

## GUEST VIEWPOINT

### Tompkins Co. energy options offer gas, wind, solar choices

By Larry Cathles and Milton Taam

As we are all increasingly aware, our future energy supply involves difficult choices and significant consequences. Last fall, a group of Cornell University engineering students considered the possibilities for Tompkins County. As the professor who led the class and a local resident who provided community input to the class, we summarize the findings of the students and our own subsequent thoughts.

Our local electricity comes from the AES Cayuga power plant, which currently generates 300 megawatts by burning coal, including coal from mountaintop removal. Coal has a considerable negative environmental impact. We estimate that 10 deaths each year can be statistically attributed directly to negative air-quality effects from burning coal at AES Cayuga.

As an alternative, a path to a cleaner and more sustainable electrical energy could consist of three basic components:

- Over the next 25 years, install 700 wind turbines, which would equal AES Cayuga's average output, on a 50-square-mile hilltop area between Seneca and Cayuga lakes.
- To balance the daily variations in wind and consumer demand, build a half-square-mile, 20-foot-deep water storage reservoir 700 feet above Cayuga Lake in Lansing that could store 4000 megawatt hours of energy, enough for 12 hours of AES Cayuga output.
- Convert AES Cayuga from coal to natural gas. This conversion would cover our present energy needs but the output would be gradually reduced to 10 percent of its initial capacity as wind turbines were deployed. A 25-square-mile area overlying the Marcellus Shale could supply the gas needed for 125 years.

#### Additional thoughts

Solar photovoltaics was studied but is not considered as a significant source for two reasons: Complete solar would require 8 square miles of land, almost 1.5 times the area of the City of Ithaca; also, the cost to an average electric user would be \$7,500 per year, five times the current \$1,500 per year.

Interestingly, the AES Cayuga site was originally considered for a nuclear plant until opposition led to the expansion of the current coal-fueled plant. New developments in nuclear energy could provide a clean energy alternative to both wind and natural gas.

Ithaca also has a small but significant untapped hydraulic resource. Cornell currently utilizes roughly half the Fall Creek water flow to produce 1 megawatt of electrical power. The City of Ithaca could produce an additional 1 megawatt by utilizing flow above Ithaca Falls. This would be more than 100 times the annual energy output of the solar panels on the Tompkins County Public Library, currently the largest solar PV installation in the state.

Visual depictions of the land areas required for the energy options discussed, student presentations and details of our calculations can be viewed at <http://sites.google.com/site/fingerlakesenergychoices>.

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THE ROYAL WEDDING

## Solving our school problems not a matter of gimmicky ideas

Note: Leonard Pitts is off this week.

By Mary Sanchez

### COMMENTARY

U.S. Secretary of Education Arne Duncan, like his boss, President Barack Obama, is fond of invoking the idea that we can fix public education in the U.S. by tweaking some weaknesses in its basic structure.

One such defect is the "short" school year: fall to spring classes, three months off in the summer. Duncan likes to assert that our 180-day school year is a throwback to the agrarian past, and since children are no longer necessary for farm labor, we ought to lengthen the school year.

The origins of summer vacation, in reality, also had to do with concerns about teaching pupils in the stifling heat and the belief that children needed long breaks for their mental health. It's hard to imagine American life not organized around the rhythm imposed by summer vacation.

But let's consider Duncan's ideas on their merits. In his many public appearances of late, Duncan has argued that the most rudimentary aspects of the U.S. public educational system must change. He says parents must play a greater role in demanding more strenuous standards and utilizing schools fully year-round, including the hours they are open.

Within the next four to six years, Duncan says, a million teachers will retire. He calls this "an amazing opportunity." If the nation commits to altering how it chooses, rewards and retains teachers — only the best and brightest need apply — the U.S. educational system can be remade within the next few decades.

Clearly, change needs to happen. Our students are falling behind their peers even in lesser-developed nations. To become competitive again, our schools have to focus more heavily toward the STEM studies: science, technology, engineering and math. And we don't have the teaching staff to meet that goal.

Duncan has pointed to a problem that all teachers know: The first month back from summer break is often spent re-teaching competencies children lost during the summer. So he's been urging groups such as the Boys and Girls Clubs of America not to build new facilities, but rather to utilize schools.

He envisions schools as centers for communities, with all sorts of classes, tutoring and extracurricular activities offered (many by groups outside the public school system) before and after the main school hours and, presumably, during what is now the off-time of summer.

It sounds like a nice idea, but how are school districts supposed to stretch the school year and make it more rigorous when many of them are struggling to find the resources to offer art, gym and recess?

Yes, it will be tough, Duncan admits. But parents must demand it. Top-down change ordered from Washington will not revamp the U.S. education system, he says; parents will.

In a chat with group of moms gathered by Parenting Magazine, Duncan relayed a conversation Obama had with leaders in South Korea, one of the nations whose children have been out-scoring ours. Apparently, parental apathy is

not a problem there. The government is consistently pushed by parents (even the poorest parents) to raise the quality of educational offerings and demand more rigorous study, at younger and younger grades.

"I wish our parents were more demanding," Duncan told the moms. "I wish parents were beating down my door." Which part of that is more implausible? That Arne Duncan wants to be harried by parents, or that parents would believe that a federal agency could be a source of help in tackling problems at their kids' schools?

The fact is we don't really have an education system in the United States — certainly not in the sense of South Korea's centralized system. We have a balkanized patchwork of bureaucratic fiefdoms. A handful of these throughout the country are responsive to the active parents Duncan wishes for. Most are not. Some of them, typically in large cities, are laden with layers of that no parent could ever hope to penetrate. When it comes to education, concerned parents in this country vote with their feet, moving their families to better school districts — if they can. They do it not because it's the best way, but often because it's the only way to get results.

American public education is fundamentally inequitable. Your social class is a very good predictor of what quality of public school is available to your kids. That is the problem Arne Duncan needs to tackle. Until he does, everything else is just pretty talk.

*Sanchez is an opinion-page columnist for The Kansas City Star. You can contact her at [msanchez@kcstar.com](mailto:msanchez@kcstar.com).*

## LETTERS TO THE EDITOR

### Address feral pig issue at the source

Breeding and stocking exotic animals to be shot behind a fence is bad enough — but when these non-native animals escape these facilities, a whole new set of problems occur ("Invasion of feral hogs poses problems").

Captive shoots — facilities where customers pay a fee to shoot fenced-in, semi-tame exotic animals for a trophy — are a black eye on the hunting industry. Captive shoots lack the element of fair chase, a principle essential to many hunters' code of ethics. Feral pigs, often escapees from these facilities, have become a major issue in several states, including New York.

Feral pigs are extremely adaptable and can be destructive to habitat. They are well-known for their ability to escape their fenced enclosures and establish wild populations.

If the state is serious about its efforts to stop the spread of these animals, it must address this problem from the front end and tackle the source of the escapes. There's no way to stop the spread of feral pigs while captive shoots continue to breed and stock them.

**PATRICK KWAN**  
NEW YORK STATE DIRECTOR  
THE HUMANE SOCIETY OF THE UNITED STATES  
NEW YORK CITY

### Time to cut back on county legislators

I have read in The Ithaca Journal and received e-mail information about seeking potential members for the county's Independent Redistricting Commission as required by the law because of the 2010 census population change.

During the redistricting considerations and discussions, it would be a good time to look at the county Legislature as a body. I think that there are far too many legislators at present — 15, with many of them.

When viewing the district that a legislator serves, I find that many of them overlap the same municipal jurisdiction. Why can we not have 13 legislators instead of 15? And why should we stop at 13 when 11 could do the same job — or maybe nine?

From a personal observation of the county board, I find there are too many county legislators, and they seem to intrude on one another. The redistricting commission should seriously look at a reduction in the number of legislators, which would reduce their operating budget and save taxpayer money.

**JOHN A. BENTKOWSKI**  
ITHACA

### WRITE TO US

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## TODAY IN HISTORY

Today is Thursday, April 28, 2011. On this date:

- In 1789, there was a mutiny on the British ship Bounty.
- In 1945, Italian dictator Benito Mussolini and his mistress, Clara Petacci, were executed by partisans as they attempted to flee the country.
- In 1947, a six-man expedition sailed from Peru aboard a balsa wood raft

- named the Kon-Tiki on a 101-day journey across the Pacific Ocean to Polynesia.
- In 1958, Vice President Richard Nixon and his wife, Pat, began a goodwill tour of Latin America.
- In 1967, heavyweight boxing champion Muhammad Ali refused to be inducted into the Army.
- In 1969, French President Charles de Gaulle resigned

- his office.
- In 1980, President Carter accepted the resignation of Secretary of State Cyrus Vance, who had opposed the failed mission to free American hostages in Iran.
- In 1996, President Clinton gave 4 hours of videotaped testimony as a defense witness in the criminal trial of his former Whitewater business partners.

## DOONESBURY