

ENVIRO-PAK

Heat Recovery Made Simple

By Turbotec

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Enviro-Pak goes Hybrid with Solar Water Heating

Installing a solar water system was not enough for two innovators who needed to resolve providing hot water to local restaurants even when the sun wasn't shining.

"Tigen Pub in Stamford, CT does not use their 75,000 BTU GE Smart gas fired hot water heater for anything but storage", says Gordon Whelan of Penev Appliance Service. It is now coupled with a Richman 120 gallon solar tank coupled to a "Hybrid" solar and A/C heat recovery system designed and built by the two partners Krass Penev and Gordon Whelan.

The system uses 4 panels of Sun Max solar tubes coupled with two Turbotec Enviro-Pak heat recovery units. Krass who is the refrigeration expert on the system says at night or when the sun isn't out, the two Enviro-Pak units supply the restaurant

with hot water and help preheat the water for quick recovery during demand conditions. "We used the wasted heat from the 10 year old walk-in refrigerator which keeps the beer cold. The walk-in actually is working better," says Krass. He had been servicing this walk-in for 6 years and could never get the temp down below 50 degrees F. "Now, with the Enviro-Pak, we are getting the temp down to 40 degrees F, meaning colder beer for the customers. That, coupled with providing hot water, is a win, win for everybody".

Krass and Gordon designed this concept over dinner one night on the back of a



Two Enviro-Pak's generating hot water by recycling wasted heat from the refrigeration system.

around \$10,000 but all we want is the monthly savings (\$400.00/month) and any state or tax rebates (\$3,000.00 in CT). Or after the first month savings you can pay us the \$10,000". Krass and Whelan say the pay back is 1-2 years in Connecticut.

"At night or when the sun isn't out, the two Enviro-Pak units supply the restaurant with hot water and help preheat the water for quick recovery during demand conditions".

napkin. Both gents are from Europe where these types of systems are common. The water piping from the solar system uses PEX tubing, not copper, just like the European systems do "With the price of copper, and the fact that it could be taken from the site, means no worries for everyone", says Gordon Whelan.

Penev Appliance Service actually offers their system for free to the restaurant owners. "We tell them the system cost is

Krass and Gordon choose the Enviro-Pak for the refrigeration system because of the ease of installation and the fact that it could handle the duty of a refrigeration system which runs 24/7. Krass said "The wall bracket and the indicator lights are perfect for equipment room installations.

"The Enviro-Pak was installed in less than 2 hours and can be done by one technician".



Krass Penev and Gordon Whelan on site at the Tigen Pub in Stamford CT, where one of their hybrid systems is installed.

The Enviro-Pak was installed in less than 2 hours and can be done by one technician. The wall bracket makes it so easy you level the bracket and just hang the unit off of it... It's a home run".

Krass and Whelan have just finished another job in New Cannon at a restaurant called Solé; a high end Italian bistro. This system has 160,000 BTU's of solar panel and one Enviro-Pak. This application is an 8 year old R-22 unit which never provided enough cooling, in addition, the kitchen which is downstairs, was always hot from the 90,000 BTU Bradford White water



Solé in New Cannan, CT equipped with the innovative hybrid water heating system.

heater and the hot air from the refrigeration units condenser. With the Hybrid water heating system the water heater never fires up and the condenser puts out room

temperature air. Gordon says, "We don't have numbers on this system yet but we expect savings as good or better that the Tigin Pub".

Penev Appliance Service is planning another installation in Rye, New York and expects to provide the same savings as the other jobs. Both Gordon Whelan and Krass Penev said, "This is the way it gets done in Europe".

Penev Appliance Service is based in Connecticut. The Enviro-Pak is manufactured at Windsor-based Turbotec Products, Inc.



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