

59th AGM Provincial Council of Women of Manitoba, Inc.
Energy Alternatives
Saturday, April 19th, 2008
Morris, Manitoba

- Introduction by Maxine Balbon, President
- Welcome by Mavis Taillieu, MLA for Morris - 125th anniversary of the town
- Welcome by Jim Rondeau, Minister of Science, Technology, Energy and Mines-
First fleet of hydrogen busses – new vehicles – plug in vehicles, society isn't looking at now, but medium term and long term. Future generations – like Councils.
- Ruth Murray, Deputy Mayor of Morris. Importance of volunteers.
- Ralph Groening, Deputy Reeve, RM of Morris. Establish housing – for people who work in Rosenort.
- Mr. Tom Molinski – Key Note Speaker from Manitoba Hydro, Emerging Energy Technologies for Manitoba Hydro.

Planning, how much wind power costs, integrate into grid. Reviewed energy – Hydro produces 98% of Manitoba's hydro. Surplus hydro till 2024, 5000 MW undeveloped hydro.

3 plants to start. Energy to US – Recent announcements.

495 MW thermal 1.9% energy
100 MW wind .1%

Winter peak – 4250 MW 2008
Export 25% of energy, Goal to export 40%

Rates used to keep Manitoba's rates lows.

Emerging energy technologies, Not conventional energy systems. Includes, small hydro, wind fuel cells, bioenergy, solar, energy storage, engines, PHEV & EV.

Sterling Engine. Can use dirty fuels. Won't be driving a gas fueled car – electric cars, renewable car. Plug in hybrid car. Electric and gas fuelled. First 30 miles on electric power. Nano technology – gear sets – one of the reasons the charge for the batteries can go so quickly – 5 minutes, not over night.

Inherent balance of TBL factors, economic, environment and social factors.

Reviewed Energy **Consumption** in Manitoba – Hydro 26%, biomass and wind 2%; Coal and HGL 2%; Natural Gas 32%, Refined Petroleum Products, 36%

“Everybody gets so much information all day long that they lose their common sense”
Gertrude Stein

M. King Hubbert, 1956 predicted US peak to be 1970, World peak after 2006. Published Hubbert Curve in 1949.

Have to get off oil and find something else. Oil not just for transportation. Gas Hydrates – Algae – produce biofuels. Yields from corn and wheat.

Current projects – PHEV batteries; Kinetic Turbine under water windmill, Composite Tower monitoring wind speed for wind mills, learn about wind and ice; Brady Road landfill capture methane gas, Gasify Bullrushes phosphorous in L. Winnipeg. Delta Marsh 13,000 acres bull rushes, harvest – taking phosphorous away from L. Wpg., then gasify the bulrushes reduce phosphorous by 3%.

In the global economy there are but 2 choices: innovate or evaporate Norm Augustine

Small community – Ontario – Pay money to bring the energy into the system. Policy to bring into the grid.

Tidal wave energy, 12 feet need more, 60 Bay frozen much of the time.

Consumption going up in Manitoba – down in Saskatchewan – Rates lower. Market Based Rates – would go up 40 50 %.

Carolyn Garlich – thank you. Energy power – externalizing costs to the environment. Don't discharge carbon, or carbon neutral.

Elizabeth Fleming – reviewed resolutions, do they need updating? Action?

- Barb Shewchuk (Women's Institute) moderated the Panel.
- Bob Spenseley – spoke on wind energy – community development, and education. Wind complementary, with dams – wind is the fastest growing source of energy. 1% of electricity around the world is from wind. Catching on in every province. 2006 in Manitoba. Wind turbines getting bigger. 63 towers – size of Richardson Bld. Turbines in St. Leon actually small compared to others. Got to diversify electricity source. Cold air is dense air. 8% more because it's cold. What it means to a community – diversify rural way of life. Has to be in spots people want them. Land payments split, when a wind farm comes to town, can hurt or help – St. Leon, community was together – sensitive and responsive – Cape Cod – company putting in wind power in front of Kennedy's. Not accepted. Open

House. 100% approval. Like in anything have to diversify – protecting – ways of protecting ourselves for the long haul. Wind can help with diversification.

- Eric Rempel – use biomass, small company, Biomass Energy Technologies (BEST) Straw – it is often burned, left on field etc. If controlled burn, less carbon. Could convert into electricity. Easiest is to burn, and heat water. How to control the burn? Smaller furnaces – control air going to the furnace. Smokey, inefficient, and cold fire. Hot fire, cleaner. Our unit, got a dozen motors, propane back up. More time in to disintegrating the bales. Line up bales – on to conveyer. Annual biomass has silica into it. Their unit collects the silica. Not talking about huge projects – Smaller things – green house – Copenhagen heats houses – Waverley West – 100-200 houses could benefit. Working with St. Laurent community. A woman has been working on this – everything retrofitted – more expensive. Community spread out – could be very effective in Waverley West.
- Bill Grant – photos of wind generators. Manitoba hydro will let you plug into their grid. Solar power, make hot water, Hot water so hot, need to bring in cold water to cool the water. Zenn cars – goes 30 miles – runs on electricity. Panels will charge up during the day, and plug in car at night. Heat air with the sun – solar recycled aluminum cans –

Question – costs? Specific to home and need. 2,500 for wind – small, 20 K for 75,000 dollars. 10 k watt can be integrated with the grid. Solar water – 5,000. Wind Farm 4 – 6 million per turbine – larger scale needed. 150,000 for biomass heating, number of electric motors the same. Flax – in Carmen – doesn't produce silicone. Use of land – arable land – pasture farm land. Transmission lines already existing. Churchill not energy demand. Cons – hydro will not pay production costs. Icing – around 32 below. Reliable energy, could be back up. Near transmission lines. Economically feasible. Diesel driven 10 kw

Luncheon presentation by Barb Shewchuk on Women's Institute:

- 1910 founded – WI – Morris group – Used overheads, song and audience participation. Introduced Edna Dreger, WI, President

Business Meeting followed.