
- Break-even availability
- Combination break-even scenarios

Fitch rating case

- One-year P90 energy production with other potential production adjustments
- Base case availability subject to incremental decreases
- Base case O&M expense subject to incremental increases

Renewable Power Project Indicative 'BBB' Category Coverage Ratios

Fully Contracted IG Counterparties	DSCR Average Profile	
Technology	Base Case	Rating Case
Solar: Photovoltaic	≥1.40x	≥1.30x
Solar: Concentrating Solar Power	≥1.50x	≥1.40x
Wind	≥1.60x	≥1.30x
Thermal: Biomass, Geothermal	≥1.60x	≥1.40x

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