

**ZONING BOARD OF ADJUSTMENT
PLAINFIELD, NEW HAMPSHIRE**

NOTICE IS HEREBY GIVEN that the Board of Adjustment will hold a public hearing on the following application on **Monday July 11th 2016 at 7:00pm at the Meriden Town Hall:**

Case 2016-04 Patricia Murray: An application for special exception #24 Approved Solar Energy System to allow for the construction of 4Kw ground mounted solar array on property located at #37 Sugar Hill Road. The property is located in the Village Residential (VR) zoning district. **The full project file is available for public inspection at the town office. An electronic version of the application plans is available online at www.plainfieldnh.org/zba.htm**

While not required to attend, abutters and interested parties are encouraged to attend either in person or by counsel and state reasons why the application should or should not be granted.

Notice prepared by Stephen Halleran on behalf of the
ZONING BOARD OF ADJUSTMENT
June 27th 2016

PLAINFIELD ZONING BOARD OF ADJUSTMENT
APPLICATION FOR APPEAL

PLEASE READ: This form should be completed after discussions with the town's zoning administrator about the proposal. If you have not already done so, please contact the zoning administrator (469-3201).

Applicant's name: Patricia J. Murrain
Mailing address: P.O. Box 225, Plainfield, NH 03981

Property Street address: 37 Sugar Hill Rd.
Tax Map / Lot Number: 256/14
Zoning district: VR
Property owner of record: SAME

pjmurrain@comcast.net

Type of appeal (check one):

- variance
 special exception # 24
 administrative decision

Applicants signature: 

- Required Attachments:
- a) applicant signed description of the proposal.
 - b) site map(s) exterior/interior.
 - c) abutter list with mailing addresses.

Fee: application \$ 50 + 50
notification \$ 35 Total \$ 135

Hearing Date: 7/11/16

In order to be on the meeting agenda for the above date, your paid application must be received at the town office no later than Monday 6/27/16 (ZBA rule 9.3).

Office Use

date filed: 6/15
case number: 16-03
attachments: y/n
fee paid: y/n

TOWN OF PLAINFIELD ZONING AND BUILDING PERMIT APPLICATION



Property Owner:

Name: Patricia Murray Phone: 603-709-7058

Street: 37 Sugar Hill Rd Email: pjmurrayskip@comcast.net

City State Zip: Plainfield, NH 03781

Project: **Permit Type:** (Check one) Building Zoning

Street Address: 37 Sugar Hill Rd

Tax Map: 256 Lot Number: 14 Lot Acreage: 5 Zoning District: Village Residential (VR)

Proposed project distances to property lines (in feet): Front: ~200 Rear: ~250 Side: ~80 Side: ~400

State Approved Septic Design #: _____ Driveway Permit #: _____

Please provide a written description of the project including appropriate dimensions: Installation of a ground-mounted solar array. Array is pole-mounted onto a buried concrete pad foundation. Array is dual-axis tracking, and sweeps a circular area of 452 sq-ft (radius, 12 ft). Installation is 62 ft south-southwest of the nearest side of the house. Electrical connection via buried conduit.

Contractor Information:

Builder:	Electrician:	Plumber:
Name: <u>Solalect Energy</u>	Name: <u>Doug Randall, Simple Energy</u>	Name: <u>n/a</u>
Phone: <u>802-649-3700</u>	Phone: <u>603-298-7200</u>	Phone: <u>n/a</u>

Applicant Signature: *Patricia Murray* Date: _____

Required Attachments:

Please provide a copy of plans detailing the project. Hand-drawn plans can be used if necessary. Permits cannot be issued without receipt of the proper fee. If you are unsure of the amount due or have any questions about your application, contact the town office (603-469-3201).

TOWN USE: Current Use: Yes / No ZBA: Yes / No PB: Yes / No

BOARD OF SELECTMEN ACTION

Reviewed By Building Inspector or Zoning Administrator _____

_____ Approved _____ Denied

Permit #: _____ Date: _____



Proposal for Solaflect PV Tracker

Solar Access and Financial Returns

May 23, 2016

For:

Patricia Murray
37 Sugar Hill Rd
Plainfield, NH 03781

Prepared by:

Jonathan Teller-Elsberg
Solaflect Energy
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802-649-3700

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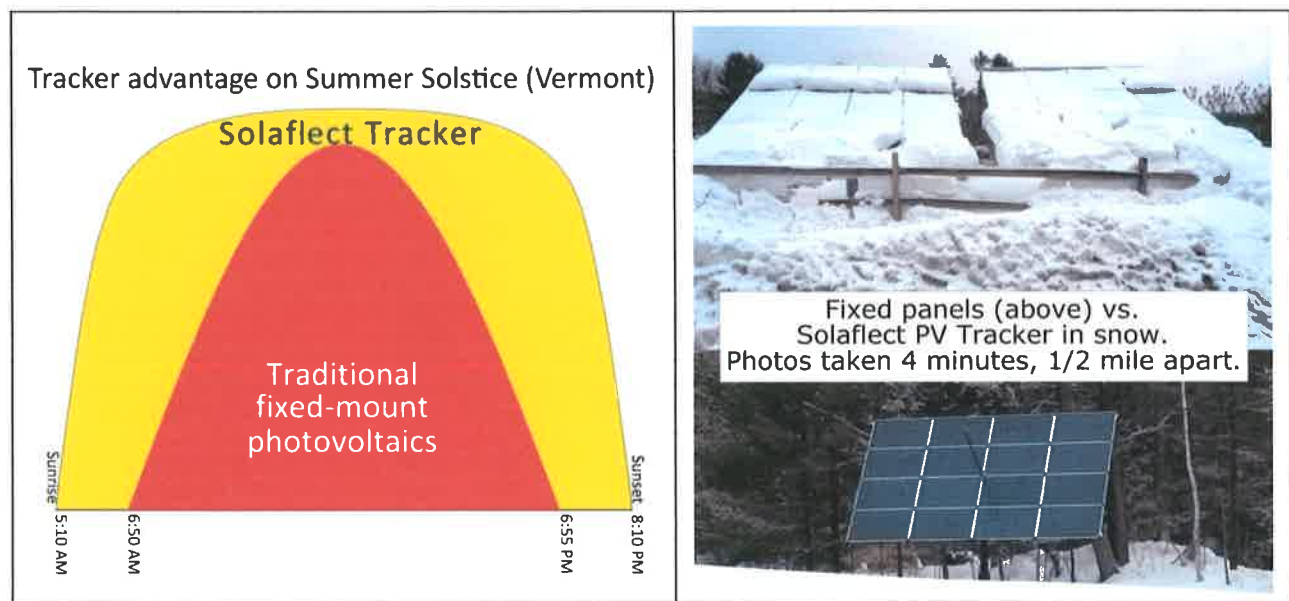
This proposal is valid for 30 days from the date above.

System Description

One 4 kW Solaflect Energy PhotoVoltaic (PV) Tracker, including:

- 16 Axitec AXIplus SE AC-250P/156-60S Solar Modules, 250 DC Watts each, 4,000 Watts total, with integrated SolarEdge optimizers
- 1 SolarEdge 3800A-US Inverter
- 1 Solaflect Energy PV Tracker
- 3 years free maintenance, including annual check of system
- Electrical work (e.g. in the circuit breaker box, new solar meter) completed by Simple Energy or comparable local electricians.
- All installation and commissioning costs

Optional upgrade to Tesla Powerwall-compatible SolarEdge StorEdge inverter is available. Solaflect cannot guarantee availability or cost of the Tesla Powerwall equipment or installation labor.



Over the course of the year, the Tracker produces about 40% more energy than an equivalent fixed-mount solar array. Fuller use of long summer days and automatic shedding of snow are two reasons for this increase in productivity.

Site Locations

The following map indicates the locations at which solar shade measurements were made. Measurements were made using the Solmetric SunEye™ (www.solmetric.com).



With the tree clearing we discussed during my recent visit, roughly approximated in the image above, your Tracker should have 77% solar access (as measured for a dual-axis tracker).

Your Expected Returns

Financial returns depend upon shading of the solar site, and landowner decisions on location and selective trimming. The following table can be used for guidance:

Net metering value of one PV Tracker

Solar access	Expected kWh		Net metering		20-yr CO ₂ e avoided, lbs.
	First year	Monthly avg.	First year	Monthly avg.	
80%	5,616	468	\$915	\$76	95,707
75%	5,265	439	\$858	\$71	89,725

As reference, your usage in the past 12 months was approximately 5,912 kWh, averaging 493 kWh per month. A tracker with 77% solar access would cover approximately 91% of your usage.

The value of your PV Tracker's generation is dependent on utility rates, state regulations, and variable weather. The table above assumes you take default energy service from Eversource, and is based on the average of Eversource's rates throughout 2015. Though we utilize projections, we cannot predict with certainty what rates will be in the future. We assume 2.5% average annual increase in rates.

Net metering will reduce or zero out your per-unit charges on your Eversource bill. It does not affect your customer charge. Net surplus generation in any one month is carried forward in a "kWh bank" for application against future usage.

Participating in this project involves risk of loss that an investor should be prepared to bear.

