

U.S. Renewable M&A Powers On
Continued deal-making fueled by
strong demand for renewable
energy, not consolidation

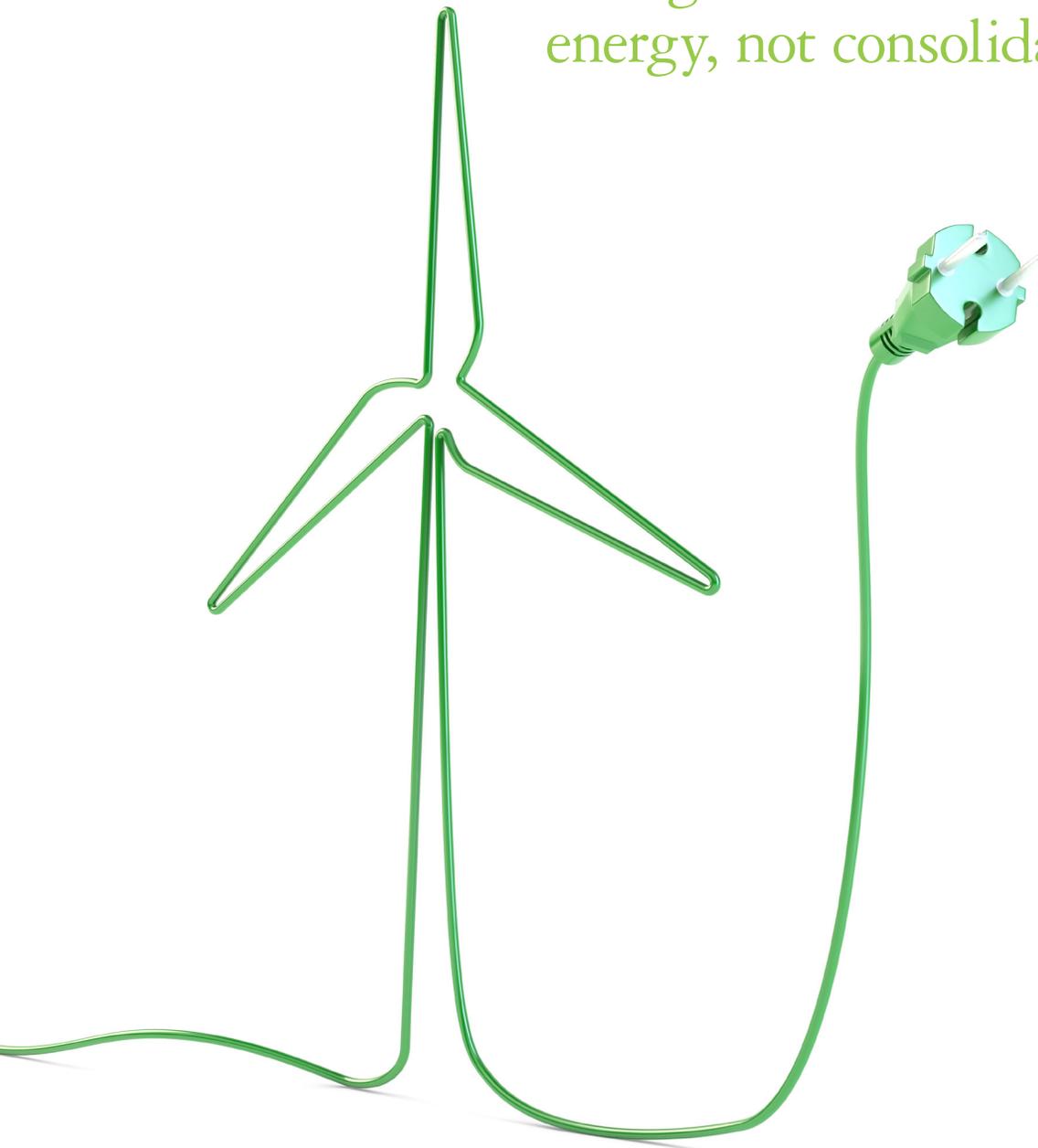


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Introduction

Merger & Acquisition (M&A) activity in the U.S. renewable energy sector remained high in 2012, largely driven by increased participation from large-scale, integrated utility and power companies (henceforth referred to as “utilities”). For some, this came as a surprise. After all, renewables faced an uphill battle in 2012, due to low power prices, weak electricity demand, and perhaps most notably, vacillating federal tax policy. The U.S. Treasury cash grants for new renewable power projects expired at the end of 2011. These incentives, which were implemented under Section 1603 of the American Recovery and Reinvestment Act of 2009, helped to support continued capacity additions throughout the recession by providing investors with a cash grant in lieu of production tax credits (PTCs) and investment tax credits (ITCs) for new renewable projects. This removed the need for investors to have U.S. taxable income in order to take advantage of the tax credits, which helped to ensure a supply of capital as many of the traditional tax equity investors either dropped out or pulled back. The impending expiration of the Treasury cash grants caused a wave of acquisition and development activity during 2011 as developers and financiers rushed to get deals done and to begin construction in order to qualify for the cash grants.

Many proponents of renewable power saw the expiration of the Treasury cash grants as a major blow, even as they prepared for a second hit: The PTCs for wind were set to expire at the end of 2012. With so much deal activity in 2011 and so little reason to be optimistic that federal tax policy would continue to stimulate wind development, some expected 2012 to be the first scene in a disappointing—and perhaps lengthy—second act for renewable M&A activity. The events of 2012, however, told a different story. Not only did M&A activity remain strong, but many also contend the stage has been set for continued momentum in 2013 and beyond.



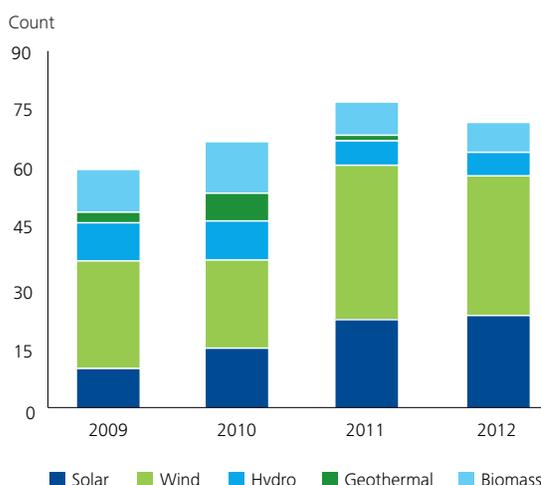
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Deal-making trends

Since the financial crisis of 2008, renewable M&A activity has strengthened, increasing overall from 2009-2012.ⁱ Despite a run up in 2011 ahead of the termination of the Treasury cash grants, M&A momentum remained strong in 2012 with total capacity acquired staying about the same in 2012 (8.4 gigawatts (GW)) as in 2011 (8.3GW).ⁱⁱ Meanwhile, total deal count modestly declined year over year, with 69 deals being recorded in 2012, down from 76 in 2011.ⁱⁱⁱ

Wind remained the most popular renewable technology for M&A in 2012 due to its relatively commercialized market and a rush to complete project construction ahead of the anticipated expiration of the PTC on December 31, 2012, and the need to complete construction by 2012 year-end to receive the cash grant. Solar deals also remained strong in 2012 as installed capacity increased due to steady incentive support and declining panel prices, both of which helped move solar closer to grid parity despite persistently low natural gas prices. Meanwhile, M&A for biomass was limited due to regulatory uncertainty as investors await a decision on whether or not new biomass plants will be included in the U.S. Environmental Protection Agency's (EPA) stringent new permitting requirements for greenhouse gas emissions. The geothermal and hydro subsectors too were essentially inactive. This stands to reason considering large hydro is almost fully built out in North America with few new projects on the horizon, and since those who currently own operating facilities do not appear eager to sell their profitable, cash-generating assets in a low-power-price environment. Similarly, the business case for geothermal is hard to justify in today's economic climate since these projects require large capital investments, long lead times, and access to water in constrained environments. Despite the inactivity, it is important to consider these resources in any analysis of the renewables sector since they can sometimes count toward

**M&A deal count by subsector: 2009-2012
by technology**



Source: SNL Energy, Company Disclosures

fulfilling state Renewable Portfolio Standards (RPS), if they meet certain qualifications.

While companies often grow through acquisition, most of the renewable deal activity in 2012 was not related to consolidation. Instead, it was related to project economics, bolstered by federal tax incentives and strong demand for renewable energy created by state-level initiatives such as RPS. The lack of consolidation activity was somewhat surprising, as many industry observers had predicted consolidation and the demise of small developers in favor of larger entities with more capital. This prediction did not come to pass in 2012, although it may be a future possibility as the industry matures and scale becomes more important.

Policy and market developments

The most significant good news, albeit in the short term, for the renewables sector last year came as part of the American Taxpayer Relief Act of 2012, also known as “the Fiscal Cliff Act.”* Through this Act, the U.S. government extended the PTC for wind through December 31, 2013, and redefined the terms for qualification. New wind projects now must only begin construction, rather than having to be “in-service,” by the end of 2013. At this time, there is no guidance as to what “begin construction” means. Nonetheless, extension of the wind PTC may spawn a flurry of construction starts in the coming year. Since new installations positively correlate with M&A activity, deal-making may be strong over the next three years (2013-2015), as these new wind projects come online.

On the solar front, the Act had little impact. It did not modify the requirements for the ITCs for solar, which had previously been extended until 2016. Accordingly, solar projects must still be in service before December 31, 2016, to be eligible for the ITC. The Act, however, did affect other subsectors. The sunset date for PTCs for geothermal,

biomass and qualified hydro remains December 31, 2013. Similar to wind projects, the Act changes the eligibility requirement for these renewables projects, so that construction must begin by the end of 2013 rather than the facility having to be “in-service.”

Another federal policy development involved the aforementioned Treasury cash grants. Although these grants expired at the end of 2011, projects that started construction prior to that are eligible to receive the awards. While these grants continued to support project development in 2012, this important source of capital will dry up from 2013 onwards and some of those that have already qualified for the grants will have their funding cut through implementation of sequestration, unless Congress negotiates an end to the mandatory budget cuts that took effect on March 1, 2013. In a letter posted on March 4, 2013, the U.S. Treasury Department said Section 1603 grants issued between March 1, 2013, and September 30, 2013, will be cut 8.7 percent, at which time it is subject to further changes.^{iv}

Federal incentives by subsector

Incentive	Description	Wind	Solar	Geothermal	Hydro	Biomass
PTC	2.2 cents/kWh produced for first 10 years	Under construction by December 31, 2013	Not applicable	Under construction by December 31, 2013	Under construction by December 31, 2013**	Under construction by December 31, 2013
ITC	30% of eligible tax basis	Under construction by December 31, 2013	In-service by December 31, 2016	Under construction by December 31, 2013	Under construction by December 31, 2013	Under construction by December 31, 2013
	30% of eligible tax basis	Under construction by December 31, 2011 and in-service by December 31, 2012	Under-construction by December 31, 2011 and in-service by December 31, 2016	Under construction by December 31, 2011 and in-service by December 31, 2016	Under construction by December 31, 2011 and in-service by December 31, 2016	Under construction by December 31, 2011 and in-service by December 31, 2016
Treasury cash grant	10% of eligible tax basis	Not applicable	Not applicable	Under construction by December 31, 2011 and in-service by December 31, 2016	Not applicable	Not applicable

Source: Database for State Incentives of Renewables and Efficiency

*An Act to extend certain tax relief provisions enacted in 2001 and 2003, and to provide for expedited consideration of a bill providing for comprehensive tax reform. <http://www.gpo.gov/fdsys/pkg/BILLS-112hr8eas/pdf/BILLS-112hr8eas.pdf>

**PTC of \$1.1 cents/kWh for qualified hydroelectric projects

“...declining technology costs are already making certain renewables technologies more competitive with conventional generation.”

With this source of capital abating and activity among traditional tax equity investors, such as banks and insurers, still not returning to pre-recession levels, renewable energy proponents are increasingly calling for new financing mechanisms designed to attract new participants and bring down the cost of financing renewable energy projects. Despite their technological sophistication, such projects mainly rely on traditional project financing methods, such as bank loans and debt financing, as opposed to alternative capital structures, which can be easier and cheaper. Developers have not pursued this route because tax codes and policies have not kept up with the sector's maturation curve. Consequently, many capital market options are not presently available to the renewables sector. Proponents contend this situation must change if the sector is to continue its growth trajectory.

One proposed shift involves altering the U.S. tax code to allow renewables investors to invest in Master Limited Partnerships (MLPs). Commonly used to raise capital for oil and gas infrastructure projects, MLPs combine the tax benefits of a limited partnership with the liquidity of publicly traded securities. Senator Chris Coons (D), Delaware, sponsored a bill in Congress last year, the 220-word-long MLP Parity Act, which proposes use of MLPs by renewable energy.^v He plans to reintroduce it this year and is working to gather bipartisan support. However, even if legislation expands MLP-qualifying resources to include renewables, under the current legislative environment it is unlikely that Congress will change the passive loss rules, which generally limit the ability of MLP investors to benefit from the tax incentives that flow through the MLP to its owners.

Another option is allowing renewable energy companies to form Real Estate Investment Trusts (REITs). Effecting this change on a large-scale necessitates either Congressional action or a broad ruling from the Internal Revenue Service (IRS) clarifying that renewable energy assets are real property for REIT purposes. At present, a REIT is a company that owns, operates, and/or finances income-producing real estate. REITs must pass through at least 90 percent of their taxable income to shareholders in the form of dividends. The shareholders then pay tax on the dividends and on any capital gains at their own personal tax rates. Recently, the IRS issued a favorable private letter ruling for one company interested in forming a renewable energy REIT—an

action that many renewable energy proponents see as an encouraging sign.^{vi} Additionally, 31 lawmakers have backed the concept of renewable energy REITs by sending a letter to President Obama urging him to support changing the tax code to allow them.^{vii}

There are two main advantages of using one or both of these tax-advantaged financing structures. First, MLPs and REITs are similar in that they do not pay corporate income taxes. Rather, they pass most of their income and tax attributes to their investors, who then pay taxes or receive tax benefits at their own personal levels. Second, both are often traded publicly like stock, giving companies access to a much larger pool of investors who are willing to take a lower rate of return in exchange for increased liquidity. These factors could lower the cost of financing renewable projects up to fivefold by some estimates,^{viii} thus allowing them to compete more equitably with fossil-fuel generation.

While these shifts will likely be important for helping the industry to reach grid parity^{ix} sooner, declining technology costs are already making certain renewables technologies more competitive with conventional generation. Wind installation costs, for instance, have declined over the last two years, decreasing four percent in 2011, and an estimated 16 percent in 2012 based on initial data from the U.S. Department of Energy (DOE), with final numbers to be released later this year.^x This helped to strengthen wind's position as the most economical source of electricity among renewables, at \$96 per megawatt hour (MWh) for new generation, based on an analysis of the levelized cost of energy (LCOE) released by the U.S. Energy Information Administration.^{xi} This analysis notably does not include tax credits. Thus, extension of the wind PTC has bolstered the technology's competitiveness even further. However, the cost of new wind on a levelized basis is still about 50 percent higher than natural gas and approximately 13 percent higher than coal generation.^{xii}

Solar, too, is making strides toward grid parity. The average installation cost of residential and commercial photovoltaic (PV) projects has declined by about 15 percent per year between 2009 and 2011.^{xiii} In the first half of 2012, preliminary data from the DOE indicates a seven percent drop in pricing relative to 2011.^{xiv} The steep decline in module prices in recent years has brought down the solar LCOE.

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However, the cost of new solar on a levelized basis is still about 150 percent higher than natural gas and approximately 50 percent higher than coal generation.^{xv} Many proponents are optimistic this inequity may continue to shrink. And, for good reason. The DOE’s SunShot Initiative aims to reduce the price of solar technologies by about 75 percent between 2010 and 2020^{xvi}, and federal policy support remains steady, with the ITC for solar having previously been extended through 2016.

Lower installation costs, particularly in solar, are not only supporting utility-scale development but also putting renewables technologies in reach of the average consumer. A continuation of this trend could provide a much-needed path for moving away from tax incentives, thus allowing renewables to compete with fossil-fuel generation on the basis of cost of capital alone. It could also provide a means for furthering development of micro-grids and distributed generation, which could help improve the resiliency of the electrical grid.

While proponents of renewable energy are excited about these prospects, formidable obstacles remain. Current low natural gas prices are depressing wholesale electricity prices, and in turn decreasing the prices of Power Purchase Agreements (PPAs). This situation is squeezing returns for renewable developers and making investment in renewable projects less attractive for investors. In addition, low natural gas prices, when combined with the fuel’s clean-burning characteristics, make natural gas a strong competitor to renewables for the next tranche of generation to be built in the United States.

At present, gas-fired generation is the lowest cost option for many utilities. However, renewables often have the greater advantage of immediacy since, in many cases, they have been under development for some time, having already gone through the siting, permitting, and design processes. Additionally, they may be more likely to obtain

long-term PPAs due to RPS, other programs that encourage renewable investments and the ability to enter into fixed-price contracts. Thus, they can often begin construction and be online in 6 to 18 months. In comparison, few natural-gas-fired plants are presently under development so most still have to go through siting, permitting, design, and construction, which takes approximately three to four years in a best-case scenario. Fearful of gas price volatility, some utilities are either reluctant, or unable due to regulation, to sign long-term PPAs for gas-fired generation facilities, especially concerning contracts that pass through or adjust for changes in natural gas prices. As the industry gains more confidence that gas supplies may be reliable and low priced over the long run, this situation could change and natural gas plants could be on the cusp of displacing renewables as the preferred choice for new generation capacity within the next few years. Some believe this is a particularly strong possibility since gas-fired plants offer the added benefit of being able to provide firm generation capacity, which by and large cannot be provided by intermittent renewables despite continuing advances in utility-scale storage technologies.

Natural gas prices are not the only obstacle. Weak electricity demand is exerting further pressure on PPA prices. Even more disconcerting to some is the reduction in the amount of new generation capacity that would be needed across the board in the face of continued lackluster electricity demand growth. This implies it could become easier to meet RPS in many states since fewer renewable installations would be required to attain the targets, which are typically expressed as a fixed proportion of a variable “generation-capacity pie.” Power demand remains low in the U.S. post recession due to a sluggish recovery, changing consumer habits, and improved energy efficiency. Not to mention that a mild winter in 2011-2012 kicked many power producers when they were already down by decreasing demand even further.

M&A outlook

The combination of low natural gas prices and weak electricity demand makes the prospect of reduced deal activity feasible, especially in light of the uncertainty that remains with regard to the overall federal tax policy beyond 2013. These adverse factors, however, are unlikely to be showstoppers in the near term. M&A activity is likely to hold steady or increase over the next two years, buoyed by broad policy and market conditions along with specific drivers within the wind and solar subsectors. Collectively, these pros appear to outweigh the cons. If tax policies and financing structures remain status quo, utilities

are anticipated to be the main acquirers of renewable capacity. If new financing structures emerge or tax incentives are eliminated, utilities may no longer have an inherent cost-of-capital advantage, thus allowing new and existing investors to play a greater role in supplying capital to the industry. By opening the financing floodgates, either of these developments could be a real boon to the sector over the long run. Renewable developers, however, may find it prudent to be wary of increased competition from natural gas over the next few years.



Market trends



Current trends within energy markets support this favorable outlook. Among them are EPA regulations, which are forcing the retirement of older coal-fired plants. More than 9 GW of coal-fired generation retired in the U.S. in 2012 alone, and as much as 60 to 100 GW is expected to retire over the next few years according to various industry estimates.^{xviii} This movement is creating a “megawatts void,” which emissions-free renewables can step in and fill a portion of much easier than some other forms of generation can. For instance, nuclear, which is the traditional generation option for zero-emissions power, continues to struggle with fuel supply constraints, permitting and relicensing difficulties, and public relations challenges in the aftermath of the Fukushima disaster. Not to mention that cost overruns and schedule delays have been a factor for some plants currently under construction.

Even low-priced, domestic natural gas has its drawbacks as a replacement for coal. Abundant and emitting about half the CO₂ of coal, natural gas seems to be the default choice for future generation build in the U.S., and it will likely be substituted for coal in many instances. But over the long run prices will likely rise due to increased demand and higher production costs, among other dynamics. Not only does this likelihood suggest utilities companies may not want to rely too heavily on any single commodity but

also a long-term increase in natural gas prices combined with falling renewable project installation costs may make renewable energy more competitive. These factors support the case for maintaining a balanced generation portfolio. Co-location offers a way to help achieve this objective by bringing competitive fuels together as “frenemies.” This form of non-traditional integration can often produce a classic win-win. For instance, natural gas and biomass can help counterbalance the intermittency of solar and wind; and conversely, solar and wind can help offset supply concerns, such as availability and price volatility, associated with natural gas and biomass.

Many state utility commissions concur with the idea that a balanced generation portfolio is desirable. While concerned with maintaining a low-cost of electricity for ratepayers, regulators are increasingly taking diversification into account when approving new generation build. Many are naturally wary of placing all their eggs in one basket, and do not want utilities to become too reliant on natural gas, or on any single fuel. Some also see the addition of renewables as a way to mitigate the risk of large-scale outages. As recently highlighted during Superstorm Sandy, America’s aging electricity infrastructure is vulnerable to massive disruptions, raising awareness of the need for microgrids, renewable installations, and other energy technologies that could enhance the resiliency of the system.

Policy shifts

Other developments at the state-level support a favorable M&A outlook. While federal policies have sometimes illuminated and sometimes obfuscated the path forward for renewable development, state policies, in contrast, have generally provided a beacon amid this fog. RPS, which have been set by many U.S. states, continue to create demand for renewable energy, making investment in the sector attractive. These requirements vary across states and some are voluntary rather than mandated. Nonetheless, the strength of RPS has been a key factor in regional deal activity and may continue to be going forward. Thirty-seven states plus the District of Columbia already have RPS requirements of some sort, and many are expanding their RPS provisions to allow emerging forms of renewable energy, such as small hydro and tidal to count toward meeting the requirements. States in the Northeast, Mid-Atlantic, and West Coast are generally leading these efforts. Notably, California has the most aggressive mandate: Utilities there are required to derive one-third of their retail electricity sales from renewable sources by 2020.^{xx}

Overall, RPS is still a motivator for renewable development and M&A. Current estimates, depending on the source, suggest that anywhere from 4 to 7 GW of annual renewable capacity additions will be required to meet state RPS from 2013-2020.^{xx} The current pipeline of under-construction projects—approximately 5 GW coming online each year between 2013 and 2015—may not be sufficient to achieve current RPS targets.^{xxi} This suggests that state RPS is still creating a healthy demand pull for renewable energy, although this pull could weaken somewhat as more and more states meet or approach their initial targets. But, renewable development is still likely to remain healthy in the next few years since RPS is only one component in an expanding repertoire of state-level policies and financing tools designed to stimulate the sector.

Feed-in-tariffs, or FITs, are another component in this expanding repertoire. FITs guarantee anyone who generates power from a renewable source—whether a homeowner, a business, or a large utility—can sell it into the grid for established rates, which are often over what the market would normally pay. Many FIT programs have a capacity limit, and some have already become fully subscribed. Over a dozen U.S. states and numerous municipalities have implemented FITs in the past year.^{xxii}

Leading the pack once again, California recently broadened its FIT program and added a renewable market adjusting tariff, or Re-MAT, which allows the FIT price to adjust in real time to market conditions.^{xxiii}

Solar Renewable Energy Certificates (SRECs), too, are being used with greater frequency as a mechanism for creating demand for renewable energy. SRECs are tradable credits that represent 1 MWh of solar electricity. At present, energy suppliers in nine states and Washington, D.C., must accumulate a certain number of SRECs to meet a mandated generation target, also known as a solar “carve out” from the RPS target.^{xxiv} Power providers can obtain credits by investing in projects or by purchasing existing credits from project owners, brokers, or aggregators. While not widely recognized as a progressive supporter of solar energy, New Jersey recently surpassed California as the largest retail solar market in the U.S., largely as a result of its SREC program. However, the New Jersey solar program was so successful it became oversubscribed resulting in a large drop in SREC pricing.^{xxv}

As a result, New Jersey passed new legislation aimed at revitalizing the program by putting some limits on the SREC market and increasing the amount of power utilities need to obtain from solar projects in the near term.^{xxvii}

Many states are also extending beyond demand-focused policies. Partially motivated by a need to stimulate economic development, states are increasingly designing and implementing financing solutions for smart, clean energy. The advent of clean energy funds (CEFs), or “green banks,” provides a prime example. To date, more than 20 states have created CEFs to invest in clean energy pursuits, with revenues often derived from small public-benefit surcharges on electric bills.^{xxviii} Over the last decade, CEFs have funneled more than \$12 billion in state, federal, and private investment dollars to 72,000 clean energy projects in the U.S., ranging from solar installations on homes and businesses to large wind farms as well as community wind turbines, hydrokinetic projects in rivers, and biomass generation plants on farms.^{xxix} These efforts are anticipated to continue as well as to broaden to support cleantech innovation through research, development, and demonstration; early-stage financing of cleantech companies; and industry development support through business incubator programs.

“Ongoing advancements in utility-scale solar will likely spur continuing acquisitions by utilities.”

In addition to state policies and energy market trends, several factors within the subsectors of wind and solar also point to continuing deal volume.

Solar: Utilities continued to acquire solar capacity in 2012 to meet RPS requirements, while low electricity demand and weak power prices hit M&A deals by Independent Power Producers (IPPs). Trends such as utility-scale solar (defined by the Solar Energy Industries Association as greater than 1 MW) and self-generation by nonenergy companies will likely further drive M&A, along with established trends, such as consistent incentive support via continuation of the current Solar ITC program until 2016. Utility-scale solar, in particular, is critical for encouraging more investors to participate since these deals have the heft to attract attention and dollars over opportunities in other sectors. According to a recent report by the Solar Energy Industries Association, about 2.9 GW of utility-scale projects are operating in the U.S., with 4.2 GW under construction and 24 GW under development.^{xxx} Ongoing advancements in utility-scale solar will likely spur continuing acquisitions by utilities.

On the commercial and residential side, the recent decline in installation costs is likely to support expansion, and eventually consolidation of smaller developers, as solar generation gets closer to grid parity. Cheaper technology costs are also likely to further another emerging trend: self-generation. More than half (52 percent) of the companies surveyed in the 2012 Deloitte reSources Study* either are currently generating some of their own electricity supply through renewable sources or cogeneration, or have plans to do so in the future. This comes as companies across industries increasingly view renewables as a way to manage their supply risks, achieve sustainability goals, increase revenue streams, and lower costs. Although this trend is unlikely to directly lead to increased M&A, it does bode well for increased demand for solar components and may create co-investment opportunities for financial investors. This is good news in light of the recent decision by the U.S. International Trade Commission to levy heavy duties on Chinese solar products. This decision, which is expected to elevate the cost of solar panels in the short-term, may eventually shift the focus back to U.S. domestic manufacturing companies, which may need to expand

production and increase economies of scale through acquisitions, if demand continues to grow.

Wind: More wind generation capacity was added in 2012 than any other type, including natural gas.^{xxxi} Deal activity remained high in 2012, as a record-breaking ~13 GW of wind capacity came online, largely driven by the rush to qualify for PTCs that were set to expire by the end of 2012.^{xxxi} The extension of the PTC for wind until December 31, 2013, is an obvious factor in favor of future M&A activity. This activity is expected to intensify over the next two to three years as facilities, which started construction before the end of 2013 in order to qualify for the incentives, come online. The immediacy and maturity of wind technologies will also likely make it a popular choice for replacing a portion of retiring coal capacity, which is being driven by new and proposed EPA regulations. New technology, such as offshore wind, may also offer growth opportunities, although financing remains difficult due to high costs, offshore-specific risks, and lack of an established regulatory framework. Turbine manufacturers may step in with financing to get the first offshore projects going in the United States.

Other subsectors (biomass, hydropower and geothermal): Deal activity in the biomass subsector remains low, with only five deals reported in 2012. Future deals are likely to depend on the EPA's decision to include or exempt biomass from fuels that must comply with greenhouse gas permitting requirements. Currently, the EPA has deferred this decision until January 2014. The ongoing uncertainty is likely to dampen deals in the foreseeable future. The hydro subsector has also reported tepid deal activity since 2011 due to market maturity, regulatory issues, and limited geographic spread, factors that will likely remain in place through 2014. Prospects for developing small hydro projects, some of which count toward RPS compliance, could potentially create M&A opportunities in the longer term. Meanwhile, M&A activity in the geothermal space has stalled, with no deals reported in 2012. This trend is expected to continue due to high capital costs and long lead times, which generally make geothermal projects uneconomic in an environment of depressed natural gas prices and correspondingly low electricity prices.

*The Deloitte reSources 2012 Study illuminates the attitudes and practices that businesses and consumers have toward energy management and provides insights that can be useful in helping organizations make energy-related investment and business decisions. www.deloitte.com/us/resources

Utilities likely to lead

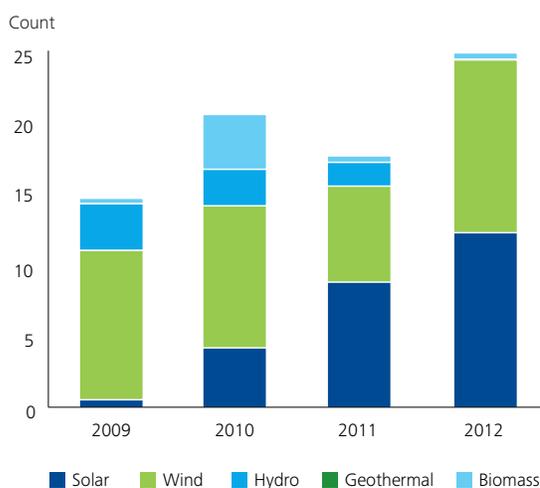
Overall, these factors suggest utilities will continue buying solar and wind projects over the next two years, driven by a need to meet federal and state requirements, balance generation portfolios, and grow in the absence of organic opportunities. Much of this investment activity will likely occur through their unregulated generation subsidiaries. Those utilities that do not seek to acquire renewable projects directly will likely still play a key role by signing long-term PPAs.

In addition to the need to acquire renewable capacity, several M&A drivers continue to favor utilities as buyers in the short term. Chief among them is limited financing availability for renewable projects. Many traditional investors are presently unable to take advantage of many of the federal tax incentives, such as PTCs and accelerated depreciation benefits, which is constraining the market. This provides an opportunity for utilities to become larger tax-equity investors in the renewables space, especially since many have taxable income or are structured in a way that allows them to pass on the tax benefits to their customers. Depressed power prices too could add to

utilities' edge as buyers since they impact the margins of developers and IPPs, especially for projects without PPAs. Such conditions require companies with deep pockets to support the industry. Utilities fit this bill since they often have high cash balances and are logical off-takers of renewable power, although regulatory approval processes that mandate competitive bidding as a condition for entering into PPAs may dampen this advantage somewhat.

Continuing utility momentum, however, is contingent on the status quo. Two possible developments—the emergence of new financing structures and elimination of tax incentives—could encourage participation by other types of investors and thus reduce opportunities for utilities. For instance, if allowed by the government, new financing structures like renewable REITs/MLPs could invite participation by new investors as well as allow existing ones to compete more equitably based on cost of capital. Utilities currently have an advantage because they are among the few players that can presently take advantage of federal tax benefits without seeking an outside tax equity partner. If these new financing structures emerge, this

Utilities deal count: 2009-2012 (by fuel type)



Source: SNL Energy

advantage may be lessened, if not eliminated. Additionally, REITs/MLPs may effectively lower the LCOE for renewables helping them become more competitive with traditional energy sources. This, in turn, could pave the way for the renewables sector to eventually move forward without tax incentives, which are becoming increasingly unpalatable among policymakers and industry participants alike.

Although tax incentive legislation doesn't expire until the end of 2013 for wind and the end of 2016 for solar, the elimination of such incentives could also dramatically alter the renewables marketplace. While a few could see this occurrence as a harbinger of decline for the sector, many proponents of renewable energy no longer view federal incentives as "the be all and end all" of renewable power

development. Some wind developers, for example, have already grown weary of the vagaries of U.S. tax policy and are revamping their business models to become less dependent on them. States too, as explained earlier, are taking steps to support long-term demand for renewable energy through RPS, FITs, SRECs, CEFs, and more. This will give developers more opportunities to secure PPAs, which often factor ahead of federal tax benefits in determining whether or not deals get done. From a utility perspective, elimination of federal tax incentives could reduce the cost-of-capital advantage they currently enjoy and level the playing field for other investors. Nonetheless, utility deal activity will likely still continue—albeit at a slower pace in the face of increased competition.



Staying power

The renewable energy sector forged ahead in 2012, despite low natural gas prices, uncertain tax policies for wind, and a solar industry shakeout driven by oversupply conditions and the prevalence of low-cost Chinese components. M&A activity is expected not only to continue in 2013 but also to pick up speed through 2014 and 2015 as new wind projects come online, solar oversupply conditions abate, and state support in general for all types

of renewable energy remains strong. Natural gas may pose a long-term competitive threat to the growth of the renewable sector, but more likely will become a critical, complementary offset to the intermittency of renewables in the U.S. generation fleet. Renewables, in short, have staying power: both in terms of producing clean, self-perpetuating electricity and in producing acceptable returns for investors.

Who's Zoomin' Who

As in the previous year, many types of buyers were active in the market in 2012. However, the order and magnitude of activity shifted. New entrants jumped in. Some established players pulled back. Others ramped up. And a few stayed the course.

Venture capitalists, for instance, pulled back. Venture capitalist investment in renewables declined significantly in 2012 partly due to the continuing maturation of the solar industry and the manufacturing shakeout that resulted from intense foreign competition and oversupply conditions. Amid this difficult environment, manufacturers, in comparison, stayed the course. As in the previous year, a few did deals in 2012 to diversify into generation development in light of declining margins in the manufacturing space. Nonetheless, most of the year's activity was concentrated among three types of buyers: IPPs, financial institutions (FIs), and utilities.

While still among the main acquirers of renewable capacity, IPPs substantially curtailed their deal making in 2012 compared to the previous year. Those that remained active invested in both wind and solar assets to expand their generation portfolios and take advantage of expiring tax credits for wind projects. Deal activity, however, remained light since many IPPs were—and still are—in “survival mode.” Low natural gas prices are depressing wholesale electricity prices, thus hurting their profitability across all forms of generation. With regard to renewables, this situation is exerting downward pressure on the prices IPPs can obtain for PPAs, which again hurts their financial positions. Plus, with little income to report, IPPs often need to seek tax equity partners in order to

take advantage of federal tax credits, thus complicating the deal structures and raising their cost of capital.

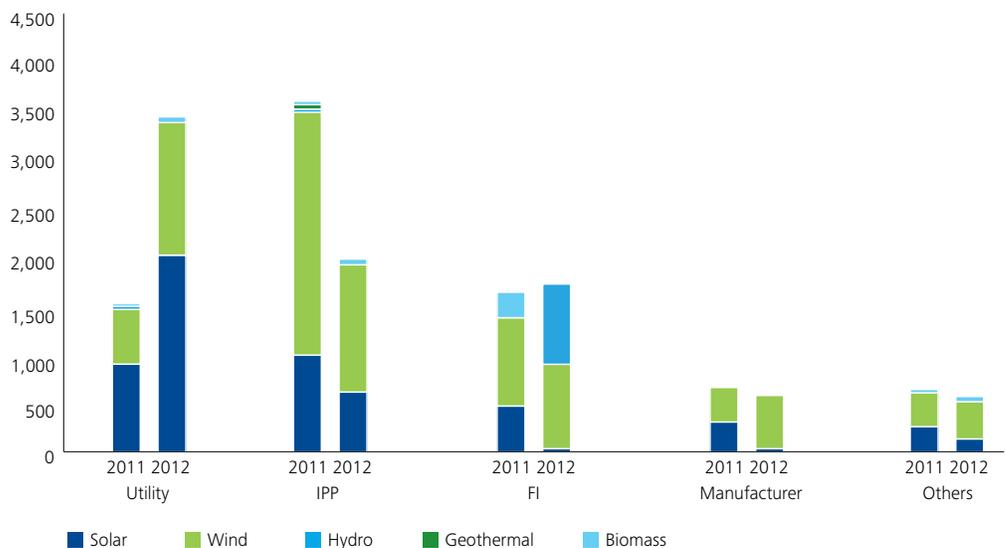
Financial institutions also encountered constraints. Some FIs acquired renewable projects—either operating or under development—with existing PPAs in an effort to secure steady cash flow and returns. Without PPAs in place, many FIs found renewables deals only made sense if they could leverage the tax benefits of accelerated depreciation and/or tax credits. This accentuates a point of frustration for the renewables sector: A massive supply of private equity and infrastructure capital is available, but many investors, such as state pension funds and foreign infrastructure funds, do not pay federal income tax and thus do not have the ability to take advantage of federal tax credits. Even U.S. private equity and infrastructure investors do not generally have the tax appetite necessary to reap the full financial benefits of investing in renewables, since they are often structured as partnerships. These entities often pay little-to-no corporate income tax since they pass most of their income on to their investors who then pay taxes on it at their individual rates. At the same time, investor appetite for tax equity deals hasn't fully rebounded from the financial crisis. With the size of many deals now outstripping the usefulness of the tax benefits for some FI investors, larger deals are now being split up among many different parties. This, in turn, is increasing the time and costs required to close transactions. Many sector participants contend this situation is spurring a flight to simplicity: Because renewable projects have complicated accounting and tax requirements, many large FIs are choosing to pursue bigger—yet easier and less-expensive—transactions in other sectors.

If FIs and IPPs cannot take advantage of federal tax incentives, then who can? New financial investors, such as Google and a U.S.-based super major energy company, for instance. These players have recently entered the renewables space in search of ways to offset the tax liabilities on their robust profits and to fulfill their corporate commitments to developing clean energy. The U.S. divisions of Japanese trading companies also sought renewables deals as they expanded their generation portfolios.

Integrated utilities too can often benefit from tax incentives in some way depending on their organizational and regulatory structures. And that is one of the reasons they emerged as the leading investors in renewable M&A in 2012. Another factor was state RPS mandates, which

gave them an imperative to add renewable generation to their portfolios. As strategic investors, integrated utilities have the dual advantages of growing their power fleets and using the tax incentives. This allows them to compete well in terms of cost of capital because they do not require tax equity partners, who drive up deal costs. This advantage was reflected in the 2012 numbers. Working primarily through their unregulated generation subsidiaries, utilities completed 25 deals in 2012 versus 19 in 2011, a 24 percent increase.^{xxxiii} Focusing mainly on wind and solar, they also stepped up the amount of capacity they acquired, buying approximately 3.4 GW in 2012 versus 1.5 GW in 2011.^{xxxiv} Although wind dominated utility deals in 2009-2010, the number of solar deals surged over 2011-2012, largely driven by an increase in the number of utility-scale projects, falling module prices, and federal incentives.^{xxxv}

Capacity bought in 2011-2012 by type of buyer



Source: SNL Energy, Company Disclosures

End notes

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