

ORIGINAL

M E M O R A N D U M

SEPTEMBER 2, 1999

TO: DIVISION OF RECORDS AND REPORTING
FROM: DIVISION OF LEGAL SERVICES (JAYE) ~~JD~~ RVE
RE: DOCKET NO. 990538-EI - ESTABLISHMENT OF ELECTRIC
REQUIREMENTS FOR SMALL PHOTOVOLTAIC SYSTEMS (10KW OR
LESS) REQUESTING INTERCONNECTION AND PARALLEL OPERATION
WITH AN INVESTOR-OWNED UTILITY

Attached is a facsimile transmission received on August 25, 1999, from P.H. Freeman & Sons, Inc. The facsimile contains information the sender wished to present at the staff workshop held August 25, 1999. The sender requested his comments be entered into the record of this docket.

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Attachment
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DOCUMENT NUMBER-DATE

10594 SEP-28

FPSC-RECORDS/REPORTING

P. H. FREEMAN & SONS, INC.

CITRUS FRUITS

P.O. BOX 770535

WINTER GARDEN, FLORIDA 34777-0535

(407) 656-2433- FAX (407) 877-2952

FAX COVER SHEET

P. H. FREEMAN & SONS, INC.

TO: Florida Public Service Commission

ATTN: Grace Jaye

FROM: Bob Freeman

DATE: 8/25/99

NUMBER OF PAGES TO FOLLOW: 3

For Docket No. 990538-EI workshop on 8/25/99 at 1:00 P.M.

P. H. FREEMAN & SONS, INC.**CITRUS FRUITS**

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August 25, 1999

To: Members of Fla. Public Service Commission

Subject: Solar Energy Needed in Florida

From: Bob Freeman *RF*

I am in Tallahassee today, because I truly believe Florida must have many businesses and homes convert to Solar Energy over the next 10 years. It would be great if 10 - 15% of our energy was solar.

In a state with power demand growing by 5%, new customers each year, blessed with sunshine, we need Solar Energy and we also need a program of good demand side management. Florida Power Corporation figures show a steady growth over past five years in average annual KWH sales/customer from 12,420 KWH in 1993 to 13,972 KWH in 1998. Power used per customer in California is 20% less than Florida. We need strong DSM programs from the power companies.

Hopefully, solar growth will help replace some old dirty coal plants in Florida. Solar growth leads to clean air. We must have clean air to control health care costs in future. In future, you will tax coal burning plants to pay for their pollution.

For solar energy to develop, Florida residents must have the right to a utility reverse meter to encourage the installation of solar. Let me encourage you to grant any consumer who installs a 5-10 KWH solar system will have the use of a reverse utility meter from the power company. I need you to take action for me to ever own a solar home system.

Thanks for your consideration.

Enclosures: 2

21 IDEAS FOR THE

21ST CENTURY

1

I am your local power plant

E N E R G Y

By LARRY ARMSTRONG

As of this summer (it's 2009), I have two electric meters: "in" and "out." The "in" meter runs most of the time. But once in a while, when power is scarce and expensive, a little generator in my cellar comes on. It keeps everything in the house humming; excess electricity gets sold to the grid. I love watching that "out" meter whirl.

Personal power plants have come a long way from the 20th century, when they mostly made a racket on

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camping trips. Now, they're everywhere, purring like kittens. Sure, there are still big central generating plants, just as there are big mainframe computers. But the hot trend is "distributed generation"—putting generation close to consumption. That way, the utilities can dismantle their nuclear- and coal-fired plants, and there's no need to tear up the streets to replace power distribution cables.

Check out this baby. It's a microturbine. Runs on natural gas, which is still cheap in the U.S. Other models burn stuff like palm oil and manure gas. You can also get fuel cells, which produce electricity by turning hydrogen and oxygen into water, but they're still pretty expensive. My first power generator ran on gasoline. It was under the hood of my hybrid car. If we had a blackout, I could actually plug the house into the car to keep the lights on and the refrigerator running. I've always been this way: I once had a laptop computer that helped recharge itself by capturing energy from my keystrokes.

Today, my personal power plant takes over automatically whenever there's a power failure or a big price spike. I signed up for so-called marginal cost power, which is super-cheap most of the time but gets astronomical during peak periods—like hot summer days. Remember when you could get a discount if you let the utility remotely turn off your air conditioning for a couple hours? Now, it can remotely switch on my generator when it needs an extra punch.

I'm thinking about adding solar panels to my roof, which will make me a net seller of power. But that's as far as I'll go. My neighbor tried to earn a few extra bucks by wiring his exercise bike into the grid, and the old-timers around here came up with a nickname for him: "Reddy Kilowatt."

JAMES PORTO

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Sunspot

Vol. 3 #1 Spring 1999

VIEWPOINT: A Time to Choose

As we enter the next millennium, it is important to consider what steps each of us can take to increase the use of renewable energy resources, thereby reducing our reliance on imported oil.

In 1947 our country became a net importer of oil for the first time. By the time of the first Earth Day celebration in 1970, our country was importing 25% of its oil. The oil embargo of 1973 made us realize how vulnerable we were to disruptions and price fluctuations in imported oil. Yet today, we import over 53% of our oil, over 18 million barrels of oil per day, enough to fill the Exxon Valdez over fourteen times.

Our dependence on oil affects far more than just our economic security. Air pollution due to the burning of fossil fuels has contributed to an epidemic of respiratory problems, including a significant rise in childhood asthma. Acid rain is slowly killing our forests, streams, and lakes. Continued global warming, caused by the burning of fossil fuels, has been contributing to highly irregular weather patterns that have resulted in extensive storm damage, crop and property losses, and erratic avian migratory patterns.

There are, however, a number of encouraging developments that make me optimistic about a solar future.



Robert W. Chew is director of Project SunRise, a joint effort of Solar Works, Inc. and the Rhode Island Renewable Energy Collaborative (RIREC) to help Rhode Island homeowners, schools, and community organizations utilize solar technology. He lives in Barrington, RI.



Solar Works is leading a strategic effort in New England to foster development of customer-owned renewable energy generation systems. Above, a residential grid-connected photovoltaic array in Dublin, New Hampshire.

- ◆ The President's Million Solar Roofs Initiative is committed to placing 20,000 solar energy systems on Federal buildings and a combined 1 million solar energy systems on residential, commercial, and public sector buildings by 2010.
- ◆ The US is likely to sign the Kyoto global warming treaty, which would commit the US to reduce its carbon dioxide and other greenhouse gases emissions to 5% below 1990 levels.
- ◆ The retail market for 'green' power is growing rapidly in states where electricity has been deregulated. In California, Rhode Island and Pennsylvania, hundreds of thousands of customers have signed up to secure a portion of their electricity from renewable resources.
- ◆ Over 24 states have now adopted "net metering" regulations that ensure that customers who purchase solar electric systems will be able to sell any excess power back to their power companies at retail prices.
- ◆ Improvements in photovoltaic technologies, including the introduction of roof tiles and other building-

integrated photovoltaic elements, have increased the efficiency and versatility of solar systems while also reducing their cost.

Each of us has important energy choices to make. We can become part of the solution by investing in solar energy and energy efficiency, freeing our country from its reliance on fossil fuels and helping to sustain our communities and environment. With the latest technology and the availability of federal and state incentives, there has never been a better time to go solar — nor a more important one, given the state of our world.

Fight Global Warming!

Installing a solar electric system is a smart way to reduce your electric bill and your contribution to global warming. Over a 30-year life span, a 1,000-watt photovoltaic system will eliminate:

- 54 tons of greenhouse gases (CO₂)
- 750 lbs. of acid rain (SO₂)
- 415 lbs of smog (NO_x)

Solar Works, Inc., 64 Main St., Montpelier, Vt. 05602