



Blasting the Basalt

Large boulders from the blasting required to form the footprint of the house (both in 1961 and 2009) were selected by size and condition for potential 2-inch thick slabs of basalt. The boulders were transported to Berkshire Stone in Winsted, CT where they were cut into slabs and carefully held together with one corner intact.



The very heavy slabs of partially cracked basalt were meticulously moved into two areas for flooring...the foyer (shown, below left) and the sunroom which is adjacent to the dining area. In both locations the cracked basalt was then placed in a jigsaw-like puzzle in cement or "mud" on top of radiant floor heat pipes fed from the geothermal system. Many pieces of the basalt slabs broke off and were placed within larger sections. Cracks can be seen in the larger slabs of basalt – also known as "trap rock". This very unconventional flooring material creates a unique mosaic of dark and uneven natural material. The floor is a stunning introduction to what lies within the rest of the house.

Two boulder-size "benches" of the basalt are placed outside the front door and inside at the entry way so one can sit and remove shoes. (This is required for a LEED point.) A set of built-in cubicles are supplied for shoes, slippers, etc.



40 GIBRALTAR LANE...AT A GLANCE



Circa 1961
3,300 sq. ft.



Circa 2011
5,270 sq. ft.

Our unique features:

- ☑ 15 Kilowatt Proven wind turbine on a 100' tower
- ☑ Solar domestic hot water
- ☑ Geothermal well HVAC system
- ☑ Water conserving features
- ☑ High efficiency lighting, compact fluorescent and LED fixtures
- ☑ Energy Star appliances
- ☑ Central enclosed fireplace with central flue
- ☑ Rainwater recovery system
- ☑ Greenhouse with thermal mass
- ☑ "Tight House" construction methods, incorporating R-40 wall and R-60 roof insulation
- ☑ 95% of demolition waste was recycled or reused with much of original structure preserved.
- ☑ Use of sustainable building materials throughout

Reduce, Reuse, Recycle!

Much preplanning was done to determine how best to Reduce debris and Reuse much of the original structure. We achieved both results by sending Reusable materials to Restore in Springfield, MA for resale. This included oak flooring, cast iron radiators, all appliances and bathroom fixtures. By the winter of 2009 all radiators had been sold by Restore.

Over 110 tons of waste was Recycled and diverted from landfills!! Construction crews used six different containers to separate waste. (The only non-recycled materials were drywall and plaster.)

Much of the lumber removed from the house was Reused during construction to brace walls, form foundation walls and build various scaffolds.



The entire chimney was saved and two original fireplaces were custom designed to create a see-through fireplace serving two rooms. Combustion air is supplied from the outside and tight doors to the interior prevent loss of heat into the house. Reclaimed beams from the original living room are now a fireplace mantel.



Trash the Trash Truck

NO trash pick-up is required, saving fuel, waste and materials!! Two trash compactors – one is for single flow recycling materials and the other for anything necessary. All organics that can be composted go into an indoor composter in the basement. Compost is used for gardening. Small compact bags from compactors are taken to the transfer station monthly by hybrid vehicle.



A wind turbine at 100 feet tall (the first one in the CL&P service area at a private residence) will produce and exceed all electrical needs of the house.

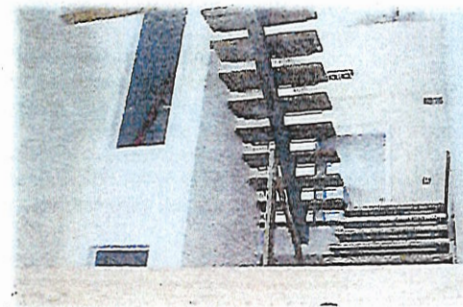
The stone floors of the greenhouse will absorb heat during the day and radiate heat at night.



The many exterior decks are made from recycled plastic.



The roofing made of a highly reflective material lowers the summer cooling needs.



The Mighty Oaks

Oak trees were reclaimed and saved during excavation for the windmill and driveway. The lumber was cut into slabs by a local sawmill and dried in a homemade kiln and installed as treads for the open tread stairway. The "book matched" grain presents a unique visual effect.

EVERSOURCE

Account Number: 5122 426 2048

Statement Date: 06/07/24

Service Provided To:

RNIE ZAHREN

Payment will be sent to bank
for processing on 07/01/24

\$14.44

Amount Due On 06/05/24	\$15.29
Last Payment Received On 06/03/24	-\$15.29
Balance Forward	\$0.00
Total Current Charges	\$14.44

Current Charges for Electricity

Supply

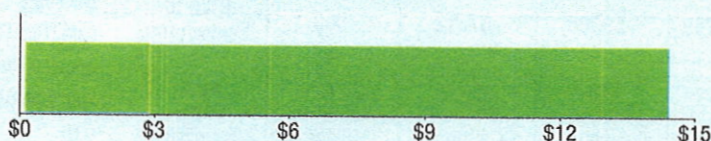
\$0.00

Cost of electricity from
Eversource

Delivery

\$14.44

Cost to deliver electricity
from Eversource



Your electric supplier is

Eversource
PO Box 270
Hartford, CT 06141-0270

At Eversource, we appreciate your contribution to renewable energy and welcome you to your new cogeneration billing! Each month the electricity you purchase and the amount of any excess electricity you generate will be displayed on your statement.

Please remember the amount of energy you generate will differ from your sales amount, which refers to the amount of generated energy that is unused and sold back to the electric grid.

News For You

Beginning on July 1, if you receive energy supply from Eversource you will see a decrease to your supply rate compared to June. The supply rate is decreasing due to the lower cost of natural gas, which the region relies on to produce electricity. The supply rate is adjusted two times a year in July and January. Energy use may also increase in the summer. See how we can help you use less energy and lower your bill at Eversource.com/home-savings.

Remit Payment To: Eversource, PO Box 56002, Boston, MA 02205-6002

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EVERSOURCE

Account Number: 5122 426 2048

Non-residential and residential non-hardship customers may be subject to a 1.00% late payment charge if the "Total Amount Due" is not received by 07/05/24.

Payment will be sent to bank
for processing on 07/01/24

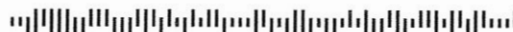
\$14.44

Amount Enclosed

005521 000029143



RNIE ZAHREN



Eversource
PO Box 56002
Boston, MA 02205-6002

5122426204836 0000014443 0000014443

EVSOURCE

Account Number: 5122 426 2048

Customer name key: ZAHR

Statement Date: 06/07/24

Service Provided To:
BERNIE ZAHREN

Svc Addr: 40 GIBRALTAR LN
AVON CT 06001
Serv Ref: 411081009
Service from 05/08/24 - 06/07/24
Next read date on or about: Jul 10, 2024

Bill Cycle: 06
30 Days

Meter Number	Current Read	Previous Read	Current Usage	Reading Type
896442712	36768	36124	644	kWh from Eversource
896442712	58380	57412	968	kWh to Eversource
Previous Carry Forward	Plus kWh to Eversource	Minus kWh from Eversource	Current Net Billed Usage	New Carry Forward
980	968	644	0	1304

Contact Information

Emergency: 800-286-2000
www.eversource.com
Pay by Phone: 888-783-6618
Customer Service: 800-286-2000

Payment will be sent to bank
for processing on 07/01/24

\$14.44

Electric Account Summary

Amount Due On 06/05/24	\$15.29
Last Payment Received On 06/03/24	-\$15.29
Balance Forward	\$0.00
Current Charges/Credits	
Electric Supply Services	\$0.00
Delivery Services	\$14.44
Total Current Charges	\$14.44
Total Amount Due	\$14.44

Total Charges for Electricity

Delivery

(DISTRIBUTION RATE: 001)
Service Reference: 411081009

Fixed Monthly Charge		\$9.62
CTA	644.00kWh X \$-0.00045	-\$0.29
Systems Benefit Chrg	644.00kWh X \$0.00793	\$5.11
Subtotal Delivery Services		\$14.44
Total Cost of Electricity		\$14.44

Total Current Charges \$14.44

Account Number: 5122 426 2048

Customer name key: ZAHR

Statement Date: 06/07/24

Service Provided To:
LARNIE ZAHREN

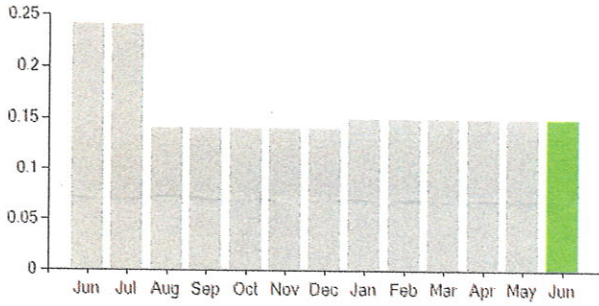
Payment will be sent to bank
for processing on 07/01/24

\$14.44

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Supply Rate

Dollars / kWh



Important Messages About Your Account

Please note: Payment processes differ for each bank. Therefore, it may take longer than the date that appears on your bill for the funds to be deducted from your bank account.



DAY WEEK MONTH YEAR LIFETIME CUSTOM

< AUGUST 2024 >



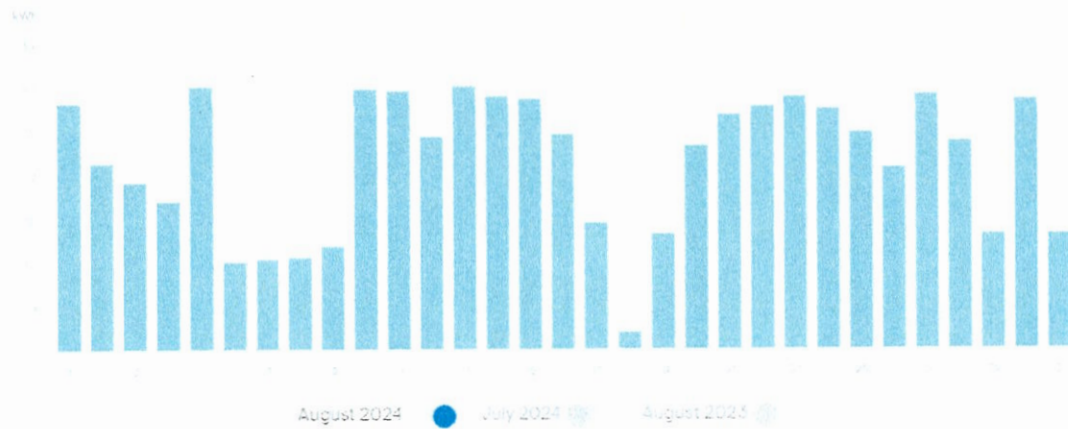
Energy Produced

Updated 8 mins ago

671.9 kWh
August 2024

784.3 kWh
July 2024

712.5 kWh
August 2023



PERFORMANCE

Currency Equivalent

Add a conversion factor to convert energy data into equivalent currency

Add Currency Conversion Factor

Environmental Impact

671.9 kWh
Equivalent

CO₂e 1.1K lb