



Summary

Although demand for electricity is down, reserve margins are up, and the government is encouraging the electric power industry to invest in a 21st-century grid. Of the top 20 wind power owners identified by the American Wind Energy Association, more than a third are private equity firms.

POWERING UP

Environmental policy objectives and regulatory incentives are spurring opportunities for private equity.

BY JIM DRZEMIECKI AND TANYA BODELL

NEARLY \$250 BILLION IN CAPITAL expenditures in U.S. electricity infrastructure is projected to be deployed by shareholder-owned utilities over the next three years. This amount is roughly equal to the market capitalization of the utilities in the Dow Jones Utility Index and the book value of common equity for the top 130 regulated electricity and gas companies that are publicly traded. By any measure, planned capital expenditures will challenge utility balance sheets. These financial realities, combined with environmental policy objectives and regulatory support for new entry, offer attractive opportunities for investors. For private equity the power industry continues to be open for business.

A LONG HISTORY IN POWER

The first providers of electricity service were utilities established by Thomas Edison and other investors through private equity vehicles. As a result the investor-owned business model flourished in the U.S. while other countries built their electricity systems through sovereign corporations — effectively owned and operated by the government.

In 1978 the Public Utilities Regulatory Policies Act (PURPA) established policies for power generation that opened competition in electricity to small power generators and industrial cogenerators. Private equity played a crucial role in implementation, which ultimately allowed it to dominate the independent power industry.

With the independent power producer model firmly established for generating power, private equity entered the transmission sector. In 2002, Trans-Elect — the first independent transmission developer in the U.S. to implement a regulated transmission project — purchased the transmission system of Consumers Energy in Michigan for \$288 million. Trans-Elect found private equity investors initially in GE Capital, followed by affiliates of Macquarie, Evercore Capital Partners and Sansome Partners. The transmission assets were sold to another independent transmission company in 2006 for an offer valued at \$866 million, providing sizable returns to Trans-Elect investors.

As the industry's 2002 to 2003 credit crisis thawed, private equity expanded its role in power. In the "biggest-ever leveraged buyout" — that of TXU Corp., the largest power producer in Texas — investors, led by Kohlberg Kravis Roberts & Co. and Texas Pacific Group, purchased TXU in February 2007 for \$45 billion.

EQUITY INVESTMENT OPPORTUNITIES TODAY

Even in the midst of this recession, private equity has found ways to invest in the electricity industry. The government has also made it clear — by offering subsidies, tax credits and grants — that the electric power industry should build renewable resources and invest in a 21st-century grid. Private equity is responding.

The American Recovery and Reinvestment Act of 2009 offers billions of dollars in support of renewable resources such as wind, solar and biomass. In addition, state-based renewable portfolio standards (RPS) create a demand for renewable generation that can be met by utility-funded build-out

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and purchases of renewable power or renewable energy credits under long-term contracts. At present the largest investors in wind power are commercial affiliates of shareholder-owned utilities, but of the top 20 wind power owners identified by the American Wind Energy Association, more than a third are private equity firms.

Today's private equity investment in renewable energy follows a foray into the supply chain for renewable power and system equipment that yielded mixed results for investors. After raising billions of dollars in funds specified for green investments or sustainability funds, private equity sought places to invest. Demand for renewable generation was stalled pending legislated requirements, and supply was waiting on a clear signal from Congress about how long tax incentives would last. With

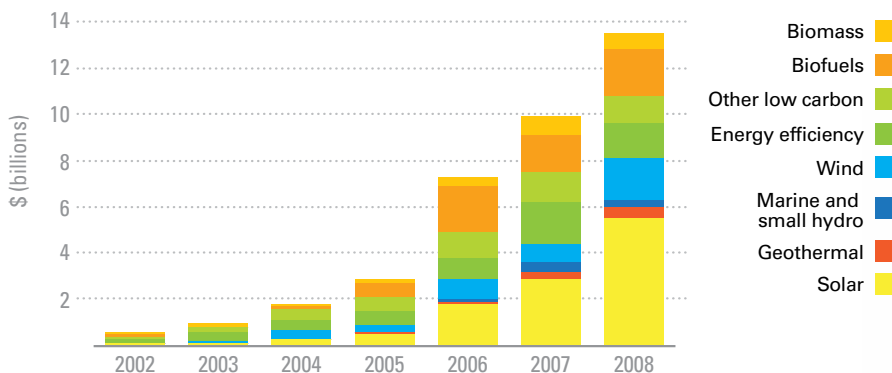
limited opportunities in renewable generation, private equity invested in solar panel manufacturing, wind turbines and advanced metering infrastructure. Private equity and venture capital invested approximately \$13.5 billion in renewable energy in 2008 and a total of almost \$37 billion between 2002 and 2008 worldwide; more than half of the latter amount, \$20.8 billion, was invested in North America, according to Bloomberg New Energy Finance (total values include estimates for undisclosed deals).

Returns from investments in manufacturing experienced a boom-bust cycle as renewable tax credits expired and congressional debates ensued about whether to renew government support. Some investments exceeded expectations and others lost money. The number of private clean energy funds being launched slowed from an average of one per week in 2007 to one per month in 2008. The technology and political risks that emerged from this environment proved to be greater than what many private equity firms would accept.

Transmission appears to be a different story. Since 2000, 25% of

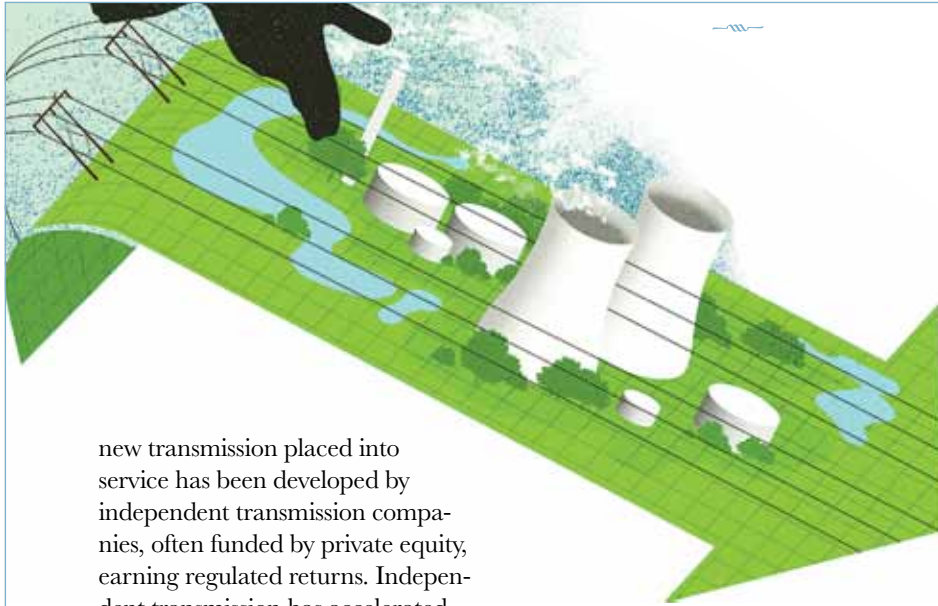
PRIVATE EQUITY, ENERGIZED

Worldwide, investment — both venture capital and private equity — in renewable energy has surged.



Source: Bloomberg New Energy Finance. Buyouts are not included as new investment. Total values include estimates for undisclosed deals.





new transmission placed into service has been developed by independent transmission companies, often funded by private equity, earning regulated returns. Independent transmission has accelerated with incentive-based rates authorized under the Energy Policy Act of 2005 and implemented with Order 679, under which the Federal Energy Regulatory Commission (FERC) has awarded “adders” that allow private equity the opportunity to earn sufficiently attractive returns on investment. Transmission projects are now being funded on a stand-alone basis using project equity finance vehicles.

FUTURE OPPORTUNITIES FOR PRIVATE EQUITY

The power sector is undergoing an inexorable transformation. The political agenda and technological advances promise to turn a grid designed for one-way delivery into a system with two-way physical flows and networks, enabling participants on the grid to interact.

Transmission is likely to continue to offer robust investment opportunities. FERC has sent clear signals that it will encourage investment by independent transmission companies. Transmission planning and cost allocation processes are under review, and any legacy rights of first refusal by an incumbent to build transmission will not be condoned. FERC also has issued requests for comments on regulatory treatment of new

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**BILLIONS OF DOLLARS
in private equity and
venture capital invested in
renewable energy in 2008**

electric storage technologies and permitting processes for wave, current and in-stream technologies. These areas all fall under the oversight of the Office of Energy Policy and Innovation (OEPI), established by FERC last year.

The areas of focus for OEPI indicate subsectors in which private equity is likely to find its next round of investment opportunities in the power sector: transmission, distributed generation, energy efficiency/demand response, smart grid standards and enabling technologies, electric vehicles, energy storage and carbon/greenhouse gas issues. Although many of these investment opportunities currently are at the venture capital stage, they are rapidly moving toward commercialization under a supportive regulatory environment, with the potential to create appropri-

ate risk-return structures for private equity. As legacy barriers are removed and underlying economics improve, a stronger business case for investment is sure to emerge.

The supply side of the equation also may motivate private equity to increase its level of investment in new energy technologies. Institutional investors appear to have a renewed interest in green investments, supported both by the level of returns being earned on such investments and by pressure from shareholders, clients and government sponsors to increase the percentage of sustainable investments.

Private equity has the resources and history to be a credible player. As risks become manageable and expected returns to equity achieve levels high enough to meet required thresholds, private equity undoubtedly will be ready to expand its role in funding the new energy economy. ■

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