

## Bringing to Market their CHP System for Producing Energy On-Site, American DG Energy, Inc. is Enabling Customers to Improve their Bottom Line by Reducing the Cost of Electricity, Heat, Hot Water and Cooling, while Producing 'almost' No Emissions with their Engine

Utilities  
Electric Utilities  
(ADGE-MKT)

American DG Energy, Inc.

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**Dr. John N. Hatsopoulos**  
Chief Executive Officer and Director

**BIO:**

Dr. John N. Hatsopoulos is Chief Executive Officer of American DG Energy. He is also Chairman of the Board of Glenrose Instruments Inc. and Chief Executive Officer of Tecogen Inc.

Dr. Hatsopoulos is a co-founder of Thermo Electron Corporation which is now Thermo Fisher Scientific (NYSE:TMO) and the retired President and Vice Chairman of the Board of that company. He is a member of the Board of Directors of American CareSource Holdings, Inc. (NASDAQ: ANCI), TEI Biosciences Inc., Ilios Inc., and a former "Member of the Corporation" for Northeastern University. Dr. Hatsopoulos graduated from Athens College in Greece, and holds a Bachelor degree in history and mathematics from Northeastern University as well as Honorary Doctorates in business administration from Boston College and Northeastern University.

**Company Profile:**

American DG Energy offers customers a simple way of producing energy on-site to improve their bottom line by reducing the cost of electricity, heat, hot water, and cooling. Our solution for on-site power generation provides customers a continuous source of funds that can be invested in other aspects of the business, and requires no capital outlay or maintenance efforts. In addition to monetary gains, American DG Energy enables businesses to position themselves as environmentally responsible corporate citizens.

**Interview conducted by:**  
Lynn Fosse, Senior Editor  
CEOCFO Magazine

**CEOCFO:** Dr. Hatsopoulos, what is the main vision and focus at American DG Energy?

**Dr. Hatsopoulos:** That is an interesting question. Under Thermo Electron, there was a company called Tecogen, which my brother and I eventually bought from Thermo Electron after we retired. By the way, we founded Thermo Electron in 1956 and retired from the board in 2001. Thermo Electron ended up as a multi-billion dollar company and after forty-five years, that was long enough. The company that we bought, Tecogen was a company that produced a piece of equipment that made hot water and electricity at almost ninety percent efficiency. We tried to sell the equipment over the years but Tecogen, was the sole subsidiary that never grew much. We did sell over two thousand units over twenty years. However, that is nothing in a multi-billion dollar company. Thermo Electron had twenty-four public subsidiaries. When we retired, the management distributed to the shareholders the larger subsidiaries and sold the smaller subsidiaries. My brother and I, who had decided to retire, bought Tecogen as an investment. Now that I had nothing better to do and I owned part of the company, I decided to find out why the company never succeeded the way our other ventures did. We performed a study to find out why we did not have greater success and the answer was something that should have been obvious to us a long time before. People that use the hot water and electricity from our units, which by-the-way are almost 90 percent efficient, do not want the responsibility or have the knowledge of producing their own energy. Somebody told me that if he is managing a hotel and works twelve hours a day, he does not want to

know anything about electricity. Even if he did know a little bit, he would have to work fourteen or fifteen hours a day, therefore he had no interest. Therefore, we decided to set up a new company called American DG Energy, which is a totally unregulated utility, which installs and sells energy to a building. Let us say that a hotel with a hundred or more rooms needs hot water and electricity, then they are an ideal customer for us; we install it, provide the service, the maintenance and the natural gas. All of our equipment runs on natural gas. We sell the customer the energy that they use. Sometimes that could be as much as eighty to ninety percent when it comes to hot water, sometimes forty to fifty percent when it comes to electricity. They have no responsibility. We give them a discount on the energy that is generated. What they do not use from us they continue to buy from their traditional electricity vendor. That is the beginning of American DG. A few years ago, we hired Barry Sanders who runs the company. He is the COO, I am the CEO of the company and Anthony Loumidis is the CFO, but Barry Sanders is really the man that runs the operations. In the beginning we had to reassure people that we were not the next coming of Mr. Madoff, because we were telling people we were ninety percent efficient verses something like thirty five to fifty five percent efficient of your own boiler or the electric company. We started small. About a little more than a year ago, we had eighty installations. As we felt comfortable and customers starting feeling comfortable with us, we started expanding our marketing into big chains: hotels, nursing homes, hospitals and so forth. We have also expanded now in Europe, with a subsidiary that we just announced, EuroSite Power. It is an SEC registered company.

**CEOCFO:** Who maintains the equipment on the ground?

**Dr. Hatsopoulos:** We do.

**CEOCFO:** Is a simple installation or

does American DG Energy have continued involvement?

**Dr. Hatsopoulos:** We have continued involvement every step of the way and monitor everything from our headquarters in Waltham, Massachusetts through our computers, internet and telephone systems. Additionally we have an organization in Europe which provides service and installations as well. We provide all the service, all the maintenance, everything. We are no different than, say, Con Edison in New York when it comes to electricity. We are no different than a gas company when it comes to your boiler.

**CEOCFO:** What has been the key to getting people to sign on to your concept?

**Dr. Hatsopoulos:** We give them a

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guaranteed discount to what they would pay their traditional energy source. Sometimes it is a little more, and sometimes it is a little less depending on current rates, but the average is about ten percent. Since they already use the traditional producer of electricity and the traditional boiler for hot water, they know what they pay. Every month we get, a copy of their utility bill, which by the way, we can also get through the internet so they do not even have to give it to us. We charge them for what they actually consume. Therefore, they save a lot of money.

**CEOCFO:** With so much potential in terms of individual locations and as you mentioned large chains, like hotels how do you market and decide whom to target?

**Dr. Hatsopoulos:** First, we start here in the US the states where electricity

is most expensive and that is pretty simple. Up until now we have been targeting the northeast which has the highest utility rates and consists of New England and the Atlantic states. Another option was California where the manufacturer does sell equipment. However, at the same time, we were not in California on purpose even though it is a terrific market for us. This is very exciting because California keeps increasing the emissions standards. Even though right now, all our equipment used meet their emissions standards, we could see that some day we would not because they keep ratcheting up emission requirements. All of a sudden, the manufacturer, under funding from the California Energy Commission, and funding from gas utilities, developed a new piece of equipment that was just introduced in the last few

months that has lower emissions than the fuel itself. This is the first time in the history of engineering that there is an engine that has 'almost' no emissions. This is revolutionary and American DG Energy is looking for ways to expand on the west coast where electricity is also very expensive. I do not think you can visualize, unless you are in the field, what it is to have an engine

that has very low emissions. As a matter of fact we are the only engine that the state of California now gives "green" credits to like solar and wind.

**CEOCFO:** These are exciting times for American DG Energy!

**Dr. Hatsopoulos:** This is a very exciting time, and you are really one of the very first to understand or to hear what we are doing. This is something that, hopefully, will revolutionize the way energy is produced and sold. You have to understand we go building by building. If we have a hotel around the corner we will put our equipment in their basement, their boiler room, or their parking lot and produce the hot water and electricity that they need from there. The problem is that the electric facilities could be doing the same thing but heat does not transfer. If you see steam or smoke coming out of a power plant, these

are hundred dollar bills being consumed. They have no way of transferring their technology to buildings, because after a few feet hot water becomes cold water and the energy is lost. So we go building by building. Just to give you an idea how big the market is, we had a calculation by a group that made a study for us. There are 27,000 buildings in the Northeast that can use our services. The market is huge for and we are just at the beginning. We started marketing in Europe in January of this year and already have six hotels signed up. It is an ideal way to heat the swimming pools and provide hot water and electricity for athletic facilities.

**CEO CFO:** Do they understand more quickly in Europe?

**Dr. Hatsopoulos:** Actually they do, which is interesting. The European market is smaller than the United States. Combined heat and power (CHP) has been used in Europe for many years. In the United States it is not a new idea, it just has not yet become as widely accepted. So these are very exciting times for us.

**CEO CFO:** What is the financial picture like for American DG Energy?

**Dr. Hatsopoulos:** I am seventy eight years old by the way, and I thought five years ago that I was retired. I am now working sixty hours a week and I get a dollar a year. As a matter of fact, the Boston Globe did an article about two of us, that worked for a dollar a year. We ran the company small in the beginning, probably because of my conservatism and my age, focusing on being cash flow positive. For eighteen months, ending last July, we were cash flow positive. At that point we went and raised money, approximately \$20 million; \$2.4 million was mine by the way. We now have something like \$17 million give or take in cash on our balance sheet and we are very well capitalized. We get on a weekly basis a call from a broker at an investment bank asking us if we want them to raise money for us, and the answer is always no. Most of our investors are Europeans, which is a surprising statement for an American company. I do not know if you are familiar with Thermo Electron, which is currently called Thermo Fisher. It

has a market cap of about \$25 billion. My brother and I did it by borrowing \$50 thousand in 1956.

**CEO CFO:** Why should investors pay attention to American DG Energy today?

**Dr. Hatsopoulos:** Because, most importantly, the proof is in the pudding. Even though we only have eighty units installed we have increased our bookings. All of a sudden overnight now that we have capital, we have somewhere around thirty five units in our backlog. I do not know the exact number because we have been installing units daily. This is accelerating more in Europe than the US. We are now talking with big chains who are now starting to become believers. If you have a hotel chain, such as DoubleTree, which happens to be one of our users of our services, they will tell you how well we are doing. Now all of a sudden people believe us. Therefore, the big growth is ahead of us.



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