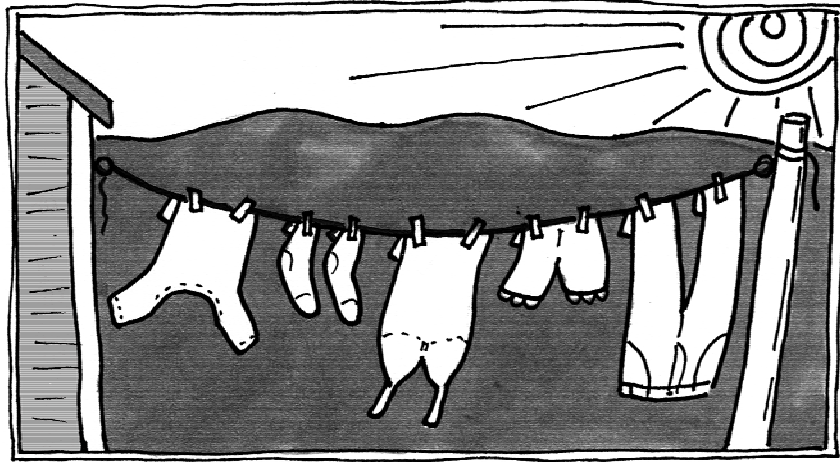


LEVERETT IN THE TIME OF ENVIRONMENTAL CRISES



An Energy & Climate Handbook For Town Residents

Leverett Energy Committee
Leverett, Massachusetts

LEVERETT
IN THE TIME OF ENVIRONMENTAL CRISES:
A Handbook for Residents of Leverett, Massachusetts

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Websites: www.leverett.ma.us/content/energy-committee

*Names with asterisks indicate residents with professional expertise. See on our website listing.

It's worth your time to check out the dozens of cool sites we discovered; besides the obvious, you'll find info on safe and green (non-plastic) toys and other products; a green alternative to AAA roadside service; green burial info; a source for non-mercury CFLs; sources for specific local foods e.g. grass-fed beef; resources for pulling off a green wedding; a clever site for undoing our national addiction to large lawns; a site introducing you to the "Plastic Bag Monster"; a site to put you in touch with Bill McKibben's climate projects; and a site that helps you customize your own home energy saving strategy.

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“a de-lightful read”

LEVERETT IN THE TIME OF ENVIRONMENTAL CRISES:
A Handbook for Residents of the Town of Leverett, Massachusetts

Dear Leverett residents,

Your Leverett Energy Committee (LEC) is pleased to present this collection of information about energy conservation and reduction. Funds for the project came through Leverett citizen's personal investment in the New England Wind Fund (Clean Energy Program from Mass Clean Energy Center) two years ago--a collective effort that earned the Town a grant of \$6,795.

The handbook has four sections (See Table of Contents): **Resident Testimonials; Random and Relevant Information; Suggestions to Inspire Action; and Websites of Local and General Information.** To make room for more personal testimonies, we've put that section on the town website (www.leverett.ma.us/content/energy-committee). Copies for those without Internet access will be available at the town hall and library.

There are two reasons to use less energy. The first reduces household expenditures. The second takes a share of responsibility for the global climate that sustains all life--a gesture known as "reducing your carbon footprint on the earth." All of us want to save money; many of us are also ready to take personal action to help reverse--or at least halt--the destructive forces brought on by the warming climate. This handbook is for all of us, whatever motivations we have for taking action. We know many of you are already making informed changes in your lives. We also know that the first step--acknowledging that we are implicated in the crisis--is hard enough, and that sustaining that effort requires fortitude, humility, love of the earth, and Yankee practicality. Hardest of all is contemplating the grave consequences of our collective addiction to consumerism and our petroleum-based economy. Some New Englanders, perhaps forgetting how fond they are of maple syrup, fall foliage, even snow, might welcome global warming for creating a climate in New England more like Georgia's. (Tempted to dismiss global warming by citing last winter's cold and snowfall? More severe winters for Atlantic coastline states are among projected scenarios.) The overwhelming mainstream and peer-reviewed scientific consensus is that whatever the consequences turn out to be they will be disruptive at best, unmanageable at worst, and--in time--felt worldwide. Pentagon scientists see national security risks in climate-related resource shortages and environmental refugees. If you need another reason to act, here's one to consider. Last year a speaker at the Clinton Global Initiative in NYC (a Leverett native) answered the Reverend Jesse Jackson's question about her focus on the global climate crisis: "Global climate change is not only an environmental emergency; *it's also the human rights issue of the twenty-first century.*" Think about it: the most vulnerable people--in the poorest nations--are the least responsible for the climate crisis and the least vulnerable people--in the richest nations--are the most responsible. Taking action is importantly about social justice. We are a little committee in a little town. Can we make a difference? Some scientists warn that without binding international action, individual efforts will merely delay anticipated system-wide environmental collapses. Another Leverett native suggests that while no consensus yet exists about the effect of individual actions, the point is that every day we face choices asking us to align our lives with either a hopeful and community-based trajectory or a doomed or indifferent one. Do you, for example, diplomatically approach someone on a beach who has left some plastic thing to float away to explain how plastic damages the ocean and many marine animals? Each

choice to act exercises our "hopeful and caring muscles." We can hope that collective actions will suffice to avoid irreparable damage to our collective life-support system. This handbook is a collaborative effort. We have selected the most effective and reliable material, but since neither we nor it is perfect or complete (climate research is ongoing and sometimes inconclusive), you might find a few inconsistencies and some redundancy. If we or you discover an important error, we will report it in an issue of the town newsletter. Mainly you'll find useful, innovative, alarming, challenging, and even entertaining information. Don't read it all at once! We want to inform and inspire, but not overwhelm. We thank the MIT-based Union of Concerned Scientists (UCS) for letting us use some of their material, and we thank everyone for paying attention; we encourage you to join--and continue in--our collective efforts.

The Leverett Energy Committee: George, Lockwood,
Cynthia Thomas, Brooke & Shirley Thomas, & Portia Weiskel

RESIDENT TESTIMONIALS

Actions and Thoughts of Leverett Residents

Editor's Introduction

...September 25, 2011

We thank everyone for these personal accounts of your strategies for confronting the energy/climate crises. You'll discover your own favorite entries; your editor sometimes felt she was composing a friendly gossip column! If I have misstated any comments you made, I will come to your house and do penance--maybe rake your leaves! Many of us are doing the same kinds of things--insulating *something*, for example--and no one opposes eating local food. I find our differences worthy of a special kind of attention. Some people cheerfully admit to being "green fanatics" while others have just recently come to recognize that their actions are important. The interviews have made me speculate about why people take (or don't take) action. Late in the process, I realized I should have asked more of you to reflect on the origins of your strong feelings and belatedly encourage everyone to identify the emotional and intellectual influences that continue to motivate you. We need to replicate these for the next generations. As this publication was growing in size and scope, we realized it might acquire some historical value in the years to come when people might wonder what the residents of a tiny New England town in 2011 thought and did about the unprecedented energy/climate crisis gripping our entire world. Who are we, anyway? From her privileged vantage point, your editor can confirm that Leverett is full of hard-working and resourceful residents and re-affirm that its fame as a little town with more than a normal share of one-of-a-kind characters is still deserved. You probably won't be surprised to learn that within our diverse population dwell a few residents living on the fringe of normal responsible environmental behavior! Very affectionately, I call these the "Leverett Lunatic Ladies" because most *are* women. Not all, though (read on!). To be counted among them you must confess to taking some extreme and/or socially awkward actions, like recycling *other people's stuff!* An example of this virtuous lunacy is "rescuing" re-cyclable cans or bottles from public trash cans and bringing them home to re-cycle with your own stuff. Or you can pledge to not buy anything "new" until your "old" thing falls apart or off! Or you can order a pizza-to-go from Antonio's, take the box home, and then for the *next year* every time you return for another pizza, take your old box to re-use! What you *cannot* do is become "holier-than-thou" or humorless! (Are not our personal actions best understood *not* as personal virtues but as the collective common sense and self-saving gestures they in fact are?) Most reassuring to this editor is the number of our friends and neighbors in town who are pledging--in as many ways they can think of--to "live simply so others may simply live." The town can be grateful to all its citizens--wherever they are on the spectrum, from changing to more efficient light bulbs to working to get off the fossil fuel-based grid--who are putting their resourcefulness and independent spirits to the service of an imperative stretching far beyond its own borders.

Portia Williams Weiskel
Editor, the LEC Energy Handbook

N.B. (A few *non*-residents have weighed in on the issue; do not be startled to come across them! Again, we thank UCS for permission to include these voices and for its own voice in response.)

Alice and Jonathan Abbott Montague Road

Thirty years ago I [Alice] read Francis Moore Lappé's book, *Diet for a Small Planet*, and it changed my life. It made me aware of how important our eating choices are and although I didn't become a vegetarian, I did stop eating red meat because the growing practices for beef are hugely energy intensive. A red-meat diet has a 20-1 ratio of resource/energy use (water, grain, and fertilizer) compared to a plant-based diet. The chicken and turkey ration is more like 3-1. Choosing to eat a more plant-based diet (lower on food chain) is a real way to mitigate the climate changes we are responsible for.

We grow our own fruit--blueberries, raspberries, pears, apples, peaches, and strawberries--and recently took the first steps toward growing our vegetables by taking a small space in the Putney Road Community Garden. Back in New Mexico an energy expert told us that modern detergents actually work better in cold water so I do that and save energy by not using hot; we also compost, and are trying to find a suitable place outdoors to put up a line to air-dry our laundry. We emphasize native plantings to avoid high fertilizer and water use and have started to reduce some of our lawn space--letting it revert to woods--to cut down on lawn mowing. We use air conditioning only in the bedrooms and only at night.

Kurt Adams and Lindsay Palermo Old Mountain Road

Do we think the climate crisis is a real concern? [Kurt speaking--Hell, yes!] We take this issue very seriously and have made changes in our home and in the way we live. Except for a work-area space, we have all florescent bulbs in the house; we hang our laundry outside on the line; we re-cycle, of course (doesn't everyone re-cycle?); we upgraded our windows to Energy Star and got a tax return for saving energy; we got an Energy Star refrigerator and an on-demand hot water heater; it saves a lot. If we go away, we don't have to think about that big 80 gallon tank being kept hot for no reason. In the winter, we keep the thermostat at 65-68 and don't heat the kids' rooms because they aren't here now, and block off other rooms because we don't use them. A gas heater is our one source of heat.

We've made a change in the way we eat, too; we eat less meat and when we do, it's grass-fed because it's much less energy intensive and much better for us, too. I [Kurt] got a motorcycle because it saves a lot of gas (60 mpg) and also because it's fun. Lindsay could easily use a bigger car to haul around her art stuff, but she decided she can make do with what she has and has not gone out and bought something new [Ed. note: "making do"--another kind of resource-saving]. And when it gets hot, we don't use air conditioning; we just use fans.

Dean and Barbara Alfange Montague Road

The first change we made was to switch from using paper napkins to cloth napkins in order to save trees and paper and the energy required for making and transporting paper. We've had a private contractor come to give advice about how to better insulate our house, and the work--mainly over the ceilings of our old house--will begin soon. We've always re-cycled as much as we could and more recently made a more focused effort to buy local food.

Terry and Les Allen Shutesbury Road

We use the energy-efficient lights and a washing machine that uses less water. We always grow some of our own food. Using the new town codes for energy savings we are remodeling our house; it's more expensive to begin with but in the end it will save

both energy and money. We don't take fewer trips because we already take so few anyway!

Inadvertently Anonymous [the editor apologizes; identify yourself, please]

I am not sure that our list of what we are doing to reduce our carbon footprint is different from anyone else in Leverett (replacing appliances with water/energy-saving models, driving fuel-efficient cars and driving them less, growing food and purchasing locally, air-drying clothes most of the time, heating during the day in winter with local wood in an energy-efficient stove, having an energy audit and following the recommendations, composting, re-cycling, purchasing minimally packaged goods, etc).

What is more interesting to me is how to balance energy-saving choices. For example, we live on a wooded lot. Advantages? Cool house and area in the summer; skylights and ceiling fans do the cooling at night. Good wildlife and native plant habitat. Disadvantages? Can't use solar electric or hot water panels. (We loved the solar panels we had in our previous house.) Of course, a few more tree-breaking thunderstorms and our decision may be made for us.

We love living in the woods in this town. But if we were really serious about our energy use we would look at our transportation use (beyond the low-fuel cars). While we do some errands by bike in good weather (buying farm stand produce, returning books to the library), we can't pretend that this makes much of a dent. The obvious solution is public transportation that means probably moving to a more high-dense community. Are we packing? Not yet.

Glen Ayers Juggler Meadow Road

We keep our oil heat thermostat set to 48 degrees all winter long and heat only one room in the house with an EPA-certified fireplace insert that burns clean, dry, seasoned wood. Last year we used about 90 gallons of heating oil and roughly 3 cords of firewood that we salvage, cut, split, and stack ourselves. I [Glen] commute to Greenfield and would be happy to use public transportation or a renewed rail service if such existed. I support local farming by being a member of the Simple Gifts Farm CSA.

Glenn Beck Glenn Beck 12.15.09

"In September of 2007, there was a 25 percent reduction in the usual minimum [Arctic] ice cover...In the two years since, nearly all of the ice has returned."

UCS Factcheck: In 2007, The National Snow and Ice Data Center reported Arctic sea ice to be 39 percent below the long-term average for September, when the area of ice is lowest each year. In September 2009, the ice was again low—24 percent below the long-term average.

Don Benander and Rona Rothenberg Hemenway Road

We have done a lot of stuff to reduce our energy use. We insulated the whole house. We have a double roof with an extra 6 inches of insulation and a heat-sealed envelope for the first floor that eliminates all leaks. We bought all new energy-saving appliances and put in radiant heat under the floors that saves energy by holding heat for a long time in the cement. We have two cars but use one when we can organize our day's errands. We eat less meat and made a bigger vegetable garden this year, using only organic fertilizer. For years we line-dried laundry on our indoor railings.

Jean Bergstrom and Steve Adams Hemenway Road

We're not saving energy to save money although it's certainly a nice byproduct. We do things because they are the right things to do. This is our one planet: everything we need to live comes from the earth--when it's gone, then what? So, a little delay until the light gets to full brightness (a complaint about CFLs) or having my jeans be a little stiff because I air dry them, are minor inconveniences. Why on Earth would I not do these things?

I have two big drying racks for winter use and the drying clothes give a little moisture to the house. My hubby puts locks on all the windows to keep them from inching up. We don't heat rooms we don't use and our on-demand gas hot water heater eliminates the need to keep the water heater constantly working. When we built an addition on the house the house got warmer even though it was bigger--I assume the energy efficient windows and cellulose insulation in the addition made the difference. We often need a 4-wheel drive to get up our driveway in winter, but it's not gas-efficient so we bought a small gas-efficient car we use most of the time, park it at the bottom of the driveway and walk up when the driveway is bad. I buy locally grown food as much as possible; if it's a bit more expensive I remember I'm not contributing to the energy used to ship non-local, out-of-season food to me. I'm also working on a root cellar so I can store the food we grow without electricity.

There are so many other things we do--we wash and re-use our plastic bags, but I know there is so much more we could be doing. Living in Leverett with a teenager means lots of driving and our arthritis sufferer needs a hot tub which we insulate and keep on energy efficient mode...but still...Someday I would like to have solar electric and hot water and work toward zero energy use and car. I hope it's not too far off.

Fred Bixby Teawaddle Hill Road

Most of my life I have been close to nature--with both wilderness and survival experiences. In addition to the training I underwent to be the Leverett Chief of Police and on the force for two decades I had advanced wilderness/survival/nature observation training, a degree in environmental studies, and Outward Bound instructor training. So I have been especially observant of changes around me.

For a long time I have been worried about what is happening to the earth. The changes I see all around are pretty disturbing. Besides the sometimes oppressive heat, I have noticed right here in Leverett that poison ivy has become much more virulent--it's so close to the road it probably brushes against your car if you're driving near the edge. There have been changes in the bird populations, too--more non-native birds showing up and staying, and also changes in wildlife and insects. It breaks my heart to see what we're doing to the earth. People do talk about it now, but really big changes have to happen that involve all of us if we're going to make a difference. I do worry that it may be too late because I don't have a lot of faith in human nature anymore and certainly not in the big corporations controlling so much about the way we live.

Lillian Black Hemenway Road

I re-cycle and have a few of the energy-saving light bulbs. I also turn off lights to save on my electric bill.

Fenna Lee Bonsignore Long Plain Road

Over the years I have made a lot of changes to our house. We had a totally open south-facing porch--there are a lot of these in town--which, years ago, I had enclosed, insulated, and installed with energy-saving windows. The sun storage is

provided by Kalwell tubes (water) and a cement slab base. These changes saved 250 gals of oil a year. Later, I switched from wood heat to an Energy Star propane furnace that produces fewer particulates than wood and less carbon dioxide (green house gas) than oil. An on-demand tank-less hot water heater reduced electricity use by 35 to 40 %. CFLs, air-sealing and insulation through MassSave, energy-efficient upgrades for appliances, and replacement of leaky windows with Energy Star windows complete the list for now. When you ask what has inspired me to care enough to make all these changes I think back to my earliest years which I spent growing up in the middle of the Trail of Tears State Forest (part of the Shawnee National Forest in Southern Illinois). Besides my family members, trees were my closest companions and I learned early to feel the spiritual and life-giving qualities of nature. In the mid-30s lots of the land around us was denuded for the strip mining of coal and a lot of topsoil was lost. My father's job was to oversee the replenishing of the trees this had the added benefit of employing hundreds of soil conservation workers during the Depression years. My life continues to be animated by this sacred and restorative experience of nature and also by the life choices my parents made back then before "sustainable lifestyle" was a distinct concept.

I chose to have a large family at a time when some people thought it immoral because of problems associated with over-population, but I knew at the same time that I had to take on extra responsibility for preserving resources and reflecting respect and reverence for all of life in my own daily actions. That's probably what motivates me now to do things like washing and re-using aluminum foil, plastic bags, and why I dry and freeze and preserve food in season to eat when it's not in season. As a child we used to eat dried green beans but they were pretty awful-tasting so I don't dry them now, but I do dry herbs and fruits and other vegetables.

Rema Boscov Amherst Road

I feel as if I have been aware of this [need to reduce energy consumption] for a million years! And I have made some recent changes. We have all compact fluorescent lights, a solar panel for hot water, and I drive a Prius that I like very much even though I also try not to drive very much. The upstairs of the house is closed off in winter to save heat and I recently purchased interior storm windows. I don't grow my own food because I belong to the CSA that came about after the Food Bank CSA stopped; it's called The Next Barn Over CSA because it's located at the next barn over from the Food Bank site.

I am distressed to see our government going backwards on the climate crisis issue; it's not taking advantage of this most recent oil crisis by letting us use our own cleverness to come up with ways to live with less oil--car pool, other kinds of transportation. We could do it; why doesn't our government give us a chance to show how?

Rich and Deb Brazeau and Neil Amherst Road

We are certainly aware of the climate crisis and try to be conscientious in responding to it. We have a big garden and hitched up a hose that takes shower water to the garden. During the last dry spell, we stopped our washing machine at the rinse cycle and scooped out the water that ended up saving our plants. (We don't have a very deep well.) We mulch all plants to save water use, too. From September to May we cook on our 1914 cook stove, using dead or dying trees for fuel so there's no waste. We also heat with wood in the basement. The cook stove is hard to load and you have to stay close when cooking, but it is great for pizza, turkey, soups, and stews.

Another thing we do to offset the climate crisis is to drive less by doing food shopping on the way home from work, but in general we are not big consumers; for example, we buy our clothes from places like Good Will and the Salvation Army--you can find beautiful and clean clothes that way; it takes a little time, but it's worth it. We do not eat a lot of meat and support local farms like Our Family Farms for local milk. We also can and freeze, make grape jam and juice, and hang out our clothes on a line you can reel in when not using. I [Deb] really appreciate my clothesline and appreciated the line-dried laundry display in the center of town. If you use vinegar in the rinse cycle, it makes the clothes softer and is the old-fashioned and very effective way of making the laundry smell good.

Donald K. Carew Juggler Meadow Road

We installed a new sliding door--much more energy efficient than the original-- on the main level of the house.

Margaret and Richard Carey Sprinkle Road

We do take fewer trips for shopping, put in the newer light bulbs when the old wear out, and support the local farm stands and local food in the stores. We make these efforts both to save money and natural resources.

Barbara Carulli and Tom Masterton North Leverett Road

We've done a lot of tightening up to avoid wasting energy and installed solar panels for hot water. Adding insulation and caulking keeps in the heat. Everything we aren't using we turn off and we don't buy bottled water. We try to drive less and are aware of the importance of that issue.

Susie Chang and Randy teVelde Montague Road

I take the climate crisis very seriously; several years ago we did an energy audit that led to our putting storm windows on 38 windows and blown-in insulation; we also got a wood stove--all these changes reduced our fuel consumption to one quarter of what we'd been doing. In 2006 we got a hybrid car. Eating local is so important so I now coordinate the purchase of an entire steer from Freeman Farm in Heath that we split with four other families once a year. We also buy one whole lamb from a farm in New Hampshire; I wish it were even closer but it makes so much more sense than buying New Zealand lamb which is where almost all lamb sold comes from. "Local" means much better care of the animals, much healthier for us, and we're not buying energy-intensively raised animals. We don't buy produce from California or anywhere in the summer; we grow all that we eat. What motivates me is awareness of the need to share our limited resources.

Bruce and Christina Cohen Long Plain Road

With a new wood stove, we're burning mostly with wood now and it's saving us 60% of the oil we were using. Most of the other measures we take--combining errands to save car trips and growing some of our own food, for example--are just part of the general consciousness of how to live responsibly.

We've noticed a curious feature of our electric bill that I wonder if other Leverett people have also noticed. Because there's no cable service in town, we use hughesnet.com and since then our WMECO bill has gone way up by about a third. Is this because the use of satellite is much more energy intensive? We've decided to use less of this service. If we had cable in Leverett would we all be using less electricity?

Sandy Corcoran Montague Road

I am definitely aware of global warming as an issue and am especially aware of its affect on animals. We all have more than we need; there's so much abundance; we should all be conserving as much as we can.

I use a woodstove to avoid burning oil, have sealed around windows (which, by the way, I have discovered also eliminates the annual ladybug invasion), switched to the curly lights, and have no trouble saving water by taking shorter showers.

Both individually and in the store [ed. note: Watroba's in North Amherst] I support local food. I was one of the people who started a farmers' market in town in 1971-72 (Brent Spears was another); the Select Board liked the idea so we set up a card table in the parking lot and, at no charge to the vendors, sold our garden produce. Last spring we started buying bagged greens from Joe Schwartz's farm in North Amherst and now we have a common market right here in the store parking lot every Saturday (summer, spring, and fall and at Joe's [big blue barn on Meadow Street] 9-1 in winter).

Tanya Cushman Amherst Road

We spend many days in the fall ensuring that we have a more-than-full root cellar, large pantry, and freezer. In the winter I buy the kind of vegetables that have a longer "shelf life" (broccoli, Brussels sprouts, cauliflower, carrots) and I have been able to cut down on going shopping to one big day of shopping to the various stores I use every three weeks or so. We also save money on food bills by all the food we put up.

Hope and Hugh Davis Broad Hill Road

In 1957 Hugh researched water resources/population issues and then wrote a paper about the prospect of running out of water given the projected population figures at that time. The prospects back then were alarming enough. Now, reading the current census figures, I think, the situation is even worse. What are we thinking? Some segments of our society think this [expanding population] is a good thing: more people mean more people to sell stuff to. This is truly backward thinking.

Recently I heard Lester Brown interviewed on NPR's "Science Friday"; he cited the current population projections--2 billion more people by 2050--and asks us to imagine growing food for everyone on the planet with diminishing water resources. You can't grow food without water! You can have lots of land and sunshine but without water nothing grows. We all know this, of course, but do we really absorb what these facts might actually mean for human life? Brown also cites some good developments that will mitigate some of the population increases; these changes have to do with more women around the world becoming literate and making use of birth control and as a result having smaller families. But even with these good developments, we face an almost unimaginable set of circumstances. For energy solutions, Brown emphasizes the abundant and reliable features of wind power and points in particular to the advances in wind technology to substantially reduce the damage to wildlife, birds, and bats.

In our home, we used the services of MassSave. We replaced all the lights, and we support and contribute to the local food movement. I go out of my way to either the Big Y or Watroba's to get Our Family Farms milk. I know some people don't like the light-delay of CFLs but I think it's a small price to pay for a much more efficient source of lighting.

Mike DeRosa Depot Road

The biggest projects for energy savings in the house--new doors and insulation--were made with the help of the Franklin County Housing and Redevelopment program. We also are careful to re-cycle what we can.

Peter d'Errico Long Plain Road

We installed a photo-voltaic system in May 2004 with the assistance of the grant program from the Massachusetts Technology Collaborative [CET] and WMECO. It produces just over 1,000 kWh/year. Approximately a third of that is fed to the grid and paid for by WMECO; two-thirds is used in the household. On our electric bill, we see both our sales and purchases. Some people choose to conserve energy primarily to save money while others are also mindful of the environmental consequences of conservation. Both are good motivations, but if the "free market" means anything, the cost of something reflects the underlying reality; namely, as energy production becomes increasingly problematic, the cost of energy goes up. Thus, saving energy = saving money. It is not necessary to feel a moral imperative to conserve energy, even though such imperatives are strong and compelling.

Tammy Downes Putney Road

We started re-cycling a while back and we try to buy local food; I go to the Millstone House in Sunderland that gets in a lot of local fruits and vegetables. We replaced the old light bulbs with the newer, energy-efficient ones. My neighbor Portia and I both want to get *The Recorder* so we share a subscription to save paper. We don't exactly have a compost pile; what we have are Portia's chickens who eat most of our leftovers. Even my mother bags up food for Portia's chickens.

Richard Drury Dudleyville Road

I built my 1,540 sq. ft. wood-heated, passive solar house in 1988 and average two cords of wood per year. The house is located on a small rise that catches surface solar radiation and reflects it up into the windows. There is only one door and window on the north side, which facilitates excellent airflow in the summer. Tall pine trees on the north, northeast, and west sides shelter the house from the wind.. The walls have four inches of bat insulation with an exterior shell of two inches of polystyrene that provides a continuous thermal break by not allowing the studs to contact the siding. The windows have a combination rigid sheet and thermal shade night insulation. The dark thermal shades have an added psychological benefit. The centrally located woodstove has secondary combustion. A reflective surface is positioned along the nearest external wall to reflect radiant heat back into the room. I stopped using outside air for wood stove combustion because it's better for us to have fresh air coming through the cracks if one is burning wood.*

Brian and Nancy Emond North Leverett Road

We've had consciousness of these issues since day one so it is hard to identify any one thing we have changed. Our 200-year-old house had no insulation so we insulated it and we changed all the very old windows to insulated ones. We have an efficient oil burner, and although we have air conditioning, we're just using it now for the comfort of our old dog, and our next domestic act will be to get ceiling fans instead of air conditioning. Since we live 20 minutes from anywhere, Nancy and I do our errands at the same time; when we have to go somewhere we think of all the things we can get done at the same time. It's just become a habit. We stopped using the curly bulbs because if broken there's a mercury release. [Ed. note: see instructions herein for dealing with breakage and sources of non-mercury efficiency bulbs.] We are starting

to get LED lights and we also use low wattage bulbs. I [Brian] read by a 25-watt bulb; and since I'm a cheapskate I am always turning off lights we're not using. We try to eat everything local as much as possible, including organic meat and Our Family Farms milk. [Ed. note: Everyone should be supporting (or at least know about) this local dairy collective, based mainly in Franklin County. Besides the Leverett Co-op, Our Family Farms milk is sold at Big Y, Watroba's, Green Fields Market, Stop and Shop, McCusker's Market, etc. It is hormone-free from very humanely treated pastured cows. Buying their milk also helps keep Franklin County landscapes productive and beautiful.]

Nancy: We hang out our laundry; re-cycle or repair things (avoid buying new); bring re-usable bags when I shop; and when we had to replace the car we got one with high fuel efficiency. I bring my lunch to work and I bring home stuff that my colleagues are trashing that I know can be re-cycled. [Ed. note: Nancy is the first--in alphabetical order--of (my favorite) Leverett Lunatic Ladies (see above).]

Carl and Edith Field Depot Road

[Carl] People must see all the trees we put around the house every winter and wonder what we're up to! It's for insulation. We put trees around the base of the house to keep the wind out and the heat in. It works. We used to go around the streets of Springfield after Christmas and pick up any tree without tinsel and throw it in the truck. This year a day before Christmas we saw a sign outside [a big Hadley store]: "Christmas trees--\$1." We got eight of them. Then we asked what they were planning to do with the rest that hadn't sold by Christmas and they said they just throw them away. So of course we went back the day after Christmas and we got 92 Christmas trees and brought them home [Ed. note: I forgot to ask how many trips it took] and put them around the entire base of the house. Edith puts stale bread in the branches for the birds--the birds seem pretty happy with that--and in the spring we use the needles for our acid-loving plants and we compost the wood! What more can you ask of an energy-saving plan?

Edie Field Long Plain Road

I've been re-cycling forever because when I was in high school in Amherst--many years ago!--my science teacher was Ron Fitzgerald (he later became superintendent) and he was pushing recycling all the way back then, explaining that it was helpful in saving resources. A year ago, we got the electric company to change bulbs, but they only found a few that we hadn't already switched.

About trips in the car: my daughter told me when she was growing up we went to town once a week; we were better at this back then than now. I try to combine trips, but every once in a while I make an extra trip (I know it's bad). Our car has good mileage and I always have the oil changed at 3000 miles. I shred paper and bring it to the landfill. I do buy local when I can. I am aware of the climate problems and care about them, but sometimes it's too hard to imagine what future my grandchildren will have to face.

Jeff and Jennifer Field Long Plain Road

Our biggest effort is growing our own food and also food for others. We are close to growing everything we need except meat; we know that local and grass-fed meat is good for the environment unlike industrialized/factory-farmed meat. All our farming is done organically; we use no petroleum-based fertilizers or pesticides. This means more work and sometimes more money, but we are committed to doing it this way.

Jen has always line-dried our laundry and we are consolidating our driving and using a fan instead of air conditioning.

We both believe there are two reasons to save resources--financial and ethical/spiritual--and we care about both.

John and Emily Field Long Plain Road

We have some new light bulbs but I think we should have the right to choose what bulbs to use and I worry about the mercury in some of the new ones. [Ed. note: see Suggestions for this dilemma.] I combine shopping with driving home from work to save gas and we buy from local farmers what we don't grow ourselves. We recently installed energy-saving windows and a storm door for which we received federal tax credit.

Pat Fiero and Richard Kraus Laurel Hill Road

Things we have done to reduce our energy footprint: stopped using our dryer; hanging clothes outside or--on bad weather days--in the furnace room; growing many of our own vegetables and canning, freezing, drying, and storing them for winter use; don't use chemical (petroleum-based) fertilizers; re-cycle everything we can; built our house with different temperature zones--a toasty room in winter at 65, a less used area at 64, bedroom at 55; and the least used rooms less than 60; limit our trips to town (consolidate errands) to save gas; convert incandescent bulbs to compact fluorescents as they burn out and turn off all lights not being used.

Gordon Fretwell and Fay Zipkowitz North Leverett Road

We don't have air conditioning; instead we have ceiling fans in the bedrooms, dining room, and on the porch. Years ago when we made these decisions we didn't think it was worth investing in air conditioning for the whole house and we're satisfied with the way the fans keep us cool in the summer. They certainly use less energy.

Since I'm not a fanatic about mowing the lawn--this remark will give some neighbors a big laugh!--I don't mow the lawn less than I used to: I just keep mowing as infrequently as I can get away with!

Eva Gibavic and Cheryl Howland Rattlesnake Gutter Road

Are we aware of the climate crisis? YES! And we have tried to eliminate as many things as possible in our life that contribute to the crisis. We have a Tempcast/wood heating system, the equivalent of a Russian fireplace, which involves making two fires (during the winter months), one in the morning and one in the evening; the fires heat up very dense brick inside which radiates moist heat at 150 degrees all day. This method, which re-burns combustion gasses before releasing them, is 95 % efficient for hydrocarbons and emits almost no greenhouse gasses. We are committed to growing lots of our food--using canning and freezing and root cellaring to last into the non-growing months. [Ed. note: Every spring an almost uncountable number of little healthy seedlings are produced in this household and distributed--FREE! NOT KIDDING!--to whoever needs/wants them. This year a lot of seedlings went to the Methodist Church of Hadley whose members have been growing food for the Food Bank this summer.]

For almost ten years we've been keeping bees. This has been a pretty good year partly because we haven't been "beared"--probably because we set up a solar-

powered electric fence that keeps the bears away. The bees contribute to pollination, of course, thus increasing the amount of wild and domestic food grown around here. Making maple syrup is another thing we do to use the resources we have right in front of us.

For the past 20 years we've been sowing wild healing herbs all over our fields so if we, or anyone we know, ever needed them, we could just go out and pick them. All these herbs are native plants--no invasives--like Digitalis, Motherwort, Artemisia, and Valerian for helping to get to sleep.

It was from my mother, I think, that I got the inspiration to care and act on behalf of nature. When I was little we lived in a rural area in the eastern part of the state and I was what you might call a "why?" pest. I was always asking questions, so one day my mom tied a string to a carrot and told me to go out in a field and put it down a bunny hole and wait until I caught one for a pet. She knew very well I wasn't going to "catch" a rabbit, but what the whole experience taught me--and she almost certainly did know this--was how to sit quietly and observe the tiniest things going on in front of my eyes. This is how I developed the deep sense of connectedness with nature that influences me to this day.

Roger and Peggy Glassman Juggler Meadow Road

We are very conscious of saving energy and find alarming the general wastefulness of resources that we've become accustomed to in our country. We look forward to a time when our nation's foreign policy is based on life-supporting strategies focused on the health of the world's people and the earth itself.

Our house has zoned heating; each room temperature reflects the time we spend there. We burn wood and spend most of the winter very close to the wood stove.

Lee and Marjorie Glazier Hemenway Road

We don't do too much now, but we used to raise a lot of our food and filled up two freezers every year; I put in 1,000 new strawberry plants every spring and raised tomatoes, peas, corn, and potatoes. Sold them by the bushel. It's too much work now for me--at 83, I think I am both older and smarter!--but I do still cut up cordwood for people and ourselves. You know, you go into a store these days and buy a squash and it just doesn't taste like the squashes used to when you grew them yourselves. We recently got some great local strawberries and we made jam and put some in the freezer.

Joan and Richard Godsey Long Plain Road

Some of these newer suggestions involve issues I [Joan] was thinking about 15 or 20 years ago when I was teaching. With my experience on the Conservation Commission I was always mindful of the need to not waste water so I would ask the kids, do you turn off water when brushing your teeth? In the classroom I always had someone turn off the lights when leaving the room and on Fridays we pulled the shades down to save on heat loss in the winter. And I always was aware of foolish uses of fuel--"fuelishness"--too many trips for only one thing or reason, ATVs, snowmobiles, etc.

Recently we had a CET audit that showed we needed more insulation for the basement sills and around the ceiling lights. Part of CET's contribution to our energy saving was to build boxes for every ceiling light we had (we had a lot) to keep heat from leaking to the outside. We bought two thermal doors--with insulation built into them, and got tax credits from the government on that expense. We bought a new oil furnace, much more efficient than our old one, and an energy-efficient dishwasher.

About drying our laundry: I always used to hang out the laundry in the living room next to the wood stove and it worked fine, but I got tired of looking at and smelling laundry in the living room! We solved this dilemma very efficiently. At the landfill one day I just happened to notice someone walk into the take-it-or-leave-it area to drop off a retractable clothesline; at the moment he put it down, I picked it up. We mounted it in the basement and it works very well, next to the burner, taking advantage of superfluous heat. The CET changed every light bulb in the house--I think it might have been 35 in all!--which made it a very generous CET gift to us. We did an audit before and after the changes and found big savings in our electrical bill. You can especially save a lot by line drying your clothes. Fortunately and surprisingly we found our older windows are not leaking. One other important thing: while doing our taxes we happily discovered that for the kind of energy conservation changes we made one is eligible for up to \$1,500 energy credits on the federal tax. The amount of credit changes each year, but it's worth looking into and makes the changes much easier to contemplate.

We have never kept the house the same temperature all day/all night; we prefer it to be cool at night--you sleep better, for one thing--so we have a new thermostat that regulates what we want, automatically. Even in winter we'd never have the temperature near 70, but we always feel warm. We use so much wood as well that some years ago our oil company took us off regular delivery because we used so little--one tank each winter. I confess we have one energy use that is hard to fix--it's our dog! He is big and robust and wants lots of walks in new places--we have even taken to driving him to new walking sites. But here is an example of how to compensate for that. We don't have computer service out here, so when we drive to the library to do our banking, etc., online (avoiding car trip to bank), we take the dog for walks around the library and school. It just takes a new kind of thinking to use energy wisely.

Do any of these changes feel like a sacrifice? Absolutely not, except for one. The new light bulbs take five minutes to get sufficiently bright; it can feel like a cave when you first walk into a room and switch on the light, but you just think yourself around this problem: you turn on the light and do a few other things before using the room the way you are accustomed to. It's a pretty small "sacrifice" when you remember why you are making these changes.

Jane and Gary Gruber Cave Hill Road

Our house was designed to benefit from passive solar heat and we put in window quilts that very effectively keep the heat inside in the winter. We have re-cycled everything we can for years and compost everything we can compost. We also grow a lot of our own food. Are we concerned about the energy/climate crisis? Look at all the floods and droughts. Yes, we're concerned; we should all be concerned.

Marjorie Hancock Montague Road

I close off the upstairs because it's not used and keep plastic over the stairwell during winter. I'm working slowly on getting all Energy Star appliances; when my car started to fail, I chose not to replace it and rely on my children to take me places when there is the need. If I ate more and got out more I would eat more local; I know it is a wonderful thing to do because transportation of food from far away places is a big part of the problem of greenhouse gas emissions.

I am a pacifist and I see one other reason to be against war is the massive wastefulness it involves. The military seems to just gobble up all the resources. I try

to get used things--clothes at the Leverett dump, for example; I've found lots of really good clothes there. I try to live well on minimum income. I think what motivates me is that I've always had such a complete wonder about all life. Everything has spirit; we are one with all. If we don't take care of the earth it is like committing suicide.

Frankie Hankinson Depot Road

We love our big open windows but they were wasting fuel so we got insulated drapes and we fixed the flue in our fireplace so it wasn't wasting heat up the chimney. Caulking around windows has helped and we have the energy-saving bulbs in most of the lamps. Also, I am pleased to say that since retiring I have not bought one new item of clothing; if I have a special occasion, I might need something "new," but I can find what I need at the Take-It-Or-Leave-It right here in Leverett or at the Salvation Army. I think we all have too much stuff anyway--I have enough clothes to last me another 100 years! It actually feels good to simplify your life and to pass on to others what I don't need anymore. I have found such nice toys at the Take-It-Or-Leave-It for my granddaughter. We should advertise our wonderful recycling center!

Sean Hannity The Sean Hannity Show 12.1.09

"Global Warming is a crock...and a huge cover up. [2009] is the ninth coldest year on record that we have chronicled."

UCS Factcheck: The National Oceanic and Atmospheric Administration and NASA's Goddard Institute for Space Studies, among others, report the scientific fact that 2009 was actually one of the warmest years on record.

David Henion Montague Road

I am very aware of the climate crisis and try to lead the most responsible life in response. I don't have solar because to do so would mean cutting down trees, but I do grow a lot of our food and have built a hoop house so we can have greens during cold-weather months. The electricity that runs our bakery is wind-generated provided by an energy-brokerage company called Glacial; it only sells to commercial accounts so we can't use it at home but anyone interested in using energy from wind in a business can contact me.*

Bob Hepner and Lauren Rosenberg Montague Road

We tried out a lot of things in the low carbon diet book [Ed. note, this is the Low Carbon Diet: A 30 Day Program to Lose 5000 Pounds book distributed by LEC]; we had always line-dried our clothes but now we do it more frequently. We started to burn more wood than oil. And we unplugged those energy-sucking machines, like the computer. When I think about those machines in the house, I think of them as little ticks sucking resources right out of our house!

My biggest and most personal crusade is trying to ride a bike to school every day. I work in Northampton--32 miles roundtrip, and I have learned just from biking that the weather around here is not friendly to bikers. What happened is I saw a guy with a banana-shaped bicycle thing; it blew me away. I ended up building a recumbent, 3-wheeled bike that I insulated to make it New England-proof. The insulation is covered foam so I run around looking like Flash Gordon. No, I am not regressing, my family thinks I am, but I'm not. The insulation makes it warmer and also more efficient against the enormous wind resistance I encounter.

Another thing is that you see things differently when you use a bike. When you do get in a car again, it seems like a lap of luxury; it's like this pleasant little warm living room that rolls around where you want it by poking a few buttons. It makes me aware of how addictive our whole power structure is and what bad habits we have as a culture. Nearly everyone who holds political power in our country has some connection to the oil industry. There's no shortage of good ideas about how to transition to alternative energies, but nothing will change because the power structure is built up around it. So I have my biking experiment: it has saved me some money in gas and wear and tear on my car--maybe \$1000 a year or at least \$500--but it has another positive effect. Making my small sacrifice--like riding the bike--puts me outside the culture in a way so I get a whole new view of the reasons we have the climate problems we do.

Karen Iglehart Ryans Hill Road

We have one "errand day" to eliminate extra trips to town and I carpool to work with my husband whenever possible. We heat 75-80% with wood, compost, eat locally grown food and grow some of our own, never run a less-than-full dishwasher, use cloth napkins which last a week before needing to be washed, don't use plastic bags unless absolutely necessary, use a small clothes rack in the laundry room and hang up clothes to dry to avoid use of the dryer. We don't leave the phone charger plugged in and turn off the router when not in use. None of these practices is new to us, or unusual.

Ariana Inglese Ryans Hill Road

In our home--designed and built by my father--we took into consideration the resources around us and how these were related to climate change. We have solar panels with many south-facing windows; radiant heating with larger mass and lower temperature using less energy; double-wall insulation with cellulose; insulated foundation; use of non-toxic materials; locally made trusses, use of re-cycled Douglas Fir. We heat (and cook, when possible) with wood, use CFL light bulbs and low-flush toilets. We are in the process of building a greenhouse to grow winter vegetables and already have chickens for eggs and fertilizer and a garden for food and flowers in the summer. We also compost and line-dry our laundry.

I am conscious of needing to tread lightly on the earth and think about the impact our choices will have on the earth and all its inhabitants. It's a privilege to be in a position to make these choices: we have time to tend to our garden beds and care for our animals. It's a wonderful feeling to be self-sufficient, depending less on large companies or food from far away. Even the small ways in which we make changes, growing fresh carrots, cracking a fresh egg for breakfast from a loved and healthy hen, turning off unneeded lights--all are steps in the right direction

Ken and Laurel Kahn Long Hill Road

What we are now calling a climate "crisis" has been coming for a long time and all of us now and those in future generations will be living with the consequences forever. Many of these consequences are destructive to the planet, but some will be good. Economic incentives and considerations (high oil prices, for example) will push us all toward doing the right thing: conserving resources and living with less negative impact on the environment.

I have noticed in my business a greater demand for homes that are close to public transportation and bike trails making it possible to live without reliance on a car for

everything. We used to think of the great urban centers as places losing population and vitality but there's a newer trend at least for younger people to live in cities because of the chance to live with a smaller footprint. The old New England conception of the village center makes more and more sense, too. I see a growing preference for smaller houses, too, and for the same reasons having to do with using fewer resources. We all have a right to choose whatever way we wish to live--what size house, what kind of car, etc.--but increasingly I see people making choices that economically and environmentally make more sense.

Michael Katz Broad Hill Road

We keep our house very cool, heat completely with wood, changed a lot of lights, and my truck gets 50 mpg.

Phyllis Keenan, Scully and Henry Wilhelm Shutesbury Road

I car pool to work, turn down the water heater temperature, and organize errands to reduce driving trips. We are also part of the Putney Road Community Garden. The boys grew the "three sisters"--corn, peas, and pumpkins. Scully grew pizza sauce--tomatoes, onions, garlic, and basil; then he and I canned the pizza sauce for ourselves and friends. Henry cares a lot about re-cycling; if there's no place to re-cycle a milk carton, he brings it home to re-cycle. [Ed. note: kids doing the right thing! Thank you Henry and Scully.]

The Kelty Family Juggler Meadow Road

Finally, I have gotten around to hanging my laundry outdoors to dry! I am so embarrassed that I didn't start doing it 20 years ago. We have replaced all our 60-year-old windows with energy-efficient double pane windows and aluminum storm windows. We use an Energy Star washer and drive a car that gets 40 mpg. There's more we can do.

Gordon King Shutesbury Road

We burn a lot of wood instead of oil. We raise a lot of our own food and support other local growers like the Kosloski's farm stand on Teawaddle and Cushman.

Fran Kirley Cave Hill Road

Yes, I take very seriously this energy and climate crisis. I'm worried about it on many levels and believe what we as individuals do really can matter. Looking back, I know it was a lot about the way my mother lived that has inspired me to be very conscientious about my use of resources. She saved string, I remember. She was giving out such an important lesson.

Now I find it totally natural to save water and energy. I have an energy-saving shower and toilet and everyone knows...when you come to my house in the winter, you better be wearing warm clothes! There's nothing wrong with just putting on an extra sweater to make it possible to burn less oil or wood. Some of my grandkids have learned this well. Also, we can all do multi-tasking--letting all our errands build up and just make one trip. It makes no sense to run out just for a loaf of bread! I've also made a decision to eat less red meat; I know it's better for the environment, but it also makes me feel better--healthier. We've become too used to over-consumption. I am learning the wisdom of that idea--Less is More!

Mary Jo Korfhage-Poret Juggler Meadow Road

Way back in the Carter days, with the first tax credits on energy-saving home products, we had solar hot water panels installed and they have required very little

maintenance and provide more hot water than I need when the sun is shining. I also had installed on my hot water tank a system that will heat water only at the times when I generally will need it, i.e. early morning for a shower and early evening for the same.

Last year I had programmable thermostats installed in every room because back when the house was built in the 60s, electric heat was the cheapest option. The thermostat in the main living space is programmed to warm the kitchen and living room in the early morning when I get up for work, then again when I return home from work about 5:30 pm. In between it is programmed at 50 degrees. These thermostats allow me to turn off the heat in all rooms that are not being used. This year I never turned the heat on in my bedroom and I was quite cozy with a down comforter and flannel sheets. The bathroom is heated to comfortable temperature only when I am home. Thermal shades on the largest windows decrease heat loss at night and when it is colder than 20 degrees. Wood from fallen trees on my property keeps my main living space warm.

This year I took advantage of WMECO's offer of a home energy audit. They partner with the CET (Center for Ecological Technology) and arrange for workers to remedy sites of heat/energy loss, paying up to 75% of the cost. I live in a log house and they caulked between each log and put extra insulation in the attic space and provided a free florescent bulb for any light in the house not already using one. These bulbs have really improved in attractiveness and variety.

I have been driving a Prius since 2006 getting between 43-53 mpg depending on the season and what I am carrying on top. For several years, I have participated in a CSA (Community Supported Agriculture) but intend to reduce my carbon footprint by choosing one that's on my way home from work. I'm thinking of getting a rain barrel to save water for watering plants in garden.

Sue LaClaire Dudleyville Road

I line-dry the laundry and wait till I can do a full load for both clothes and dishes. I don't use the pre-rinse, use the dishwasher only when full, and have an energy-saving dry cycle. We shut down computers when not in use and also use power strips so we can completely turn off the electronics that continue to use some energy even when we have turned them off. We combine errands so we have to shop only once a week to reduce our use of gas. We have fans instead of air conditioning, eat from our garden, and buy in bulk when we can. To save water I taught the kids from when they were very little to get wet in the shower, then turn off water while soaping up, then turn on water for rinsing. They practice this same habit for tooth brushing, too. We also have what I think are called Low-E windows; whatever they are called, they block heat from coming in so we don't need an air-conditioner.

John Lemley and Cathy Melhorn Montague Road

The biggest change we have made is replacing the two old and inefficient oil burners with a single, highly efficient, European-designed oil-fired burner that sends the heat to very high-tech room radiators. We've noticed a big reduction in our oil consumption since then. We also did some of the obvious things like insulating the cellar walls below the frost line. We try to drive less and replaced an old car with a much more efficient Mazda. We definitely support local farmers and occasionally we line-dry our laundry.

Rush Limbaugh The Rush Limbaugh Show 12.9.09

"When I talk to people who believe in this global warming crap... it's fake science. They may have educations and degrees that say they are scientists, but they're not. They're political hacks and leftists.

USC Factcheck: The overwhelming consensus of more than 1,250 authors and 2,000 scientific expert reviewers from the Nobel Prize-winning Intergovernmental Panel on Climate Change, as well as 18 American scientific associations, is that global warming is observably happening and a growing threat to our world.

George Lockwood Shutesbury Road

Laundry is done once weekly at our home and is air-dried in the warm months. Our electrical consumption has been lowered with the use of CF and LED lights. The computer is turned off at night. The PowerSave line conditioner has lowered the monthly bill between 8-10% by counting the inherent inefficiencies of inductive loads such as the refrigerator, furnace motor, air conditioner, and well pump. While driving habits have not changed much (work takes me all over the Northeast) the rpms are kept to no more than 2500 which equates to 75mph in 5th gear. Around town, rpms are much lower at 1500 to 2000. In the (old) Nissan Altima, this equates to a little more than 32 mpg on the highway and some less in town.

Thomas Maczka and Dee Ann Civello North Leverett Road

The action we take to combat the climate crisis is actually more about not acting. For example, we don't use our dryer--instead, letting the sun and wind do all the work of drying our laundry. Also, we don't mow the lawn frequently to avoid using the greenhouse gas-emitting lawn mower. I guess you can care about the environment and be lazy! There are some actions we do take; when we're not using a plug-in appliance, for example, we keep it unplugged to avoid the phantom load wasting of energy. And we grow a lot of our own food and support as many local farmers as we can and we catch rainwater for the gardens. These are all things everyone does. Indoors, of course, we use insulating shades for winter warmth, keep the thermostat at 60, and close off all rooms not in use. We try to do all the weekly errands on one trip to reduce driving. When we get a mailing or catalogue from someplace we are not interested in, we call to ask to be taken off the mailing list to save paper and transporting costs.

Peggy Marshall and Michael Ellman Depot Road

I was aware of these issues before reading the book given out by the Energy Committee, but it made me even more aware of ways to stop using energy. We don't have a dryer; we hang clothes indoors on racks and wash in cold water. We don't buy bottled water; instead we use re-usable containers and fill them with our own well water. Doing these things don't seem like a big sacrifice; it's more of an awareness, so that rather than buying 12 bottles of water at a store, we use our own water. If I see vegetables listed as local in the store I choose to buy those and also stop at farm stands.

Jeff McQueen Shutesbury Road

I make sure I keep the oil burner tuned up so it uses less oil, but the thing I do that might be a little unusual is that I dry paper towels so I can re-use them.

Laurie Millman and Steve Freedman Putney Road

We both got new cars that get better gas mileage, but they aren't as effective in the snow. We also put in a wood stove and use much less oil as a result. Everything we

can re-cycle gets re-cycled. We do buy local food and we have put in a vegetable garden.

Kate and John Moruzzi Shutesbury Road

We have a large compost pile and compost almost everything we can. We use the energy-saving bulbs, support nearby farm stands, use propane instead of wood for heat, and let our errands pile up until--to save gas--we have enough to do all at the same time. Our daughter Trina has chickens and provides us with eggs.

Joanne and Alan Mully Cave Hill Road

I grew up on a truck farm in N. Amherst where we raised cows, chickens, pigs, and really dumb turkeys. My mother used whatever was available; we ate eggs (when you could without guilt) and drank whole un-pasteurized milk, and everything she canned, froze, dried, and preserved. I had no idea then how poor we were because there was always food. We had the basic conveniences but my mother had to be creative: old grain bags--calico colored back then--were turned into dishtowels and clothes for my sister and me. She always hung our clothes outside--all year round; she never had a dryer. When we (husband, 4 sons, and mother) moved to Leverett in the early eighties we got tax credits for installing 4 solar panels for hot water. We also super-insulated.

When our youngest son was in diapers, our family of 7 created a lot of laundry. My husband suggested that maybe I should use the dryer for jeans, sweatshirts, and diapers instead of making our new house look like a laundry." Said I, "Do you know how much electricity costs?" "No," he says, "but it can't be much more to dry diapers, jeans, and sweatshirts." "OK," say I, "let's look at a dryer-month electric bill and a non-dryer month." The dryer-month bill had more than tripled! I guess I won that round! I have always had a clothesline and I use it until my fingers freeze and then bring the laundry in to dry on racks in the basement. We got everyone in the family to bring their own cloth shopping bags, re-cycle everything we can, buy from local farm shares and grow their own food.

Our DC son has not been successful with his garden--there appears to be a huge dark cloud hanging over the district.

Asaph and Hanifah Murfin Montague Road

We have a solar hot water system, currently backed up by oil. We were able to use a 0% energy loan and Co-op Power's "neighbor-to-neighbor" system to install the system. For that free service, we helped install five other such systems. [Ed. note: To participate in this local support system, see information on Greenfield-based Co-op Power in web site section.] The oil tank-less coil method must heat the entire furnace to add heat as needed--not very efficient. We plan to change from oil to an electric backup device which will operate only as needed. We purchased a 38/mpg Honda FIT to replace our old gas-guzzler Mercury. We have almost all CFL bulbs with the exception of area spotlighting. Our wood pellet stove provides 90% of our heating needs.

Chris Nelson Long Plain Road

I have arranged for MassSave to come to the house; in the meantime I line dry my laundry, buy local food, and use fleece sheets so I don't need to heat the house at night.

Nan Niederlander Shutesbury Road

One thing I've done to reduce energy cost and energy use is to use hand tools for essential work outside. Instead of renting a gas-powered brush hog I bought a scythe to cut down all the high grasses, suckers, and sumac from my meadow. I did have a high school student mow a few times but now have grass whips and next year I will buy a hand-powered mower for next summer's cutting. I pledge to use no snow blower or leaf blower since raking leaves and shoveling snow are decent forms of exercise. I love working outside, doing these projects slowly, and putting some fun into it.

Barry and Cheri Oberpriller North Leverett Road

We built a zero-energy home--it makes as much energy as it uses. It's a good example of how to live if you've made the decision to live responsibly with no fossil-fuel dependency. We use super insulation, active and passive solar heating, and the objective we're working toward now is to create enough energy in our own home to power an electric car. We will never again buy an internally combusted, gas-powered car.

The climate problem is so serious that we have to take measures now to avoid its real life-threatening effects. It's easier to stay in denial or to know something is really wrong but keep on living your life unchanged expecting that someone else will solve the problems. We are doing something but this is definitely not an occasion for holier-than-thou feelings; we think of ourselves as just normal people acting in our own economic and biological self-interest. I am an inventor and spend a lot of time planning ways and devices to combat global warming.*

Sarah Palin Washington Post Op-Ed 12.9.09

"While we recognize the occurrence of these natural, cyclical environmental trends, we can't say with assurance that man's activities cause weather changes."

USC Factcheck: The long-term global average temperature is rising too rapidly to be attributed to any natural cycles. But Palin is right that we can't say man's activities cause weather changes because there is a significant scientific difference between short-term weather patterns and long-term climate change--and climate change is real.

Jim Perkins Richardson Road

The climate crisis is already upon us and is a very serious issue. I know we have to make many changes because our whole way of life is based on assumptions that are fast becoming untrue. I am interested in creating an electricity production cooperative that would use our rivers to generate electricity--maybe a small power station on the Mill River. I would volunteer time to help that happen.

Lydia Peterson and David Powicki Shutesbury Road

I [Lydia] take the climate crisis very seriously and am teaching a writing class next semester at Westfield State, using environmental and climate issues as the jumping off point. The biggest focus is the next generation and we need to develop ways to help students really live these ideas about sustainable living. Our own two children are a big motivation.

We have been part of the group involved in making the school greenhouse happen. It started as an interest in making the cafeteria meals more nutritious for the kids, which led to the salad bar, and then, because growing your own food is a good first place to start living more sustainably, we thought, why not grow our own salad bar. That was the motivation for the greenhouse.

I think I am motivated to act as I do because of memories I carry of taking walks with my parents and always bringing a bag to pick up the trash we came across and also accompanying them to the re-cycling center in New Jersey. Re-cycling was just beginning back then, inspired by the environmental consciousness of the sixties.

Parker Ramspott Jackson Hill Road

We've done the obvious things like changing the light bulbs and I don't drive much because I use a bike. I sell bikes for a living which seems like a good way to do my share of energy saving.

Sharon Raskevitz Long Hill Road

After two years of thinking about it I downsized my car--because of gas prices and greenhouse gas emissions--and I survived this winter! Without 4-wheel drive! We also eat as much local food as we can get and have definitely reduced the number of trips we make in the car. As a member of the Cemetery Committee in town, I can say we are interested in the concept of green burial and looking for ways to make it possible in town.

Judy Ricker Amherst Road

Our house has energy savings built into the construction design, including a geothermal heating and cooling system and florescent lighting throughout. When I shut down my computer at night, I also turn off the two power strips for the peripherals. This means getting down on all fours [Ed. note: Bravo!]. I hang some clothes on racks to dry--jeans, corduroys, some shirts. Joanne Mully shamed me into doing it!

Larry and Edith Riddle North Leverett Road

There's so many of us on the earth and we're guilty of overusing our resources. We all have to make changes. Our own efforts include changing our washing time to night so we don't add to peak electricity demand, taking fewer trips in the car, buying local food and making use of our kids' gardens, and arranging for a WMECO audit for our home. We don't buy water in plastic bottles and really appreciate the display in town--it reminds us of how important that issue is.

Kari Ridge North Leverett Road

After seeing the Energy Committee's clothesline display in the center of town, I was inspired to buy an indoor/outdoor clothes-drying rack, and since using it, I have noticed my energy costs are significantly reduced. I feel a lot better about reducing my energy footprint. Whenever possible I buy local--everything from vegetables and cheese to Valley-crafted items for gifts. (I do confess to having a weakness for bananas and avocados.) A few months ago I paid to have an old, broken computer and printer re-cycled. Although it cost a few dollars, I was glad to know these items were not headed for a lifetime of taking space in a landfill. For many years I've combined errands and work so that I use my car much less frequently.

All these steps I've taken are relatively small and require no huge change in lifestyle; they have quickly become common sense, money-saving efforts. I encourage everyone to try out some changes; you might find they lessen the climate crisis and also improve the quality of life for yourself and the generations still coming.

Janine Roberts Putney Road

For many years I've been taking care to save resources. I heat with wood, have solar panels, double pane windows, and insulation. I do have a dishwasher but use it only

about three times a year and when I do I stop it at the dry cycle and let the dishes air-dry. There is no dryer in the house and I haven't had one since I was washing and drying cloth diapers for Natalya. When the deck on the house was being built I had the railing constructed as a four-tiered drying rack. I'm still using it to dry all my clothes. I do drive less, consolidating my errands into one trip, but--I confess--that change in habits is a pain in the neck! Of course, it's worth it; I know it's important to use less gas. I buy from local farmers, and for salad greens I use white-leaf violets growing out on the lawn. People should try this; a lot of us have salad greens growing effortlessly right out on our own lawns!

Nancy Rockland-Miller Lead Mine Road

I grew up surrounded by affluence and I saw a lot of wasteful habits around me, but instead of following that example, both my brother and I became extremely conscientious about using things responsibly. I might belong in the same company as those "Leverett Lunatic Ladies"--the ones so-over-the-edge they snatch recyclables out of public trash cans and bring them home to re-cycle from there. For one thing, I buy nothing made of paper except toilet paper and even with that I tease my friends when visiting me to not use more than 3 squares for pee...etc.! Also, no plastic. When I buy something, I say: "No bag, thank you." Remarkably, plastic bags--being really ubiquitous--manage to get into my house anyway--from my kids partly--and these I re-use and re-use until they are too grungy for any use and I take them to the supermarket that re-cycles them.

I can't explain this but at a very early age the moment I would hear any kind of environmental advice, I would instantly feel attached and motivated. The first time I heard that little jingle about littering--I can still remember it: "Please, please, don't be a litterbug! Please, please, don't be a litterbug. Please, please, don't be a litterbug. Because every little bit hurts!"--I became impassioned about not littering. Next it was re-cycling, then composting. My brother picked up the same message and when Ari was really little my brother came to help us dig a spot for our compost pile, and after they finished they both peed in it to get it started! Don't waste anything! Sometimes I look at something like an air conditioner and think, where did it come from? What materials did it use? I try not to take anything manmade for granted because I know it has a cost. I wish I could say I don't drive much but it wouldn't be true but I do go out of my way to carpool and never just drive for fun. One more thing: I use used water for my houseplants; whatever water I use to make a meal, for example, does not just go down the drain. [Ed. note: Nancy is the Leverett Lady who goes back to Antonio's with her "old" pizza box for another pizza!]

Jann Rosemertha Chestnut Hill Road

We've been aware there's been an energy crisis for the last decade so haven't made any big changes in the last month, but have been making changes all along like turning out lights, hanging out our laundry on a clothesline, and driving a car that gets 47 mph. Once every four weeks we take one bag of trash to the landfill. We try to be conscientious shoppers; we won't go way out of our way to avoid buying stuff that's excessively packaged, but we disapprove of all that kind of waste. We make fewer trips in the car--never go out unless we have more than one (or two or three, etc) errands--although of course we go out for a special occasion. We are very mindful about saving energy but don't feel deprived because we've changed some of our ways.

Benny Rubin Putney Road

I have been slowly replacing all the light bulbs to those more energy-saving kinds and I notice it makes a difference. I also buy all my fruits and vegetables from local farm stands; there's no comparison between store-bought and locally grown food, and when you get local, that food doesn't have to travel thousands of miles to get to me. I don't drive for just one errand, I let the errands pile up and then do them at one time.

Kathy and Ted Sargent Teawaddle Road

Years ago ZPG (Zero Population Growth) was warning us about resource overuse and environmental damage as a result of overpopulation. That voice should come back to the national conversation.

As to our response to the energy crisis: we buy local food at Atkins Farm and the farm stand at the end of our road, also one that's on Route 63; we group errands together to reduce trips in the car and have two very gas-efficient cars (we always buy used cars); at night the thermostat is set at 58 and in the day at 62 which makes it 66 inside (we're not cold, we just wear extra layers if we need to--dressing warmer--it's really pretty easy); we burn wood mainly from our own property or buy it so we save on oil; actually, we save a lot that way. The savings help financially, of course, but that's not why we do it. [Ed. note: please try to picture what Kathy describes doing here. It qualifies for a Leverett Lady award!] Do you remember when Louis's Foods was in Amherst? We've been re-using Louis's Foods bags for 30 years! The Victory supermarket bags, too. If you bag them double, they last longer and you can keep re-using them. We also re-use little bags for vegetables; I just carry them into the store and put my broccoli or other vegetables in them. Sometimes the bags bear the logo of a different store; the puzzled cashier pauses and asks: "*How did this bag get here?*" Supermarket bag packers really like doubled-up paper bags so I bring them, too. It's fun to see how long you can get the bags to last. I use duct tape when they rip. And all those canvas bags you get for memberships from National Wildlife and other organizations: I use those, too.

Do I sound like a crazy lady? I think I am! It's just that I do care so much about these issues. I know I must look a little silly on my walks because I pick up discarded bottles on the road. A lot are liquor bottles. It's especially awkward when someone passes me coming home with all the liquor bottles---and they're all empty, too!

Virginia Savolainen Shutesbury Road

I am very worried about the climate crisis and it certainly feels real. I look around and see so many ways we are unintentionally or ignorantly killing life on the planet. I have always been thrifty and for a long time been worried about the fate of the earth--planet health and human health.

We keep the heat a lot lower now than we did when the kids were growing up; it works well--I don't feel deprived. I know this is what I should be doing. I also buy as much local food as I can and support farmers' markets. If you plan a way to combine errands you can shorten your routes and not take too many trips. I have become even thriftier than I was before. I always taught the kids to save water at the faucet and think you can get by without taking a shower every single day! I am a big supporter of Freecycle; it's such a good way to keep many things out of the landfills.

Lauret Savoy and Kris Bergbom Long Hill Road

We have made some important changes, and, looking back, we have both found experiences that have contributed to our growing awareness and our eagerness to take action. When she was eight, Kris wrote a letter to President Nixon asking him to

make pedal cars for everyone. Her parents still have the White House response in their attic. [Ed. question: What did Nixon have to say?] Kris later saw a photograph in the *New York Times* of cars that looked like today's smart cars and thought someone could actually do it. She's still waiting.

Lauret recalled that when she was fourteen she read *A Sand County Almanac* by Aldo Leopold. In his last essay, "The Land Ethic," Leopold enlarged the community's boundaries to include "soil, water, plants, animals, or collectively: the land." His call for an extension of ethics to land relations seemed to her to express a sense of responsibility and reciprocity not yet embraced by this nation but embedded in many indigenous traditions of experience. If, as Leopold wrote, "obligations have no meaning without conscience, and the problem we face is the extension of the social conscience from people to land," Lauret wondered what part of this nation still lacked conscience broad enough to realize the internal change of mind and heart, to embrace what Leopold had called an "evolutionary possibility" and "ecological necessity." For Lauret, his ideas forced new questions, suggested troubling possibilities, and partly contributed to her decision to pursue a career working in and with the environment.

She reports: "Kris and I worked with the CET to improve the energy efficiency of our home. We also upgraded our heating system, and--inspired by the Energy Committee's display of drying laundry--we've begun hanging our laundry outside. Last but not least, we've had fun enlarging our vegetable garden and extending the growing season with cold frames."

Steve Saxenian Teawaddle Hill Road

We have both photovoltaic panels (1 kW) that provide one quarter to one third of our electrical needs and solar hot water panels that provide probably 75% of our annual hot water needs. I put up the solar panels and got back \$2,000 in tax breaks. It took some doing but not rocket science. When we renovated 10 years ago we put one inch of rigid foam on the outside of the house underneath the shingles. We are slowly putting in better windows and curtains to reduce heat loss.

Alice and Andrew Scheffey Broad Hill Road

We've always had a big garden and have successfully grown a lot of our food. During the cold months, we turn the thermostats all the way down at night and to 64 in the day. The house stays warm enough for us. We don't use a dryer, avoid buying anything that is over-packaged, and most of the food we do buy comes from bins at the co-op or Whole Foods that we bring home in our own bags. I cut up used envelopes for scratch paper and, of course, end up with way more than I need.

As I look back to my earliest years I realize I learned to save water and electricity by watching my parents. As I grew up I developed a strong sense of relationship to the natural world and instinctively acted to protect (and not waste) resources. Both spiritual and practical considerations motivate me to live as I do.

Liz Scheffey and Bob Pollak Broad Hill Road

As Co-op Power members we participated in the Solar Installation Program and now have two solar hot water panels on our roof, reducing our oil use by a very noticeable amount. In the newer (1965) section of the house, we insulated the ceiling and lowered it from a cathedral type, eliminated two large plate glass windows, and sealed up a row of crank-out windows, making all but two tight but un-openable. We swapped a wood stove for a pellet stove and don't heat three unused rooms. The

house is warmer and the furnace never runs unless we crank it up. The pellet stove has not increased our electric bill that has been consistently low.

In the older (1820) part of the house, we used MassSave to insulate the basement crawl space, parts of basement walls, all the hot air exchange pipes, and every other crack we could find in the house. We still have some older windows with heat-leaking casings and insulation from back-who-knows-when, another heat loss area. Work on these projects will happen but is just now too cost prohibitive. Once done, I think we'll be down to one tank of oil per year.

We use shades and curtains at night and shrink-wrap the windows. In the winter everyone in the household knows to wear lots of sweaters and slippers. In an old house it's just not possible to find all the leaks. Our laundry is dried outside on a line; we use our sheep to "mow" our pastures and have only a small lawn that we mow in the more customary way. We've planted trees and gardens to reduce the lawn space but still have a sense of openness. Except for 3 or 4 lights we have energy-saving bulbs, and the VCR and computer are on power strips. We don't have to worry about shower time on sunny days, but have to be quick on cloudy days!

Bob has investigated different strategies for fuel-saving, emissions-reducing driving. [Ed. note: See Suggestions.]

One really good energy/money-saving idea is communal sharing of machines and large tools. Portia and I share a wood/brush chipper, for example. Neighbors should consider getting together to share in this kind of purchase. These arrangements require a few extra details to work well, and the machine or whatever it is has to be relatively easy to get from one household to another, but the savings in money is considerable. Also, if this idea were practiced on a larger scale we would all spend less energy and fewer resources making highly-useful-but-don't-need-very-often purchases for everyone. We are actually hoping to find one other person to take on a third share of our wood chipper, so let us know if interested.

Steve Schmidt [mistaken by the editor for a Leverett resident (of the Town Hall, at least, because that's where she sees him)] declares that among other energy-saving actions, his household doesn't use a dryer.

Nick and Barbara Seamon North Leverett Road

When you ask what changes we have made I go way back to the 70s when I first became aware and active about the energy crisis. I believe the crisis has actually been with us for a long time and only relatively recently are most people beginning to really take in what it meant and is going to mean to us all. Back then when I first became alarmed I remember how important it was to me to find a way to wean ourselves away from the oil cartel.

When we moved to the farm in the 80s, we wanted to grow as much of our own food as we could; we thought that growing one's own food was one of the most politically responsible things to do. Now that I am in the food business I know intimately how oil-based our food supply is and I think the less you can have to do with the oil companies and all their affiliates, the better. Food, I believe, is going to become increasingly expensive, and energy costs will be the prominent reason, not just transporting it, but running the huge farm machines, and using petroleum-based fertilizers and herbicides.

When we bought the farm, we right away did two things that have made a big difference: we remodeled the house to take advantage of our huge southern exposure for passive solar heat and we replaced the old furnace with an oil/wood furnace. It

feels good to know that the wood we burn comes off our own property; we use the oil for backup only. We have changed some of the bulbs and made the casement windows in the basement airtight; it made a big and immediate difference.

At the Black Sheep, I make use of a lot of locally grown food and publicize it. Also at the store I switched our power source to a company called Glacial that supplies energy from solar and wind sources. Besides saving money, it feels really good that no oil, coal, or nuclear power is running The Black Sheep.

My favorite way of summing up how I feel comes out of the old activism days--from a big sign on Sam Lovejoy's Montague Farm: BETTER ACTIVE TODAY THAN RADIOACTIVE TOMORROW!*

Laureen Shea North Leverett Road

Both because I am on a limited budget and I want to do my share of reducing greenhouse gasses, I make as few trips in the car as I can; I make a big list of errands and do them all at once. So what if I have to spend hours in town on one day! Actually I'm not a big consumer of energy in general. I certainly remember those gas lines long ago and can easily imagine them returning. I've always been conscious about electricity use--I am not a lights-on-all-the-time-all-over-the-house kind of person. I've been growing some of my own food for years.

At the co-op we have a really good composting system. For the last two years most waste has gone into re-cycling bins; we re-cycle paper and cardboard (we have a huge container for cardboard, one dumpster for trash, containers for donating or recycling plastic and glass). Here at the Co-op we see this whole energy thing from different perspectives; we see prices going up, like the cost of getting goods from point A to point B to point C. From one of our local suppliers we now get charged \$30 a delivery, up from \$25, just for fuel prices. The only Co-op foods not affected are local maple syrup and Li'l A Eggs.

Julie Shively and Dan Bennett Richardson Road

[Julie]: We always line dry our laundry. I've never had a dryer. We use the energy bulbs and a wood furnace with an after-burner and I avoid buying anything plastic when I can. I think I am getting crazier about these things--I mean I wear my clothes until they're ready to fall off me and we turn off the lights so effectively that if someone came up our driveway in the evening they might think we were asleep, the house is so dark! Also--[Ed. note: Another Leverett Lunatic?]-sometimes when I see bottles or cans dumped in the trash I take them home to recycle with our own stuff! It might be a little extreme!

Recently I heard a really discouraging piece of news on NPR--apparently Nancy Pelosi had changed the rules in the Congressional dining rooms to make the utensils biodegradable, but when the Republicans took over the House John Boehner reversed the change--back to plastic. Making these changes is so important: why would anyone go backwards? We ourselves have been doing these things so long they don't feel like sacrifices; we enjoy the way we have chosen to live.

Rani Silver North Leverett Road

I do take very seriously the energy and climate crisis and know we have to make changes and fear it may be too late. Two years ago we bought chickens and rabbits for food and we buy what we don't grow ourselves as much as we can from local farmers. In our home, we installed new storms, dramatically increased insulation, and switched to energy-saving bulbs. We heat with wood that we scavenge from our own

land or--at people's request--from theirs. We also turn down the thermostat in the winter and just wear more layers if we're cold.

I sense there are huge interests and powers standing in the way of making the really important changes, and fear we may not be able to overcome them. But we have to do something. The ideas implied in terms like "localism" and "community" are part of the right response. None of our actions seems like a deprivation to us; they just seem like the right things to be doing.

Joan Snowdon and Phil Crafts Shutesbury Road

We kept the thermostat lowered this year, more than ever, and used less wood and natural gas. MassSave did an energy audit of our home and with that help began putting a plan together to insulate, use the efficient light bulbs, and close off 2 rooms not in use. [Phil] rides his bike to work (has been for awhile) that saves energy and is good for him.

We are informed and eager to read more about climate change--have actually planted some trees, as one small response. We believe the effort will add up eventually--if it can be constant and ongoing. We're willing to make other changes, too.

Andrew Starkweather and Cathy Wescott Hannabrooke Drive

We built a new house with an eye for energy efficiency; we feel a real aversion to fossil fuels and quite good about not using them. Research taught me that some solid fuel is necessary (solar is not always available) so we integrated super insulation with a wood gasification boiler that burns super clean.

Aesthetics are also important to us so we had more windows than we needed, but found places to make up for that preference. We used structurally insulated panels--once called stress-skin panels--that minimize use of standard timber framing and the associated heat loss. This system creates very airtight building. The wood boiler is combined with the solar hot water system--providing us with guilt-free showers and a guilt-free hot tub!

To get insurance we were told we had to provide some electricity source for backup so we had to install a photo-voltaic system.

Our biggest challenge was to find someone to integrate all these systems. Whittier Plumbing in New Salem is good at this integration, making the systems work together. I also work at home so drive less anyway and our house was oriented to take advantage of passive solar.

I am a former owner of Drew's All Natural (salad dressings and organic salsa) and have been conscientious about eating choices for a long time, but we are escalating our efforts; we're putting in a root cellar, for example.

Lisa and Will Stratford Rattlesnake Gutter Road

I [Lisa] make a big effort to grow as much of our own food as possible, and I make and freeze pesto for the whole year along with plum tomatoes and relish. What I don't grow I try to get locally. We definitely take fewer trips in the car. Also, I really enjoy hanging our laundry outside--have been doing it a long time--but for some reason I don't like bringing the laundry in from the line so I make the kids do that chore.

John and Sue Swartz Bull Hill Road

For years we raised a lot of food in our very large garden, but it got to be too much work. We had to save our own energy so now we use raised beds that are easier. We had blown-in insulation for the house. One way we have changed our habits is to do

more errands in one trip; I [John] volunteer time at the ER at Franklin Medical, so I do errands while I am there which means Sue needs to do less driving.

Edward and Patricia Thiebe Cider Mill Lane

We have significantly changed the way we use the car. We look at the calendar and see what appointments we have and then arrange all the necessary tasks for the week around those appointments. This is especially easy to do when you are retired and we know it is important to make as few car trips as possible. We also really enjoy the farm stands and all local food; it's so much better for you, too. We don't buy processed foods but it's a little harder for us now to have our own garden. We wish we could hang our laundry outside on the line, but we have some problems with allergies now. I really enjoyed hanging out the sheets; everybody did it back then and we were all fine.

Doing all these things never feels like a burden or an inconvenience. It's not necessary to brag about it but these are the right things to be doing and we feel proud and glad to be doing them.

Cynthia Thomas and Roy Kimmel Downtown Leverett

My brother and sister-in-law have a one-room cabin in northern Vermont where--typically--four to six family members gather at one time. There's electricity, propane, and water, but none in abundant supply. Life is simplified this way and we find we relish the uncomplicated lifestyle.

Every few summers when our water source dries up, we are fortunate to have access to a neighbor's pond but we have to haul all the water we need uphill in buckets. One quickly learns the value of water this way! Through judicious use and re-use, we have learned how to stretch a bucket of water. It's amazing how little water it turns out that we really need.

Such experiences call to mind how fraught with waste our contemporary lifestyle is. Energy comes abundantly with a flick of a switch. It's so easy...too easy. We just take it for granted and become careless. We're not the ones doing the hauling; unfortunately, it's our natural resources and the environment doing all the work.

What does it take to make us really think about excessive energy consumption? Do we actually need so much of it? What if each household were to go without electricity for one day a month or one week a year? Maybe toss out the car, too! It would be such an interesting challenge for each household member to make do with less--to have to rethink domestic energy use and change energy habits. Maybe we should challenge ourselves to reduce energy use each year by just 10%. Right now we can still think of this idea as a challenge; in the future, it may not be a choice. Unless renewable energy and conservation take a central role, there won't be enough energy for all of us at the rate we've become accustomed to using it. There won't be enough to go around. How do we get ourselves to really absorb what this means for all of us?

Shirley and Brooke Thomas Long Hill Road

Look Mom! This two-adult Leverett household reduced its energy use by 30%! In 2006, we used 4800 kWh; in 2007, 4125; in 2008, 3335. Taking the difference this is a savings of 1165 kWh/year or \$272/year. Here's how: we turned off unneeded lights; changed most light bulbs to compact fluorescents; insulated walls of this old house with blown-in cellulose; insulated cellar walls to 4 feet below ground; wash clothes in warm/cold water and air-dry on collapsible indoor rack or outside line; take shorter showers; replaced refrigerator and freezer with Energy Star; installed power-save capacitor on electric box to reduce energy surges from pump, fridge, and freezer;

insulated attic and sealed hatches; and installed solar hot water heater. MOST people in Leverett can do MOST of these things. And they will see results. Climate change is real and urgent and will affect us all, even in Leverett. Everyone: please do what you can.

The Tiner Family Cave Hill Road

Our efforts to reduce our consumption include: driving hybrid cars and driving less often; heating with wood; NOT buying bottled water; and bringing our own bamboo utensils and coffee mugs when we travel. We're working on doing more. [Ed. note: bamboo utensils available at the Co-op.]

Bruce Watson Montague Road

Our son is the "eco-enforcer" in the family but we all try to be vigilant about saving energy, buying local, and living responsibly to do our part for a healthy climate. The house has been insulated and reinsulated. I work at home which means I spend little time in a car.

When I think about my early influences I think of growing up in southern California: cars were ubiquitous and in 1968 there was a horribly memorable oil spill at Santa Barbara. The first Earth Day celebration in 1970 made a big impression on me. Bent on resisting the car and petroleum-based lifestyle, I became something of an iconoclast in high school. My group of friends—10 - 15 of us--got the idea that cars were not "cool" and bikes were. Our 10-speed bikes had great peer-appeal!

Portia Williams Weiskel Putney Road

My energy-saving actions overlap many cited here so instead I am taking the liberty to reflect on where our incentives to act come from. But first I can add two not-yet-mentioned things. I use a Neuton battery-operated (cordless) mower for what remains of our once-way-larger-than-necessary lawn. With two alternating batteries, it works in a way that's almost fun. No gas, no oil, no exhaust, much less annoying sound. Electric mowers are only as non-polluting as the grid that charges them, but this choice makes possible using some solar and wind power. Second, I've ardently advocated (in vain) against re-paving the private road I share with 11 other households because for years it functioned well as a gravel road, it's short, and dead-ends in the woods. Re-paving--except sections for safety reasons--seems an inappropriate use of a resource whose extraction--besides being massively polluting--displaces indigenous peoples and poisons their land. I see this as one example of the difficult choices involving the ethics of wise use, financial priorities, personal convenience, and community harmony that each of us faces all the time. I try to persuade my good neighbors that if the world's resources continue to be used at the current rate (like non-essential oil-based road paving), our choices down the line may become more like enforced imperatives. OK: Incentives. From my own life, a telling anecdote: When I was about ten years old, my father lined me up with my three brothers to deliver a lecture about dirt. We were standing on our unpaved driveway next to four tiny garden plots--each about the size of a bathmat. He got us to hold a handful of dirt and then pronounced something like this: "There's as much divinity going on in your handful of dirt as there is in all the cathedrals, churches, and mosques in the world." (This will sound less improbable when I explain that my dad was a minister and a university professor of history and religion.) My memory of this incident came as I was listening to other people expressing their sometimes surprisingly ardent commitments to change habitual and comfortable practices in order to live more conscientiously. Where does this ardor originate? I feel it, too, and

I now identify that Lilliputian-garden moment as my first epiphany; its impact has stayed with me all my life; and the "lesson" I absorbed to the best of my little-girl capacity is almost certainly behind the reason that I have--just one example--always turned off the faucet when brushing my teeth: water was one of the miracles and wasting it felt wrong. From a deeper source than "mere" personal virtue emerged a compelling belief that if the "Holy Spirit" was at work *in the dirt next to our driveway*, then everything must be sacred and interconnected and we had better shape up and treat all of Creation with the greatest reverence! Turning off the faucet to save water is not a big deal; it's effortless, if we've made it a habit. Remembering to bring re-usable shopping bags requires a little effort. What *really* requires effort, in my experience, is re-arranging one's life to adapt to the environmental realities of a climate-changing planet: having to decide, for example, whether to approach--in the most humble and least judgmental way--that person letting plastic trash float away in the ocean. Once you start to take in the implications of an egregiously polluted and plundered earth, it's hard to avoid awareness of the world's people who have no faucets and will suffer more with water shortages as climate-induced droughts intensify and expand. Knowing that most of those water-deprived people are the *least* responsible for the climate changes wreaking havoc on their lives becomes very hard to live with. As does--another sign of our arrogance and obliviousness--knowing that the ancient sea turtles choking to death on our plastic trash are entirely innocent. This has never been a just world and it's no fun to think about. Back to the present, I am deliriously fond of snow--the more blizzards the better (as all my friends will attest)--and cannot imagine life without fall foliage and the beautiful mountain and meadow vistas many of us cite as reasons for living in this part of New England. Watching the commercial desecration of these wild and agricultural landscapes has been dispiriting, especially knowing that much of this "development" is ill-planned, even unnecessary, and driven by short-sighted avarice.

In 1968, my husband and I gleefully established--with 20 dollars I'd earned substituting one day in Belchertown High School--our own "land fund" so we could protect some part of Massachusetts farm and forest land and have a place to live simply and grow our own food. Our motivations overlapped but I know that some of the high spirits and labor I contributed to our improbable venture were set in motion way back when my dad suggested a different way to look at dirt. My mother also gets credit: for years on summer trips with 4 of us kids in the car, she would spontaneously break into song--usually "O Beautiful for Spacious Skies"--whenever we came upon some new lovely scene. Years later--but also years ago--one of my kids wrote a college admissions essay called "The Benefits of Being Deprived of Television." There is definitely a benefit in being "deprived"--by your own choosing. On the land we actually acquired, many more people than just the members of my family have discovered over several decades a deep satisfaction of living with a few essential things and not much else. (Some people might call this life deprivation.) For weeks every summer, we had no electricity (we read by oil lamps), a primitive water-collection set-up, an outhouse hand-built to USDA specifications, a gas stove and refrigerator, "showers" in the Deerfield River, and milk from our dairy farm neighbors. For entertainment, we had our own melodramas, lots of visitors, our books, the views from our tiny dwelling, and occasional outings to Shelburne Falls. Seasonal, alas, but still a pretty unbeatable way to live a few months a year. And when we returned to Leverett every autumn we had a phone and electricity, but in other ways we duplicated the choices we'd selected in our summer life. Thoreau famously said, "I went to the woods because I wished to live deliberately, to front only the essential

facts of life... [so that] when I came to die [I would not] discover that I had not lived." There's a reason we still revere Thoreau: he was right. As were those early insights about dirt. The relevant point for this publication is that the experience of voluntarily eliminating non-essentials turns out to be deeply satisfying. It's why I'm not fearful of global changes that ask us to make more with less.

Dona Wheeler Putney Road

The ideas about conserving resources and acting mindfully about the health of the planet have been with me as long as I can remember. So I've always re-cycled, carried my own bottle for water, and, since being in Leverett (out of New York City), I've dried my laundry outside (my mother did, too) or in the basement in the winter. It really pains me to see cans and bottles thrown in the trash and people may think I'm odd but when I see them I pick them out and clean them at home and recycle them later with my own. [Another lunatic!] All that Styrofoam and plastic for take-out food you see, that bothers me, too. I could do with a lot less plastic. I got the new light bulbs and I am conscientious about making fewer trips in my car. These measures have been in my repertoire for so long that I never feel I am inconvenienced or making a sacrifice. It's just what we all should be doing. Recently I started my own garden in the Putney Road Community Garden space and I bring compost there and look forward to growing some of my own food. I buy local food including eggs from my neighbor, then I crush the eggshells and bring them back to her in a container and she uses them for grit for the chickens that are laying the eggs. A pretty good system!

Mary Alice Wilson Juggler Meadow Road

Do we think there is a real and urgent energy crisis? Oh, yes, absolutely! And what have we done? Well, just as you called my husband has returned from riding his bike to Cows because we noticed the skylights are not properly insulated and needed some foam insulation. Our house now is actually the first house we've ever lived in that doesn't have a draft when the wind is blowing! We have added several features with greater energy efficiency in mind and we heat mainly with our own wood. Just by chance, as we are talking here, I have canned peaches from Clarkdale's cooling on the breadboard and the laundry is drying outside. One thing I do not feel good about is that because of my waning eyesight I had to get a different car for safety reasons that I couldn't make more energy-efficient. You'd be glad I was driving it, however, if we ever came close to running into each other!

Martin and Judith Wobst Montague Road

We've always recycled so that's not really a change in the last few years, but we do make a significant effort to buy more locally produced food. We also conscientiously schedule our use of the car to do more errands with fewer trips. A lot of us in Leverett work at the University--each one going in a separate car; it would be a good idea to arrange some kind of bus/van schedule that would get us to a central point on the campus. I would be willing to participate in a plan like that. Other things we've done include replacing an old klunk of a refrigerator and a quite antique dishwasher--the new ones use significantly less energy--and incandescent bulbs with the new ones. We bought our house from Muriel Bourne [a former Leverett postmaster] and she had an elaborate line-drying set-up in the back. It was pretty ingenious; it ran from a telephone pole to a fixture right outside the kitchen window so you don't even have to go outside to hang up your laundry. We use the set-up in all the months when you can dry outside. We tried a push mower for our lawn, the kind without an engine, but our surfaces are too uneven to make that change work well.

Collin Woodard Amherst Road

My approach to the ailing planet differs from some of the actions I see older people taking, like changing light bulbs, and driving less in more gas-efficient cars. These are important, but I am more devoted to helping change the spirit of living on the earth. We have to get beyond the lame-vote government approach because it is serving narrow and private interests and make changes in our attitudes that serve the needs of the earth itself and its inhabitants. For some people of my age, being an environmentalist has more to do with attuning ourselves to the earth and recognizing how we can serve it. We are all made up of the earth; we're 80 % water, for example, and as such each of us is a voice of the earth. I've made a TV show to help create a more positive relationship with the earth; it involves a kind of verbal warfare against exploitative corporations and consumer culture.

Paul and Arlene Woodard Amherst Road

Although we have now grown too old to keep up with our lifelong practices, we did for many many years burn wood from our own land to heat our home and grew a lot of our own food. We knew how important it was--and is--to be respectful of the natural resources and people around us, and also knew we had to take care of what we had.

Steve Woodard Amherst Road

The home I built is south facing with metal roofing that reflects the sun; it's passive solar now and I am preparing it for installation of solar panels. We burn wood and also use the heat to make hot water; we've gotten down to using just 3 cords of wood for heating. We support local food and farmers' markets and have built raised beds to grow some of our own. Recently I completed a course at GCC in retrofitting older and very old houses to bring them up to more current and higher insulation values. The course is designed to encourage younger builders to help homeowners save energy. [Ed. note: Steve is now certified to consult on this new kind of retrofitting and available to Leverett people etc for professional assistance.]*

[Not included here? Want to be? Send your comments to: cynthia@crocker.com]

Our Leverett "Institutions"

Leverett Elementary School Montague Road

From Anne Ross, Principal: About three or four years ago--around the time people were getting concerned about using plastic bags--we began our school-wide Going Green program and many of the things we learned and changes we made have become institutionalized. For example, we re-cycle all the milk cartons in the cafeteria.

Since then, we've made lots of changes in heating and lighting, but our most exciting (and recent) change is our new greenhouse to grow food for our cafeteria! Susie Chang and Lydia Peterson initiated the project because they were interested in broadening the school's nutritional education. We're having a greenhouse dedication ceremony in September. Beginning with a generous grant from People's Bank, there are so many people who have helped: Molly Snedden in the cafeteria (she buys from local farms what we don't grow); Susie coordinates volunteers; David Powicki was the foreman for much of the building; John Kuczek helped in all kinds of ways; Lydia does

construction and purchasing; Cindy Tarail is our master gardener; Rebecca Sanders worked on the greenhouse all summer and is integrating the lessons coming from each class curriculum into the greenhouse programs. We had a volunteer from Americorps who interviewed all the teachers for ideas about applying their teaching units in the greenhouse. There are other related projects; we have raised beds for individual class use, and last year Nancy Gibavic ran a unit on waste, specifically the amount of food wasted in the cafeteria by folks taking food they end up not eating.

From Dorothy Cresswell's Kindergarten

[Ed. note: If the LEC ran the world, we'd be tempted to mandate Dorothy's class for every child in the USA. Just read on!]

The Leverett Kindergarten is a great place to learn to be green! We start the year learning about re-cycling and re-using waste. In the first two weeks of school we learn the songs "Good Garbage" and "Shut Off the Water!" as we strive to learn good earth practices in our daily habits. We use the front and back of a paper before we put it in the re-cycle bin. We shut off the water immediately and only take two paper towels (one for each hand) when washing our hands. We wash our plastic containers and use any foil or cardboard containers in our "Creation Station" activity area.

Our in-depth unit about Native American families continually re-visits the theme of the interconnectedness of all life, to use only what one needs, and to respect all creatures and their environments. We plant a "garbage garden" in September, sorting our snack leftovers and packaging and predicting what will and will not decompose. Then we plant them outside, covered with soil, and let the seasons do their work. In June we dig them up and see what broke down into soil and what did not. It's one of the most memorable science experiments of the year. We have a classroom job called "Lights" and that person turns the lights off every time we leave the room. We also listen to songtapes during rest time that emphasize being "earth keepers." Sarah Pirtle, Magpie, Ruth Pelham, Pete Seeger, One Journey, and others have an abundance of musical reminders of the beauty and wonder of our planet and our part in preserving it.

From Bill Stewart's 4th grade

[Ed. note: the LEC salutes Bill and his students for such an impressive and reassuring list of activities.]

Fourth Grade Class brainstorm: "What do we do to help the Earth?"

All 19 of us recycle! recycle! recycle! paper, glass, metal, and plastic;

we re-use old cardboard boxes, wrapping paper, and containers;

we pick up trash;

some of our families are installing solar hot water panels, some have solar electricity;

some of us (and our teacher!) ride, run and/or walk to school every day.

From Ellen Gow's 6th grade

[Ed. note: the LEC is pleased, impressed, and reassured to read about all the actions you have listed here. We are more hopeful about the future of the world because of you. Thank you.]

Sixth Grade Class brainstorm

carpooling to and from LES (school choice students);

carpooling with others who live in town;

separate cans, plastics, paper, glass;

burn paper/newspaper in woodstove;

turn off running water while brushing teeth;
turn off lights when leaving a room;
converting to energy-saving light bulbs;
put in vegetable gardens and raise chickens for eggs;
pick up trash on road near one's home;
compost;
have an energy audit in home and then do an energy retrofit;
install solar hot water panels;
turn off electric devices when not in use;
ride bike whenever possible to avoid using car;
buy energy-efficient appliances;
run dishwasher only when full;
hand wash dishes in sink but not with water constantly running;
use correct setting for clothes washer;
hang laundry outside when weather allows;
drive one car, not two;
re-use paper;
eat food cold not heated when appropriate;
use hand-me-down clothing;
re-purpose items like detergent jugs for scoopers and dryer lint for crafts;
also, one student reported moving soon into an energy-efficient home.

John Kuczek School Custodian

John has been hard at work implementing many energy saving changes in the school and other Leverett buildings. A report of his work will be posted in the next town newsletter.

After School Program Mike DeRosa

In all the activities we do with the kids we emphasize the basic energy-savings actions--like re-cycling, re-using, not wasting paper, turning off unneeded lights--to help make them routine in their lives. We have also made up projects using ideas from the Carbon Footprint books for kids.

Leverett Dakin Shelter Montague Road

Workers at Dakin have always been mindful about environmental concerns; we began a re-cycling program years ago and intend to expand it. There's been a lot of work done as well with eliminating invasive plants that have started to take over some parts of the grounds; we hope in the near future to work with Nasami Nursery in Whately to plant native species. We are also in the midst of a major overhaul of the shelter. It used to be a dog kennel and some of the walls were made with cement blocks without any insulation. Each part of the site in Leverett--plumbing, electricity, water resources, heating/cooling, re-cycling, and the grounds--is currently being re-evaluated with strong environmental stewardship in mind as well as other concerns. Insulation and energy-efficient windows will certainly be involved.

Leverett Library Montague Road

Linda Wentworth: The library offers the best way for readers to reduce their environmental impact. Borrowing and returning a book is the ultimate form of re-cycling! No trees are cut down each time a reader needs a book. To save the most energy, one can walk or bike to get here. We have books and DVDs that provide information about the environment and ways to halt climate change. We accept

donations of used books in good condition (no textbooks) and recent issues of magazines. We give away or sell these to raise funds for the library.

The library has a geothermal heating and cooling system. It has taken a few years to get it to work properly, but we hope to save lots of energy with it. Instead of throwing away paper, we cut it up for notes. We re-cycle the library's old printer and copier cartridges.

Leverett Village Coop Rattlesnake Gutter Road

Paul Rosenberg: About 2 years ago, we started changing to more efficient lighting and are always insisting on everyone turning off lights and computers not being used. Currently, we are awaiting the results of an energy audit for advice about the larger equipment in the store and investigating use of solar panels. We have always bought local but are working hard to expand since there are many more local farmers with year-round product now. We are stressing re-cycling more than ever and have a new program set up to become a collection center for people's used clothing that will be passed on at no cost to people with clothing needs. It still remains cost-prohibitive for us to retrofit old equipment used for cooling but we are looking to a time when we can. Composting has escalated here; we work daily with 2 farmers who pick up for their animals. We sell water in one kind of bottle--Ciao!--made from compostable material and would like to sell only this kind. We sell a set of bamboo utensils to have in your car to avoid all those plastic spoons, etc. They are sturdy and fun to use--a spoon, knife, fork, and chopstick. Our paper plates are compostable but not yet the coffee cups. We're working toward having all compostable eating utensils at the Coop.

We are looking forward to working with a regional association of food coops--about 30 in Massachusetts, Vermont, New Hampshire, and Connecticut--to establish a regional economy. We have finally done away with plastic bags and would like to do away with all bags, promoting the use of bring-your-own bags.



Random and Relevant Information to inspire second thoughts and more incentive to take action

*Maybe it is worth doing the small individual gestures; *Conservation* magazine reports that Americans acting together could reduce greenhouse gasses by 7 % by making 17 relatively effortless changes in some daily habits. See websites.

*Leverett is lucky to have one form of public transportation; it's called the SCHOOL BUS! Please have your children use this energy-efficient way of getting to school.

*Leverett town buildings have reduced energy use by 25,000kWh or \$2,400.

*A 2004 report by the Pentagon warned Americans that global climate change is not only real but makes for a national security crisis all on its own (eclipsing terrorism) by creating climate refugees, resource wars, and anarchy.

*Although Congress has been unable to pass any significant legislation on the climate crisis, the Federal Stimulus Plan has provided significant support for action on energy

efficiency. The \$787 billion American Recovery and Reinvestment Act of 2009 invests over \$90 billion in a green energy future (\$10 billion goes to low-income weatherization assistance; \$20 billion goes to expanding the Federal Energy Tax Credit; \$8.9 billion goes toward retrofitting government buildings and assuring green building techniques for all new government buildings (there's much more). Some goals: cut solar costs in half; triple number of "smart meters" in US homes; quadruple number of government-owned hybrid cars; significantly expand rail system; and at the same time create 700,000 green jobs. [Ed. note: what happens if these measures don't survive the scheduled colossal spending cuts?]

*Some predictions from various established sources: USGS reports: Glacier National Park will have no glaciers by 2030; worldwide seafood supply could collapse by 2048; between 15 and 40 % of species could be extinct by 2050; from MIT: since the 1970s there has been a 100 % increase in intensity and duration of severe storms.

*Some estimates from *Save Our Planet: 750 Everyday Ways You Can Help Clean the Earth* (1990): enough solar energy arrives on earth everyday to heat every home in the world free for a year; twenty trees are required to keep one baby in disposable diapers for 2 years; if your office re-cycled 1 ton of all the paper used, your efforts would save 17 trees and keep 60 lbs. of air pollution out of the air.

*Since 2002 scientists at the Natural Resources Defense Council have been encouraging Major League Baseball to "green" its member stadiums and practices--with lots of success (solar-powered scoreboards, re-cycling, no-flush toilets, soy-based ink for printing programs, energy-efficient vending machines, etc.).

*Wind statistics from Union of Concerned Scientists (UCS): (1) One industrial-scale wind turbine has 8,000 plus parts; 60% of these were made in the USA in 2009, up from less than 20 % in 2006. (2) USA electricity from wind power was 1.5 % in 2008; generating 20 % from wind power would keep a cumulative total of 7.6 billion metric tons of heat-trapping CO2 emissions out of the atmosphere. (3) Well-sited wind turbines are equivalent to natural gas in generation of lowest-cost power resource.

*Some disturbing facts cited by *Mother Jones* magazine: an American child generates as much CO2 as 106 Haitian kids; a typical baby in the USA uses up to 3,800 disposable diapers by age 2.5; 96 % of USA kids use disposables; in 1990s measurements, a USA kid will--in a lifetime--be responsible for 3.1 million lbs of CO2; 7,249 food waste; 22,828,508 lbs of wasted water; 223 trees are required to offset the CO2 produced by a child watching 3 hours of TV everyday for 18 years; all above statistics based on 1990s calculations.

Lights

*Lighting accounts for 20% of energy consumed in the United States.

*Incandescent bulbs use 80% of their energy producing heat, not light.

*A CFL light bulb might be a nuisance to some (slow to become bright, etc) but its use eliminates 262 pounds of CO2 and saves 600 lbs. of coal over its lifetime.

*Changing JUST ONE incandescent bulb for a soft white CFL in each American home would save enough energy to power 3 million homes for a year. Replacing the FIVE most-used lights in your home with CFLs saves 580 lbs CO2.

*If every American switched to energy-efficient bulbs, enough power would be saved to illuminate 3 million homes a year and save \$600 million in energy costs; some other studies report different numbers, but savings are always surprisingly large.

*Compact fluorescent light bulbs (CFLs) are important energy-savers, but they must be handled and recycled properly because they contain a small amount of mercury. If a CFL bulb breaks, open doors and windows and have pets and people leave for 15 minutes; shut off forced air source; carefully scoop up glass pieces and powder and place in sealed container. Use sticky tape to pick up remaining tiny fragments; wipe area clean with damp paper towels and place waste and towels in a sealable container; do not use a vacuum or broom on hard surfaces; do vacuum an affected rug area and remove bag and put bag in sealed container. With a damp cloth, wipe vacuum canister. The Leverett landfill accepts both this waste and all burnt-out bulbs.

Water

*Americans add 30 million plastic water bottles to landfills--EVERY DAY; [Now, that's scary!] 1.5 million barrels of fossil fuel are used to transport water bottles each year; (See why your Energy Committee put up that "Drink Responsibly" display?)

*80% of plastic water bottles are NOT recycled; they last intact 1000 years.

*97.5 % of earth's water is salt water; one half of remaining 2.5 % is frozen; desalination leaves concentrated saline brine for an uncertain method of disposal; 40 billion gallons of water are bottled by bottling companies.

*The average American family uses 400 gallons of water a day; 125 of those gallons are used by showers and toilets; 50-75 gallons water gardens and lawns.

*Eliminate one meat meal a week to save the earth 40,000 gallons of water, 70 pounds of grains, and the atmosphere 300 pounds of greenhouse gases.

*Installing water-saving devices eliminates 460 pounds of CO₂ from the atmosphere and saves 7800 gallons of water each year.

*Laundry math: Electric clothes dryers use 6% (DOE) of household energy use. Dryers use between 3.4 and 4 kWh per load; at 1.55 lbs of CO₂ for each kWh, each load sends 6.2 lbs. of CO₂ into the atmosphere. Gas dryers are responsible for releasing 3.2 lbs. For average family, air-drying half your laundry keeps 1,000 lbs. CO₂ out of the atmosphere. Solution: line dry.

*The Pew Research Center polled 1,000 Americans about appliances and energy use. In 2006 83 % said a clothes dryer was a "necessity" not a "luxury"; in 2009, 33 % had decided the dryer was a "luxury."

*Keep 7000 lbs CO₂ out of atmosphere per year by washing in cold water and another 700 lbs by line-drying your clothes.

*Some landlords, legislators, home-owner associations FORBID outside drying of laundry, claiming it to be "unsightly" and/or a "shameful" sign of poverty. This is one stale idea! Think: Clotheslines are cool! Clotheslines show you are doing something to combat the climate crisis. Be PROUD of your clothesline!

Electricity

*How to estimate appliance and home electronic equipment: wattage x hours used per day + 1000 = daily kW consumption; 1 kilowatt (kW) = 1,000 watts. Multiply the number of days you use the appliance during the year for annual consumption; for annual cost, multiply hours by current electric rate.

*A fan uses 30-70% less electricity than AC. Solution: open windows at night, shut them in the morning and pull the shades.

*Desktop computers draw 2.5 times electricity as laptops.

*Energy-vampires (use energy even when off): computer, laptop, printer, scanner, monitor, VCR/DVD. "Off" is not enough. UNPLUG.

*Examples of wattage use: clock radio: 10 watts; clothes dryer: 1800-5000; toaster oven: 1225; vacuum cleaner: 1000-1440; laptop: 50; flat screen TV: 120; see energysavers.gov/your_home/appliances/index for more examples.

*By one recent calculation that assumes that half of all video game consoles remain plugged in, about \$1 billion worth of electricity is wasted; the solution for this and other "vampire" thieves is a "smart" power strip with multiple outlets; you can be lazy and energy-efficient at the same time.

*If you need the sound of companionship in your home, use radio instead of TV.

*Unplugging video game consoles and beauty appliances like personal hair dryers could save as much as 20% of a home energy bill; need an incentive to faithfully unplug them? Think of them as "vampire energy suckers"!

Car

*Skip one car trip a week (double up or carpool) and eliminate 950 lbs of CO2 emissions each year; driving 10 fewer miles per week saves 510 lbs of CO2.

*On average, one car generates 2,426 pounds of carbon a year. Approximately one acre of trees offsets the carbon from one car each year.

*There is a "green" 24/7 roadside assistance service alternative to AAA; [betterworldclub](http://betterworldclub.com); besides [serviciebicycles](http://serviciebicycles.com) too, and they lobby for mass transit.

*"Bio-diesel" fuel, made from vegetable oil, works in any diesel engine and burns much cleaner than conventional diesel fuel. The Air Force uses it.

*"Grease-powered" cars work in modified diesel engines and use a waste product called fryolator oil.

*In its 2009 Best of the Bad category, Green America recommended Sunoco as the least irresponsible place to buy gas, Exxon Mobil is most irresponsible. Reasons: Sunoco (in 2009) was the only oil company to sign the Ceres Principles, a corporate code of conduct about environmental responsibility and transparency; it reduced its own energy consumption by 12% from 1990-2005, and is a member of the Pew Center's Business Environmental Leadership Council (members acknowledge global climate change); Exxon Mobil lobbied against the Kyoto protocol, is heavily invested in tar sands technology, and for 15 years it tried to avoid legal responsibility for the Exxon Valdez oil spill.

Home heating

*Turning down the thermostat one degree for 8 hours saves 1% annual heating cost. Raising your thermostat one notch raises your heating bill (by one reliable estimate) 3%.

*Changing the thermostat 3 degrees (down in winter, up in summer if you have air conditioning) keeps 360 pounds of CO2 out of the atmosphere each year.

Food

*Estimates suggest that one spoonful of food travels between 1,500 and 2,000 miles to reach your plate. Another reason to eat local: a strawberry with 25 calories of energy uses exponentially more energy to get to you. Pick/grow local strawberries

and freeze them. (Warning: long distance strawberries are the most heavily sprayed commercial fruit.)

*Growing 1 lb of beef takes 145 times more fossil fuel than growing 1 lb of potatoes. It takes 1,799 gallons of water to produce 1 lb. of beef.

* "The Hummerlike inefficiency of the beef cow never really mattered when feed grains were cheap." Paul Roberts, *The End of Food*

*Unless we grow our food or buy local, much of what ends up on our plates has--by one estimate--traveled 1500 miles to get there.

Lawn/garden

*A square foot of lawn has 850 grass plants and 392,000 miles of roots.

* American lawns comprise 30 million acres; most use petroleum-based herbicides and fertilizers. A household choosing to NOT USE lawn chemicals and garden pesticides prevents 15 ounces of very toxic chemicals from contaminating lakes, rivers, and streams (an ounce of diazinon can poison 94 million gallons of water). Now, that's scary.

*A single riding lawn mower creates as much pollution in one hour as 34 cars. Multiply this by 30 million acres. You do the math.

*Gas-powered lawn equipment (mowers, edgers, leaf-blowers, chain saws, weed-whackers) don't use much gas or oil but they contribute disproportionately to greenhouse gas emissions (GHG); a 5-horsepower mower can emit more CO₂ than a 200-horsepower car.

*A "new" tree will offset approximately 13 pounds of carbon a year. Plant one.

Suggestions for inspired and/or prudent actions

Warning: expect some redundancies here.

EFFICIENCY! CONSERVATION! EFFICIENCY!

Always look to these solutions first.

REFUSE, REUSE, RECYCLE!

No one argues against conservation, anti-wastefulness, or efficiency. Imagine: You can do the right thing about the climate crisis and NO ONE will argue with you!

Sometimes context and availability are important variables, e.g. sometimes disposable diapers are not worse in terms of energy consumption than cloth diapers, and wood stoves, while not adding significantly to GHG-emissions do add particulate pollution. The point is to examine the whole picture before deciding. The best efforts are those that are effective but don't turn us into self-righteous curmudgeons!

BEST WAY TO SAVE ENERGY? FIND WAYS TO NOT USE IT.

RE-CYCLING is an activity nearly everyone participates in. Keep up with the most recent information by reading the inserts periodically published in *The Recorder* and *Daily Hampshire Gazette*. For example, the Springfield Re-cycling Materials Facility is now accepting those ubiquitous clear plastic "clamshell" packages and non-hazardous material aerosol containers. Don't forget to re-cycle your hazard-filled electronics.

Take seriously your responsibility to recycle cell phones and other electronics to reduce need for additional mining and manufacturing. Re-cycled paper uses 64 % less energy and 58% less water resulting in 74% less pollution while saving 17 trees per ton of paper made.

Cell phones that you don't want can be refurbished and given to people who need them.

Give unneeded eye glasses to eyeglass stores or Give the Gift of Sight.

Unwanted videotapes will be taken (along with other unwanted electronics) by GreenDisk.

Ink cartridges can be recycled at Whole Foods in Hadley, Ink and Toner Solutions in Northampton, and at Staples.

Re-purposing: Get clever about adding to the list. For example, place old automotive floor mats under dog bowls or kitty litter boxes to minimize mess; use clean, wide-mouth cans to scoop out dry dog food and curvy glass jars for vases; gift wrap with the comics section, old calendars, left-over wallpaper; old maps; brown paper with stickers; or wrap one gift in another--use a re-usable shopping bag for "wrapping"; use feed grain bags for trash bags (you still have to pay but you save \$ and plastic).

PLASTICS

Remember how energy-intensive and toxic the manufacturing/disposal process is, then avoid using plastic.

Using your own cloth/canvas shopping bag twice a day or 14 times a week saves 7000 paper bags each year and one 15-year-old tree from being chopped down. Suggestions on reducing plastic use; just say no straw for my drink, please; for restaurant leftovers; bring your own containers; buy laundry detergent that comes in cardboard boxes; buy food in glass jars, then use the big ones to store all those grains/sugar etc you bought in bulk; milk in returnable glass jars is almost certainly local, in non-plastic containers more likely to be local; don't buy eggs in plastic/foam containers and re-cycle the non-plastics at the landfill or use for kindling; bring your own non-BPA-lined stainless or aluminum beverage/coffee container; substitute vinegar, lemon, and baking soda for (often toxic) household cleaning agents in plastic container; use farm-sized feed bags (your own or your neighbor farmer's) for trash bags.

LAWN CARE

First, ask: Is this lawn really necessary? The whole lawn? Does the size of it justify all the work and gas/noise pollution it takes to keep mowing it? Does it have to look like a golf course? Are there alternatives? How labor-intensive are they?

Next, contemplate the following scenario: In the beginning, people put grass seed on their lawn using a petroleum-based fertilizer; the grass grows; the grass keeps growing so they use (usually) a gas/oil combustion mower to mow it down; the grass grows back and the cycle begins all over again. The ultimate absurdity is the act of putting all the grass-clippings into a petroleum-based plastic "trash" bag and hauling them off to a landfill. It's a cycle repeated in many parts of the USA. Since grass clippings are themselves fertilizer they do their best work just being left on the lawn. You can reduce by 2 or 3 times the number of mowings per season by setting the blade higher; longer grass also helps to shade out that ubiquitous crabgrass.

"Green" Your Lawn: determine right size for your needs, plant hardy, mixed grasses that don't depend on petroleum-based fertilizers, leave clippings on lawn for a natural fertilizer, mow sensibly--no more than 1/3 blade, less frequently; use push or

electric mower--makes less or no noise and pollution and it's good exercise, maybe buy a goat or sheep (or "rent" one) for rough areas (they also eat brambles and poison ivy). An electric battery-operated lawn mower is easy to start and use; it gets you out of the gas/oil/exhaust mess, costs significantly less to run, even keeping two batteries charged.

Think of your lawn/natural surroundings as energy savers (as well as sources of beauty, exercise, and play): think windbreaks, microclimates, water conservation, and shade for cooling in summer, warming in winter. Gutter spout rainfall collected during a half-inch rainfall on a 1,000 sq. ft. roof can yield up to 300 gallons good for lawn, flowers, outdoor washing projects; rainfall collected from a clean metal roof can safely be used for vegetable gardens, as well (no animal or other bacteria); for lawn ideas that are "greener than grass" use recommendations from the Arnold Arboretum for minimizing manicured lawn and maximizing good wildflower-meadow-grass mixtures for areas designated for minimal mowing.

Establish a native flower/plant meadow in an unused lawn area or use groundcovers; OR plant a few herbs--mint, chamomile, and thyme are a winning combination, sending up lovely fragrances as you walk on them.

Dandelions on the lawn--like laundry on the clothesline--have unjustifiably suffered a bad reputation: line-drying laundry as a sign of poverty and dandelions as a sign of lawn "mismanagement" associated with poverty. Dandelions are edible and if their lawn space is taken care of they won't take over and make "bald" patches.

Grass doesn't need to be everywhere: if the editor is remembering accurately her 4th grade geography, grass (sod) is nature's astonishingly efficient mechanism for keeping dirt attached to the earth. Denser green growth--even more effective against erosion than sod--can only get going if grass has stabilized large areas first. Brilliant. But, from Nature's point of view, Americans in general have gone way overboard on lawn size. We can change this habit, still enjoy different kinds of green beauty around our homes, and not emit lots and lots of CO2 and other disagreeable pollutants. Town "greens" in New England and elsewhere were grassy expanses, but they were also used and maintained by everyone's livestock. Thus, the word "Commons."

Turn your lawn into food! First Lady Michelle Obama is setting a formidable example to many Americans. According to a National Gardening Association survey, seven million more households planned to turn their turf into food in 2009 than 2008--up 19%.

Gardening and Composting: Do both. If you want to start a garden for the spring, pick the area in (fall) and pile on layers of non-colored newspaper, clean cardboard, leaves, straw, old hay, all-paper pizza boxes, etc. Called "lasagna gardening"; layers will decompose on the ground and be ready for relatively easy garden-making in the spring. Cardboard attracts earthworms--the garden's best friend.

How About Raking Your Own Leaves? Really, is there a sillier or more *useless* gadget than a gas-powered leaf blower? Americans in general need to be more fit and less plump. Unless you have shoulder or arm problems, just get a nice rake and go to work! Besides healthy exercise, you get to breathe clear autumn air and listen to the sound of raking leaves--a sound guaranteed to bring on waves of nostalgia in some of us old-timers!

PURCHASING / CONSUMER HABITS

Each purchasing choice you make reflects the kind of world you want to help create. For example, if you eat meat, you can choose local grass-fed beef, a choice that reduces CO2 emissions. (Go online.)

Some questions to ask yourself before purchasing: do I really need this? Could I fix the old thing? Where does this item come from and is it worth the natural resources price that went into manufacturing and transporting it?

Support the US Post Office's GO GREEN Campaign: buy the "Go Green" stamps and look at the good advice on each stamp; imagine! the USPO is urging us to line-dry our laundry! According to their sources, a gesture as small as re-cycling a single aluminum can saves enough energy to run your computer for three hours.

Banking Go local. Consider switching from mega-banks (more likely to be implicated in destructive environmental projects) to community banks and credit unions that help keep money local.

Buy locally grown Choose local for taste, farmer support, transportation/energy costs; most local growers use IPM (Integrated Pest Management) practices anyway, using the fewest sprays. IPM started at UMASS and is widely used.

Bottled water? Think twice: your well water is almost certainly as good, probably better; transporting "exotic" water to your store/house uses way too much energy; besides, how do Coke and Pepsi etc get to own/sell water? (OK, that's a different issue.)

Buying wine? For larger groups, buy a 1.5 liter because 2 750-milliliter bottles use more energy to transport; best to use 3-liter box for big groups.

Re-cycled paper uses 64 % less energy and 58% less water resulting in 74% less pollution while saving 17 trees per ton of paper made.

Newsletters and Periodicals: If they arrive in a plastic bag, ask publishers why and consider asking for eliminating the practice. Take a trip to your local library for periodicals.

Junk Mail: Cutting junk mail in half saves 1/6 of a tree, 70 gallons of water, and 46 pounds of CO2 each year. What a waste of trees and energy. Solution: www.directmail.com/directory/mail_preference.

Gifts: Besides making your own, reconsider the whole holiday gift-giving pressure: gifts of time, coupons for child care/housekeeping help and food are often more welcome than more stuff.

Roadside service: Consider Better World Club ("out to change more than tires"); it lobbies for reducing automobile greenhouse gas emissions and for more and better bike lanes; it has roadside service for bikes.

Desktop Computers use 2.5 times as much electricity as laptops.

Coffee: There's more than one reason to go out of your way to purchase Fair Trade/shade grown/organic coffee. According to the Rainforest Alliance, clear-cutting in the rainforest (for cheap and easy coffee and cheap fast-food hamburgers) accounts for 20 % of worldwide greenhouse gas emissions. Rainforests are carbon sinks. Shade-grown coffee preserves the trees for migratory songbirds without which they perish. Choose Fair Trade it is better for the coffee laborers, plantation owners, songbirds, and climate stability. Many of our favorite local haunts offer it. Just ask.

DOMESTIC HABITS

Estimating energy consumption formula: wattage x hours used per day + 1000=daily Kilowatt-hour (kWh) consumption; 1 Kilowatt (KW) = 1,000 watts. For annual consumption, multiply by number of days in year appliance is used.

Phantom Load: What is "phantom load"? Some appliances suck energy even when turned off; examples include DVDs, televisions, microwave ovens, computers, laptops, etc. UNPLUG or attach to power strip and turn them all off when you're not using them. It's not necessary to unplug toasters or irons unless they have timers or

some other gadget that keeps working when you're not using. A set-top digital video recorder is uselessly wasting 37 watts even when turned off. Again: unplug.

Lighting: Use incandescent or non-CFLs for quick use on/off needs (CFLs' impressive efficiency is impaired by short-term usage); use CFLs or LEDs for lights you use the most and longest; MassSave suggests "task lighting" (instead of brightly lighting a whole room, light area you're using); be sure you understand the fire-hazard specifications for the otherwise efficient eco-labeled halogen bulbs; a LED recommended for outdoor dusk-to-dawn NEMA Type 5 fixture is the 40W Clearlight made by Evluma;

Water Use: If you're an average family you use 400 gallons of water a day; look for EPA WaterSense label for toilets, showers, etc; catch rainwater for dry periods in the garden in collection buckets or rain barrels with anti-mosquito lids. Solution: try using less.

Bathing, Washing, Drying, Laundering: first ask, "Does this once-used towel really need to be washed?" (Especially since I used it after I got myself clean.); also ask, "Do I fall for detergents that promise my laundry will smell 'spring fresh' or do I want fresh spring-scented laundry because I hang out my wash on a fresh sunny day?"; when you can, replace old appliances with Energy Star; wash/rinse clothes in warm/cold water or cold/cold; get low-flow shower heads and faucets, set hot water tank to 120 degrees; line-dry clothes inside in winter (adds humidity), outside, smells so good; add a little vinegar to rinse cycle to soften clothes; TIPS: hang shirts and socks upside down to avoid any "stretched" look where it is visible. Also, don't be dumb: don't hang clothes underneath bird perches; can't give up the dryer? Be a dryer "reductionist" by tumbling clothes for 5-10 min. to get rid of wrinkles, then line-dry; schedule your most intense energy-use activity (washer/dryer) as far from midday as possible; midday is peak use time, greater electricity demand at peak time means more power plants must be built. According to one WMECO spokesperson, the main reason for the utility's programs and incentives to get us to use less energy is to avoid an expensive and conflict-ridden process.

Dishwasher: Operate only when full and let dishes air-dry.

Cooking: defrost in refrigerator to save cooking time; use toaster or microwave oven for smaller meals and the smallest pans for stove-top heating.

Entertainment: When/if you need a new TV look for models designed to save the most energy and contain the least toxic materials (plasma TVs are energy-devourers).

Heating/Cooling: Hey! It's summer! It's *supposed* to be hot! [Editor's Comment on a hot summer day.] The earth wasn't made JUST for our comfort, was it? House too cold? Wear socks, a hat, a nice comfortable sweatshirt!

House too hot? Pull shades, close off unused rooms, keep settings low, fans use much less energy than AC units, so before you succumb to buying AC ponder the following (obvious) irony: the energy used to run the AC adds to the heat in the atmosphere you are trying to escape. Ceiling fans can save up to 19% of your electricity bill. In winter, switch them to turn clockwise to circulate the warm air back down into the room; fans cost 30-70 % less than AC.

Energy New England reminds you to keep cold air from flowing into your house through switch and outlet gaskets by adding foam gaskets: 1, shut off power; 2, use screwdriver to remove screws holding cover to wall; 3, position foam gaskets; re-screw back together; 4, turn power back on.

Also, remember to do something to keep warm air from flowing up and out of your fireplace; close damper when not using fireplace OR if you don't use fireplace seal if

off; you can save up to \$390 and 1850 lbs of CO2 with an annual heating system tune-up;

Refrigeration: Recommended temperatures for fresh food--37-40 degrees, freezer--0 degrees. Vacuum coils once a year AFTER unplugging appliance. Keeping cold water in refrigerator that comes out of faucet too warm to drink does double duty--keeps it colder in refrigerator, wastes no water; check door gaskets for impaired functioning.

Green Burials; Readers may not understand yet that the concept of green burials represents a major opportunity to change the very energy-and-land intensive traditions about death and burial. See website listing for info in Western Massachusetts.

CAR TRAVEL/TRANSPORTATION

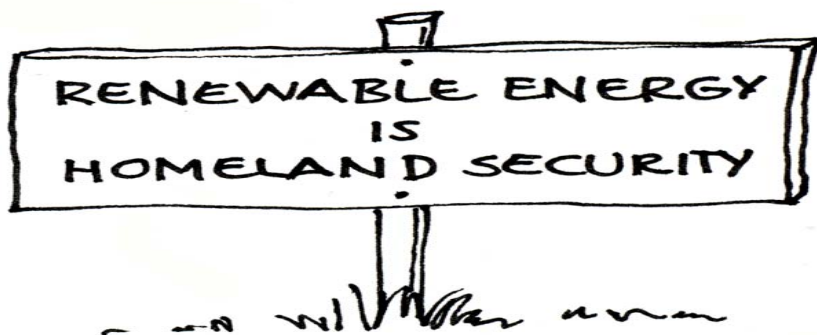
Wow! Leverett has public transportation! It's called the SCHOOL BUS. Talk yourself out of any excuse to not use this tax-supported system! (Have you seen all those idling tailpipes next to the school in the morning?)

Idling: Cars, vans, trucks, big trucks, buses, school buses: Don't idle. Not disputable; high consensus among transportation, air quality, and engineering experts; If you plan to be stationary for more than 30 seconds turn off motor to save fuel and pollution; modern fuel-injected engines warm in 30 seconds.

Gas Caps: tighten these (3 clicks) to avoid wasting gas; Americans evaporate into the air every year 147 million gallons of gasoline.

Driving at the speed limit (55 mph) saves up to 30% fuel costs rather than driving at 75 mph; you don't need to keep the gas pedal all the way down-it wastes gas and doesn't increase speed; for some models, it is best to drive as if there is an egg under the pedal; sudden speeding up and slowing down also wastes gas; have fun seeing how far you can coast to the stop light (more polite when no one is behind you);

Walk a little more, drive a little less--just try it. It burns calories, not CO2. It's better for you and you produce less CO2.



ONE MORE THING TO THINK ABOUT

What if--after we make all these changes, reduce our use of fossil fuels and foreign oil, learn to use our own renewable resources for energy, keep local farmers in business with our demand for locally grown food, mandate reductions in releases of industrial toxins and air pollution, become so accustomed to energy conservation that we lower our utility bills, look up and notice that, after all, those island nations didn't

disappear under the oceans and nobody died in any water and food wars, and the polar bears could still fish off their ice floes--WHAT IF WE DID ALL THESE THINGS AND IT TURNED OUT THE WARNINGS FROM GLOBAL CLIMATE SCIENTISTS WERE WRONG?

WELL, WHAT IF?

