# G.E.T.TING TO KNOW YOUR SOLAR INSTALLERS INTEGRATED SOLAR APPLICATIONS CORP., BRATTLEBORO, YT

Staff Article

This is the first of many in our new feature that we will be running in Green Energy Times, which will be highlighting our local solar installers. ...

As one of our longer standing Solar Installation companies in our region we would like to introduce you all to Integrated Solar Applications Corp. (ISA), 121 Spring Tree Rd, Brattleboro, Vermont.

ISA was founded in 1975 by Alain Ratheau, an electrical and mechanical engineer. In those days the organization was the Solar Applications Company. Over the years, Alain designed and installed both solar thermal and solar PV systems.

In April 2008, Andrew Cay acquired Solar Applications Company and changed the name to reflect a focus on combining technologies to achieve net-zero energy solutions. Andy had received a BS in Mechanical Engineering from Worcester Polytechnic Institute with Distinction and an MBA from the University of North Carolina, before being involved in a number of capacities in the fields of engineering, energy efficient housing, and real estate.

Andy put together a team with a very diverse background. The result is that ISA can handle a good deal more than a simple set of solar PV solutions. They can work on small wind turbines, geothermal applications, and solar hot water. And Alain continues to work with ISA as a lead engineer and system designer, giving a sense of long-term continuity to the business.

Continuity goes beyond the presence of

long-term staff. ISA has repeat customers with a sense of customer loyalty. In fact Andy Cay's first customer, Abenaque Car Wash, has come back for seconds, a repeat of the same design at a different site.

ISA is able to design for solar PV, solar thermal, and heat pumps to produce an Integrated System. For example, a PV system can be built to provide power for a geothermal heat pump. If the system is designed, installed and maintained at optimum size and capacity, it can be a Net Zero system, meaning that the sun powers the buildings heat in a way that is more efficient than even direct heating. If other things are needed, such as air-source heat pumps or wind turbines, ISA is happy to connect clients with people who specialize in those sorts of things.

The range of work ISA does is quite broad. They design and build small household power and heat systems. They also work on commercial and industrial systems, and community and municipal systems of all sizes. They have been at this like of work for almost 40 years, and have a wide range of installations they can show.

Andy Cay, owner of ISA, was good enough to answer a few of questions for Green Energy Times:

# Q: What are your thoughts about solar and climate change?

A"Solar is a very important arrow in the quiver - part of the solution - an important part of the solution to help combat climate change. Combined with geothermal, wind, and hydro, we can have a renewable energy future."

# Q: What led you to buy this company in 2008?

A "I was developing real estate and worked with Alain Ratheau, who helped to install solar on some projects. Al Gore's Inconvenient Truth came out just before this, and it had big impact on me. He had a very compelling argument. The move was the right fit for me personally - it was where my heart wanted to go. I have a building and engineering degree, VT plumbers license, a BS in Mechanical Engineering, and an MBA in Business".

Q: I notice you mentioned a VT Plumbing license. I recall featuring a story about you a few years ago in Green Energy Times about a SHW powered carwash there in Brattleboro. Did you start out with SHW installations?

A:"Yes, I did start out with Solar Thermal systems. The Abenaque Car Wash is doing very well. In fact, in Chester, VT, we are installing a 2nd one, designed exactly like that one. It is doing well enough that they want to do it again. 120° water is perfect for car washes. Laundromats are also well suited for Solar Hot Water. When the oil prices went up to \$4.75/gal, solar thermal was a great alternative. Solar thermal is still an attractive technology. But since then, Solar PV has dropped dramatically from \$9-\$10/Watt in 2008 to \$4/W today, so PV is now dominating the market. Even in 2008, photovoltaics were a good choice,

# Q: What kind of totals for Solar PV have the past years been for Integrated Solar?

From 2012 to 2013, installations increased by 50%. They installed 770kW total solar in 2013. ISA has 4 MW solar PV projected for 2014 -- more than another 50% from last year.

Andy points out that the federal incentives program may end in 2016. Federal tax credits have been a major driver of the solar industry, and a sense of urgency is developing, as we get closer to that date. We will have to see how the next steps develop, as laws may be revised before then.

Learn more at (802)257-7493 | www.ISASolar.com



ISA solar projects: Wallace with Apples, Renaud Bros., Algiers, Burtco Car, Wash, Peake. AND the end add " All photos courtsey of ISA"

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