

**The Ontario Rural Council's  
April 2004 Forum Report**

**Energy Alternates and Alternatives:  
Responding to the Current Energy Climate in Rural Ontario**

**Peterborough, Ontario  
Tuesday, April 6, 2004**

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*Thank you to our platinum partners Agriculture and Agri-Food Canada, through the Rural Secretariat, and the Ministry of Municipal Affairs and Housing for their ongoing support of the Council's activities.*

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**INDEX**

**INDEX**

<b>1. Welcome and Introduction</b>	<b>3</b>
<b>2. Greetings From Peter Adams, MP for Peterborough</b>	<b>3</b>
<b>3. Moderator Lance Sherk's Introductory Remarks</b>	<b>3</b>
<b>4. Bernard Jones, Ontario Energy Association</b>	<b>3</b>
<b>5. Ted Cowan, Ontario Federation of Agriculture</b>	<b>6</b>
<b>6. Paul Gipe, Ontario Sustainable Energy Association</b>	<b>10</b>
<b>7. Plenary Session</b>	<b>19</b>
<b>8. Flip Chart Summary of Group Discussions</b>	<b>21</b>
<b>9. Summary and Conclusions</b>	<b>24</b>

# **PUBLIC FORUM**

## **“Energy Alternates and Alternatives: Responding to the Current Energy Climate in Rural Ontario”**

**Tuesday, April 6, 2004**  
**Holiday Inn Peterborough Waterfront**  
**Peterborough, Ontario**  
**1:00 p.m. – 4:00 p.m.**

### **1. Welcome and Introduction**

**Pat Smith, Chair, The Ontario Rural Council**

TORC brings together people and organizations who share a commitment to rural Ontario and to building strong rural communities. TORC provides a unique and important opportunity for multi-sector co-operation within the rural sector. Members identify issues...then collaborate to develop innovative solutions and strengthen rural voices. TORC's mandate is to act as a catalyst for rural dialogue, collaboration and action.

The objectives of this forum are to determine:

- To explore the current state of energy provision, delivery, and usage in rural Ontario by looking at recent political, social, environmental, and political trends and their impacts;
- To better understand the challenges and opportunities of various energy approaches for rural households, businesses and communities as both consumers of and contributors to energy;
- To learn about realistic short and long term alternate and alternative energy solutions for rural Ontario.

### **2. Greetings from Peter Adams, MP for Peterborough**

Mr. Adams recognized the Chair Pat Smith and the Council from previous events. He was pleased with what he referred to as TORC's 'broadband' approach to rural issues. By way of welcoming the group he expressed his appreciation for the opportunity to bring together different levels of government, local farmers and other members of the community.

### **3. Energy Alternates and Alternatives: A Panel Presentation**

**Moderator: Lance Sherk, Central Area Facilitator, City of Peterborough**

Mr. Sherk spoke of work he has done with local businesses looking at co-generation opportunities and the receptivity of the business community to landing three large expansions in the area. He also commented on local initiatives such as Generation Solar Renewable Energy Systems Inc. a small local successful startup; a local farmer and son who have constructed a windmill; the Ontario Stewardship Council's efforts to use solar energy to generate electricity for fences as well as other

innovative groups working in the county. For all of these reasons he felt this forum was a particularly timely opportunity for discussion.

#### **4. Ontario Energy – One Perspective** **Bernard Jones, Ontario Energy Association (OEA)**

*Bernard Jones is the founding President and CEO of the Ontario Energy Association, Ontario's most broadly based energy association, bringing together for the first time under one roof natural gas, electricity and other interests.*

Mr. Jones painted a bigger picture of the development of Ontario's energy market.

##### **Ontario Energy:**

- The OEA is the most broadly representative Energy Association in Ontario and Canada.
- OEA's primary focus is electricity and natural gas (60%+ of Ontario's total end-use energy).
- OEA's membership includes natural gas and electricity producers, transmitters, distributors, marketers, manufacturers, contractors, suppliers and service providers.
- It brings together a mix of traditional and alternative energy providers.

##### **Electricity policy: a work in progress:**

- Old "power at cost" public monopoly stranded massive debt.
- This was replaced by competitive commodity market and regulation of utilities (gas model).
- The spot market price was volatile. The Eves' government froze the customer price and suspended much of the market, leaving taxpayers responsible to pay. There was stalled investment in new supply.
- The new Liberal government took interim action and is to announce its vision for Ontario energy on April 15, 2004.
- This will affect all Ontarians: power price must rise.

##### **The Liberal's promise:**

- An end to using electricity policy as political football.
- An end to taxpayer subsidy (\$850 million).
- Consumers are to pay full delivered cost of electricity—stable prices.
- Close down coal generation by 2007.
- Create conditions for private sector investment in new generation.
- Make a decision on nuclear power.
- Create a conservation culture.
- The risk is the competitive market dies.

##### **What the Ontario government has heard:**

- By 2007 face a serious supply gap.
- Big reason: coal generation closure.
- Beyond 2007 things will rapidly get worse:
- Current capacity: <28,000 (what) in 2004 in contrast to a need of 37,000 in 2020.
- Nuclear units are aging.
- There is limited scope for new hydro.
- Concerns over availability of large incremental gas supplies persist.

- Should promote conservation and alternative energy.
- Ontario will need 11,600 megawatts as soon as 2014.

#### **Initial government response:**

- Supply, supply, supply!
- 2,500 MW Request For Proposals (RFPs) is in the works.
- 5% Renewables by 2007 (1,350 MW); 10% by 2010 under an RPS.
- We can't bring supply on fast enough: we must adopt a conservation culture.
- Ontario Energy Board (OEB) proposes creation of a conservation agency and a conservation charge on all customers to fund conservation programs.
- Smart meters to be promoted.
- The government will announce its vision on April 15, 2004.

#### **Natural gas:**

- The Province has benefited from diverse energy sources, including natural gas.
- Gas provides substantially more end-use energy to Ontario than electricity and is cheaper and environmentally acceptable.
- The gas price has been higher and more volatile over the past two years (but customers can hedge price risk).
- There is substantial frontier gas, coal-bed methane, liquefied natural gas and existing areas potential (huge investments required).
- New storage pool development delays are a concern.
- Gas use in electricity generation will be the significant growth area to 2020 (National Energy Board).
- Conservation will temper residential and industrial demand growth.
- Gas utility and other programs encourage more efficient use of gas and economic system expansion.
- There is debate over increased use of gas for base load electricity generation (supply and price questions).
- There are opportunities for increased gas use in: distributed generation, high efficiency co-generation (consumers who are also producers).

#### **Rural energy environment:**

- Rural Ontario has less access to the cheaper gas options than urban areas.
- Energy conservation and new electricity generation technologies are higher priority for rural areas today than in the past.
- Conservation is imperative if rural customers are to exercise greater control over their energy usage and costs.
- New and emerging more efficient technologies will create opportunities to conserve and self generate e.g. smart meters, renewable energy sources

#### **What This Means:**

- Addressing Ontario's electricity supply gap will increase power costs across Ontario.
- Natural gas prices might not decline appreciably from current levels.
- Consumers need to know the Government's energy and regulatory policies before they can fully access the risks going forward.
- There are BIG risks and questions.
- Customers, rural, urban and city will have to take greater control over their energy usage, choices and bills.

#### **What next?**

- Become informed: investigate and consider personal and organizational options and conservation incentive programs that might exist.
- Take control and manage the total energy bill.
- If the public does not collectively pay, all will pay more in either power rates or taxes.
- Rural Ontarians are faced with challenging energy circumstances in the years ahead, but also opportunities.

## **5. Ontario Energy – Another perspective**

### **Ted Cowan, Ontario Federation of Agriculture (OFA)**

*Prior to joining the Ontario Federation of Agriculture Ted Cowan worked for the Alberta and Federal governments as a resource economist. He has been with OFA since 1998 where he works on trade, tax and energy concerns. Mr. Cowan has been involved in electricity on behalf of OFA for four years. He spoke on behalf of OFA at several Ontario Energy Board hearings and sat on the Ontario Energy Board's Conservation Task Force in late 2003. Mr. Cowan is still active on the family farm.*

Hydro was a mainstay of Canadian growth from 1905 to 1980. It is a history of Canadian achievement. But four things went wrong:

1. The Bruce Nuclear Power Plant was built with Atomic Energy Canada Limited and federal money by engineers from outside Ontario Hydro. They lacked cost control or project discipline. Nuclear projects changed a successful management culture.
2. By the 1960s changing consumer attitudes meant most customers were using power for fun things. It was past time to pay a market price for our luxuries but Ontarians lacked fortitude.
3. Cabinet intervened in nuclear construction and caused costs to rise and maintenance to be delayed: "We skipped oil changes to pay interest."
4. "Uninvolved shareholders." From 1960 to 1990 nobody insisted on accountability. This alone would have been enough.

These problems shaped the past. No hydro worker today has had a day on the job without these problems setting the background. The problems became half the corporate culture. Happily, the other half is the effort by thousands of people to do things right.

Concern shifted from management to public versus private control. This is a shift from fixing the problems to seeing who will get the wealth hydro creates. Who got it in the past? Before 1965 Ontario Hydro kept prices down, attracted industry and provided jobs. Then Ontario Hydro wealth built nuclear plants and its payroll. Recently neo-conservatives felt the wealth should go to whoever could lever a generator or PUC out of public control. Looking to the future - how do we do it right?

## **OFA Stance:**

Hydro One should keep Ontario attractive for business including farming. Luxury use of power should be charged at market rates.

Recognize the consensus of voters that hydro be publicly owned.

Make Ontario Power Generation (OPG) a holding company with subsidiaries for generators. Consider leasing one plant at a time. Each plant must know its costs and revenues.

Hydro One – the transmission function is working, but get the distribution of power right or offer it to municipalities or neighbouring local distribution companies – the Hydro One Boards – one for transmission and one for distribution each predominately customer representatives – because customers will ensure that rates and service levels are where customers want them.

## **What should the markets look like?**

There should be three markets: one for power generation capacity, one for transmission and one for distribution.

One principle must guide all three – a free market must work for customers or it cannot work at all. A market must have or do the following:

1. Markets must attract and retain customers. This is the fundamental test.
2. Must provide a physical supply on a cost aware basis.
3. Requires consumers who know the prices they face and respond accordingly.
4. Requires technically and financially competent intermediaries to expedite transactions and ensure payment.
5. Requires regulatory overview for compliance, fair play and dispute settlement.

### **1. Markets must work for customers.**

Prices today are the highest price awarded to any generator in a time period; not the prices at which generators offer power for sale. Are all mortgages at the highest rate or all wheat at the highest price? Free markets are not that way because customers can “walk”. At the heart of this market is an assumption that customers have no choice; that they will take what they are given. No customer voluntarily buys in such a market. Consumers need a “get what you bid” price. This is part of fixing the second problem.

### **2. Cost aware suppliers**

The price rule weakens generators. It is higher and more capricious than the average. The price rule fosters cross subsidization in the OPG, builds monopoly power and allows the OPG to run with little knowledge of its costs. Returns for base units are higher than for green or peaking so rewards go where they are needed least. A “get what you bid” price rule would make generators cost aware. This is part of fixing the first problem.

In other words, rates of return are higher for peak load generators which in a proper market should have low continuous returns while peaking plants should get higher less continuous returns.

### 3. **Price aware, price responsive consumers**

Prices have to be predictable so people can respond intelligently. Inconsistent prices force them to limit risk exposure. That is a response in a risk market not an energy market. If the risk coverage is to buy elsewhere – that is not good for Ontario. Ontario loses employers and jobs.

Customers can have tiered prices season by season, with a social rate for the first 7,540 kwh. Customers can have time of use meters or rates by customer class. Customers would know their price. Summer prices would be higher than spring prices. Some people would buy fans not air conditioners and building owners would install windows that open. Price rational consumers are that easy. Solve Problem Two. In other words, a consumers rate should be set low for the first 7,540 kwh/month, higher after that and higher still after some other threshold, seasonally adjusted means prices change each season to reflect seasonal demand.

### 4. **Technically and financially able intermediaries**

Public Utility Commission's (PUC) are technically able. Outages are just 15 minutes a year. But PUC's cannot handle the dollar risks. Stockyards cover defaults by a levy on sales. If a buyer fails, the fund pays. PUC's can too. This is part of the third problem.

### 5. **Oversight**

Oversight can be achieved via market surveillance through PUC and transmission company boards consisting of elected customer representatives. Customer driven boards gave suitable prices and quality. This helps solve the fourth problem.

These five steps are not enough. Ontarians also need a capacity market for generation. Just as farmers pool resources when faced with shortages or high prices OFA suggests a fund to address safety, conservation and new generators. Farmers use a product check off to raise funds and elect fund management. "Check off funds" can be loaned to fund new generators. Which new generators? For example the new Niagara plant, run of the river plants, and a mix of large co-generation and nuclear plants. This also helps to address the problem of markets working for customers and cost-aware suppliers. It is fair to ask '**Can farmers do anything useful?**' besides fork out advice. The answer is yes if farmers get the rules right.

Opportunities for co-generation at greenhouses or mushroom farms. There is potential for several hundred megawatts of power now.

Windmills and farm supplied power – for people on demand meters, they pay right now. The system would be improved if the net metering and small generation connection rules were rational. Removing the charge for transmission for units on lines under 50 kv would make this profitable. In other words, should rebate the 1.5 cent transmission charge - as no transmission lines are used - to the generator so the revenue goes up.

On the demand response side OFA suggests metering back up generators so farms and hospitals can be compensated to go off grid in periods of short supply or high prices. The on farm capacity saving is about 300 mw, for hospitals it represents more.

### **The OFA approach:**

Structure the OPG into manageable units and structure Hydro One much as it is, save that for distribution if it is not up to standards soon then give it to counties or nearby local distribution companies. Give these organizations customer run boards. In other words, the OPG could be made into a holding company with each major generator a subsidiary so costs and revenues are accounted for generator by generator.

Markets should reflect “get what you bid for” generators, customers first, tiered seasonal prices, restraint in purchasing “fancy meters” and create “check off funds” to ensure payment, new generation, demand side management, demand response and new transmission. As well there should be social changes, help customers learn the difference between luxuries and essential uses of electricity.

For now the OFA is putting together a purchase program that will get rural customers 5-cent power. This will be an improvement on the 4.7 / 5.5 price by a half-cent on power over 20,000 kwh a year. But it is not long-term solution. This refers to the new price caps policies of 4.7 cents per kwh for the first 750 kwh and 5.5 cents for everything over.

Rural alternatives have to be time sensitive. Conservation can be the first action. It takes almost no time to save energy. But it takes at least 4 years to get a new large generator built once the approvals are in place.

Small power can come next. Six to eighteen months from a “gleam in daddy’s eye to power in the land”. Wind power is an option now if the government rebates transmission .... (currently there is a 1.5 cent transmission charge again.

Ontario should look at co-generation for both gas and nuclear but that will take 5 years to achieve. There are technical limitations to co-generation. The foremost is storing or transporting heat. Research is needed to allow heat storage and transport so co-gen can bridge the time gap between when power is made and when or where heat is needed. Alternately using or upgrading low grade heat can be explored.

Bio-fuels are the future. These fuels will come from farms and sewage plants, factory waste and landfills. OFA is keen to have bio-energy work funded heavily. Which genes and plants best fix hydrogen? Which genes and bacteria best free methane? This is the future. Societies that go biological will go from capturing 0.2% of the sunlight to harnessing 1% of its power. All other ideas are “hangers on” from the coal age.

Ontario cannot rely on cheap hydro in the way China depends on cheap coal. Reasonable cost power will have to do. Our future requires innovation. Our innovations have to be in bio-power and until the sun is harnessed, innovations

should focus on getting institutions and markets to work, providing new modern generation and to make better use of the power that currently exists.

## 6. Community Wind Power

### Paul Gipe, Ontario Sustainable Energy Association

*Paul Gipe has lectured worldwide - Europe, North America and the South Pacific - on wind energy and how to minimize its impact on the environment. For his efforts, the World Renewable Energy Congress honoured Gipe as a "pioneer" in 1998, and the American Wind Energy Association named him as the industry's "person of the year" in 1988. His book Wind Energy Comes of Age was selected by the (American) Association of College and Research Libraries for its list of outstanding academic books in 1995. Gipe was one of the lead authors and he co-edited Wind Power in View: Energy Landscapes in a Crowded World published by Academic Press in 2002. Wind Power in View is an authoritative international collaboration on wind energy and its place on the landscape.*

If Ontario is to meet energy deficits we are failures! Supplying an additional thirty-seven thousand MW in this province is far too much. Ontarians consume almost twice what the typical Californian consumes.

### **Community Wind -- The Third Way: Wind Energy As If People Matter**

- 1) Large Wind Power Plants
- 2) Small Wind Turbines
- 3) Locally-Owned Commercial Turbines

### **Why Community Wind:**

- More Power More Quickly
- More People Involved Locally
- More Money Locally
- More Jobs Locally

### **Increasing Acceptance:**

"Your own pigs don't stink". An example was given of a Dutch farmer and participant in a wind co-op who quickly dispensed with the argument that turbines are unsightly while drawing attention to the need for community buy-in.

### **Wind Energy is compatible with most rural land uses:**

- Row Crops
- Grazing
- Vineyards

### **Community Wind:**

- Local – these operations are rooted in and responsible to the community.
- Locally Owned - co-operative, municipal, farmer-owned.
- Commercial-scale turbines - real wind not "recreational wind". A distinction was made between large commercial turbines and smaller 1 or 2 kw turbines. Mr.

Gipe's argument was that in order to address energy needs communities need the larger commercial turbines in place. While Mr. Gipe did not discount the use of smaller turbines in terms of the community making an impact, the potential to "live off the grid" with a real source of power, he believes larger turbines are more cost-effective in terms of consumption.

- Small projects, not small turbines.
- Participation equals greater acceptance. (for more information on public attitudes towards wind power visit the Danish wind power association's website - [www.windpower.org/en/articles/surveys.htm](http://www.windpower.org/en/articles/surveys.htm))
- Distributed generation equals greater resiliency. Because electricity will get used as close to the site of generation as the load is placed, multiple sites of entry (such as wind power) mean the grid is strengthened and more resilient. If one power plant goes down the community does not lose as high a percentage of energy production.
- Clean & Green (mostly) - While wind turbines have a small ecological footprint, it would be unfortunate to put them absolutely everywhere. They do require roads, for instance, and they may not be suitable in some places. Comparatively turbines have a very minimal impact on natural environment based on environmental screenings.
- Human Scale - Wind turbines as a technology are more comprehensible, more accessible to repair or work with, also (based on the size of the turbine) one can fathom the amount of energy it is producing. People could even picnic in it's shadow.
- Enables local ownership- more money stays in the community
- Encourages community buy-in
- Strengthens rural communities
- New cash crop for farmers

**Danish co-ops:  
(Vindmølleaeg or Fællesmølle)**

- ¼ capacity nationwide
- 1.7 billion CAD invested
- 100,000 households own shares
- %5 of population (involved directly)

**German Co-ops:  
(Bürgerbeteiligung)**

- 1/3 Total Capacity
- ~\$7CAD Billion
- 200,000 Own Shares
- 2/3 Schleswig-Holstein
- 4/5 Nordfriesland Amt

**Sydney Kabelaug Denmark:**

- 16 km of buried cable
- Direct to HV Network
- 26 x V27s (225kW)
- 1 Million KWh/unit
- Mostly pig farmers

**Middelgrunden Co-op Kobenhavn:**

- 20 x 2 MW off-shore
- ½ owned by co-op
- ½ owned by utility
- 8,500 investors
- \$1,000 CAD per Share
- Visible from Folketing (Danish parliament building)

**Paderborn Co-op Germany:**

- 4 Wind Plants
- 17 Companies
- 80 x 1.5 MW
- 110 MW
- \$240 CAD Million
- 780 ha (2,000 ac)
- All companies local
- All pay local taxes

**Wieringemeer Noord Holland:**

- 5 x 600 kW
- Co-owned
- ½ by Two Farmers
- ¼ by Manufacturer
- ¼ by Utility

**Toronto WindShare:**

- First Urban Turbine in North America
- Co-owned by WindShare Co-op and Toronto Hydro
- Prominent location
- Highly visible
- Highly popular

## **So how do we get there?**

### **How does Ontario cope with the power crisis and develop community wind?**

### **How can Ontario farmers help?**

### **Ontario's goals should be:**

- Ontario needs ambitious targets – a bold vision enlists public support.
- Aiming too low is never the road to leadership and success.
- Bold measures are needed to cut consumption dramatically (20% +).
- Need to double or triple our renewable target:

*The Ontario Ministry of Energy struck an Electricity Conservation & Supply Task Force which in the executive summary of its report gives scant mention to renewable targets: "The Task Force calls for quick action to implement the Renewable Portfolio Standard. Renewable generation will be a vital part of the future supply mix." To read the executive summary visit this link:*

[http://www.energy.gov.on.ca/index.cfm?fuseaction=electricity.taskforce\\_summary](http://www.energy.gov.on.ca/index.cfm?fuseaction=electricity.taskforce_summary)

### **Ontario is a new market and:**

- It offers great promise
- It is a potentially large market
- There is a lure to manufacturers  
*(It's not yet too late regarding manufacturing opportunities)*
- Growth quickens in new markets
- "Take off" is shorter
- Ontario can also benefit from experience to build better turbines and implement them strategically

### **Elements of success in Europe:**

- Growth quickens in new markets
- "Take off" is shorter
- Find the right price for fixed period (Advanced Renewable Tariffs)
- Establish the right of interconnection
- Establish by-right permitted rural use

### **What has worked in Europe?**

- Advanced Renewable Tariffs (ART's)

### **What has not worked?**

- Direct subsidies and tax credits  
*(These measures have not worked for example in the United States. Wind energy has not taken hold in America in part because companies do not know how long*

*these tax benefits are going to last. That is to say they have no long term guarantees that they will be able to generate revenue.)*

- Advanced Renewable Tariffs markets equals many markets

- Quota markets equals few players

*(The implication here is that quota markets lead to what could be viewed as an unhealthy concentration of ownership. For instance, an announcement is made requesting proposals for 300 MW of renewable energy. Smaller companies, 10 MW for example, cannot compete with a larger company that could bid on the entire quota through maximizing economies of scale. Smaller players as a result do not have an equal footing which, in turn, doesn't contribute to the long life of the industry.)*

- Quota or bidding systems have not worked

### **Bidding or Quota Markets:**

- Heavy administrative burden

- Stop-start/boom-bust effect

*An example here is the province of Quebec which sent out a request for proposals (RFPs) to create 100 MW of renewable energy. The downside was the province did not continue to send out RFPs for subsequent 100MW projects and the industry ground to a halt. Caught in this start-stop process was an offshore Danish company, NEG-Micon, which had come in and set up in the province specifically to build parts of the turbine....*

*As with any manufacturer, there has to be a sustainable market in order to remain viable. For example, a steel manufacturer in Hamilton wishing to make towers for turbines would require a steady market in order to justify the initial capital outlay. The implications here are grievous: The longer Ontarians delay in creating a stable market for renewable energy, the fewer manufacturing and, in turn, employment opportunities will be retained in Canada and Ontario.*

- Little diversity for community or farmer owned markets
- Longer lead times for environmental assessments
- Few or no manufacturers

### **Advanced Renewable Tariffs (ART's): A Market-based approach**

- Creates dynamic markets
- Stimulates competition
- Offers opportunity for many players (i.e. for farmers – wind generation is a stable cash crop, co-ops, communities, wind companies)
- Encourages local manufacture
- Reduces spot market volatility
- Ensure price stability
- Part of a conservative culture (paying for value)
- Political price, not a political quota
- Fixed price/kwh over a fixed period
- Simple contracts (require little or no administration)

- Proven success of ART's can be witnessed in Germany, France, Spain, Austria, the Netherlands and Portugal

**Germany:**

- \$0.15CAD/kWh first 5 years
- \$0.14CAD/kWh years 5-20, Interior Sites
- \$0.10CAD/kWh years 5-20, Coastal Sites

**Spain:**

- <50 MW
- \$0.10CAD/kWh

**France:**

- <12 MW
- \$0.14CAD/kWh first 5 years
- \$0.14CAD/kWh years 5-15, Low Wind Sites
- \$0.05CAD/kWh years 5-15, High Wind Sites

**Austria:**

- \$0.13CAD/kWh for 13 years

**ART's for Ontario Projects:**

- 20 Year Fixed-Price Contract
- \$0.10CAD/kWh
- Years 1-10: \$0.10/kWh
- Years 10-20
- High Productivity: \$0.08CAD/kWh
- Low Productivity: \$0.10CAD/kWh
- Streamlined Interconnection
- By-Right Permitted Use

**Community Wind: A vision to excite the imagination**

- 2,000 MW in 4 years?
- 4,000 MW in 6 years?
- 8,000 MW by 2012?
- 10% of Electrical Energy

**How can wind benefit Ontario farmers:**

- Royalties
- Lowest Risk (Developer Bears Financial Risk)
- Lowest Rewards (% of Gross Revenue)
- Ownership
- Risk Born Directly (Wind Risk, Technology Risk, Political Risk)
- All Profit Owned by Farmer

### **Royalties & Land Rent: Other Conditions** (figures on slide 32)

- Signing Options (\$1,000 CAD)  
*(beware of speculators)*
- Installation Bonus (\$2,500 CAD/MW)
- Royalties Increase over Time (1st 10 Years, 2nd 10 Years, 3rd 10 Years?)
- Royalties on All Revenue Sources (Green Tags, RECs, CO2)
- Security Deposit & Removal Bonds

### **Ontario Ownership Example:**

- 1MW Turbine, 60 m Ø, 80 m Tower
- \$1.5 million CAD Installed
- 1.8 million kWh/Year
- \$150,000 CAD/Year Net @ \$0.10/kWh
- Simple Payback: 10 Years
- Second 10 Years: \$1.5 million CAD

### **Rural Ontario Economic Benefit:**

- 55,000 Farmers
- 1/2 Install One 1-MW Turbine
- 27,000 MW
- 1/3 of all Ontario Electricity
- \$4 billion CAD/year total turnover
- Money stays within province
- Money circulates through rural economy
- Potentially stimulating rural revival

## **7. Plenary Session**

- A question was asked of Ted Cowan about **land use issues regarding installing a wind turbine on private property**: Mr. Cowan's response was that any installation needs to go through an environmental assessment. The challenge is that every turbine is considered to be a 'non-conforming use' which necessitates at the very least a local planning meeting since the installation is not seen as a use of right. Mr. Cowan further noted that the OFA has met with the past and present provincial Energy Minister on this and other issues affecting farmers interested in power generation.
- There was a general question about **how to gather momentum for a mandate around Advanced Renewable Tariff's**: The consensus was that someone must advocate, whether through the Rural Ontario Municipal Association (ROMA); Ontario Federation of Agriculture (OFA); Economic Developers Council of Ontario (EDCO); The Ontario Rural Council (TORC), or otherwise. It was noted that making specific recommendations in the past, in this case on rural childcare, was challenging because TORC is not a lobby group, but a convener of various organizations. As such, finding a unified stance on behalf of the TORC membership requires buy-in from everyone.

- An attendee wondered whether there is **anything in place other than a dollar incentive to curb consumptive behaviour** particularly given that there are institutions in place mandated to conserve energy: Just because gas prices rise does not mean that there will be less sports utility vehicles on the road for example. What if a business is already efficient? How do they get an incentive? What's in it for them? The answer was they are rewarded *pre-crisis*: As the prices go up their costs won't increase as much.
- Another question arose on **how to change the perception paradigm and consumption patterns**: It was stated that California managed to reduce its consumption by 20% through developing programs and reaching people at an individual level. For example, people went door to door to give away fluorescent bulbs. There are also programs in place for homes and businesses.
- An audience member from Peterborough commented that in Ontario Green-Up delivers Energuide for Houses (a program through the Government of Canada).
- General comment: With deregulation you have to rebuild institutions. Unfortunately we have to do this every time there is an election and the energy system changes.
- A participant wondered how we could achieve efficiencies through the design of a system that places a high priority on **conserving energy**. Because our society is seemingly addicted to cheap electricity the implication was that there was not adequate incentive to adequately insulate our homes for example.
- The issue of **smart meters** came up again with a question on how, other than smart meters, we can become aware of our usage? Ted Cowan clarified his position on smart meters (*it is worth noting that there was not consensus on the panel around this*) arguing that the initial layout of \$2 - \$4 billion did not make fiscal sense: 'Smart' meters made sense in large installations such as a manufacturing setting, adding instead his endorsement of a more cost-effective solution: tiered seasonal pricing.
- A panelist identified his ultimate vision as one in which a competitive market is achievable within a conservation framework.
- A general remark was made regarding monopolies as being a benefit to the energy field because they put a large sum of money into **technological research and development**. It was suggested that new avenues for raising capital should be explored.
- General comment: The privatization of retail calls for **market discipline**. Also, there have to be safety measures in place for elderly and low-income consumers.
- In terms of the announcement on energy coming April 15, 2004 – there were fears that there will be no competitive market, but a sort of monopoly. There will be bidding contracts at a fixed price, which will be very expensive. Taxpayers will have to pay for the difference.

## **8. Flip Chart Summary**

*Participants and panelists broke out into five groups to answer three questions then reported back to the larger group. The results are listed below:*

### **Question #1 – What are the major impacts of present and future energy trends on rural Ontario’s businesses, agriculture sector and communities?**

- Availability of energy
- Causes political turmoil and rash decision making
- Communities have to work on demand side management
- Community action
- Competitiveness
- Costs of energy rising along with demand
- Declining profits
- Education
- Environment of uncertainty (especially in terms of business and industry)
- Greater stress on social fabric in rural communities – more closures of schools, churches, etc.
- Hydro electricity affects water levels, fish populations, home dislocation
- Impacts on communities/businesses in terms of their geography (ie. communities farther north that spend more on heating costs)
- Increasing utility/operating costs (which affects farmers’ production and manufacturing)
- Island affect – access to the power grid (or lack of)
- Need to see the cost of power clearly to create incentive to save power
- Perceptions of frugality versus squandering of energy
- Pricing
- Profitability marginal for small businesses
- Reliability – blackouts/brownouts
- Subsidy eats up money for health care, education, infrastructure, and other social services
- Takes money way from other capital acquisitions
- Trouble in attracting and keeping business/investments

### **Question #2 – What can rural businesses, organizations, community members and governments do to make energy more efficient, sustainable, and reliable?**

- Advocacy (ie. Advanced Renewable Tariffs)
- Build awareness, knowledge and information in both industry and consumers
- Business mind-set around conservation
- Change culture such that people are more willing to conserve
- Change perceptions
- Conservation
- Co-ops
- Create a regulatory environment that makes turbines possible (lobbying)
- Create acceptance of alternate energies and perceptions

- Creation of a wind atlas – determines geographical locations for optimal alternate energy devices like turbines
- Culture/perception shift
- Energy efficiency
- Engage industry – joint efforts
- Face the realistic costs of energy
- Form co-ops which have a political structure in place
- Generation of electricity can be connected and sold back to grid with no red tape
- Get everyone to the table and get commitment
- Government should stay out of the maintenance of energy – unstable political interference
- Government vision and plan (i.e. tax credits)
- Guarantee the price for renewable energy sources
- If you use less your price goes down
- Increase capacity of electrical infrastructure for distributed generation in rural areas (i.e. wind farms)
- Increase the capacity of the electric infrastructure to reach rural (government role)
- Invest in community efforts (co-ops)
- Join a renewable energy co-op
- Keep it simple
- Leverage off each other
- More independence from government
- Partnering/dialogue
- Peak to off hours
- Practice conservation within communities/homes/organizations
- Self-sustaining
- Simple actions have profound effects
- Streamline building criteria, legislation and policies to allow permits, licenses, environmental assessments
- Success stories (share)
- We must all be energy princes and princesses, not hogs!
- Wind turbines

**Question #3 – What best practices have you witnessed that have helped to address the current energy climate?**

- Encourage operational changes/energy management
- Energy conservation initiatives/programs
- Case studies and dissemination
- Awareness
- Look to industry
- Allow smaller operators to use/get involved with the grid as they've done with the internet
- Conservation (personal, business, and industrial)
- High level of interest and buy in from landowners and stakeholders
- Youth education – the next generation
- Building the perception