

Going Green

Sustainable Energy at RC Fine Foods



Going Green



RC Fine Foods

Second Generation Family Business

Founded 1972

1995 - Moved into current building
~41,000 square feet

2011 – Needs New Roof and HVAC
... and so it starts



Going Green

We Need a New Roof

What Else Can We Do?

Brought in Solar Consultant/Installer

- Solar Electric – 30% of Our Electricity
 - Solar Hot Water – 40% of Our Gas
- Replace HVAC and Refrigeration – 10% Efficiency Gain

Now We're Thinking... and the snowball starts rolling...

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Making Connections

Solar Consultant/Installer
brings in

LED Lighting Rep

- Replace Fluorescent and Metal Halide Bulbs
 - Reduce Electricity Demand by 20%

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It All Starts on the Roof

Out with the Old

Rubber Membrane with river stone ballast (Dark)

In with New

TPO Mechanically Fastened Roof (Light)

Pros

- Cooler in the Summer
- All the Leaks are Gone
- Added More Insulation
- Reused river stone for fire lane and landscaping

Cons

- Cooler in the Winter – but offset by added insulation

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It All Starts on the Roof

Out with the Old

Inefficient HVAC and Refrigeration

In with New

Higher Efficiency HVAC and Refrigeration

Pros

- Reduce Demand for Electricity and Gas
- Reduced Maintenance (HVAC Company here every week)
 - NJ Clean Energy Rebate

Cons

- Rebalancing HVAC sensors (original install was bad)

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we want to help you make it®

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Light it Up

Out with the Old
Fluorescent and Metal Halide Bulbs

In with New
LED Lighting

Pros

- No Flickering – Better Lighting, Color and Bulb Life
 - LED Tubes are 15 W vs. 26 W
 - LED Warehouse Lights are 100 W vs. 455 W
- ROI – 5 to 7 Years (15-20% drop in total electric demand)

Cons

- LED Lights are Cooler – heating bill increased 0.4%

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Light it Up



Going Green

Solar Electricity

New 149.7 kW Solar PV System

Pros

- It's Green & Cuts Electricity Usage by 30%
- For Us - No Down Side

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Solar Electricity

New 149.7 kW Solar PV System

Costs

Solar Installation: \$681,135

Fees and Permits: \$14,314

Total: \$695,449

Payments (Other)

Solar Loan Program, PSE&G*: \$424,871

Federal Tax Grant: \$204,341

Total: \$629,302

Out Of Pocket: \$66,147

Depreciation, Year 1: (\$119,199)

Year 1 Cost: (53,052)

We Got Paid to Put Up SOLAR!



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Solar PV



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Solar Hot Water

New UV

Pros

- Raises the temperature of water going into water heaters by 30°-70° F even in the winter
- Reduces Our Natural Gas Use

Cons

- First major installation for supplier – lots of issues

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Solar Hot Water



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What's the Payback?

The Necessary Pieces

Roof – Warrantied for Life of Roof (20+ years)

HVAC – Warrantied 1 year, Life of HVAC

The Green

LED Lighting – ROI in 5-7 years

Solar PV – ROI 1 Year, total annual savings > \$ 25,000

Solar Hot Water – ROI in < 10 years

As of End of September 2012:

Electricity Usage Down 31.8%, Gas Usage Down 4.7%



Going Green

Changing the Thought Process

“We’re Green – We Recycle Paper and Cardboard”



“We’re Green – We Get 30% of Our Power from the Sun”