



HOW DID YOU COME TO FOUND 3TIER?

When I was in graduate school studying atmospheric sciences at the University of Washington here in Seattle I was thinking of ways to start a business, and since I'd always been interested in renewable energy I was drawn to the idea of using computers to create highly accurate and accessible weather forecasting models. And since I'd spent a lot of time studying the three geophysical tiers, atmosphere, land, and water, I decided to start a company called 3TIER that would encompass those areas and provide Web-based weather information to developers and operators of renewable energy entities, such as solar and wind farms, among others. We refer to ourselves as an "information to decision" company, because we basically provide the data that allows people to make sound judgments to help ensure the success of their enterprise.

DO YOU ACTUALLY CREATE THIS INFORMATION, OR SIMPLY COMPILE AND ORGANIZE IT?

We create about half of our data by taking information from satellites, ground observations, and other sources and applying algorithms that result in highly accurate forecasts for a year, or 30 years, depending on what our clients require. And the results of our computer models provide valuable information that's available at someone's fingertips, online, because you really can't afford to wait in a market that's evolving as rapidly as renewable energy. And it allows you to make informed decisions, as well. For instance, a wind-farm developer here in

the Pacific Northwest might want to locate his site in an area that's windier during low-water periods, because that energy will be more valuable when the local reservoirs are half empty. And if you're in Texas, where a lot of wind is generated at night, you'd want to know that during the early stages so you can factor power storage into your plans.

EXPLAIN HOW YOUR SERVICES BENEFIT A WIND-FARM DEVELOPER AS THE PROJECT PROGRESSES.

We refer to the first stage in this process as prospecting/prioritization, in which that developer can follow the "FirstLook" link on our Web site to get preliminary data on the wind resource at a particular location. This service is free, and we currently have more than 50,000 users around the world who access this information. The second stage is "diligence/design," where you're gathering data in order to determine the design of your site... should it all be wind, or should you mix in some solar or hydro, and will the resources support your financials? And the third stage is operational forecasting, where we can tell an operator how much energy the site will be producing from an hour to a week ahead. And all of that information is important to the developer as well as the operator, who needs to know when winds will be high or low in order to make the best use of the chosen site.

IS THIS PURELY AN ONLINE RELATIONSHIP, OR IS THERE A HANDS-ON COMPONENT?

While our group of master's- and doctorate-level atmospheric scientists spend a significant amount of their time running computer models, they have a very close relationship with our clients as well. The fact is, our forecasts grow more accurate over time, so the quality of the information we gather—whether the on-site anemometers have been placed in the best positions, for instance—impacts the outcome. So we definitely rely on input from our clients, and I think the fact that we're currently providing forecasts for about 40 percent of the total wind energy being produced in the United States right now points to the success of our business model. And since we're "technology agnostic," servicing the wind, solar, and hydro markets, we're not advocating any one area, so you can count on the information we provide to be objective, which isn't always the case with other service providers. We are advocates of one thing, though, and that's developing a truly smart grid, where energy derived from all of these existing and developing sectors can be delivered and distributed in a way that makes sense. ✎

Call (206) 325-1573 or go to www.3tier.com.