





SOLAR POWER & LIGHT

Putting Power in Your Handstm

Solar Power and Light (SP&L) is an integrated energy company focused on commercial solar PV systems, residential solar, and solar appliances such as signs, carports and pergolas.

Written by Claire Suttles

eadquartered in Ohio, SP&L is a spin-off of buyCASTINGS, an Inc 500/5000 company specializing in prototype and production metal castings. The team launched SP&L to take advantage of a lucrative opportunity – and to provide the U.S. with reliable, renewable energy in the process. The company hit the ground running and has already ranked #90 on Solar Power World's list of top 500 solar contractors.

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SP&L's solar installations are primarily in educational and municipal buildings, where they help institutions and governments to cut costs, hedge risks, and meet sustainability goals. Clients also include big names such as Wal-Mart; SP&L manages operations and maintenance at 13 solar installations for the retail giant in partnership with Solar City. The team is so sure of their solar solutions that SP&L's and buy-CASTINGS' own building utilizes them, "powering everything from computers to HVAC," Co-Founder and CEO Neil Chaudhry shares. "Everything we do here is run on the sun."

A highly skilled workforce delivers SP&L's leading edge solutions to A-list clients. "We are engineers and innovators," Mr. Chaudhry points out. "We are project managers. We add

value in terms of new technology and knowledge of processes and materials. Almost everyone here is an engineer with advanced degrees." With specializations ranging from metals to electrical, these engineers know how to overcome a challenge to provide the best solution for the job.

This innovative team is able to develop their own state-of-theart solutions in house. Most notably, they created a lighted sign that is powered entirely by the sun. "The spirit of innovation is in our DNA across all our companies," says COO Brent Boyd. That innovation led us to develop and invent a solar sign." Mr. Chaudhry adds, "We designed our own lightbox frames and then integrated LEDs and lighting mechanisms and batteries and connections to make it all work. As a result, SP&L is one of the few businesses in America offering a solar sign solution. "Not too many companies are doing that. If you Google solar signs, we are one of the only ones that come up."

The team's ability to develop – and maintain control of – their own systems has been key to the company's success. "One of our strategies from day one was to own our own systems," Mr. Chaudhry explains. "The first ten projects that we did are on our own books. So not only did we develop, design, build, and maintain these facilities, we also own them. We believe in the solar technology strongly enough to have invested our own money in the first ten projects that we built. That was one of the

strategies from the get-go. Now we are expanding into building for others and maintaining and operating for others as we grow."

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SP&L's close partnership with its sister companies has also been critical to success. In addition to buyCASTINGS and SP&L, the Group of Companies includes FOPAT, which produces an innovative foam material used to create patterns for castings, CALS Ltd., which deals in the production of custom-made composite parts, and ATDM which is a tool design and machining company that makes molds and metal parts in-house. "We have a collaborative environment and culture here," Mr. Boyd says of the Group. "We have five different businesses under this roof and they are all synergistic. We collaborate with infrastructure and skill sets across all of our businesses." By working together across multiple business streams, the Group can stay on top – even when one of its companies is having an off year. "Some years, one business may be down and another business may be up and vice versa. So that [collaboration] gives you stability for the long term and that has

led to our success." This collaboration also extends beyond the Group. "We collaborate not only internally, but externally as well," Mr. Boyd reports. "We have built a team of partners, an approach called Integrated Development Teaming (IDT), that we have been building solar with for five years now."

The Solar Industry

The solar industry has evolved rapidly over a short period of time, and it continues to forge new ground. "The industry has definitely gone through a lot of challenges and changes and opportunities over the years," says Mr. Chaudhry, and declining costs have continually driven the industry forward. "One of the biggest things that has enabled solar to grow rapidly is that the costs have come down each year for the last five years. The cost of solar panels, the modules, and the silicon technology has come down significantly." This has resulted in a 500% growth in the US' installed MWs in the past five years. Mr. Chaudhry compares the declining costs – and increased use – to technology, which became more affordable as material and process technology improved. "It is akin to the computer chip. Today we have more powerful computers for about the same or lower costs. And that is essentially the same principle that is working with solar panels. Today we are getting more efficient







panels at a lower price. The lower cost of panels, inverters, and mounting materials has enabled projects for all types of customers. That has been a great opportunity for us that we have capitalized on."

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Challenges remain, of course. Perhaps most notably, the tax credit for investing in solar energy will sharply decrease by the end of next year. Consumers will still be able to take advantage of some tax relief, however. "It is not completely the end of tax credit," Mr. Chaudhry explains. "It is reduction. Most people think it is going away totally, but it is actually going to go from 30% of federal investment tax credit to about 10%." SP&L is already preparing for the challenge. "We see it as a 20% hit or 20% cost challenge, but we think that can be made up by technology and continuing efficiencies that drive the cost lower. So if we can continue to lower our installation cost and labor cost and technology cost by 20%, we will have just as much return on our investment when the ITC goes from 30% to 10%."

The solar industry varies dramatically across the U.S., as each state government passes its own legislation. "Every state is different," Mr. Chaudhry points out. "There is a lot of uncertainty there and we work through those challenges." Not surprisingly, states that have traditionally depended on the coal industry tend to have legislation that is less favorable to solar energy development. "There is a lot of investment in the coal industry in Ohio and West Virginia and Pennsylvania," Mr. Boyd points out. "And so the legislature there is going to be slower to adopt [solar], but it is inevitable. Much like cell phones and cable TV in the early days, the incumbents were slow to catch on. But who doesn't have cable and cell phones today? We believe solar fits into that same dynamic with certain states being leaders and others being followers – but certainly the overall trend is upward."

Mr. Boyd is optimistic that this upward trend will continue to grow throughout the U.S. "The barometer of the industry around the country as a whole is very bright." Most recently, California passed legislation that calls for half of the state's energy to come from renewable sources by 2030. "I think that will set the trend for the rest of the country," Mr. Boyd says.



SP&L is ready to take advantage of the burgeoning opportunities. "We are positioning ourselves to go national," Mr. Chaudhry reports. The company has already developed projects in California and is eyeing jobs in Nevada, Arizona, New Mexico, North Carolina, Massachusetts, and Pennsylvania. The team is also diversifying SP&L's product offerings by launching a residential and small business division. These projects offer the company a much quicker turnaround than its standard large-scale commercial projects, which can take two years to complete and cover acres of ground.

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With the addition of the residential and small business division to its successful solar sign division and commercial division, the team offers a diverse range of solutions for a variety of customers. "We now have a well rounded product suite of offerings and solutions and services," Mr. Boyd summarizes. Well prepared for the future of an evolving industry, SP&L has carefully positioned itself to stay on top.