

The Solar Solution

An Interview with Michael J. Cicak, Chief Executive Officer,
and Mossie Murphy, Chief Financial Officer, Willard & Kelsey Solar Group

EDITORS' NOTE Michael Cicak has spent over 35 years in business management for the glass and automotive industry, having served as a director of 10 major companies including Glasstech. He is also one of the leading founders, President, and CEO for Solar Cells, Inc. and First Solar, Inc.



Michael J. Cicak

Mossie Murphy spent the past 20 years in the investment banking industry – the last five as a Director at Merrill Lynch Global Markets & Investment Banking. During his career, Murphy financed over \$2 billion in alternative energy projects and over \$15 billion total in a senior role. He is a graduate of Lehigh University.



Mossie Murphy

\$15 million in loans and one half million in grants. So the state of Ohio has been very helpful in getting us to the point where we are today, including offering tax incentives for both worker training and hiring displaced workers.

Cicak: In addition, Wood County, where we're based, is doing a lot of the screening of the employees for us.

Will your product evolve or change over time, and how do you see product development for the company?

Murphy: These products continue to evolve on a daily, weekly, and monthly basis. The key for everybody in the solar industry is to lower the price; everybody wants to get to a dollar a watt and the marketplace has made tremendous strides toward that.

But the most beneficial way to accomplish that is to make your modules more efficient by putting more watts on a piece of glass. The best Cad Tell modules on the marketplace are the 10.5 to 11 percent range, and everybody wants to get to 14 to 15 percent, and that is very attainable.

So production is something we focus on, but getting more power and output from each one is a never-ending process.

To keep costs down, do you need to manufacture outside the U.S.?

Murphy: Manufacturing outside the U.S. is simply a strategy to lower your labor and other costs, but we don't view that as being the most sustainable solution. The most efficient solution is to make sure your science and technology is always better than the other guy.

Cicak: The U.S. government has not done a lot for the solar industry manufacturers. Foreign countries are paying for the assembly lines just to employ people there. In places like China, you're getting labor for \$1 an hour versus \$15 to \$25 an hour in the U.S. The 48C program put together in the U.S. was an \$8-billion project; 70 percent of that money went to foreign companies.

There is a tremendous amount of experience within your leadership team. How critical has that been to your success, and what excites you about the future for the company?

Cicak: Our goal is to have the highest efficiency and the lowest cost. Our two top technical

guys in the company, Jim Heider (Chief Technical Officer) and Gary Faykosh (Chief Operating Officer), worked with the very first company we put together, Solar Cells, and I can't tell you what they've done for us here. We've made quantum leaps and we'll probably have our first line running here in December. We'll produce one million panels on an annual basis off that line. Our goal is to have three more lines so that we'll have four lines producing a million panels each, and we'll have that all in place within the next 18 months. Then we want to build three more plants here on the location, and that will give us about 1.3 gigawatts. A nuclear power plant in Northwestern Ohio is 800 megawatts and we'll run 1.3 gigawatts every year – we'll make enough panels so we can produce 1.4 times what the nuclear power plant is producing.

Murphy: It's a very exciting time to be in this marketplace, and our ownership group is predominantly either from a manufacturing or a technical background. It's great to watch these gentlemen put together their expertise and collectively do their fair share to rebuild at least a small portion of the manufacturing in the U.S.

Solar is not going to be the sole solution to our energy independence, but there is no question that it is a piece of everybody's solution. So to be at a cutting-edge company where your technology is, at a minimum, equal to, but probably superior to, anybody else in your marketplace is a pretty exciting thing.

Has the debate on energy independence been constructive and is it a realistic expectation?

Murphy: It depends on your definition of energy independence. We're never going to be completely self-sufficient in terms of oil and we're never going to have an economy that doesn't have the need for oil, carbon, and other petrochemicals. But why would you not want to do as much as you can to minimize the need or possibly become independent? So a combination of your basic diminishing resources – not only domestically but worldwide – and innovation is going to cause some rebalancing of the definition of energy independence. It's an essential part of national security.

Cicak: When we get this plant fully operational, we'll initially be producing about 300 megawatts out of it. The U.S. government stated that we'll need 1,000 plants like we have here just for the U.S. So you can see why we're excited. We know we have the finest technology in the world and we know where we're going. ●

COMPANY BRIEF Based in Perrysburg, Ohio, Willard & Kelsey Solar (www.wksolargroup.com; WK) grew out of the initial vision of the late inventor and philanthropist Harold McMaster, and is credited as the father of glass tempering technology. In the mid-'80s, he founded Glasstech Solar, which eventually transitioned into Solar Cells, Inc. Several of the founding members of WK Solar worked alongside McMaster as he pioneered the solar industry, and they have founded WK Solar to build upon his developments while moving current technology to the next level.

Can you give a brief overview of Willard & Kelsey and the range of products and services the firm offers?

Murphy: We produce Cad Tell thin-film solar modules, which are the most part of two pieces of glass and a semiconductor layer in between them; the conductivity material is Cadmium Telluride (CdTe). That thin-film is less than 5 microns thick, which is thinner than a strand of hair. The dimensions are 60x120 centimeters, and they are very similar to modules that are currently in the marketplace. This is now the largest solar company in the world and our focus is global.

How critical has the state of Ohio been to the company's success and how close is that working relationship?

Murphy: With the financial markets being locked, it became clear that the state was probably one of the only avenues that we had to get non-dilutive, reasonably priced capital through