

Activist Toolkit

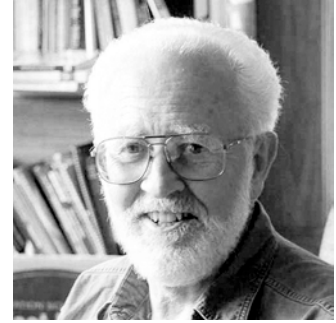
A companion piece to *Plan C*



PLAN C

Community Survival
Strategies for Peak Oil
and Climate Change

Pat Murphy



“Skills of low energy living have atrophied in our culture and must be relearned. Our problem is not technical, it’s cultural.”

Pat Murphy, author of Plan C

Dear Activist

Faced with three daunting, interrelated challenges—catastrophic climate changes from the increase in atmospheric carbon dioxide concentrations, an imminent peak and decline in global fossil fuel production, and accelerating inequity from unequal global resource use—there are only so many options we have to choose from in order to preserve our planet. If we continue along with what we’re currently doing, our Plan A, we are hastening along what scientists agree are devastating results. More recently, the popular Plan B, with its “green” techno-fixes and minor tweaks to our energy-intensive lifestyle has proven to be more of a marketing tool to repackage consumerism than a viable solution to this crisis.

Both plans are based on risky technology and false assumptions about never-ending economic and resource growth – which is not possible on a finite planet. Most importantly these solutions are too little, too late – we need immediate and drastic cuts in our energy use and carbon dioxide emissions to survive the coming calamities. That’s why we at Community Solutions believe that it’s both smart and necessary to get serious about another plan—a plan which dares you to be visionary, and to think outside of the “green” box as we work individually and within our communities to start moving towards a more healthy, highly satisfying, Low-Energy (Low-E) society.

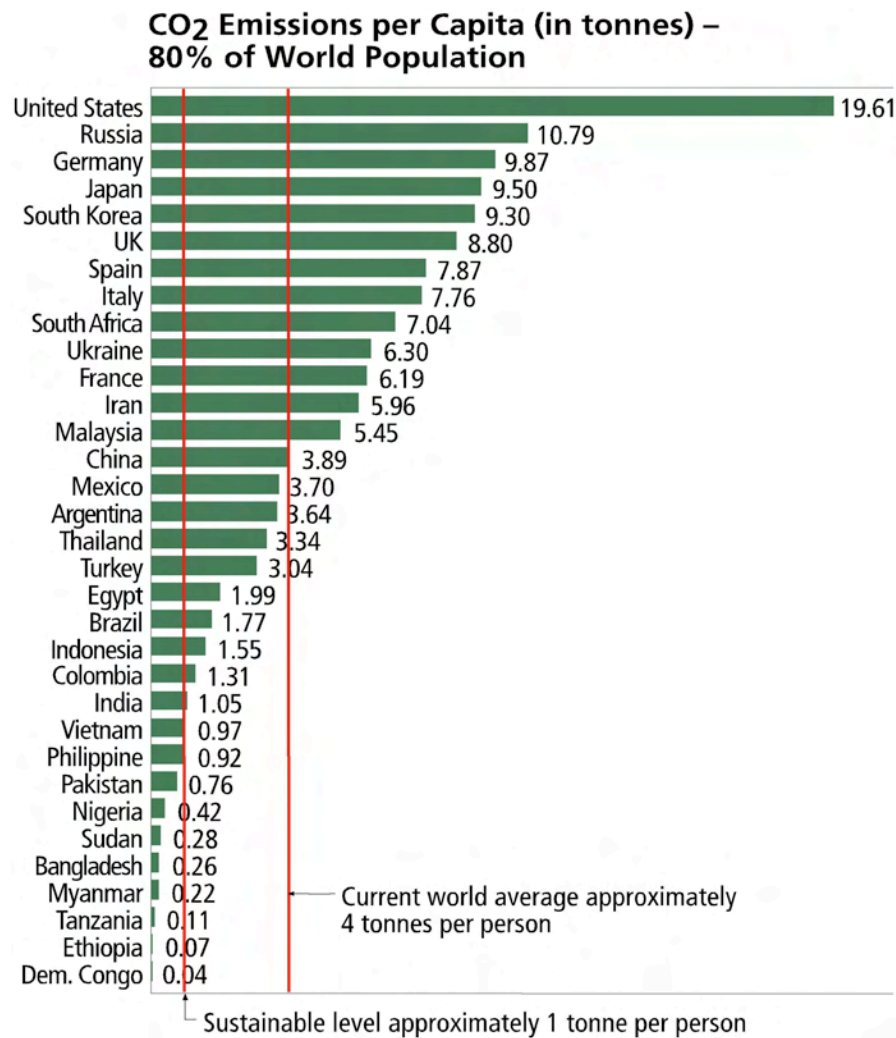
It’s called **PLAN C**...

“LOW-E” is our term for both Low Energy and Low Emissions. This is because about 85 percent of greenhouse gases emissions come from fossil fuels and at the same time fossil fuels account for about 85 percent of our society’s primary energy. Reducing our energy consumption everywhere in every way possible is “Low-E.”

Our Challenge, our opportunity

The threat to our climate is becoming graver with each passing year. As NASA scientist James Hansen noted in 2008, “If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleo-climate evidence and ongoing climate change suggest that CO₂ [in the atmosphere] will need to be reduced from its current 385 ppm [parts per million] to at most 350 ppm.”

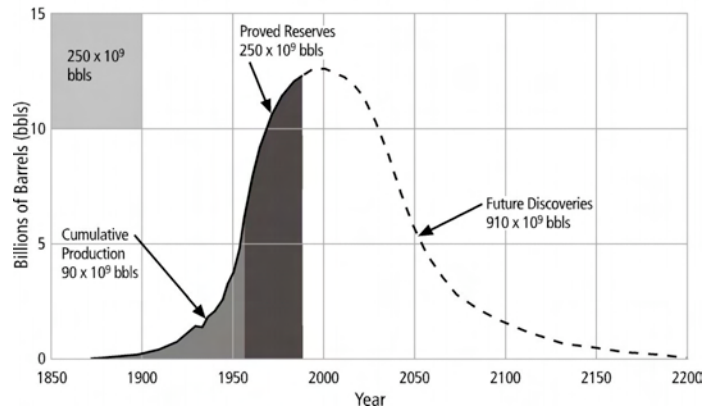
That means that in order to decline equitably, Americans will need to cut their CO₂ emissions (and thus fossil fuel energy use) by 90 – 95 percent by the year 2050, or about 4 percent per person per year. As the graph below shows, we need to go from approximately 20 tons of CO₂ per person per year, to just 1 ton. As the world’s largest emitter of greenhouse gases, we must not only make the largest cuts, we must lead the way.



Peak Oil

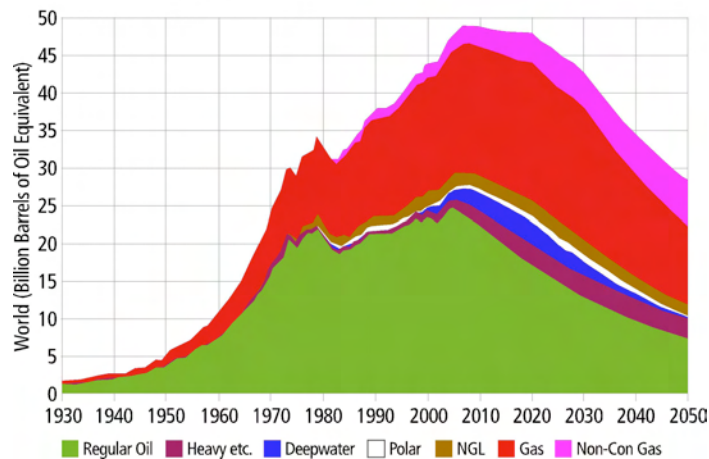
By now you've also probably heard about Peak Oil, the idea that worldwide oil extraction will plateau due to limited sources, after which production will slow and begin an inevitable decline. What you may not have heard is that studies by a wide swath of groups — the US Army Corps of Engineers (2005), the Energy Watch Group in Germany (2006), the Association for the Study of Peak Oil (2007), and the International Energy Agency (2008) — conclude that Peak Oil may have already arrived, or will likely begin by 2015 at the latest. Our other fossil fuels are in short supply as well; natural gas is projected to peak by 2020 and coal by 2030.

1-2 M. King Hubbert's Original World Curve



Even companies that have the most investments in oil, and the financiers who invest in oil exploration, are giving off clear signals that they know the game is nearly up. While companies like Shell, ExxonMobil, and BP have posted record profits in the last few years, these same companies are spending less and less on finding new oil, as the cost of exploration has already begun to exceed the revenue from the oil discovered. "The great merger mania is nothing more than a scaling down of a dying industry," said none other than Goldman Sachs in a 2004 report, "in recognition of the fact that 90% of global conventional oil has already been found."

ASPO Peak Oil and Gas Chart 2008



So what kind of impact will this small, but steady, decline in world oil production have on our economy and the way we live our lives?

What should we do to prepare ourselves for the post-oil economy?

And given that fossil fuel depletion is leading to resource wars, environmental destruction, and increasing inequity, how might developing much more low-energy models of living benefit all of us as individuals and society at large?

These are the kinds of questions we encourage you to ask yourself, and to pose to other members of your community, and we hope this Toolkit will help you do that. Beyond asking the right questions, we've also compiled here many useful facts, tips, strategies and organizing ideas that you can implement to build a Low-E way of life.

What We Mean By 'Lean, Not Green'

We are living in an era of rapidly worsening manmade climate change, with a global economy completely dependent on a worldwide store of fossil fuels whose supply has nearly reached its peak. Much of the conventional wisdom currently offered encourages environmentalists to focus on "green" techno-fixes—magic bullets that are always just around the bend.

In fact by now much of the vocabulary of mainstream environmentalism has been co-opted and rendered almost meaningless. "Sustainability" as a term has become so widespread that its lost any real working definition—multinational oil and gas companies now regularly use it in their slick multi-million dollar ad campaigns. "Green" is used to label products that are meant to replace one type of over-consumption with a moderately less toxic one, but by no means does that term mean much either—you've heard of "green-washing."

That's why we encourage you to look beyond the hype, and explore the real, exhaustively researched Low-E options outlined in PLAN C, because our current narrow focus will prove insufficient. What's needed is an approach that represents deeper, more innovative, curtailment-oriented and community centered approaches to energy efficiency in our homes and places of work, our transportation systems, and the way we grow and distribute our food.

We believe that developing and experimenting with more cooperative and collaborative ways of living and working will likely serve us better in a future of rising energy prices than today's hyper-competitive and consumer oriented values. This Toolkit will give you a menu of options for how to tackle these issues, and how to develop them in your community. Adopting and developing new, healthy, Low-E living habits now, before an emergency strikes, is at the heart of PLAN C and we hope you find the following ideas and menu of tools useful and practical.

Sincerely,

A handwritten signature in black ink that reads "Pat Murphy". The signature is written in a cursive, flowing style.

Pat Murphy, author of Plan C

Our Goals:

- Educate ourselves and our communities about the reality of peak oil and climate change and its implications for our highly fossil fuel-dependent lives and economies.
- Develop “energy literacy” by learning the true environmental and social impacts of our consumer choices, and learn to accurately measure the amount of nonrenewable fossil fuels that we consume in our daily lives as part of a consumer society. Safer, healthier, more satisfying living in a future of diminishing energy availability is doable—but we’ll need to develop a smarter, “balanced budget” for Low-E living.
- Dispel the many myths around the ubiquitous “green” techno-fixes so often touted as the best or only solutions for lowering our energy use and slowing climate change. Clean coal, carbon sequestration, hydrogen cars, pluggable hybrids, and “green” buildings are a drop in the proverbial bucket—and often touted by the same industries that expend enormous sums of money lobbying against energy efficiency measures.
- Go lean—not “green.” Incremental steps that offer little to no measurable impact on energy efficiency may make for good PR, but all that good PR won’t be of much help as we slouch towards ecological collapse, or extinction. The real key to high-satisfaction, Low-E living will be a much more ambitious effort to curtail of the amount of energy we use as individuals, and in our communities.
- Build knowledge and expertise around the skills that will be most useful and relevant in a future of high-energy costs and community-centered life. The research is at our fingertips—now is the time to develop and adopt the real Low-E housing, transportation, and food systems that will help mitigate climate change, and allow us to survive and thrive.

BASIC FACTS: Why Plan C?

Over the past hundred years, we've used more than half the world's available supply of oil. As global oil production reaches its peak, the remaining supply will become harder to access and more expensive to acquire, causing huge impacts in the global economy. At the same time, climate change continues to pose ever more serious threats to the health of the ecosystems that support our livelihoods.

"Growing" our way out of this reality is no longer an option when "growth" is still measured by how much energy we consume, and how much CO2 we pump into the atmosphere. As the global economy that oil built enters a new era, humanity is entering a perfect storm.

It is clearer than ever that **Plan A**, or the status quo, is unacceptable. In fact an ever-expanding chorus of scientists are crying out that the long-term impacts of unbridled fossil-fuel driven industrialization have already pushed the earth's delicate ecosystems to near collapse.

Plan B, or the exclusive focus on new "clean" or "green" technologies, is also deeply flawed. It maintains an unrealistic belief that we can continue our current high-energy lifestyles, consuming the world's resources ad infinitum at a slightly scaled down pace.

Plan C is a strategy that acknowledges the historic underpinnings of the moment we now find ourselves in—the end of the fossil fuel era.

Plan C focuses on cultural change, conservation, and curtailment as the best way to address these issues head on. It is a set of solutions that shows how each individual can make a difference, and how nurturing models of local community living create healthy, satisfying ways of life.

Plan C focuses primarily on the three areas of our lives where we currently use the most energy: Housing, Transportation, and Food.

HOUSING

Since our Homes and Workplaces are where most of us spend the majority of our time, it should come as no surprise that combined they consume 40% of the energy used in the U.S., and are responsible for almost half of our carbon emissions. It's not just how they're built - It's how we live in them that determines how much energy we use, and how much CO2 we emit. Here are some other little known facts about this huge sector, and how we can improve it:

- Over the last three decades “green building” has provided almost no net energy savings in the U.S.. The reason is that even as builders and architects add efficiency features, larger houses with fewer people and more energy intensive appliances have canceled out any efficiency gains achieved.
- American homes average almost twice the size of Japanese and European homes, and consume 2.4 times the energy of typical European homes. In fact, our residences, and the way we live in them accounts for 21% of the total energy consumed in the U.S.
- The average home lasts 50 to 80 years. Homes being built today will still be in use after global supplies of oil and natural gas have been exhausted. Thus the problem facing society is not just changing current codes and practices for new construction but also retrofitting the millions of energy inefficient homes we've already built.

SOLUTION

High performance super-insulated construction – the Passive House – now common in Germany and elsewhere in Europe, has proven that one can reduce heating and cooling energy use by 80 to 90% in new buildings and 70 to 80% in existing buildings. This approach is far superior to the much-hyped U.S. LEED certification system and Energy Star Program, which only reduce energy use by 15 to 25 percent. Even if you don't own a home, there are many ways you can cut your energy use – from lowering the thermostat to replacing wasteful appliances.

TRANSPORTATION

Many environmentalists argue that we can solve our future Transportation needs by seamlessly replacing the car-friendly infrastructure of the U.S. with a nationwide energy-efficient mass transit system. This is in all likelihood, a pipe dream. Not only are the massive energy outlays required to accomplish such an ambitious project economically prohibitive, our North American urban sprawl has no precedent in history, making effective mass transit extremely difficult. A true mass transit system for the US may, in fact, not be possible.

Never fear though, Plan B advocates also tell us, the hydrogen car and the plug in hybrid electric vehicle are right around the corner—and they've been saying this for decades. But the technological and economic hurdles to implementation are still enormous and will require an uncertain investment of many billions of dollars and several more years. Additionally, the creation of hydrogen fuel cells requires burning the very fossil fuels it is supposed to replace, and even with the best battery technology in the world, pluggable hybrids can only travel at top speeds of 35 miles per hour. Yet this solid information is deliberately withheld to convince the American public that the commercialization of these options is imminent. So don't believe the hype, believe the facts:

- The energy savings per capita represented by mass transit have been highly overstated. According to a study by the US Department of Energy, 6-8 passengers in a vanpool use half as much energy as passengers on a subway car, and 1/3 the energy of a passenger on a typical city bus.
- Despite the much-hyped prospect of no-emission cars running on hydrogen fuel cells, by 2003 over \$15 billion in public and private funding had been expended – with no fuel cell cars commercially available.
- The conventional hybrid car, after ten years on the market, continues to represent only about 1/3 of 1% of the vehicles on the American road. Pluggable hybrids, which are still many years off far from commercialization, will likely grow at a similar rate.
- The status quo—the private automobile as king—is one in which our death rates, injury rates and property loss are colossal. In the U.S. there are 40,000 deaths and 1.7 million injuries yearly due to automobile accidents, and worldwide there are 1,200,000 deaths and 38,848,000 injuries yearly. Is this the best we can do?
- The “smart” solution is not only easy to implement, it has the ability to cut transport energy use by 75%, and By taking 2/3 of the cars off the nation's roads, the system would also reduce traffic accident fatalities by up to 25,000 per year. A “smart” solution will optimize community transport and create a value system that gives people preference over cars.

SOLUTION

The Smart Jitney system, a sophisticated coordinated rideshare system, could be implemented within a few years, or even sooner —not the decades required to make huge new outlays for mass transit. The technology involved is already widely available (think of the systems that UPS and FedEx use to optimize pickup and delivery of packages). Riders and drivers would use modified cell phones with a Global Positioning System (GPS) function for ride reservations and coordination. There are already commercial enterprises operating these high-tech hitchhiking schemes, such as Avego in Ireland and KoolPool in India.

FOOD

The way we produce, distribute, transport and prepare our food is also a major energy consumer in the U.S. In fact the heavily industrialized food chain accounts for about 20 percent of U.S. fossil fuel use, or 400 gallons of oil equivalents per person each year. While the food crisis has flared in many parts of the world over the last few years, that crisis that will only deepen as energy prices rise. Here are some surprising facts about our food system that everybody should know:

- Approximately 10 Calories of fossil fuels are currently required to produce 1 Calorie of the food eaten in the US — a direct result of our highly industrialized process (pesticides, fertilizers, farming equipment, manufacturing, storage, and transportation).
- To produce one Calorie of plant protein requires 2.2 calories of fossil fuel energy. To produce one Calorie of factory-raised beef protein requires 25 Calories of fossil fuel energy.
- Less than four percent of agricultural land in the US is dedicated to highly nutritious foods like legumes, nuts, fruits and vegetables. More than 85% is devoted to crops that are either fed to animals or used in highly processed food.
- Because the US government's farm policy favors large farms and monocultures like wheat, corn and soybeans, the price of fruits and vegetables climbed approximately 40 percent between 1985 and 2000, while the price of soft drinks (sweetened by corn syrup) has declined by approximately 23 percent.
- Livestock are a major emitter of greenhouse gasses (18% worldwide). According to the UN Food and Agriculture Organization, more greenhouse gasses are generated from livestock production than from transportation.

SOLUTION

The choice of the food we eat has a major impact on the environment. Changing how we eat can contribute directly to a less energy-intensive way of life. Garden, eat seasonally, avoid highly processed foods, sodas, and canned soft drinks, avoid factory-raised meat, and eat locally-grown and/or organic food as often as possible.

STEPS TOWARDS IMPLEMENTING PLAN C:

The Plan C approach to curtailing energy use includes steps we can all take in our daily lives, right now. The innovations we suggest will offer the most viable energy savings, and will foster real and lasting energy curtailment measures in our communities. Here's how to implement changes in your own housing, transportation, and food choices.

Retrofitting Our Homes and Businesses:

LIVING DIFFERENTLY TO USE LESS

With over 20% of America's energy used to operate its more than 100 million existing residences, retrofitting is a critical strategy to conserve energy. Because the average home lasts from 50 to 80 years, homes built today will still be in use after all the world's oil has been used and possibly all the natural gas. Thus the problem facing society is not so much changing current codes and practices for new construction but how to deal with the energy inefficient homes built in the last 75 years. Plus it's changing not only the structure of your home, it's changing how you live in it.

Home retrofitting would focus on making the changes with the greatest energy savings and least cost. Starting with cheap and easy energy cuts is great, but moving on to the deeper and often more costly strategies is critical to reach the 80 to 90 percent cuts necessary to avoid the worst consequences of peak oil and climate change.

Energy Saving Activity	Degree of Difficulty and Cost	Energy Savings
Switching to Compact Fluorescent Lightbulbs	Easy and Cheap	Reduces lighting energy use by factor of three
Plugging leaks	Easy and Cheap to Moderate	Leaks account for about 10 – 20% of heat loss in a home
Using window coverings at night and in the winter	Easy and Cheap	Reducing energy lost through windows at night
Insulating the attic	Easy and Moderate	Moderate savings
Replacing appliances with more efficient versions (e.g. Sunfrost refrigerators, smaller appliances)	Medium and Moderate to Expensive	Significant savings in electricity usage but not as much as removing appliances entirely
Replacing windows with more efficient versions (double or triple-paned, low-e glass, etc.)	Medium and Expensive	
Insulating walls/Building new walls to the interior or exterior to add more insulation	Difficult and Expensive	Done to the Passive House retrofitting standards, along with other techniques this could reduce energy use by up to 80%
Installing a new heating system using a point heat source	Difficult and Expensive	Depending upon the inefficiency of the prior furnace, savings could be significant
Moving furnace / ductwork to the conditioned space	Difficult and Expensive	

PASSIVE HOUSE METHOD

The most energy efficient housing standard, much more prevalent in northern Europe, is the PASSIVE HOUSE (or PASSIV HAUS) method. It is a standard we should study, and seek to popularize here in the U.S. The term refers to a specific construction standard for residential buildings that have excellent comfort conditions in both winter and summer. These principles can be applied not only to the residential sector as the name suggests, but also to commercial, industrial and public buildings. A "passive" house achieves overall energy savings of 60-70% and 90% of space heating without applying expensive "active" technologies like photovoltaics or solar thermal hot water systems. Aspects of the PASSIVE HOUSE include:

- Highly-insulated and virtually air-tight frame.
- Primarily heated by passive solar gain and by internal gains from people, electrical equipment, etc.
- Energy losses are minimized and any remaining heat demand is provided by an extremely small source.
- Avoidance of heat gain through shading and window orientation also helps to limit any cooling load, which is similarly minimized.
- An energy recovery ventilator provides a constant, balanced fresh air supply. The result is an impressive system that not only saves up to 90% of space heating costs, but also provides a uniquely terrific indoor air quality.

For more information about the PASSIV HAUS movement, and standards of construction and energy efficiency, we highly recommend the website of the Passive House Institute US (www.passivehouse.us) as well as the book, "Homes for a Changing Climate – Passive Houses in the US."

SMART TRANSPORT = THE SMART JITNEY

The Smart Jitney is an elegant system of efficient and convenient ride sharing that utilizes the existing infrastructure of private automobiles and roads. The time, expense, energy and difficulty of building new transportation infrastructure to accommodate sprawling populations in the US is not as efficient as making our current system work at capacity. The Smart Jitney system will transform our current system, which is designed to move vehicles, and repurpose it to move individuals. Today's fleet can be used in an efficient way to get people from one place to the next. The Smart Jitney makes sure that each private car always carries more than one person per car trip, ideally 4-6. This would cut auto gasoline usage and CO2 emissions by an estimated two-thirds. Here are some features and positive benefits of the program:

- Builds community by reconnecting neighbors who now drive alone one behind the other.
- Shortens commutes by eliminating three fourths of the cars on the road, allowing for a much more rapid flow of traffic.
- Decreases roadway accidents and fatalities, saving tens of thousands of lives a year, which will also bring down insurance premiums.
- Reduces road construction and maintenance since wear and tear would be reduced

The Smart Jitney system would use cell phones and the Internet for ride reservations and coordination. It would utilize other off-the-shelf technology currently available, such as GPS, GIS, iPhones applications, and more.

The system would connect drivers with riders to insure optimum routing and minimum time delays, and each person who wants to take a trip, whether to work, school, shopping, or recreation, would use his or her cell phone or web browser to request rides. The system would find the closest and most appropriate vehicle and driver to pick up and deliver the rider(s).

By using readily available technology and infrastructure at a fraction of the cost of building new mass transit, this kind coordinated ridesharing system will have a huge impact on how much per capita energy we use to get from point A to point B. It will also help us reinvent the way we relate to each other in community-centered form of transportation where we share the responsibility of energy curtailment.

Rebuilding a Low Energy Input Food System:

Food Security through Community Supported Agriculture and Low-E Dietary Choices

While climate change already poses a huge challenge to the viability and long-term fertility of our agricultural lands, Peak Oil will create even more dramatic disruptions to our current globalized, heavily fossil fuel dependent food system. When the economies of scale that support our current energy intensive, export-driven model of agribusiness start to break down, there will be a great need for smaller scale, low-energy-use agrarian models. The American heritage of family farms and smaller rural towns has been nearly destroyed in recent decades, thus agricultural traditions that were second nature to many must be re-learned.

Local, place-based knowledge about crops and what constitutes a “healthy” harvest will be needed. Today’s highly segregated agribusiness model pours extraordinary amounts of energy in to harvesting crops like corn, soy and grains, all of which hold much less nutritional value than fresh fruits, vegetables and legumes, which currently make up but a fraction of agricultural output in the U.S. In fact, only slightly more than 1% of farmland in the U.S. is used for growing vegetables.

The consequences of our current system, which supplies cheap food with low-nutrition value in abundance, are many and primarily show up in our degraded national health. Two thirds of Americans are overweight or obese, and our medical system, one of the most expensive in the world, spends a disproportionate amount of its resources on treating diseases like diabetes and heart disease that are largely a result of a bad diet.

But many of these health concerns may in fact become moot, as Peak Oil and climate change will dramatically alter our relationship to the land we live on and the food we eat. To put it bluntly, the 10-to-1 fossil fuel to calorie ratio that now sustains our global food system will no longer be a possibility in the not-so-distant future. As energy prices soar, massive metropolitan areas cut off from agricultural land—think Las Vegas—will no longer be feasible. America and the world will become more agrarian. People will repopulate small towns and rediscover the health benefits, and community-centered joys of a closer relationship with their sources of food. While the oil age gave rise to a cornucopia of junk food and “low calorie,” “low fat” processed foods, we will rediscover the more agrarian lifestyle, richness of food and flavors that a Low-E diet and a more agrarian lifestyle provides.

Agraria

Community Solutions is developing a Low-E neighborhood in Yellow Springs, Ohio to serve as an example of community-centered life. While the age of cheap oil spawned the most urbanized societies in the history of humankind, the new era will likely lead to a trend of emigration from big cities. Dying agricultural towns will be reinvigorated. Agraria will be both a working community and a laboratory for ideas and best practices, where we’ll live in small, super-insulated housing, nurture shared transportation models, employ low-impact farming methods, and enjoy an abundance of nutritious, delicious local produce.

ORGANIZING ON CAMPUS AND IN YOUR NEIGHBORHOOD

Students and Community Organizations have long been at the forefront of social change movements in the U.S. and the world. The suffragist movement, the civil rights movement, the environmental movement and many other social justice causes have moved attitudes and helped push through laws and policies that have changed society for the better. At this critical juncture in our history, which will demand new and innovative responses to the challenges we face, community organizing and cooperative skill building is more vital than ever.

To build popular awareness around the impact that Peak Oil and climate change will have on our society and our communities, we must get organized to start promoting the many achievable solutions at our disposal. After reading Plan C, Here is a starter menu of actions and campaigns that you can tailor and implement your own community:

FIRST INITIATIVES

(Activities that you can do alone or with the support of a few other individuals or organizations)

- 1. Walk the Talk**
- 2. Host a screening of The Power of Community**
- 3. Host a Presentation on Low-E Solutions for Peak Oil and Climate Change in Your Community or On Campus**
- 4. Analyze Your Campus or Community**
- 5. Start a book discussion group around PLAN C: Community Survival Strategies for Peak Oil and Climate Change.**
- 6. Organize a “No Fossil Fuels for a Day” Event on Your Campus.**

1. Walk the Talk

Before trying to change our friends, neighbors, schools, or communities, it's critical we first "be the change we wish to see in the world." Each of us needs to start reducing our own energy use as much as possible. This is the best way to set an example for others to follow, and help others make the necessary changes.

Begin by analyzing your current consumer practices and habits to determine how you can start cutting back. It may be useful to first understand global per capita energy use figures. For example, Americans use twice the amount of energy that Japanese and Europeans use, 5 times what Chinese use, and 20 times what most people on the planet use. Before we can go Low-E, we have to know how much E we are each responsible for using during a typical day.

One quick and easy way to do this is to structure an exercise where your friends, colleagues, or classmates map out their "carbon footprint." This is the amount of CO₂, the primary greenhouse gas, that each individual or family is responsible for as a result of the energy they use daily. This exercise is powerful and illuminating: it pushes people to think about the many conscious and unconscious decisions they make every day, and how those decisions affect how much fossil fuel is burned, and how much CO₂ is released into the atmosphere. It's also a great way to bring a sometimes-abstract concept down to earth.

Here is one of many free Carbon Footprint "Calculators" now available online: <http://www.carbonfootprint.com/calculator.aspx>

Then, start making lifestyle changes to reduce your energy use – share rides, bicycle and walk instead of driving, eat a low-energy diet of fresh local food, and turn down your thermostat in the winter. Strive to keep climbing down the carbon ladder and remember to share your successes and challenges with others.

2. Host a Screening of *The Power of Community* (2006) documentary film.

When talking to your friends, neighbors, fellow students and colleagues about Peak Oil, you'll likely be asked how we can possibly prepare for a future about which we have no real precedent—much less any recent examples of people who have responded creatively and successfully to a drastic decrease in energy availability.

The short answer is that there's an example we can learn from that is both close to home, and rarely discussed in the U.S.—Cuba's experience in the 1990s when oil and food imports were cut by more than half. The way that Cubans responded to the crisis is documented in *The Power of Community: How Cuba Survived Peak Oil* (2006), the award-winning film produced by the Arthur Morgan Institute for Community Solutions. Watch it to learn how Cubans adjusted to "artificial peak oil" by decentralizing their hospitals and schools, sharing transportation and developing the most innovative and productive urban gardening program in the world.

A film screening is an excellent way to get a conversation started about these issues, and to showcase a contemporary situation where people confronted devastating economic challenges by building a more sustainable society. For more information about the film, to download fliers and posters, or to order a copy, visit: www.powerofcommunity.org

A sample Q&A and discussion guide is available at: www.communitysolution.org

3. Host a Presentation on Low-E Solutions for Peak Oil and Climate Change in Your Community or On Campus

First, find an audience. You can give a talk to your friends and family, organize a public lecture, speak to an environmental, grassroots or advocacy group, be a guest speaker at the meeting of a civic organization like Rotary or Kiwanis, give an official briefing to your local government or a professional organization, speak to a college or primary school class, or present at a conference or fair.

Next, make sure you publicize your talk, if it is indeed open to the public, via community announcements in newspapers, radio, and TV, a letter-to-the-editor or article in your local paper, posting flyers around town, using local bulletin boards, websites and listservs, and personally inviting your friends, family, colleagues, and key people you want to reach (like local elected officials, business leaders, reporters, etc.).

Here are some useful presentation strategies that you may consider using:

1. Incorporate personal stories / anecdotes: This helps the audience connect with you on an emotional level and can lead people through their own discovery process.
2. Use meaningful Peak Oil statistics: Statistics are important as they are an objective analysis of the problem. There are many good stats to use regarding our dependence upon oil, unequal use of resources and more. Make sure you make it meaningful to their lives – how much energy are they using on a day-to-day basis? In what activities?
3. Paint the Big Picture: Don't just focus on the short term problems of high energy prices – talk about the role of fossil fuels and the industrial era in re-shaping our society and how the way we live will impact future generations.
4. Address the Alternatives: Talk about why alternative energy sources like nuclear and “clean coal,” as well as wind, solar and biofuels, won't be sufficient to fix the depletion of fossil fuels. Describe oil's unique role in our society and why we won't be able to replace it with new technology.
5. Balance crisis with opportunity: Be sure to discuss the possibilities for meaningful action as well as the serious consequences of oil depletion. We can create a healthier, more fulfilling world in the wake of peak oil and climate change. Don't sugar coat the problems, but don't scare people away with too much doom and gloom. Keep the energy positive and action-oriented.
6. Encourage the audience to do more research: The personal discovery process is important – make sure you empower your audience and get them to take the initiative to study the issue themselves. This way, they'll take ownership of the problem, make lifestyle changes of their own, and be more likely to get involved in community-based activities.

PREPARING A TALK

HERE ARE THREE EASY STEPS TO GET STARTED:

Step 1: Define your audience. What is their background? What frames their worldview? Why is peak oil a valuable perspective to share with them? What will they hear/understand? What will turn them off?

Step 2: Develop your format. How will you structure your presentation? Will you use tools? Which ones? How? Will you write a speech, create an outline, speak extemporaneously or use another format?

Step 3: Define your strategy (content). How will you frame the issue? What kind of language will you use? What types of devices will you use (humor, anecdote, etc.)? Will you involve yourself in your speech (personal stories)? Will you appeal to intellect, emotion, or both? How?

PRESENTATION TIPS:

- Using visual aids like PowerPoint or handouts may help your audience digest new information, but make sure that visual aids are used as a tool of the presentation, not the presentation itself.
- Always practice your presentation ahead of time, and develop answers to questions your audience seems likely to ask.
- Be sure to tailor your presentation to your audience and speak in a way that they will best understand. The way you share your message with a group of business professionals should be different from the way you give it to a group of environmentalists, professors, or 5th graders, for example.
- It's important to engage the audience in a question and answer session or a discussion so they get involved in the conversation and can voice any confusions or concerns. Always thank people for their questions, don't argue or debate them in front of the crowd, and don't fake it if you can't answer it – just try to point them in the right direction. For answers to frequently asked questions, visit our website at: <http://www.communitysolution.org/problem.html>
- Have handouts with your contact information, have a sign up sheet or collect business cards, or have a follow-up activity or meeting. These all help people get more involved after learning about the issue.

4. Analyze Your Campus or Community

Get together with a group of like-minded activists to study opportunities for making your campus or community Low-E. Start by answering the questions below. Then determine which activities or strategies may be best suited to the unique needs and opportunities your campus or community.

General Information: Are you located in an urban, suburban, or rural setting? What is the population and density? How will educational level, age diversity, and ethnic composition affect the transition to a Low-E society where you live?

Government / Politics: What are the important governmental bodies? Who, besides elected officials, are the main decision-makers? How can you include them?

Economics: What is the average income and poverty level in your community? What are the key businesses and industries? How much of the economy is already localized, and what is the potential for more localization in the future? Are there sources and distribution systems for local food, such as CSAs (Community Supported Agriculture), cooperatives, farmer's markets, small farms, or family farms?

Energy and Land: What is the energy use of your campus or community? What is the source of electricity production? What is used for home heating fuel? What are the opportunities for local energy production? What types of land use are prevalent? What is the availability of water, farmland, and natural/wilderness areas?

Personal Questions: How long have you lived in your community? What events / activities do you participate in? What do you envision as the biggest problem you will personally face with peak oil? What skills do you have do you have to offer to a post peak oil world?

5. Start a book discussion group around PLAN C: Community Survival Strategies for Peak Oil and Climate Change.

Information is power—arm yourself with the facts, the sources, and the analysis that you'll need when talking to others about what life might look like when Peak Oil can no longer be denied, and when climate change's impacts on our lives are well understood.

6. Organize a “No Fossil Fuels for a Day” Event on Your Campus.

While everybody knows that the car they drive relies on oil that's usually pumped and refined in distant places, few people understand that almost everything we eat, wear, or consume on a daily basis is reliant on cheap oil. Challenge your fellow students or colleagues to go a day, or even a week, without using any food or consumer products that have been produced with fossil fuels—and see how many of them are unable to do so for even a few hours. This is best done when participants work in teams, using their skills of cooperation to support each other in the ultimate quest to go Low-E or even No-E. Use the experience to help people think about what daily life will be like when fossil fuel inputs can no longer be taken for granted.

LARGER INITIATIVES

(Activities which can be done in a committee and/or by enlisting the support of other local institutions, organizations, etc.)

1. Create a “Smart Jitney” Challenge for a Local Computer Club or Society of Engineers.

Academic institutions house some of the most sophisticated and well-funded research labs in the country. Lobby the administration or a department head for a grant to develop a local ride-share program on campus and surrounding community. If on campus, start by organizing the challenge around events or parties, and devise a way for college students to make extra money by signing on as drivers.

The first model run could be designed along fairly simple lines—organized around a pool of friends, classmates, or colleagues who agree to drive X amount of hours per month. In much the same way that a babysitting co-op works, people can “cash in” their driving hours with free rides throughout the month. In this way driving is more evenly distributed, carpooling becomes the norm, and if done over a few weeks or a month, people will probably start to see savings in unspent gas money.

Watch as strangers get to know each other, and local media covers the project.

2. Launch a Campaign on Your Campus to Retrofit Dorm and Classroom Buildings with the Passive House approach.

“Green” building is old news. Academic institutions will benefit much more from the publicity they’ll receive for going “Low-E.” In the meantime, students can earn valuable work experience and learn marketable skills. Since almost all colleges and universities participate in a ‘work-study’ program for students to earn money in on-campus jobs, push your school to institute a campaign that will both lower its long-term energy costs, and put students to work.

The collapse of the housing bubble has put a lot of building contractors out of work. Press your school to develop interdisciplinary Low-E workshops and night classes where professionals can re-purpose their skills for Low-E retrofitting.

Contact Community Solutions for more information about the Passive House building approach, and how you can bring it to your town or campus.

WORKING WITH LOCAL MEDIA

As you develop plans and campaigns to raise awareness about Plan C in your community, you may want to get some local media to help spread the message. Here are a few tips on how to get the word out:

Writing a news advisory and news release is relatively simple. Before a film screening event, a public forum, or group home retrofitting campaign is launched, you should write a news advisory to let the media know that your event is taking place. The news advisory should be a half page and include the who, what, when, and where, as well as a few choice tidbits to get reporters interested, without giving away the story. Here are a few ideas or dramatic “teasers” that may pique the curiosity of reporters and editors:

- Convince the school administration, or the management of your company or organization, to turn down the temperature on all campus buildings by 6 degrees for a month. Tally up the energy savings at the end of the month, and donate the saved expenses to charity, or to an environmental cause.
- Organize a “No Oil for a Day” challenge in your community to demonstrate how integral this non-renewable fuel is in every aspect of our daily life—and how vulnerable we are to any major fluctuations in its availability. Hold a public “awards ceremony” to honor those who meet the challenge
- Organize an “Eat Less Oil, More Sun” event outside a grocery store to visualize the amount of oil embodied in foods that are trucked, flown, and shipped thousands of miles before they reach our plates. For each item in a typical bag of groceries, pour the commensurate amount of oil (or water with black food coloring!) into a clear plastic jug for all to see.
- Build a Passive House structure on campus, and invite community members and the media to the unveiling. The catch—in order to RSVP to the event attendees must sign up to the online Smart Jitney car pool system that will coordinate everybody’s arrival and departure. This kind of experiential event is particularly appealing to many journalists, who get to cover the event from a first person perspective and comment on the experience.

NEWS ADVISORIES AND PRESS RELEASES

On both your news advisory and press release make sure to include the contact person's name and phone number in case a reporter has questions. Fax or email your advisory to the local papers, radio and T.V. stations. Follow up with very short and informative phone calls to the journalists and reporters.

Directly following an event, your group should write a news release. The news release is a little more complicated. It is essentially the article you would write if you were the reporter or broadcaster, and as such it should be formatted like a typical newspaper article. The format is:

- First paragraphs sums up the article and grab the reader's attention.
- The next paragraphs go into more detail and include any relevant background information, like who are the major players are and what has happened to lead up to this event.
- Sprinkle in some quotes from people involved in the campaign, such as the spokesperson, any key endorsers or well known community members.
- Talk about how this event or campaign relates to larger national and international news stories.
- The final paragraph should summarize the article again.

Writing letters to the editor and sending your photos and press releases to web news sites is also a great way to get your message out.

SAMPLE NEWS ADVISORY

FOR IMMEDIATE RELEASE

Month, Day Year

CONTACT: Name of contact person, email and phone number

LOCAL STUDENT GROUP HOSTS CHALLENGE, WORKSHOP, PROJECT, LECTURE.

Environmental Group "NAME" Educates Community About Low-Energy Living & Climate Change Strategies

PHOTO OPPORTUNITY:

(Example) 4/22 Passive House Construction Panel and Workshop 12-6pm on the Campus Green.

WHEN: (Fill in date and time)

WHAT: Members of student group X and are hosting a free community lecture to coincide with the launch of X project on the SCHOOL campus. Members will discuss low energy, or "Low-E" construction methods such as the Passive House model, and challenge the college administration to for any proposed future student housing, with a walk the walk by drastically reducing campus energy use. In light of recent discussions around campus expansion, we are calling for the administration to adopt low energy use "

WHY: To draw attention to the community-level solutions we'll need to embrace in our homes and places of work, and in our academic institutions, due to the inevitable rise of energy prices, and the worsening threat of climate change. For the long-term viability of our university, our city and the world, we need to start openly discussing the implications of Peak Oil, and begin responding now to the energy crisis, while we still have time to do so.

WHERE: (Fill in Location)

WHO: (Name of group)

ADDITIONAL RESOURCES

Peak Oil News and Media

Energy Bulletin

www.energybulletin.net

Oil Drum: Community Discussion about Peak Oil

www.theoil drum.com

Museletter by Richard Heinberg

www.richardheinberg.com/museletter

Peak Moment TV

www.peakmoment.tv

Groovy Green

www.groovygreen.com/groove/

Causabon's Book - writings of Sharon Astyk

www.sharonastyk.com/

Resource Insights - Writings of William Cobb

www.resourceinsights.blogspot.com/

Speeches by Mathew Simmons

www.simmonsco-intl.com/research.aspx?Type=msspeeches

Peak Oil Organizations

The Post Carbon Institute

www.postcarbon.org

Assisting communities in the effort to Relocalize and adapt to an energy constrained world.

Association for the Study of Peak Oil

www.peakoil.net/

International research organization that publishes a monthly update on global oil production and holds an annual conference.

Association for the Study of Peak Oil -USA

www.aspo-usa.com/

Research, advocacy, and education group which holds an annual conference.

Transition Culture

www.transitionculture.org/

Evolving Exploration into the Head, Heart and Hands of Energy Descent.

Life after the Oil Crash

www.lifeaftertheoilcrash.net/

Introduction to peak oil and information on preparedness and survival skills.

Crisis Energetica

www.crisisenergetica.org/

Spanish language Peak Oil site

American Council for an Energy Efficient Economy

www.aceee.org/

Research and policy analysis on energy-efficiency

Affordable Comfort Institute

www.affordablecomfort.org/

Education to advance the performance of residential buildings

Consortium for Energy Efficiency

<http://www.cee1.org>

Promoting energy-efficient products and services

Peak Oil Books

The Post-Petroleum Survival Guide and Cookbook, Albert Bates, 2006

Beyond Oil: The View from Hubbert's Peak, Ken Deffeyes, 2006

Peak Oil Prep: Prepare for Peak Oil, Climate Change and Economic Collapse, Mick Winter, 2006

The Long Emergency: Surviving the End of the Oil Age, Climate Change, and Other Converging Catastrophes of the Twenty-first Century, James Howard Kunstler, 2005

Powerdown: Options and Actions for a Post-Carbon World, Richard Heinberg, 2004

Out of Gas – The End of the Age of Oil, David Goodstein, 2004

The End of Fossil Energy: And a Plan for Sustainability, John Howe, 2004

The Essence of Oil and Gas Depletion, Colin Campbell, 2003

The Party's Over: Oil, War, and the Fate of Industrial Societies, Richard Heinberg, 2003

Peak Oil Reports

[CRUDE OIL: Uncertainty about Future Oil Supply Makes It Important to Develop a Strategy for Addressing a Peak and Decline in Oil Production, U.S. GOVERNMENT ACCOOUNTABILITY OFFICE, 2007.](#)

[Fourth Assessment Report](#) United Nations Intergovernmental Panel on Climate Change, 2007

[Livestock's Long Shadow, UN](#) Food and Agriculture Organization Report, 2006

[Peaking of World Oil Production: Impacts, Mitigation, and Risk Management](#), commission by the U.S. Department of Energy, Hirsch, Bedeck, Wending, 2005

[Sustainability Through Local Self-Sufficiency, Folk Günter](#) 2003

[Ethanol Fuels: Energy Balance, Economics, and Environmental Impacts are Negative](#) David Pimentel, 2003

[U.S. Energy and Conservation: Benefits and Costs](#) David Pimentel et al, 2002

[Cuba: Going Against the Grain](#) Oxfam America, 2001

Community Organizations

Fellowship for International Communities

www.ic.org

Global Ecovillage Network

www.gen.ecovillage.org

E.F. Schumacher Society

www.smallisbeautiful.org

Communities Magazine

www.communities.ic.org

Land Institute

www.landinstitute.org

Orion Grassroots Network

www.oriongrassroots.org

American Council for an Energy Efficient Economy

www.aceee.org

Institute for Local Self-Reliance

www.ilsr.org

Center for a New American Dream

www.newdream.org

Yes Magazine

www.yesmagazine.org

International Forum on Globalization

www.ifg.org

Community Books

[Deep Economy: The Wealth of Communities and the Durable Future](#), Bill McKibben, 2007

The Small-Mart Revolution: How Local Businesses Are Beating the Global Competition, Michael Shuman, 2006

[The Omnivore's Dilemma: A Natural History of Four Meals](#), Michael Pollan, 2006

The Challenge of Affluence: Self-Control and Well-Being in the United States and Britain since 1950, Avner Offer, 2006

The Logic of Sufficiency, Thomas Princen, 2005

Earth in Mind: On Education, Environment, and the Human Prospect, David Orr, 2004

The Conserver Society: Alternatives for Sustainability, Ted Trainer, 1995

The Unsettling of America: Culture and Agriculture, Wendell Berry, 1982

The Small Community, Arthur Morgan, 1942 (available from The Community Solution)

The Long Road, Arthur Morgan, 1936 (available from The Community Solution)