

SINCERITY AND PATIENCE REQUIRED FOR RENEWABLES IN MINING TO SUCCEED – HATCH THOUGHT LEADER INTERVIEW

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Rob Lydan, director, solar and wind, at Hatch, sees the mining industry finally starting to grasp the attractive business case for renewable energy. Although renewable developers are accustomed to rapid progress, he urges them to understand that mining companies are enormous entities that change course very slowly. To encourage mining companies to embrace solar and wind energy, renewables developers need to resist the urge to make overly optimistic arguments or downplay negatives, instead demonstrating persistence and sincerity in explaining what their businesses have to offer.

Within the past year, the debate over what role renewable energy will play in the mining industry has deepened and matured, says Rob Lydan. One sign of this burgeoning maturity is which executives within mining companies are analyzing renewable options. A year or two ago, the head of sustainability or an energy procurement manager might have been the one speaking to renewable energy partners, but today the conversation has moved front and center and is conducted by the head of operations or another key decision-maker.

"Clients are becoming more cognizant on a corporate operations level of the fact that they have energy

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“Think of mining companies as a utility. Think about how long it takes a utility to change how they do things.”

cost issues that are affecting their operations,” says Lydan. “There’s a deeper understanding of the challenges out there.”

The number and types of mines evaluating renewable energy have expanded, too. While in the early days the topic was most pressing for companies with underground, non-ferrous sites because their energy consumption was extremely high, “today we see a broader base of clients interested in the topic,” says Lydan.

What’s more, the types of renewable projects under consideration are growing in scope. Mining companies are no longer confining themselves to pilot projects of roughly one or two megawatts but are contemplating larger and more meaningful endeavors.

“We’ve gone from a state where projects were being kicked off on a pilot basis and now we’re going through the evaluation of larger-sized projects,” says Lydan, who notes that because the proposed projects are more ambitious, there are also fewer of them around.

The Economic Case

Successful renewable energy companies understand how mining companies are run and how they make business decisions. Conversely, says Lydan, “Mining clients have to learn about renewable energy business models and challenging financing processes.”

One solution to this dilemma is partnerships. Hatch, for instance, recently entered into a teaming agreement with NRG. As an independent power provider, NRG has successfully owned and operated 48 GW of grid-tied thermal, wind and solar plants and is keen to own remote wind, solar and thermal assets, while Hatch, as global leader in consulting to mines, has the expertise to integrate these renewable energy solutions.

Decision-making is also affected by the internal dynamics of the mining industry. Lydan notes that mining is no longer in a commodity super-cycle and so “everyone within the industry is waiting to see what



happens with commodity prices” before undertaking dramatic changes.

Lydan emphasizes the need for renewable energy companies to realistically project costs when presenting their business case. Higher site costs, for instance, do not only affect fossil-fuel companies; they also impact renewable energy providers.

Building and running solar plants or wind farms is a more expensive proposition when shipping to remote locations. “You can’t fly in a wind turbine, so you have to bring it across an ice road in winter. This is more expensive than driving down an interstate,” explains Lydan. “A lot of the capital expenditure assumptions are not appropriate in remote locations.”

In order to make sound projections, renewable energy developers need to consider possible scenarios that lie ahead: “You have to understand what is the underlying reason why liquid fuel is expensive in remote jurisdictions. That can also affect the capital costs for a renewable power asset,” says Lydan.

He also urges renewable companies to appreciate the complexity of permitting and stakeholder engagement. Too often, he says, “the assumption is that because something is environmentally good, providers will not have to go through the same impact assessments they would for anything else. This is just not true.” In some instances, renewable providers may face lighter reporting requirements but requirements vary by jurisdiction. In all cases, says Lydan, “the amount of diligence needed is the same.”

In a similar vein, renewable providers sometimes tend to underestimate the environmental hurdles they’ll face in building a plant or installing a turbine beside a mine. Lydan says that just because the mine itself poses environmental risks doesn’t mean that putting up a wind turbine can be accomplished with little or no scrutiny. To the contrary, before installing wind turbines, a company might, say, have to initiate a raptor corridor study to discover where raptors nest and where they find food, and to assess whether the

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turbines would disrupt these patterns. “From a permitting standpoint, you have to go through the same studies to make sure you’re not worsening the environment in any way,” says Lydan.

In addition, he finds that some renewable developers (falsely) assume governments in foreign markets take a more relaxed approach to environmental issues. He points out that countries like Chile have “a very strong and vocal environmental movement.” And even if the local government isn’t particularly vigilant, NGOs are closely monitoring how businesses operate overseas.

Finally, because of the Equator Principles and similar frameworks, renewable energy providers will be asked to adhere to very strict operational requirements -- all of which are best understood up front.

Some Lingering Misconceptions

Lydan points out that the timeframes for mining companies tend to be far longer than for renewables companies, which pride themselves on nimbleness. “The mining business doesn’t go through iterative cycles like the energy business,” he says, and mines don’t make decisions nearly as quickly as renewable energy companies do. Often, he notes, a renewable energy provider will believe that diesel has “won out” over a solar plant or wind turbines, when, in fact, the company is still evaluating its options and hasn’t rejected renewables at all.

Mining executives, according to Lydan, are not slow to act because they’re indecisive but rather because



“There is a business case, but exaggerating it through the power of positive thinking and hopelessly optimistic assumptions does nothing to build the credibility of this business.”



their companies tend to be huge enterprises, with operations in several different countries. “Think of mining companies as a utility,” he says. “Think about how long it takes a utility to change how they do things.”

Many renewable developers don't fully appreciate the way that mining companies assess the attractiveness of new ventures. Solar or wind developers may get frustrated because they see the decision as simple given that liquid fuel might cost 25 cents a kilowatt hour while solar is just 15 cents a kilowatt hour. Mining executives, however, don't view the decision purely in terms of commodity costs, but look at all renewables projects as capital investments. “At the end of the day,” says Lydan, “the project has to be compared against all of the other capital initiatives that the client is considering. And for the amount of capital required, there might be something else that has an even better return.”

Finally, Lydan emphasizes that renewable-energy developers can do very little to hurry along mining companies. Going forward, decisions may be made faster once the market is better established, but this is not something a renewable developer controls.

One thing that would make an enormous difference to mining companies would be “a well-established mechanism for salvage value,” says Lydan. Because

no one knows what a solar farm will be worth twenty years from now, it's difficult for mining companies to calculate how they'll unwind these assets once they no longer need them. Once the market matures, however, there may be clearer mechanisms for selling renewable assets at the end of a project. The existence of a salvage value for a solar or wind farm would change the whole equation, says Lydan, noting that over time, these salvage values will be established.

Ways to Advance the Case

Lydan finds that many white papers that project the rate at which renewable energy will penetrate the mining sector are “at least 50% too optimistic, not in estimating the size of this market but in predictions about the rate or speed of adoption.” He believes that this rampant optimism is hampering the progress of renewable developers.

Too often, he says, renewable developers make sunny projections that simply don't sit well with mining companies. “There are people who believe that if you develop enough momentum in a project, people will just sign off on it, but that's not true,” he says.

Worse, he believes, is an approach that renewable developers take to try and secure deals by initially presenting all the positives and only explaining the



negatives after a deal has progressed. "If at the end of discussing an opportunity, you have not told [the mining company] what you know to be a big impediment, it upsets them," he says. "You can't do bait and switch with mining companies. They're highly sophisticated."

Therefore, Lydan urges renewable developers to further their own cause by resisting the urge to hide discouraging information: "There is a business case, but exaggerating it through the power of positive thinking and hopelessly optimistic assumptions does nothing to build the credibility of this business."

He believes that presenting the unvarnished truth might be one of the best tactics for any renewable-energy developer approaching a mining client -- and this is especially true as mining companies start to move beyond pilot projects into larger and more ambitious undertakings. Cheerleading doesn't work, he emphasizes, adding: "Sincerity is what will drive the success of this business."

Looking to the future, Lydan predicts that it will still be many years before mining companies start developing mega-renewable plants but the projects they undertake will steadily increase in size. Has the mining industry started to alter its course from traditional ways of doing business? "I'm impressed by the amount of interest that has grown in the last year," he says.

Finally, Lydan estimates that the move beyond the pilot stage will take place over the next three-to-five years. "It's really a good news/bad news story," he concludes. "This industry takes a long time to mature. But once it does mature and once it begins to be normal for the industry to do things a certain way, than it remains that way for a very long time." ■

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