

MARTY HILLER/GUEST COLUMNIST

## Where will the U.S. get its future energy?

As a nation and a community, we are still highly dependent on fossil fuels. We use them for transportation, electricity, and winter heat. This use is unsustainable, causing problems that range from global warming to mercury toxicity to acid rain.

Coal is the most abundant fuel and it is the dirtiest. Efforts to clean up coal plants or to reduce environmental damage from strip mining are far from the forefront of government policy.

Our local electricity-generating plant is one of the cleanest in the nation and yet it still produces more air pollution than any other point source in the county — and, on a more fundamental level, it consumes a natural resource that will eventually run out.

Natural gas, which heats more than half the homes here in Tompkins County, is growing scarcer in our country. Prices have risen sharply in recent years as we search for more and start the switch to still-abundant overseas sources.

Crude oil, which produces the gasoline that runs our cars, will soon be growing scarcer worldwide and will run out entirely within this century. Some argue sooner, others later, but no one debates the fact that the U.S. is already running out.

In his book, "The Party's Over," Richard Heinberg describes the "great rollover" — the point at which, across the globe, pouring more money into exploration and drilling will no longer produce more oil. The U.S. reached its own "small

rollover" in 1970, shortly before the Middle East oil crisis. Since then we have grown more and more dependent on imported oil as local wells dry up.

Many researchers predict the "great rollover" will happen within the next ten years. Whenever it happens — and it will — prices will rise as supplies grow scarcer. International competition for oil will grow fiercer.

At our luckiest, we will see price hikes and scarcity at the gas pumps.

In the worst case, we will experience the human cost of heightened military actions as our country protects its access to what remains.

Hydrogen fuel cells are one approach to replacing gasoline with other fuels. A promising technology for cars uses methanol for fuel, converting it to hydrogen in the engine. Technological advances are also being made with biofuels from a variety of plant sources.

According to a recent Ithaca Journal article, 52 percent of our homes use natural gas for heat. In a 2003 energy report, a petroleum industry source reveals that if the U.S. had to rely only on its proven natural gas reserves, we would use them up within ten years.

The American Petroleum Institute says the U.S. has natural gas to last another 58 years, if we remove restrictions on

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drilling in land preserves and protected wilderness.

But the U.S. Energy Information Agency states that, even where gas exploration is allowed, new discoveries are slower and new drilling is more expensive than expected. Liquid natural gas from overseas is growing as a U.S. energy source, but it is expensive to ship.

For many urban residents, electricity may soon become the cheapest energy option, for heat as well as light and other uses. Electricity can be generated in many ways, and we have opportunities right now to choose clean, renewable sources.

The technology for renewable energy is improving, and costs are becoming competitive. It is no longer difficult to find the materials or a qualified installer of alternative home energy systems.

Anyone building a new home or restoring an old one can add solar panels for electricity.

Steve Nicholson, chair of the Tompkins County Environmental Management Council, says, "New York may be one of the best places to put photovoltaics in the country, because of the combination of adequate sunlight and high electricity

prices."

In windy areas homeowners can install a windmill for home-generated electricity. And the rest of us can use clean renewable energy by purchasing wind power from NYSEG.

Conservation is also an important way to manage scarcity. Water can be heated directly from the sun. We can add insulation, orient new homes toward the south, use natural or fluorescent lighting, use public transit and buy fuel-efficient vehicles. All these steps can ease the transition away from fossil fuels.

To talk about ways we can become a more sustainable community, a six-week series of "sustainability salons" is happening around the county. You are invited to participate in one or many of these round-robin style discussions of sustainability.

This week's topic is "energy alternatives."

The discussions will explore our options for using clean, renewable energy and what choices we can make as individuals. The salons are a project of Sustainable Tompkins, which has gained the support

of Ithaca College, Cornell University, and various local foundations, businesses, and organizations.

*Marty Hiller is a single mom and aspiring writer who recently moved to Ithaca. This is the second weekly installment in a series of six guest columns on sustainable building and living in Tompkins County. The remaining four articles will appear Mondays the Opinion Page.*



Hiller

### Sustainability Salons

- Rogues Harbor, 2079 E. Shore Drive, Lansing. Today, from 5:30 p.m. to 7 p.m.
- Gimmel Coffee, 506 W. State Street, Ithaca. Tuesday, April 6 from 5:30 p.m. to 7 p.m.
- Juna's Cafe on The Ithaca Commons. Wednesday, April 7 from 5 p.m. to 6:30 p.m.
- WowNet Digital Cafe, 111 N. Aurora Street, Ithaca. Thursday, April 8 from 7 p.m. to 8:30 p.m.
- Simply Red Bistro, 53 E. Main St., Trumansburg.