FPL Energy American Wind LLC

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NEW RATING

Rationale

Standard & Poor's Ratings Services assigned its 'BBB-' rating to FPL Energy American Wind LLC's (American Wind) $370 million in 144A bonds due 2023. The outlook is stable.

American Wind will repay debt with cash flow from seven U.S. wind projects that earn revenues from energy sold under long-term power purchase agreements and from the monetized value of federal renewable energy production tax credits (PTCs). American Wind is wholly owned directly by FPL Energy Wind Holdings LLC, which is wholly owned indirectly by FPL Energy LLC. FPL Energy is wholly owned by FPL Group Capital Inc. (A-/Negative/A-1), which is owned 100% by FPL Group Inc. (A/Negative/--).

The 'BBB-' rating incorporates the following weaknesses:

- The cash flow from each project depends directly on energy production that depends on the wind resource. The lack of long-term wind resource data at each of the sites introduces risk that pro forma energy production levels and thus cash flows may not be realized.
- FPL Energy has not yet completed two projects—New Mexico and High Winds—that are forecast to provide 63% of cash flows over the debt tenor.
- High Winds will use a wind turbine technology with limited commercial history. This project is forecast to provide 36% of cash flow over the debt tenor.
- The offtaker for High Winds, PacificCorp Power Marketing (PPM), is unrated. PacifiCorp Holding Inc.'s (A-/Negative/--) guarantee of PPM is capped at $100 million, well below the $365 million expected cash flow to the project over the debt tenor.
- Southwest Mesa's cash flows have been and will continue to be materially reduced due to transmission constraints. The forecast improvement in transmission capacity that would enable the project's forecast cash flow may not occur as expected. Cerro Gordo is also exposed to transmission constraints but has not experienced disruption.
- Southwest Mesa's offtaker has the ability annually to buyout its offtake contract for a price that is below that required to make the project financially whole if a buyout occurs.
- There have been numerous problems with the turbine technology used at Lake Benton that could lead to reduced availability, higher operation and maintenance (O&M) costs, or significant repair or retrofit expenditures.

- There is the possibility of a type failure for some of the newer turbines technologies that could lead to reduced availability and increased O&M expenditures.

The above weaknesses are offset by the following strengths:

- The portfolio is diversified with the use of five wind turbine technologies, four regionally independent wind regimes, and 12 offtakers.
- The average turbine availabilities for the five operational projects range from about 96% to 98%, despite various types of turbine problems.
- PTC payments, which make up approximately 24% of the revenue stream, guaranteed by FPL Group Capital, regardless of its ability to utilize the tax credits or of a change in tax law.
- Construction at High Winds and New Mexico is nearly complete, is not relatively technically challenging, and is in any event fully mitigated by a completion guarantee that is backed up with an FPL Group Capital guarantee.
- The Vestas V80 turbine planned for use at High Winds represents an evolutionary development of proven turbine technology. Germanischer Lloyd, an independent technical body, has certified the design at a level that exceeds the dynamics of the wind resource supplying the project. High Winds also benefits from minimum performance guarantees and warranties from Vestas, the world's largest wind turbine manufacturer.
- High Winds' offtake risk is mitigated through the addition of an extra six-month debt service reserve and mandatory redemption in the event that the High Winds PPA is terminated and the PacifiCorp guarantee is called.
- Contract renegotiation risk is mitigated by the competitive pricing of six of seven projects of most offtake contracts and state regulatory support for utility purchase of power or capacity from renewable resources such as wind.
- All O&M of the portfolio is performed or managed by a subsidiary of FPL Energy that has strong experience and skills. Because these seven projects represent 39% of the sponsor's wind assets, they will remain integrated into and will receive strong support from the sponsor's O&M program.
- There is a $14 million special maintenance reserve that could be used to fund retrofits for turbine type failures.
- The project is able to meet debt service under reasonable stress conditions, including a 90% probability (one-year average) of exceedence for power production.

The issuer plans to use the bond proceeds to fund the reserves and pay transaction costs, and will then distribute the remainder to FPL Energy to repay a portion of the equity costs used to establish the projects. The effective leverage will be 52%.

FPL Energy selected these projects to obtain diversity of wind regimes, technology, and offtakers. The projects are High Winds (California: 36% of 20-year cash flow), New Mexico (27%), Southwest Mesa (Texas: 7%), Hancock (Iowa: 11%), Cerro Gordo (Iowa: 5%), Montfort (Wisconsin: 4%), and Lake Benton II (Minnesota: 11%). The project's wind consultant has concluded that the California, New Mexico, Texas, and Midwest wind regimes (collectively) are regionally independent. All projects are operational, except High Winds and New Mexico, which FPL Energy expects to complete in July 2003.

Proven technology includes the Vestas V47 (10% of 20-year cash flow), GE 1.5 (30%), NEG Micon NM 700/750 (12%), and Zond Z50 (11%). The commercially

unproven turbine is the Vestas V80 (37%).

All offtakers are rated investment grade or have investment grade profiles except for PPM, the offtaker to High Winds, which has a limited guaranty from PacifiCorp Holdings Inc. and some of the smaller offtakers for the Hancock Project that are unrated municipal entities or cooperatives. FPL Group Capital guarantees that the dollar value of production tax credits (PTC) earned by the projects will be paid to the issuer in exchange for the PTCs.

FPL Energy is an independent power developer in the U.S., with 7,272 MW of generation capacity of various fuels and of various locations in the U.S. The company holds interests in 1,768 MW net of wind capacity in the U.S., a share that represents about 38% of total U.S. wind capacity.

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Outlook

The stable outlook is supported by low completion risk for the two largest projects, four years of generally stable operations for three projects, reasonable expectations for wind turbine performance, and stable offtaker ratings. A rating upgrade could occur in several years if energy production levels and turbine performance forecasts are realized, and if offtaker ratings improve. A ratings downgrade could occur if wind production and turbine performance are below expectations, offtaker ratings decline, or regulatory support for renewable resources declines.

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Project Background and Sponsor Strategy

This project financing involves seven wind power projects that are located in six states, benefit from four independent wind resources, use five different type of generation technology, and have various investment-grade offtakers under long-term contracts. FPL Energy is undertaking the transaction to obtain partial repayment of the costs to establish the seven projects, most of which FPL Energy has funded fully with equity.

The seven projects are located in California, New Mexico, Texas, Iowa, Minnesota, and Wisconsin. Five projects are in operation, and those in California and New Mexico are in construction and expected to be complete by end of July 2003. FPL Group Capital wraps construction risk.

The project's independent technical consultant has concluded that the wind resources in Iowa, Minnesota, and Wisconsin are correlated, but that the four wind resources in California, New Mexico, Texas, and collectively the Midwest are independent of each other. The projects include five types of generation technology from four different suppliers: Vestas, A.G. (Denmark), NEG Micon, (Denmark), General Electric Wind Energy (U.S.), and Zond (U.S.). Only one of these technologies lacks a significant commercial track record.

Each of the projects sells power to investment-grade offtakers under long-term contracts that provide revenues for energy production only and that generally have loose performance requirements. Only if a turbine is actually generating power does the project earn revenues under the offtake contracts. Other than the project in Texas, the contracts lack early termination options and price reopener provisions. Many of the contracts are with offtakers that are required by their state regulatory commissions to include renewable resources into their capacity mix.

A key component of financial performance of this transaction is that each project also benefits or expects to benefit indirectly from federal renewable energy PTCs under Section 45 of the IRS code. This tax credit is valued at 1.8 cents/kWh, escalates with inflation, and is earned for a 10-year period only by acceptable entities and only if a turbine is in commercial operation before Dec. 31, 2003. In this project financing, FPL Group Capital will benefit from the value of the PTCs generated by the portfolio projects, but will flow an equal dollar amount to the portfolio project under a guarantee.

The financial performance of the portfolio depends mostly on the individual projects being sufficiently available and having an adequate wind resource over the tenor of the debt. The wind resources for these projects have been thoroughly analyzed statistically, but the level of confidence that a certain wind production is achieved largely determines the portfolio's forecast financial performance.

The structural features and collateral security of the transaction are acceptable at an investment-grade level. The project will be bankruptcy remote from FPL Energy, heavily restricted in operations and additional indebtedness, and structured with a 12-month debt service reserve, a major maintenance reserve, and a special reserve for a major retrofit if required.

Sponsor strategy.

FPL Energy is an independent power developer in the U.S., with 7,272 MW of generation capacity of various fuels and of various locations in the U.S. FPL Energy is wholly owned by FPL Group Capital, Inc., which in turn is owned by FPL Group Inc., the company that also owns Florida Power & Light, the regulated Florida utility.

FPL Energy holds interests in 1,768 MW net of wind capacity in the U.S., a share that represents about 38% of total U.S. wind capacity. The company is thus a major player in the wind power industry, and plans to continue its rapid expansion of wind-generation capacity. The company installed 829 MW of wind capacity in 2001 and 327 MW in 2002, and plans to establish another 700 MW to 1,000 MW of wind capacity in 2003. The projects in this portfolio represent 697 MW, or about 39%, of FPL Energy's total wind portfolio. The company plans to finance other, large wind projects in the near term.

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Contractual Foundation

The contracts establishing the projects and the portfolio generally allocate risk to appropriate parties, and generally support a low investment grade credit profile. Each project was established with a power purchase agreement (PPA), a wind turbine supply agreement (TSA), an interconnection agreement, and construction contracts. Only two of the seven projects are in construction, with completion expected in July 2003 and in any event wrapped by FLP Group Capital. Due to the nature of wind power plant construction, which is governed generally by the TSA and various smaller contracts for civil and electrical works, only the major TSA that still affects credit quality is discussed here. Table 1 provides a summary of the project contribution to cash flows and the ratings of the offtakers.

The provisions of the bond indenture and account management agreement are acceptable at the investment-grade level. However, the FPL Capital completion guarantee and PTC flowdown guarantee have not been fully drafted. We expect that

the FPL Energy guarantees will comply with the Standard & Poor's guarantee criteria.

Table 1 Portfolio Project Cash Flow Share and Offtaker Summary

	Share of Cash Flow (%)			
Project	**2003-2013**	**2003-2023**	**Offtaker**	**Rating**
SW Mesa	8	7	American Electric Power Affiliates	BBB/Stable
Cerro Gordo (Hawkeye)	6	5	Interstate Power & Light Co.	BBB+/Negative
Montfort (Badger)	5	4	Wisconsin Electric Power Co	A-/Stable
			Wisconsin Power and Light Co	A/Negative
New Mexico	26	27	Public Service Co on NW	BBB-/Stable
Hancock	13	11	Interstate Power & Light Co.	BBB+/Negative
			Corn Belt Cooperative	N.R.
			Muni Elec Util of Cedar Falls	N.R.
High Winds	27	36	PacifiCorp Power Marketing, PacifiCorp Holdings	N.R.
Lake Benton II	14	11	Northern States Power	BBB/Watch Pos

N.R.--Not rated.

Southwest Mesa (West Texas Wind Energy Partners, LP).

Southwest Mesa is a 74.9 MW net wind plant in eastern Texas that sells only energy to several affiliates of American Electric Power (AEP) under a PPA to July 2019. Southwest Mesa began operation in July 1999 and comprises 107 NEG-Micon NM700 turbines, rated at 700 kW. The project's contractual structure presents problems to the portfolio due to buyout provisions, transmission curtailment risk, and regulatory risk.

The AEP affiliates pay 3.3 cents/kWh peak and 2.25 cents/kWh off-peak, but require a minimum production level based on peak, offpeak, and annual periods. The PPA allocates transmission curtailment risk to Southwest Mesa. The project has lost material cash flows due to curtailment in the region; the transmission system in the area has insufficient capacity to flow the total production from the large number of wind projects in the area, which generally produce power at the same time of day. FPL Energy forecasts that Southwest Mesa will continue to experience curtailment through 2006 until transmission capacity is sufficiently improved. The base case assumes curtailment factors of 25% in 2003, 14% in 2004, and 1% in 2005 and 2006.

The offtakers have an annual option to buy out the PPA, or buy out the project, for a specified period of time during each year. If a buyout occurs, coverages will decline about 10 basis points, because the buyout price is 4% of the portfolio debt while the project provides 8% of forecast cash flow. Standard & Poor's views it unlikely that AEP affiliates will buy out this contract. The PPA prices are not out of line with market prices, and the project is likely to remain important for the offtakers in meeting their renewable energy capacity requirements.

Cerro Gordo (Hawkeye Power Partners, LLC).

Cerro Gordo is a 41.3 MW net plant in northern Iowa that sells only energy to Interstate Power & Light (IP&L) under a PPA to 2024. Gordo began operation in June 1999 and comprises 55 NEG-Micon turbines, the M750, rated at 750 kW. Cerro Gordo's contractual makeup is acceptable except that it is exposed to transmission curtailment risk that should rest with IP&L.

IP&L pays 4.2cents/kWh that escalates, though the rate drops to 2.5cents/kWh flat in the last five years. Cerro Gordo must deliver 75% of the forecast energy (measured quarterly on a rolling four-year average) but is excused for a lack of wind. FPL Energy represents that Cerro Gordo has not experienced any material transmission curtailment.

Montfort Project (Badger Windpower LLC).

Montfort is a 30 MW net plant in southwestern Wisconsin that sells only energy to Wisconsin Electric Power Co. (WEPCO: 85%) under a PPA to June 2011 and to Wisconsin Power & Light (WP&L: 15%) under a PPA to June 2021. Montfort began operation in June 2001 and comprises 20 GE Wind turbines, the GE 1.5, rated at 1,500 kW. Montfort's contractual makeup is adequate except that pricing is well above market and that the WEPCO contract ends in 2011.

WP&L pays 5.97 cents/kWh (2003) escalating at 3.25%. The PPA lacks a minimum energy requirement, caps energy delivery, and allows shortfall make up. WP&L bears transmission risk, but does not make the project whole for PTCs lost due to transmission curtailment.

WEPCO pays 8.4 cents/kWh (2003) escalating at 2.0% to 2.4%, up to 10.3 cents/kWh. The PPA enables Montfort to make up any delivery shortfall. WEPCO bears transmission risk, but does not make the project whole for PTCs lost due to transmission curtailment.

New Mexico (FPL Energy New Mexico Wind, LLC).

New Mexico is a 204 MW net plant in eastern New Mexico that sells only energy to the Public Service Company of New Mexico (PSCNM) under a PPA to June 2028. The project comprises 136 GE 1.5 turbines, rated at 1,500 kW. New Mexico's contractual makeup is adequate.

PSCNM pays the 2.73 cents/kWh fixed. The PPA does not have a minimum energy requirement, but requires that the project achieve an average availability of 90% over a previous three-year period, which the project should be able to achieve. The damages for failure to meet this requirement are capped at $800,000 per year. Excess energy is also paid for at 2.2cents/kWh. PSCNM bears transmission risk and makes the project whole for PTCs and other subsidies lost due to transmission curtailment.

Hancock Project (FPL Energy Hancock County Wind, LLC).

Hancock is a 98 MW net plant in northern Iowa that sells only energy to Interstate Power & Light Co (IP&L) under a PPA to December 2027, to Corn Belt Coop under a PPA to December 2022, and to municipal electric utilities of Cedar Falls to December 2022. Hancock began operation in December 2002 and comprises 148 Vestas V47 turbines, rated at 660kW.

IP&L pays a mixture of off-peak (1.6 cents/kWh), summer peak (about 5.4 cents/kWh), and summer off-peak (3.0 cents/kWh) pricing for 58% of energy delivered. Hancock has the option to increase IP&L's share to 82%, which is

reflected in the pro forma. IP&L bears transmission risk, and makes the project whole for PTCs lost due to transmission curtailment.

Corn Belt pays Hancock 2.75 cents/kWh fixed for 11.49% of the energy produced, and does not require a minimum production amount. Corn Belt generally bears transmission risk, and makes the project partially or total whole for PTCs lost due to transmission curtailment.

Cedar Falls pays Hancock 2.77 cents/kWh fixed for 6.08% of the energy produced and does not require a minimum production amount. Cedar Falls generally bears transmission risk, and makes the project partially or total whole for PTCs lost due to transmission curtailment.

High Winds (High Winds LLC).

High Winds is a 145.8 MW net plant near San Francisco that sells electricity to PPM under a PPA to July 2028. The project comprises 81 Vestas V-80 turbines, rated at 1.8 MW. High Winds' contractual makeup is adequate, except that PacifiCorp's guarantee of PPM's obligations are capped.

PPM pays 2.95 cents/kWh (2003) escalating at 3% for all production. The project does not have a minimum energy requirement, but must demonstrate availabilities of 93% (2003-2004), 94% (2005), and 95% thru 2023. High Winds is exposed to damages up to $800,000/year for failing to meet availability requirements, but this is not likely to occur given an availability forecast of 97%. PPM bears transmission risk, and will make the project whole for PTCs and other subsidies lost due to transmission curtailment.

PacifiCorp Holdings' guarantee of PPM's obligations is capped at $100 million, well below the $365 million in forecast revenue payments over the debt tenor and well below a net present value of these future cash flows. Also, the guarantee does not entirely meet Standard & Poor's guarantee criteria, and thus the guaranteed payments would be viewed as having credit quality below the senior unsecured rating of PacifiCorp Holdings.

Lake Benton (Lake Benton Power Partners II, LLC).

Lake Benton is a 103.5 MW net plant in southwest Minnesota that sells only energy to Northern States Power (NSP) under a PPA to 2025. Lake Benton began operation in June 2000 and comprises 138 Zond Z50 turbines, rated at 750 kW. Lake Benton's PPA is generally adequate, but does include a requirement that NSP be able to recover PPA costs in rates from 2015.

NSP pays a declining energy rate of 3.0 cents/kWh (2003) to 1.9 cents/kWh in the last year of the PPA. The project has minimum delivery obligations of 287 GWh per year but is not obligated to meet this requirement if the wind resource is insufficient. NSP bears transmission risk.

Turbine supply agreements.

Each of the projects except Lake Benton continues to benefit from warranties under a turbine supply agreement (TSA) with the turbine manufacturer. Under the TSA, the supplier warranties that certain availabilities and turbine power curves are achieved and that spare parts are available. Key TSAs are those for the High Winds (Vestas) and New Mexico (GE Wind) because they have not yet achieved commercial operation.

For High Winds, Vestas guarantees that the project achieves at least 95% availability and 95% of the rated power, subject to damages. These damages are capped at 30% of the contract price for delivery delay, 20% for availability, and 30% for commissioning delay.

Construction completion guarantee.

American Wind Holdings is obligated to ensure construction completion of the High Winds and New Mexico projects and the passing of availability and efficiency (the power curve test) tests, and FPL Group Capital guarantees this obligation. FPL Energy expects to complete these projects by July 2003. However, the FPL Group Capital guarantee essentially eliminates risk due to delay or to non-completion.

If any turbine in these projects is not complete by the end of 2003, FPL Group Capital will make the portfolio financially whole on the next payment date for lost revenues and PTCs until the turbine achieves completion. This obligation includes the loss of all PTCs for any turbine that is not placed in service by the end of 2003.

If a turbine is not placed into service by the end of 2003, which is highly unlikely, FPL Group Capital will essentially buyout the turbine to make the portfolio financially whole.

Following substantial completion, FPL Group Capital will ensure the reliability and efficiency of the construction projects. Each project must achieve at least an average availability of 95% for 120 consecutive days. Any delay after the 120th day following the later of substantial completion or Sept. 30, 2003, FPL Group Capital will provide revenue compensation for that period to make the portfolio whole for availability on such project.

If the project has not successfully completed its power curve testing, which tests the efficiency of the turbines, by May 31, 2004, then FPL Group Capital will provide revenue compensation to make the portfolio financially whole for efficiency of such project.

FPL Group Capital will continue to provide revenue compensation for each construction project that meets either the availability test or the power curve test until June 10, 2005. If a project has not achieved one or both tests by such time, FPL Group Capital will essentially buyout the deficient portion to make the portfolio financially whole.

Production tax credit guarantee.

The operational projects are eligible to earn a production tax credit for every kWh of energy delivered, and High Winds and New Mexico will as well provided they are placed into service by year-end 2003, which seems highly likely. Under Section 45 of the tax code, certain renewable energy projects earn PTCs for the first 10 years of operation, provided they are placed into commercial operation by the end of the PTC offer period, currently Dec. 31, 2003.

The value of the PTC was established in 1992 at 1.5 cents/kWh, escalating with inflation. FPL Energy has forecast inflation rates of about 2.3% for PTC calculations.

Being a limited liability company, the issuer has limited use for PTCs, so they will accrue to FPL Group Capital. In exchange for these PTCs, FPL Group Capital

guarantees that the holding company will pay to American Wind the dollar value of the PTCs, whether or not FPL Group Capital has tax liabilities that the PTCs will offset. FPL Group Capital also guarantees payment regardless of a change in tax law relating to the PTCs.

Bond indenture.

The indenture and the accounts management agreement have provisions that are generally standard for low investment grade creditworthiness. The security provided to lenders is adequate and includes a perfected, first priority pledge of the interests in each project, tangible and intangible property in each project, the material agreements in each project, the completion guarantee, production tax credit guarantee, and trustee accounts. The New Mexico project is not owned by the issuer, but lenders will also have security in that project's ownership interests, including a note and loan structured into this transaction. Security also includes mortgages on the project owner's leasehold or easements interests on the sites in which the projects are located.

Redemption provisions are adequate, and include buy-down above certain thresholds for loss events, PPA buyouts, permitted asset sales, permitted project interest sales, and change of control.

Affirmative covenants are acceptable and include preservation of security, enforcement of major project agreements, maintenance of existence, operations, approvals, and compliance with laws.

Negative covenants are acceptable and include reasonably tight restriction on additional debt and liens, arms lengths transactions with affiliates, making loans to or acquiring stock of other companies (except New Mexico), and requiring rating affirmations for termination, replacement, or material modification of major PPAs.

The flow of funds is not standard but acceptable. American Wind will repay debt once annually, due in part to the annual variation of wind and thus power production. However, the issuer desires to make bi-annual distributions, and has structured the flow of funds accordingly. The trustee allocates funds monthly in the following priority; O&M expenses, the debt service fund (1/12 of the debt service requirement), debt service reserve, major maintenance reserve, special O&M reserve, an optional additional payment into the debt service funds, payment on permitted debt (other than senior secured obligations).

The debt service reserve covers 12 months of debt service and is funded at closing, either in cash or an LOC. The major maintenance account is funded at closing in the amount of $1 million initially to $3.5 million by 2020. The special $15 million O&M reserve is funded at closing, either with cash, an LOC , or a guarantee from a corporate entity with a senior unsecured rating of at least 'BBB'.

Distribution conditions include no event of default, a full debt service fund, full reserves (debt service, major maintenance, and O&M), and debt service coverage ratios (DSCR) of at least 1.3 looking backward and forward 12 months. The fact that the debt service fund is fully funded to make the next debt payment allows Standard & Poor's to accept biannual distributions with an annual debt payment.

Events of default include the usual items but also include cross defaults under the FPL Group Capital guarantee related to completion and production tax credits. Items include: lack of payment on obligations within a cure period; bankruptcy and

related items for the issuer, the holding company, or FPL Group Capital; failure of any material security agreement, guarantee, or financing documents to be in effect; false representations and warranties; and a lack of insurance.

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Technology, Construction, and Operations

Technology.

The portfolio benefits from technology diversity with the use of five different turbines designs from four different suppliers: Vestas, NEG Micon, GE Wind, and Zond. Table 2 provides a summary of the turbine structure of the portfolio of projects. Four designs are commercially proven and the fifth is an evolutionary step above a proven design. Technology risk for wind projects is materially different than for conventional natural gas-fired plants because wind technology is fairly well understood and developed, involves a combination of relatively simple technologies, and is relatively easy to replace and repair. The blades that rotate in the wind are connected at the hub to a gearbox, which is connected to a generator, which in turn is connected to a transformer, from which power is delivered to a substation. Also, because a sizeable wind farm is made of numerous turbines, a single turbine failure does not have material effect on cash flows. But a serial failure in the technology that may present itself well after commercial operation could affect a large share, or perhaps all, of the turbines of a wind project, which could have a large effect on cash flows.

Generally, each type of turbine used by the projects in the portfolio has had some operational problems within a portion of the fleet that has led to reduced availability, additional expenses, and reduced cash flow. Despite these problems, however, these plants have demonstrated high availability factors of 96% to 99%.

Specifics of the turbine manufactures and technologies are described below, with much of the technology and market data provided by Garrad Hassan, the project's independent technical consultant.

Table 2 Technology Summary

Manufacturer	**NEG Micon**	**NEG Micon**	**GE**	**Vestas**	**Vestas**	**Zond**
Model number	NM750	NM 700	GE 1.5	V47	V80	Z50
Capacity	750 kW	700 kW	1,500 kW	660 kW	1,800 kW	750 kW
Commercial start data	1996	1995	1996	1997	2001	[1994]??
Number installed globally	1,600	2,250	1,123	3,500	180	670*
Independent certification	DNV	DNV¶	GL	GL	GL	GL§
Serial Failures						
Gearbox	Yes	Yes	No	Yes	New	Yes
Generator	No	No	No	No	New	Yes
Blades	Yes	No	No	No	New	Yes
Other	Vibration	Vibration				Brake
	Overproduction	Overproduction				

Number in FPL porfolio	55	107	156	148	81	138
Share of cash flow (%)**	5	7	30	10	37	11

*Total for models Z40 and Z50. ¶GL rating for 750 model. §Design and safety only. **Average over debt tenor of 20 years. DNV--Det Norske Veritas. GL--Germanischer Lloyd.

Vestas.

Vestas (Denmark) is the world's leading wind turbine manufacturer, has been making turbines since 1979, and continues to introduce new models, generally under an evolutionary rather than revolutionary design approach. The company's turbines represent nearly 6,600 MW of global capacity. The V47 (660 kW) is a mature technology, operational since 1997. There are over 3,500 V47 and variants in operation globally. Germanischer Lloyd, a Germany-based consultancy, has independently certified the V47 turbine design.

The V80 (1.8 MW) is relatively new, first commissioned two years ago. Only eight units were operational at the end of 2002. Germanischer Lloyd has certified the V80 design.

The V80 is, however, a variant of the V80 (2 MW), of which over 200 have been established in Europe. Also, the V80 (1.8 MW) is based on the design of the proven V66 (1.65MW), which began commercial operation in 1997.

NEG-Micon.

NEG-Micon is the second largest wind turbine supplier, formed in 1997 with the merger of Nordtank Energy Group and Micon, both major Danish manufacturers with manufacturing experience from the early 1980s. The company's turbines represent over 5,000 MW of global capacity. The NM750 was first installed in 1995, and there are over 2,500 NM750 turbines and variants (including the NM700) installed globally. These turbines have experienced faults with several major components. Det Norske Veritas, a Denmark-based consultancy, has independently certified the NM750 turbine design, and this certification applies to the NM700.

GE Wind Energy.

GE Wind is a major wind turbine supplier but is also poised to become a major developer presence in the wind industry. GE Wind was created by General Electric's purchase of most of Enron Wind assets in May 2002, including the 1.5 MW turbine design. At year-end 2002, the global-installed capacity of GE Wind turbines was just over 2,900 MW.

The GE 1.5 has been in commercial operation since 1995 and over 1,000 units are operational globally, mostly in Europe. Garrad Hassan reports that there have been no type failures of this turbine, but that faults have arisen in U.S. applications, which generally involve a harsher wind regime than European ones. Germanischer Lloyd has certified the GE 1.5 design.

Zond Wind Energy.

Zond was a pioneer in U.S. wind turbine supply, and was purchased by Enron in 1997. The Zond Z50 has been in commercial operation since 1994, but is no longer manufactured. There are about 670 turbines of the Z50 and related Z48 class installed. The turbine has had problems with each major system component, which for Lake Benton II will require substantial retrofit work and expense.

Germanischer Lloyd has certified the Z50 design but only for safety and loading requirements, not for reliability. Costs related to component retrofits have been included in the base case and have been signed-off by the independent engineer.

Project-specific technology issues.

Southwest Mesa uses the NM700 turbine and has four years of operating history. There have been serial failures in certain gearboxes, which affected 59 of 107 turbines. There have also been problems with stall-induced vibrations, and turbine shutdown due to overproduction. NEG Micon has replaced all affected gearboxes under warranty service. FPL Energy has reduced vibrations with the addition of mass dampers on the nacelle, and has reduced overproduction problems by adding stall strips onto the blades.

Cerro Gordo (Hawkeye) uses the NM750, a variant of the (NM 700), and has four years of operations. The NM700 turbines at this project have experienced the same problems as the NM750, but with an additional problem of coating degradation on the leading edge of the blades. NEC Micon replaced all affected gearboxes. FPL Energy has undertaken other repairs as described above, and has had blades recoated under warranty.

Montfort (Badger) uses the GE Wind 1.5 MW turbine, and has two years of operating history. New Mexico will also employ the GE Wind 1.5 MW machine. Garrad Hassan reports that there have been reports of some failures in the blades, pitch system, generator, and power converter systems for this turbine. However, the consultant opines that these problems are likely to be resolved through improvement in manufacturing and small design changes that should be realized with the turbine design's new owner, GE Wind.

Hancock uses the V47 technology, and has six months of operational experience. The V47 is among the most popular turbines in the world. Garrad Hassan reports that there have been some early problems with the technology, specifically with some gearboxes and drive couplings (which connect the gearbox to the generator), but that most of these problems were solved with design improvements and replacements. On this project, only 8 of the 148 turbines had gearbox problems.

Lake Benton II employs the Zond Z50 turbines, and has four years of operating history. The Zond Z50 design has been best with numerous problems with nearly every major component, including the gearbox, generator bearings, lightning-induced blade failure, weak gearbox bolting, and other issues. Unlike the Vestas, NEG Micon, and GE Wind designs, the Z50 was certified by Germanischer Lloyd only for design and safety, but not for reliability. FPL Energy was not able to benefit from the full warranty package for these turbines due to the Enron Wind bankruptcy, and GE Wind did not retain the warranty liability for the Z50 units. Despite these problems, FPL Energy has demonstrated availabilities of about 96% at Lake Benton. FPL Energy has developed numerous plans to make repairs, improvements, or retrofits on affected units as required. These efforts will involve additional expenses for repair and loss of revenue from downtime, and these are reflected in the pro forma model.

High Winds is the only project that employs new technology, the Vestas V80 1.8 MW turbine. As described above, the V80 used at High Winds is a variant of the V80 2.0 MW version employed in about 200 turbines in Europe. Furthermore, the V80 (1.8 MW) is based on the design of the proven V66 (1.65MW), which began

commercial operation in 1997. Technology risk is also mitigated by availability and power curve performance requirements under the TSA, and a two-year warranty provided by Vestas.

Construction risk.

Standard & Poor's considers construction risk to be minimal. FPL Group Capital is fully wrapping the construction risk under a guarantee. Also, construction is nearly complete at the sites, is not technically challenging, and FPL Energy has a good track record of completing wind projects on time and on budget.

FPL is managing the construction of High Winds and New Mexico, the two largest projects in the portfolio. The company expects to complete both projects in July 2003, but does not forecast any cash flow from them until September 2003.

O&M.

FPL Energy Operating Services Inc. (OSI) is or will be responsible for all O&M activities for the seven wind projects. The operator is a wholly owned subsidiary of FPL Energy, performs or manages O&M functions for all of FPL Energy's generation assets, and is well experienced with O&M for wind projects.

FPL Energy OSI directly operators six of the seven portfolio projects under five-year agreements. Cerro Gordo is operated by Xco Inc. until 2004, when FPL Energy OSI takes over. The operator earns reasonable fees for its work.

Standard & Poor's has concluded that FPL Energy OSI provides very strong O&M skills and experience to this transaction. The company is well experienced with all the currently operational turbine technologies, has a strong spare parts program, and remains committed to maximizing turbine availability while minimizing costs.

Table 3 provides the historical and forecast availabilities for the projects. As shown, despite the numerous problems with several turbines classes, the operator has managed to maintain a fairly high level of availability for each project.

Table 3 Project Historical and Forecast Availability (%) Performance

Project	SW Mesa	C Gordo	Montfort	New Mex	Hancock	High W	LB II
Turbine	NM700	NM750	GE 1.5	GE 1.5	V47	V80	Zond Z50
COD	June-99	June-99	June-03	August-03	December-03	July-03	June-00
Year							
1999	95.7	97.8	N.A.	N.A.	N.A.	N.A.	N.A.
2000	96.6	97.7	N.A.	N.A.	N.A.	N.A.	94.5
2001	98.3	98.0	90.0	N.A.	N.A.	N.A.	97.7
2002	99.0	96.3	98.2	N.A.	N.A.	N.A.	96.5
2003	N.A.	N.A.	97.8	N.A.	N.A.	N.A.	N.A.
Base Case	98.0	97.0	97.0	97.0	97.0	96.0/97.0	96.0

COD—Commercial operations date. N.A.—Not applicable.

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Wind Resource and Production Forecasts

Wind resource adequacy is a key element of this credit analysis. Wind flow across a

given site generally exhibits some daily and monthly variation, which translates directly into cash flow variability because projects are paid only for energy produced. The longer the amount of wind data, the greater confidence one can have in forecasted wind flow, and thus cash flows. The sites in this portfolio generally lack long-term wind data, which introduces some risk in the forecast power production of the portfolio.

The project's independent consultant, Garrad Hassan, has assessed the wind resource of each project, and has forecast the expected wind production from each portfolio project and for the portfolio itself. Garrad Hassan has concluded that the portfolio benefits from wind diversity, as the California, New Mexico, Texas, and, collectively, the Midwest wind regimes are regionally independent. Thus, for a given probability of exceedence, the energy production for the portfolio is greater than the sum of the energy production of each project.

General methodology.

The general methodology to forecasting the power production from a site is straightforward. First, wind data from the site is collected and augmented with wind data taken from nearby sites if a strong correlation between the sites can be established. This data is used to obtain a profile of wind speeds, directions, and durations over the data period. This wind data is then combined with the power production curves for the wind turbines to develop a mean average annual level of power production. A gross production is then obtained after accounting for losses from turbine wake effects, turbine availability, electricity losses, blade icing, and substation downtime. This net represents a likely production, meaning that there is a 50% probability that the actual production will be above or below this level.

The variation around the mean is then established, and depends on the amount of site data and reference station data, the level of correlation between the site data and the reference station data, and the known variability in the wind resource. With this variation, probabilities that a certain level of power production will be exceeded are obtained. This methodology can be augmented by actual power production from sites that have a significant operational data.

Summary of project and portfolio energy forecasts.

Table 4 presents a summary of Garrad Hassan's forecast energy production for each project and the portfolio. As shown, at a P90 one-year confidence level the portfolio production forecast is 1,816 GWh per year, which is 10% higher than the sum of the individual P50 one-year average forecasts for each project.

Project and Portfolio Energy Production Forecasts									
Site	LB II	CGordo	SW Mesa	Hancock	HWinds	New Mex	Montfort	Total project	Portfolio forecast
Rated power	103.5	41.3	74.9	97.7	145.8	204.0	30.0		697
Net energy (GWh/year)	333.0	104.5	231.8	288.5	476.5	536.6	57.6		2,029
Net capacity factor (%)	36.7	28.9	35.3	33.7	37.3	30.0	21.9		33
1-Year Average									

P95	269.9	81.9	189.0	215.2	367.1	394.6	32.3	1,550	1,756
P90	283.8	86.9	198.4	231.4	391.2	425.9	43.8	1,661	1,816
P75	307.1	95.2	214.2	258.4	431.6	478.3	52.9	1,838	1,917
P50	333.0	104.5	231.8	288.5	476.5	536.6	57.6	2,029	2,029
Variation (%)									
P95/P50	81	78	82	75	77	74	56		
P90/P50	85	83	86	80	82	79	76		
P75/P50	92	91	92	90	91	89	92		
10-Year Average									
P95	300.3	93.6	208.8	238.4	402.8	428.8	41.5	1,714	1,828
P90	307.5	96.0	213.9	249.5	419.1	452.6	48.9	1,787	1,872
P75	319.6	100.0	222.3	268.0	446.3	492.4	54.6	1,903	1,946
P50	333.0	104.5	231.8	288.5	476.5	536.6	57.6	2,029	2,029
Ratio of 1-year to 10-year (%)									
P95	90	88	91	90	91	92	78		
P90	92	91	93	93	93	94	90		
P75	96	95	96	96	97	97	97		
P50	100	100	100	100	100	100	100		
Note: P factors represent probability of exceedance: P95 = mean plus 1.64 * standard deviation.									

Monthly variation of the portfolio energy production.

The financial structure of wind power projects must take into account the monthly variation of the wind resources, and hence, cash flow. The forecast suggests that the portfolio will generate most cash flow in the first half of the year.

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Regulatory Support for Renewable Energy

Wind power is usually not economically competitive with mainstream natural gas-fired and coal-fired technology for power generation. The high installed cost of wind projects, often around $1,000/kWh, well in excess of those of new natural gas combustions turbines, which run around $500/kWh to $600/kWh, depending on location. Wind power is able to compete on price due mostly to federal assistance in the form of PTCs for power generated by renewable resources.

Even with such subsidies, however, wind power can still have disadvantages due to price and also to transmission issues. Wind power generation is intermittent due to variations in wind flow, and this can cause problems with transmission systems. Also, strong wind resources are often not located near population centers, which can require potentially costly transmission service.

In general, Standard & Poor's does not expect that the PPAs supporting cash flow in this portfolio project are likely to come under pressure for renegotiation for several reasons. The PPA prices are generally low, generally in the 2 to 3 cents/kWh range. The regulatory position of the project requires or strongly advocates the addition of renewable capacity to utility resources, often through a renewable portfolio standard

(RPS) model. Finally, many offtakers have or are establishing green-pricing programs that if successful could offset some of the relatively high costs to procure wind power.

In 2002, California established an aggressive RPS whereby the state's three main investor-owned utilities must obtain 20% of the power demand from renewable resources by 2017.

In New Mexico, effective July 1, 2003, all public utilities must provide with renewable resources, on a reasonable cost basis, 5% of retail sales in January 2006 and 10% of retail sales by 2011.

Texas has a favorable regulatory environment for renewables, which is a main reason for the state's considerable success in attracting large amounts of wind capacity. Under the state's current RPS, utilities must add another 2,000 MW of renewable energy capacity by 2009.

In Iowa, utilities will be required to add renewable to their resource mix in January 2004.

Minnesota does not have a mandatory RPS program, but does have an optional one whereby utilities are encouraged to provide 10% of their energy demand from renewable resources by 2015. Also, utilities are required to offer a green-pricing option to customers. Xcel Energy has applied to the public utility commission to establish a green-pricing program whereby customers would pay a 2 cent/kWh premium.

Under Act 9, Reliability 2000, Wisconsin requires that each electric utility provide by renewable resources 0.85% of power by the end of 2003 and 2.2% by the end of 2011.

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Counterparty Exposure

The portfolio earns revenues from 12 different offtakers, though the two offtakers for New Mexico and High Winds provide about 63% of cash flows. All offtakers, except for PPM for High Winds, are rated investment grade or likely have investment-grade characteristics. A downgrade in various combinations of offtakes could place downward pressure on the rating.

PacifiCorp Holdings guarantees PPM's obligations, but only up to a cap of $100 million. This amount is well below the $365 million in revenues that High Winds expects to earn from PPM over the debt tenor, and well below even the net present value of these revenue streams. In addition, the guarantee does not fully comply with Standard & Poor's guarantee criteria in several ways, including no demand for payment requirement, no statement that the guarantee rates equally with other senior unsecured obligations, and no requirement for re-instatement of payments recaptured as a result of a bankruptcy event. To mitigate some of the risks arising from the limitation on liability contained in the PacifiCorp Holdings' guarantee, the debt service reserve will cover an additional six months of debt service. In addition, the accounts' agreement includes a provision for the establishment of an account called the High Winds Redemption account. In the event of a termination of the PPM PPA due to default by PPM, the High Winds Redemption account will be used to redeem a portion of the senior secured obligations on the applicable redemption date and thereafter. During the period from when the High Winds contract is terminated to the date on which the aggregate amount deposited in the redemption account equals or

exceeds the debt attributable to High Winds, the redemption account will be funded by any amount in the debt service reserve account in excess of six months' debt service plus funds received under the PacifiCorp guarantee. Payments under the High Winds Redemption account are made before payment to the distribution accounts.

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Financial Strength

The issuer plans to raise $370 million in 144A bonds without registration rights that have a custom amortization through 2023 with an average life of nine years. The issuer plans to distribute $314 million to FPL Energy, allocate $48 million to the debt service funds, $1 million to the major maintenance reserve, and pay approximately $7 million in transaction costs. The $15 million O&M reserve will be funded with a guarantee from FPL Group Capital. FPL Energy reports that total project costs were $744 million ($1,067/kW on average), and thus the project has an effective leverage of 52%.

Project assumptions and forecasts.

The project's forecasted financial performance depends on the probability of exceedence selected for the wind production. A decline in wind production from forecast levels reduces both PPA revenues and PTC-related revenues.

The project's base case debt service coverage ratio (DSCR) results are provided in Table 5 and assumes the following:

- A P90 (1-year average) power production probability;
- Availabilities of 97% for all projects except for Lake Benton (96%) and Southwest Mesa (98%);
- Curtailment of Southwest Mesa by 25% in 2003, 14% in 2004, and 1% in 2005-2006 due to transmission constraints;
- No merchant sales from capacity whose PPA terminates prior to the end of the debt tenor, and no excess power sales under any PPA; and
- No buyout of Southwest Mesa.

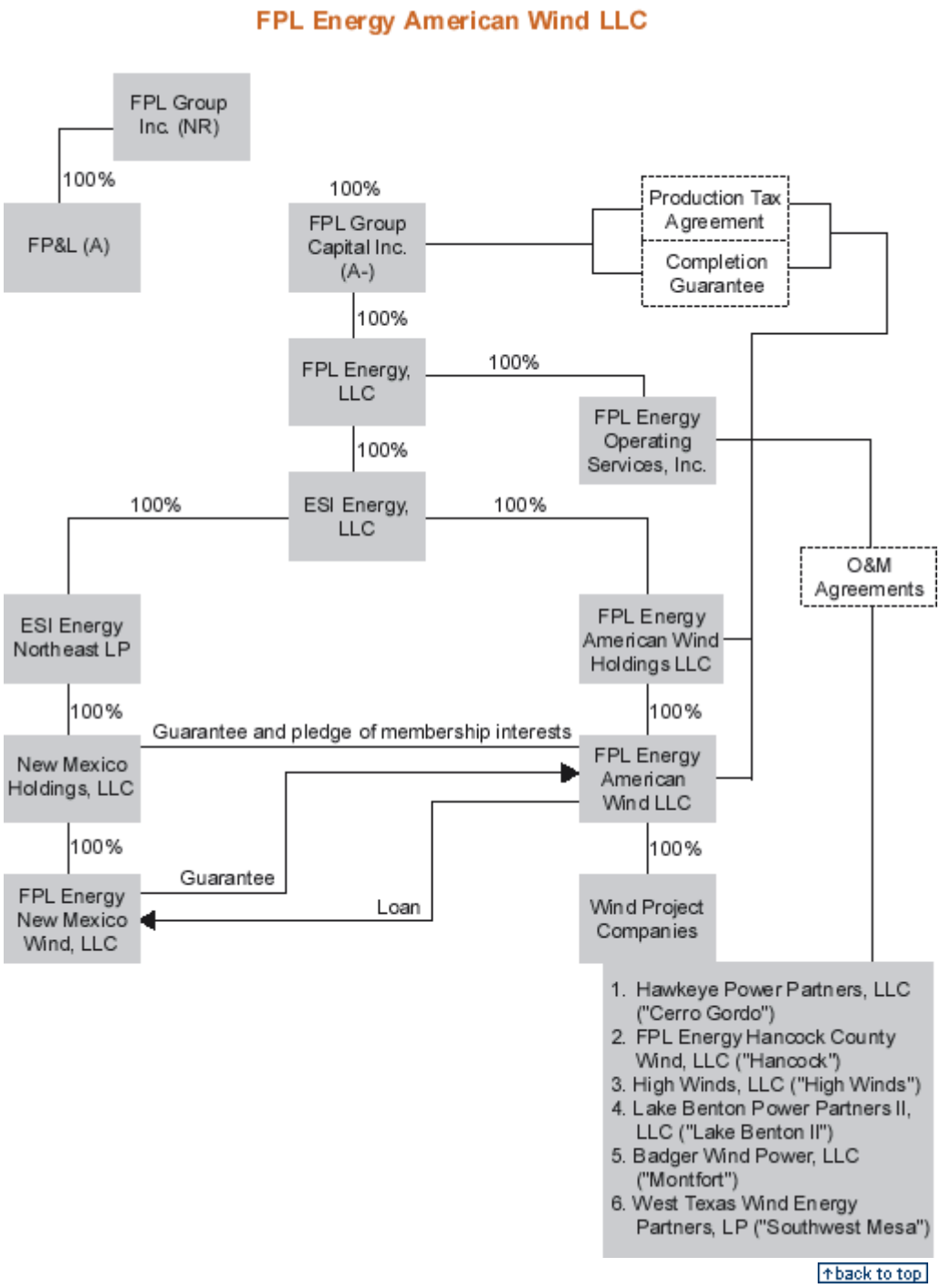
Table 5 Project Base Case and Sensitivity Case DSCRs

	Minimum (x)	Average (x)
Base case: P90 (1-year)	1.45	1.51
Base case plus P99 (1-year) every five years	1.31	1.47
P95 (10-year)	1.47	1.53
90% availability	1.24	1.35
15% increase in O&M: 2013-2023	1.36	1.47
Three-year major retrofit	1.45	1.51
P95 (10-year) + 15% increase in O&M 2013-2023	1.38	1.49
Standard & Poor's stress case: P90 (1-year average)	1.40	1.45

Standard & Poor's assumptions and forecasts.

Standard & Poor's has generally assessed the financial performance of this wind project portfolio based on its treatment of fully contracted IPP projects. This treatment generally requires that projects rely on proven technology, have strong O&M

arrangements, benefit from effective contracts, and have a suitable cash cushion after paying debt service. Under Standard & Poor's stress case, which includes P90 (1-year average) energy production levels, the project is able to demonstrate DSCRs of 1.4x minimum and 1.45 average. The P90 (1-year average) was used because the project pays debt annually, it provides a high assurance of energy production that is consistent with IPP treatment, and reflects our concern with the lack of long-term wind data at the project sites.



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