



# Aspen Ice Scores with 2008 Clean Energy Project of the Year

## PROJECT INFORMATION

### Organization

- Aspen Ice

### Location

- Randolph, NJ

### Project Contact

- Robert Carragino, Owner, Aspen Ice

### Technologies

- Solar electric system
- High efficiency chillers, lighting & motion sensors
- Reflective insulation
- Grey water collection & reclamation

### Total Project Cost

- \$2.3 million

### NJCEP Incentives

- \$1.2 million solar electric

## PROJECT SAVINGS

### Estimated Annual Savings

- Solar panels have reduced already-low electric consumption by an additional 60%
- Greenhouse gases have been decreased by a total of 75% (498 metric tons of CO<sub>2</sub>, 1848 lbs of NO<sub>2</sub> and 2541 lbs of SO<sub>2</sub>)
- 1.7 million gallons of water recycled annually



The Aspen Ice project is a “grid-tie” commercial solar power system. When the energy generated by the PV cells is greater than the owner’s needs, an inverter sends the surplus power to the utility grid for use by others.

**“Quite simply, this project could be replicated by every ice skating rink and similar commercial building in New Jersey, across the country and around the world. Aspen Ice has provided an example for others to follow by using readily available technologies and resources to achieve amazing results.”**

Bill Hoey  
Managing Partner  
of NJ Solar Power, LLC.

## Background

Aspen Ice is a state-of-the-art ice skating facility in Randolph, New Jersey showcasing two NHL size rinks that provide opportunities for public recreational skating and lessons, youth and adult leagues for competitive figure skating and ice hockey and many other athletic and social activities.

## Challenge

From the start, Aspen Ice had set the green initiatives bar incredibly high. When their 80,000-square-foot facility opened its doors in March 2004, it already boasted a sustainable building design fully equipped with high efficiency chillers, lighting systems and motion sensors; reflective insulation to trap cold air and further decrease energy consumption and an abundantly effective grey water collection and reclamation system to provide water for the restrooms and ice for the rinks. But owner Robert Carragino’s strong commitment to the community went beyond being environmentally responsible. He wanted Aspen Ice to become a genuine champion for the environment, turning his attention to an additional renewable resource...solar energy.

*Project information, savings and environmental benefits were provided by the project contact.*



## Success Stories



The second largest solar electric system of its kind in the United States, the Aspen Ice solar project has already saved 250,000 kilowatt hours of energy and reduced greenhouse gases by 75%.



Aspen Ice  
16 Aspen Drive  
Randolph, NJ 07869

### Solution

In April 2007, Aspen Ice had NJ Solar Power, LLC install the second largest standing seam roof, solar electric system in the nation. The total project came in at \$2.3 million with New Jersey's Clean Energy Program subsidizing \$1.2 million of the cost through its innovative incentive programs.

### Benefits

To date Aspen Ice's revolutionary solar energy system, combined with their existing high efficiency and renewable energy resources, has resulted in approximately 728,000 kilowatt hours of energy saved and a significant reduction of greenhouse gases, already surpassing New Jersey Executive Order 54 Standards for 2020 and contributing to the achievement of reduction goals set for 2050. On the cost savings side, Aspen Ice expects to experience an 85% return on their investment by 2010.

Not only does the new solar electric system reduce the strain on the power grid in New Jersey, it contributes to it. The cleverly designed system is powerful enough to provide all the energy required by Aspen Ice and then divert excess power produced back to the grid to help alleviate the demands from other commercial and residential customers during the middle of the day when energy consumption is at its peak.

In addition to the solar electric system, Aspen Ice has installed two high-tech kiosks in the lobby of the building for energy monitoring and public education of the company's various green initiatives. Aspen Ice also plans to replace its present gas powered de-humidification system with the latest technology that uses the heat created from its chillers instead of natural gas, reducing the building's gas usage by over 70%.

The sheer scope of this inspiring solar energy project, in combination with its sizable resulting benefits, made Aspen Ice the clear winner for New Jersey's Clean Energy Leadership Award for "Clean Energy Project of the Year."

