

# POWER PLAYERS

Three N.J. entrepreneurs are each trying to shake up the power industry in their own way

By BRETT JOHNSON

In the last days of the steam locomotive rumbling through the Garden State, New Jersey was an epicenter for groundbreaking inventors.

It was the first and still is one of the few states to have its own hall of fame for inventors, no doubt due to it being home to some of the nation's most obvious inductees, such as Thomas Edison and Albert Einstein.

It's a history that is trotted out regularly. And, too often, it arrives with the subtle implication that Garden State inventors are as much a historical novelty as the horse and buggy.

But, particularly in the energy sector, the legacy of local inventors still means business today. Here's a look at three who are doing some potentially groundbreaking and game-changing work:

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**Mark MacCracken**

CEO, CALMAC  
Fair Lawn

The history of prolific innovators carries on at a company such as CALMAC, which was founded 70 years ago by local inventor Cal MacCracken, an inaugural New Jersey Hall of Fame inductee alongside the likes of Edison and Einstein. MacCracken was even urged to originally start his business by Theodore Edison, the son of Thomas Edison himself.

One of the many testimonials that could be given of how ahead of his time MacCracken was is that he featured in black-and-white TV in the '50s, talking about solar energy for a program about what the turn of the century would be like.

His Englewood-based company is still operating, under the leadership of his son, Mark MacCracken. Of his late father's 250-some inventions (a list of some odd, yet very widespread products such as that rolling hot dog cooking device found in just about any ballpark or gas station), CALMAC today focuses on his early innovation in the area of thermal energy storage.

Years of research and development went into CALMAC's IceBank Energy Storage system. It makes ice at night, outside of the expensive hours of peak grid electricity, to cool buildings with air conditioning during the day.

"I think (of it like this): You wouldn't wait until people were in the door for a party to make ice cubes for drinks, and for air conditioning you need the equivalent of 300 pounds of ice per person — so, why should a system act like it didn't know you were coming and start using electricity on peak hours at high rates?" MacCracken said.

The storied business has a prestigious list of customers in more than 60 countries. Google, McDonald's and Goldman Sachs are just a few of the well-known companies that have incorporated CALMAC's energy solution.

At Goldman Sachs' New York headquarters, for instance, they're making 1.8 million pounds of ice overnight using the company's technology in preparation for the miserable heat of summer.

The growth of CALMAC, which brings in annual revenues in the \$12 million to \$15 million range, isn't something MacCracken expects to cool off, given trends in the energy industry.

"This marketplace is ripe for expansion,"

he said. "A big driver is going to be the renewable energy movement and the focus on reducing carbon emissions and how (our company's solution) fits into that."

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**Michael Strizki**

Chairman, Hydrogen House Project  
Hopewell

Some Jerseyans look even further into the future of energy, calling back to the state's revolutionizing inventors.

Michael Strizki, a longtime engineer with a knack for inventing, believes the clean energy source of tomorrow will be hydrogen fuel cells that operate completely off the grid. He pioneered North America's first-ever example of a home powered exclusively by hydrogen energy as well as solar power right here in the state: Strizki's own residence in Hopewell.

Unfortunately, the technology behind his Hydrogen House Project is currently prohibitively expensive, which is why one of the other initial examples of Strizki's hydrogen houses is sequestered on a private island owned by Johnny Depp.

"But it's going to get cheaper and better, just like anything that changed mankind," he said. "Look, we've gone from a period of computers taking up rooms and not being accessible to everyone having iPhones in their pockets that have more power than the first six computers together did."

"This is the new way in the energy industry. Any business stuck on older energy sources is going to be as dead as the dinosaurs they're mining."

Strizki, an eccentric man whose public image falls between fast-talker and visionary, has no patience for anyone who thinks his ideas are too far-flung.

"I've been called everything from a pioneer to the village idiot," he said. "But, is it crazy to think a substance that makes up 80 percent of every molecule in the universe is going to be what we're using?"

Regardless of how it's perceived, Strizki is committed to exploring a future with solar-hydrogen powered houses. He's also interested in hydrogen fuel cell vehicles, which he was involved in developing models of in his former position in the New Jersey Department of Transportation's Office of Research and Technology.

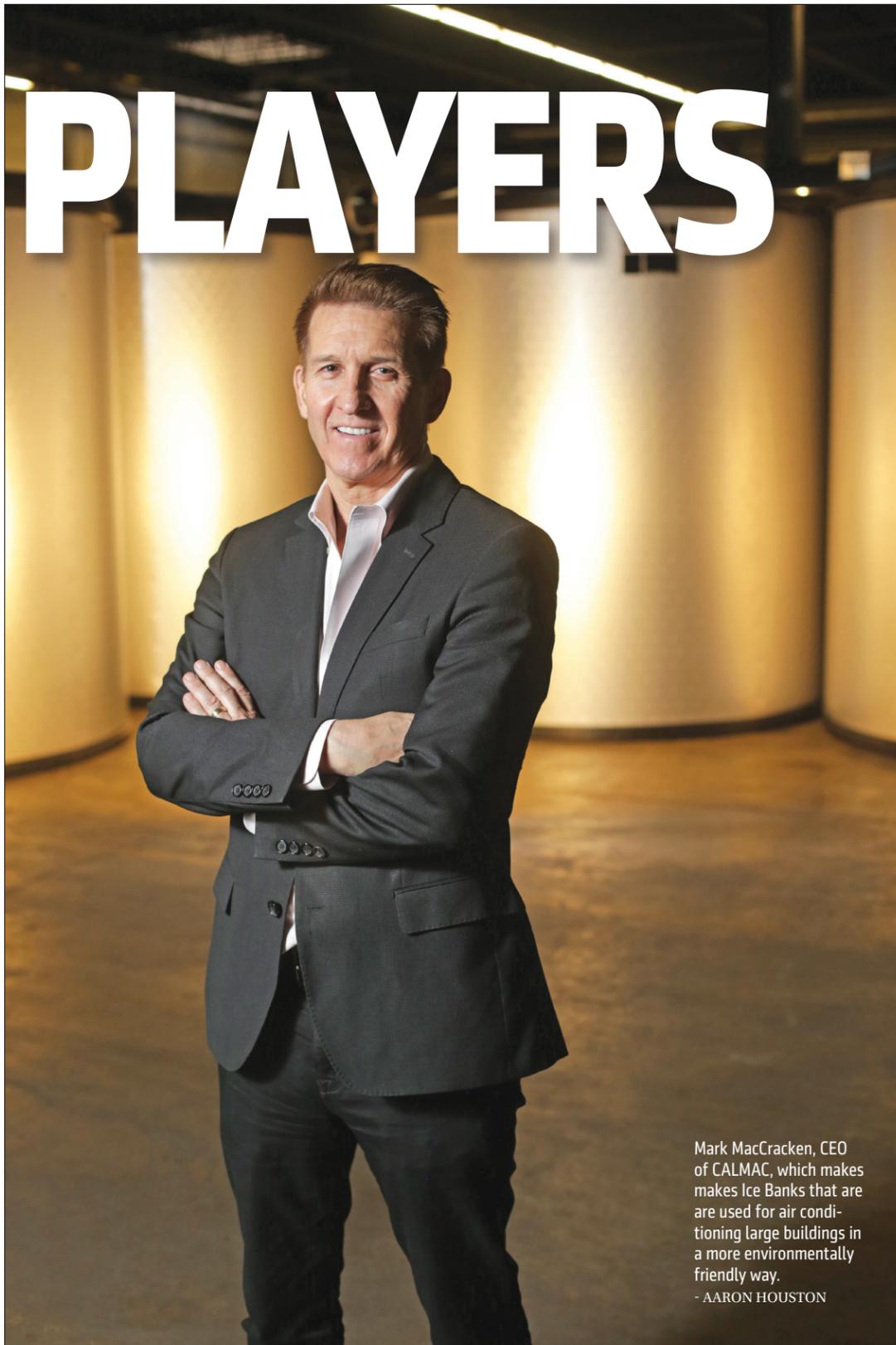
Strizki is also working in a leadership position at Flemington-based Genmounts Solar Racking, a public company that sells a product used in the installation of solar panels.

In the meantime, Strizki believes he's already seeing evidence of a hydrogen fuel cell transition in the energy industry. He points to Amazon's move to acquire a portion of New York-based Plug Power, a hydrogen fuel cell company, even after tech industry figurehead Elon Musk mocked the technology as "fool cells." He said major automobile companies are also adopting the technology.

"What we're starting to see is big innovations in the energy (sector)," he said. "It's (like the) evolution from Blockbuster and Netflix."

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**Ray Saluccio**

CEO, SolarCure;  
CEO, EarthSure Renewable Energy Corp.  
Woodbridge



Mark MacCracken, CEO of CALMAC, which makes Ice Banks that are used for air conditioning large buildings in a more environmentally friendly way.  
- AARON HOUSTON



Michael Strizki, Chairman, Hydrogen House Project  
- SUBMITTED PHOTO

New Jersey has its share of local inventors in the energy sector who have turned to the marketing side of business to short-circuit the conventional.

People such as inventor Ray Saluccio.

At least that's the latest approach by Saluccio, who was a finalist several years ago for Ernst & Young Entrepreneur of the Year for his EarthSure Renewable Energy Corp. The company aims to lower electric consumption by using the power generated from air-conditioning systems and turning it into renewable energy with a patented technology.

With his latest venture, Soldier On Batteries, Saluccio designed a battery for fleet vehicles that he's decided to package together with a promotional opportunity. He offers to exclusive



Ray Saluccio, CEO SolarCure and CEO, EarthSure Renewable Energy Corp. - SUBMITTED PHOTO

clients a social media campaign that highlights how their choice of his battery business would "re-energize veterans" by forwarding some proceeds to nonprofits such as the Wounded Warrior Project.

"Industries have to buy millions of dollars' worth of batteries, so why not buy one that you can leverage to help your brand," he said.

Like anyone who thinks big, he's a small player up against majors. He already is encountering pushback in his attempt to break into the around \$10 billion battery industry. Simply put, searching for a battery manufacturer to private label his product in the United States has led

him to a dead end.

Although it's a problem seeming particular to his startup, Saluccio views the challenges he's facing as emblematic of a potentially less-than-inviting culture in U.S. enterprise for innovators — a phenomenon that runs contrary to New Jersey's inspired history.

"It's not good," he said. "We have to make sure that we're still encouraging innovation at home, because that's what made our state and our country what it is."

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