

Adaptability helps launch bright new star

Pattern Energy Group combines the energy of a start-up with the experience of its former parent company, which was hit hard by the economic downturn. CEO Mike Garland tells [Mark Anderson](#) why his company is perfectly positioned to get ahead in today's global wind market

Born amid the recent recession in June 2009, Pattern Energy Group is fast emerging as one of North America's most prolific independent wind power and transmission developers. By the end of last year, Pattern completed two projects in California: the 101MW Hatchet Ridge wind farm and an 85-kilometre transmission line under San Francisco Bay that provides up to 40% of the peak power needs of San Francisco, the company's home city.

This year, Pattern has already completed a 138MW wind project in Manitoba, Canada, while 100MW in Puerto Rico and 150MW in Nevada are set to go online by year's end.

Next year, Pattern plans to build a 250MW wind farm in Ontario, Canada, along with the 315MW Ocotillo project in Southern California. A 3GW transmission development to move Texas wind power 650 kilometres into north-east Mississippi could happen by 2015. And a 100MW wind farm in Chile, a few California repowering projects and more transmission lines are scheduled in-between.

California dreaming

The 101MW Hatchet Ridge with Siemens 2.3MW turbines was completed last year

"Pattern has proved to be one of the fastest-growing wind developers in the US," says Brian Bolster, head of alternative energy and clean-tech investment banking at Goldman Sachs. "They've shown the ability to be in the right place at the right time — securing power contracts, using innovative financing and showing leadership in permitting projects."

Good and bad times

The fast start was not by chance. Pattern's success is a by-product of the global financial meltdown, which hit the company's progenitor — Australian investment and advisory firm Babcock & Brown — especially hard. Babcock, a major player in the US wind market during the 2000s, sold its thriving wind business to recover from bad real-estate deals. Riverstone Holdings, a US-based investment firm, paid \$400 million and gave birth to Pattern, whose 100-strong payroll still includes around 80 former Babcock employees.

"If there was any kind of magic sauce, it's that we'd done this before — we're used to adversity and we like change," says Pattern CEO Mike Garland. "We are one of the few companies and management teams that have been through good times and bad times. We've worked and made money in both of those environments — and that creates a pretty unusual set of players."

Babcock had been responsible for building a major

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portion of the new US wind generation that came online in the early 2000s — starting with a modest 27.5MW project just as the market began to scale up. “Within five years we built 2,000MW of projects,” Garland says. “Back in 2004, when there was no federal energy policy, we had three-quarters of the megawatts being built in the United States because nobody else could change rapidly enough to adjust and figure out how to get projects done.”

One of Babcock’s final projects was Gulf Wind, a 283MW development near Corpus Christi on the Texas Gulf Coast that went online in 2009, featuring Mitsubishi 2.4MW turbines — a rarity in the US, where an ongoing court battle over patent issues is stopping more of the machines being used in North American projects.

Gulf Wind, which sells power into the fluctuating Texas spot market, also stands out for other reasons. The company had to overcome resistance from wealthy landowners to build it and is heading off ongoing bird and bat flight-pattern issues with the use of radar. “We were the first to use radar,” Garland says. “We use it along with our meteorological team to look at weather patterns, which may force migratory birds down into the project. If we think they’re coming onto the site we can shut it down.”

With financial help from Riverstone, the company bought Gulf Wind from Babcock in March 2010 — Pattern’s first big deal. “It’s not a simple project, but we built it,” Garland says. “So we understood the complexities and uncertainties that other people may not have wanted to undertake. We were able to buy it at a price that was very attractive from our standpoint.”

Creative financing

The deal demonstrates Pattern’s talent to come up with creative financing solutions without necessarily relying on reluctant banks and US government subsidies. Hatchet Ridge is structured with lease financing, a method that became available because of new tax rules introduced by President Barack Obama’s stimulus package in 2009.

Pattern built the project, sold it to insurance giant MetLife and now leases it back for operation — a strategy Babcock explored in the 1990s before the federal production tax credit (PTC), which excludes lease arrangements, became the driving force in the US market.

In addition to finance through straightforward partnerships, the company also expects that its increasing revenues will create a tax burden — making the company eligible to collect PTCs without the complexities of attracting suitable tax-equity partners. And while Pattern was glad to see December’s one-year extension of the federal investment tax credit (ITC) and its lucrative cash grant programme, the company is prepared to do without if necessary.

“We have internal jokes and discussions about how we’re probably better off than others because we like change,” Garland says. “We’re constantly moving and adjusting to react to change, where a lot of companies either aren’t built to adjust quickly or can’t adjust at all. It gives us a slight edge over some of our competitors.”

Against all odds

The 283MW Gulf Wind project in Sarita, Texas — using 2.4MW Mitsubishi turbines — has had to deal with local opposition and wildlife issues



Insight into financial structures outside the remit of US federal subsidies is provided by two Canadian developments totalling 388MW, along with a 100MW project in Puerto Rico. A loan from provincial utility Manitoba Hydro and \$42 million from the Canadian government helped the 138MW St Joseph wind farm come online in January.

And the 250MW South Kent project, a partnership with Samsung Renewable Energy that could result in an additional 1GW in Ontario over several years, harnesses favourable provincial policy through an onshore feed-in tariff of \$0.135/kWh.

“There are some consistent policies, or policies that encourage renewables, in Ontario and elsewhere,” Garland says. “If you examine what’s happened in the United States in the last ten years, it looks like a sawtooth [wave] in terms of energy policy. We cannot afford, as a company, to have our sights so narrow that we’re going to ride that sawtooth up and down.”

The Puerto Rican development, Santa Isabel, is another extension of the expatriate philosophy. The project will benefit from the island’s high electricity prices and lessen its heavy reliance on fossil fuel imports while addressing the Puerto Rican government’s desire to keep more jobs and dollars at home.

“We went into that market uncertain about it, but we’ve had a nice reception and the government has been very supportive of our efforts,” Garland says. “They’re highly dependent on the fluctuation of energy in the market around the world. When oil prices go up,

they pay a tremendous amount. So a lot of the money they would have spent overseas on fuel can now, in part, be recycled back into Puerto Rico.”

Meanwhile, plenty of work can still be found in the US. In Nevada, where permitting issues and lack of transmission have kept wind out of the energy mix, a new 375-kilometre line is expected to help the state meet a renewable energy standard (RES) calling for 25% clean power by 2025. Pattern is not part of the transmission build-out, but its 150MW wind farm — the first in Nevada — represents the beginning of a new renewables market into Las Vegas.

And in California, which has an RES targeting 33% of energy from renewable sources by 2020, Pattern is making headway despite transmission and permitting hurdles. In addition to Ocotillo and the completed Hatchet Ridge, the company has been working to repower aged wind farms. Permitting is under way for 42MW at Tres Vaqueros in the Altamont Pass — a region notorious for bird and bat issues.

Scientific approach

With repowering, radar and other modern tools, Pattern aims to stay ahead of environmental issues. “We try to bring a very scientific, innovative approach to analysing potential impacts,” Garland says. “Whether it’s how we design the project, where we locate the equipment and so on. We use radar and other technology to allow us to control a project and watch out for birds and other wildlife.”

Pattern’s foray into transmission development involves regulated lines, which are dedicated to the overall transmission grid and paid for through system-operator costing methods, and unregulated lines, paid for by selling capacity to individual generators for their specific use; along with generation ties — the 15- to 150-kilometre interconnection wires that link power stations to the grid. “It’s not hard to find people to loan money for those projects,” Garland says. “The issue on transmission is really the permitting and the regulatory process.”

The company’s Trans Bay sub-marine transmission project in San Francisco, a 400MW high-voltage direct-current line, has helped balance the grid, relieved constraints throughout the area and allowed the shutdown of Petrol Hill, an oil-fired power plant within the city limits. “San Francisco is a peninsula and it’s at the end of the line,” Garland says. “Trans Bay was one of the most elegant solutions I’ve ever seen in the 30 years

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Mike Garland, CEO,
Pattern Energy Group



I’ve been in the energy business — and it still had trouble getting through the local regulatory and approval process.”

Garland is convinced consistent government regulations and policies are the keys to a healthy US wind energy industry that leads to more jobs and less dependence on foreign oil. “We send a half a trillion to a trillion dollars a year overseas to other governments, many of which are hostile to us,” he says. “Imagine what it would do for the economy and jobs if we took that money and reinvested it into US energy.”

“It’s just phenomenal to think that, from a government policy, we’re willing to sit back and say, ‘Well, maybe it’ll work; maybe we’ll do this, maybe we’ll do that.’ But nobody really knows because the policy changes every two or three years,” Garland says.

A finger in many pies

So Pattern continues to diversify its project pipeline and explore other markets. “If we have a project with marginal economics, we don’t have to do that project — we’ll get one of our other projects done,” Garland says. “And if we end up having to ride through one or two years of bad policy or slow policy or changing policy — we can do that.”

Meanwhile, Pattern plans to leave offshore wind development to others, largely because of the time and money required to generate healthy returns. “We were one of the leaders in offshore when we were at Babcock,” Garland says. “But it is not necessarily the right thing for a start-up. We’re cautiously keeping our eye on it, but there are still so many opportunities on land that are cheaper and more cost-effective.”

Pattern, which soon expects to grow beyond 100 employees, recently established a 24-hour control centre in Houston for monitoring its entire fleet. The company also maintains US outposts in New York and San Diego, California, along with Canadian offices in British Columbia and Toronto. And its headquarters represents a homecoming of sorts — Babcock & Brown was founded as a San Francisco investment firm in the mid-1970s before relocating to Sydney, Australia in 2004.

“There’s a very high level of intellectual capital that came out of the formation of Pattern Energy, and now it’s being carried forward,” says Tim Stephure, a senior analyst at Massachusetts-based IHS Emerging Energy Research. “They have a very long history of knowing what really drives the market forward and how to act to seize opportunities.” ■■■



Wider outlook The St Joseph wind farm with 2.3MW Siemens turbines in Manitoba, Canada is one of Pattern’s projects outside the US