

# Opportunities in Greenfield Energy Infrastructure

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**What do you see as the most important changes within the US energy sector right now?**

**B:** I have been doing this for a couple of decades and the changes underway now are as dramatic as anything we have seen since the de-regulation of the wholesale electric power markets in the US in the mid-nineties. The big things include a pretty massive retirement of coal-fired power plants – both for economic reasons (gas is cheaper than coal) and regulatory reasons (it is very expensive for plants to conform to new emissions standards). Another big trend underway is the significant reduction in the cost of renewable electric power generation technologies – more specifically, solar and wind – located in the right areas.

**H:** The whole commodity price environment is probably the key engine for the changes we are seeing in our sector now. The US has gone from being a net importer of energy to a net exporter. The shale gas revolution has caused the price of gas to drop to the \$2/MMBTU range and the forward curve for gas is expected to remain depressed for a long time. So when Brad is talking about coal retirement, that is being driven by the fact that the US is awash with gas. The US has this great opportunity to reconfigure its energy sources by replacing the old carbon-heavy generation assets with gas-fired assets mixed with renewables.

The other factor is the changing mindset – whether for corporations or individuals – where the environment has become more relevant. We are seeing a large number of corporates voluntarily signing pledges to be green in their procurement. And then there is regulation. The Obama administration has come out with its Clean Power Plan that establishes state-wide carbon dioxide emissions standards. If implemented, this would have everlasting effects on our sector, because it would force the de-carbonization of our economy.

**What opportunities do these changes create for investment in US energy?**



*“There are huge opportunities. It is estimated that over the next 10 years, there will be approximately \$300bn of new investment opportunities in electric power generation infrastructure.”*

**B:** We see those opportunities in developing and building new renewable power stations – including wind power and solar – in new natural gas-fired power plants, in new electric storage facilities and in new electric power transmission projects.

**H:** There are three main legs to our investment strategy. The first is to buy and build conventional gas-fired assets. The second is to buy and build new renewable assets. And the third is to buy and build transmission lines. All are strongly affected and reinforced by the changes that are underway. Replacement of coal with new gas and renewable power plants – whether to supply clean power to customers or to meet mandates such as the Clean Power Plan – creates significant opportunities. We have built almost 500MW of wind in the last two years, and we are on track to have more than 1GW of wind in our portfolio.

**How does your approach differ from that of other players operating in the industry today?**

**B:** Starwood Energy next year will celebrate its 10th anniversary, and from the very beginning, we have been focused on working across a multitude of technologies including renewable technologies, transmission and natural gas-fired generation. We have always been willing to pursue, in a very disciplined fashion, greenfield power generation and power transmission opportunities. In 2006, other private equity and infrastructure funds were simply not active in these projects and certainly not with the kind of disciplined approach that we followed. Fast forward 10 years: we will soon have completed 16 greenfield power generation and power transmission projects. If you look at the history, it has been outstanding: on time and on budget, or even ahead of budget at times.

**H:** What we do takes a lot of patience and expertise. Some of our projects take months, and some take years to develop. We are not deploying a multibillion-dollar fund. The amount of capital we are investing is perfectly sized to deploy in \$50-150mn chunks, and we can be patient in nurturing the projects and craft the deals piece by piece to create value. That amount of time and expertise is something that a number of our competitors do not have, or are not able to develop.

**What are the key things you look for in the projects you invest in, both the greenfield developments and the opportunistic acquisitions you mentioned?**

**B:** When we speak about greenfield, we are speaking about a very specific type of project. We will only commit meaningful capital to a new greenfield project when we have a long-term committed revenue contract from an investment-grade counterparty. We will only commit significant capital when we have all the operating permits in place, and when we have a fixed price, a full wrap – which means a full guarantee, an engineering procurement construction contract. So when we talk about a

disciplined approach, that is really what we are talking about.

**H:** On operating projects, we look for assets that need more than just capital. We are looking for opportunities where we can bring in our operational expertise — whether increasing the capacity or increasing the efficiency — or where we can do something on the marketing side of the business.



*“The challenge for us is to find those few opportunities that fit our value-add investment approach.”*

**With the amount of money that has been raised for US infrastructure and US energy increasing, do you see more competition in the market? Is that making it harder to find opportunities, or do you see more opportunities right now?**

**H:** For development opportunities, we see limited competition. That is simply because many of these new sources of capital — whether pension funds or life insurance companies or sovereign wealth

funds — are not looking to compete in that space. There is a lot of capital in the market chasing assets, but that capital is chasing chunkier assets with very low risk and very reliable cash flows. We tend to build those assets and then sell them.

**So it is creating an exit opportunity for you more than anything else?**

**B:** Yes, we have seen more competition among potential buyers of our assets than we have competitors for the acquisitions of assets we go after.

**Are there any key challenges in the market at the moment that you're facing, and what do you do to mitigate those?**

**H:** There is no shortage of assets to buy. On any given day, there are tens of thousands of megawatts of capacity available for sale, both operating projects and development projects.

**B:** Many of our projects are originally developed by independent developers, and we will get involved when that developer needs a capital partner as well as a technical partner who can fix things, put together the key contracts and get a project done.

**What about moving forward, how do you expect your sector to evolve in the coming few years?**

**B:** One of the big questions is how quickly more distributed power generation technologies will take hold. Right now, there is no single distributed technology that is an alternative to the centralized grid systems in North America and Europe, but there is some progress being made. So, we are keeping a very close eye on that area, and considering exactly how we might participate.

**H:** On its way to becoming more distributed in the next decade, we will

first see the current carbon-heavy power sources give way to less carbon-intensive centralized sources. Coal plants and in some cases nuclear plants are being retired because they are not covering their costs, given the low prices of power.

**Do you see more demand for energy exposure from investors and are they interested in the sort of development stage projects you focus on?**

**B:** As a value-add manager active in greenfield, we see increasing interest on the part of institutional investors in having that exposure. We have seen some move forward with direct investing; many have done it very well. But we have also seen recognition that greenfield energy infrastructure development takes a long time and a lot of expertise. So some institutional investors have backed off on direct investing in this area. The whole market is becoming more educated and more sophisticated, with more differentiation of strategies and approaches — by managers like us, as well as larger institutional infrastructure investors.

**Philosophy**

*Starwood Energy actively pursues attractive, risk-adjusted returns from both opportunistic acquisitions and development of energy infrastructure assets. Starwood Energy targets investments in hard assets with a promise of strong cash flows. Starwood Energy believes that this approach reduces downside potential, provides financial flexibility and broadens exit alternatives. Starwood Energy also targets greenfield and brownfield development opportunities where it can add value through its development expertise. Starwood Energy is actively pursuing solar, wind and other renewable energy projects in response to the rapidly rising need for green energy in North America.*

**Starwood Energy Group**

Starwood Energy Group is a private investment firm based in Greenwich, CT that specializes in energy infrastructure investments. Through its general opportunity funds known as Starwood Energy Infrastructure Fund I and II, and other affiliated investment vehicles, Starwood Energy Group manages total equity commitments of more than \$2bn. The Starwood Energy Group team brings extensive development, construction, operations, acquisition and financing expertise to its investments, with a focus on the natural gas and renewable power generation, and transmission sectors. To date, Starwood Energy Group and its affiliates have committed to energy infrastructure transactions totaling approximately \$4bn in enterprise value. Starwood Energy Group is an affiliate of Starwood Capital Group Global, L.P.

Additional information about Starwood Energy Group as well as Starwood Capital Group can be found at:

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