

The Public Policy Needed to Build a Renewable Energy Society in Saskatchewan

Executive Summary

By Peter Prebble

Saskatchewan is blessed with a remarkable array of wind, solar, small scale hydro and biomass resources for our population size. The time has come to fully utilize these resources to build a renewable energy economy. Not only could this be an important source of job creation and community based economic development, but it could also be part of Saskatchewan's larger plan to reduce its greenhouse gas pollution, something every jurisdiction on Earth must do if dangerous climate change is to be avoided. The experience of other parts of the world suggests that good public policy plays a crucial role in successfully developing renewable energy potential. In this paper, several new public policy initiatives are proposed for Saskatchewan. These include:

- New mandates should be set for SaskPower and SaskEnergy that direct both Crown Corporations to give high priority to energy efficiency and renewable energy development.
- The incorporation of energy efficiency measures into Saskatchewan's building code. For example, Energy Star (E-80) could become the energy efficiency standard for new home construction.
- Once new energy efficiency codes are in place, provincial government programs would encourage energy efficiency measures that exceed the codes.
- A new financial assistance program should be

established to promote installation of solar space heating.

- New training programs are needed to help create a workforce with the skills and knowledge to lead the transition to a renewable energy economy.
- The Province should support our Universities and SIAST campuses in becoming provincial leaders in the day to day use and application of renewable energy technologies.
- Super-energy efficient model homes could be built in every Saskatchewan city: for public display. The intent would be to shift local building practises and local homebuyer preferences towards the adoption of energy efficient and renewable energy technologies.
- It is proposed that SaskEnergy launch a province wide energy conservation retrofit program in which upfront financial costs are covered for building owners and then repaid on their SaskEnergy bills. The focus would be on undertaking energy conservation work in which the energy savings alone covered all capital costs and interest charges within eight years. In this way the customer's total space heating bill would not need to go up in order to pay for the retrofit; it would go down significantly once SaskEnergy had fully recouped all its costs. The retrofit work itself would be done by the private sector.

- SaskPower should be directed to achieve 300 MW of electricity savings by 2017. It would pursue all electricity efficiency investments that are cheaper than the least cost option of building new generating capacity.
- The Province and municipalities should work closely together to adjust subdivision design so as to better accommodate the use of renewable energy, particular solar technologies. Solar rights should be protected for residents who have installed solar systems on buildings they own.
- To advance neighbourhoods and communities in Saskatchewan transitioning to renewable energy, the Province could facilitate partnerships with communities in other parts of the world that have adopted renewable energy technology on a large scale.
- SaskPower should install 600 MW of wind power by 2018, in effect quadrupling current wind power capacity in Saskatchewan. SaskPower should also target to develop 125 MW of small scale hydro and 125 MW of biomass by 2018. On some of its new installations, and particularly where community interest was high, SaskPower could seek out partnerships to develop local renewable energy resources with local municipalities and with wind farm co-ops.
- SaskPower should negotiate the purchase of 600 MW of hydro from Manitoba and as part of the agreement would also negotiate the sale of electricity from Saskatchewan's wind turbines to Manitoba. This would take time to fully implement, but would be an important part of a post 2020 electricity mix.
- SaskPower should expand net metering and retain its up-front installation grant. Under the enhanced net metering program, larger, more efficient renewable energy projects would be encouraged. Program changes would allow neighbours to work together on shared renewable energy installations.
- The Provincial Government should launch feed in tariffs with a focus on encouraging renewable electricity projects that are locally owned and foster community control. A feed-in tariff policy would establish specific prices that would be paid by SaskPower for different types of renewable electricity production. These prices would reflect actual cost of installation plus a small return on investment over 15-20 years. Feed-in tariffs could be particularly used to encourage investment in solar power plants and biogas generation, two areas SaskPower has shown little inclination to move into.
- The Provincial Government should adopt legislation requiring that Saskatchewan meet at least 40% of its electricity needs from renewable energy sources by 2020. This would mean that the contribution of renewable electricity to Saskatchewan's grid would more than double by the end of the decade.
- Large industrial customers could be asked to pay higher electricity prices that reflect the real cost of providing for their electricity needs. Industrial customers would be supported in undertaking major energy efficiency initiatives.
- Coal fired power plants should be gradually phased out in Saskatchewan. Over the next eight years 400 MW of coal fired power production could be shut down. Coal fired power plants are a major source of greenhouse gas pollution.
- All new electricity generation projects in Saskatchewan should be required to be low greenhouse gas emitting facilities.
- SaskPower could establish an accelerated timescale for introduction of smart grid technologies.
- The practicality of Saskatchewan moving to a renewable energy economy is underlined by the fact that in the U.S. and Europe more than half the electricity installations in 2008 and

2009 were renewable energy technologies. In other words, installation of technologies such as wind turbines, solar panels and biomass generation plants outstripped all new nuclear power installations, new coal fired power plants and new natural gas generation facilities combined.

- New work by the Intergovernmental Panel on Climate Change emphasizes that it is not the availability of renewable energy resources, but rather the public policies that are implemented, that will most determine the rate at which renewable energy develops in the years ahead.

The final portions of the paper update the reader on the latest developments in the field of climate change. The paper examines the relationship between rising greenhouse gas emissions and intense precipitation events, which lead to flooding. Last year floods and storms displaced 38 million people worldwide. As average global temperatures rise each decade, more parts of the world are also subject to drought. The amount of land in the world considered to be very dry has more than doubled since 1970.

Warmer global temperatures are causing land based glaciers and polar ice sheets to melt at an

accelerated rate. The result is that sea levels are now rising at an average rate of 3.4 mm per year. Many coastal communities are already planning for a sea level rise of 0.7 metres to one metre during this century. Already, residents of some islands in West Bengal are watching their homes disappear permanently underneath the sea. The Maldives are being forced to actively plan for the day when residents will have to abandon the country entirely, because of rising ocean levels that are a direct result of the increase in global greenhouse gas emissions.

The United Nations is warning that a continued failure to address greenhouse gas emissions and their consequences is putting at risk decades of progress in improving life for the world's poorest people. Given the very long lived nature of greenhouse gases and their rapid build-up in the atmosphere, human society now has only a short time left to sharply curb these dangerous pollutants or face catastrophic and irreversible effects. The Intergovernmental Panel on Climate Change has clearly shown that renewable energy technologies can play an enormous role in averting the climate crisis. Saskatchewan should act now to build a renewable energy future that will benefit all generations to come.

About the Author

Peter Prebble has been involved in Saskatchewan's environmental movement for 34 years. He holds a Master's Degree in Sustainable Environmental Management and a Master's Degree in Education. He also holds a Bachelor's Degree in Business Administration and was awarded a Governor General's Gold Medal upon completion of his undergraduate work. Peter was a Member of the Saskatchewan Legislature for 16 years. He held several Cabinet posts and served as the Premier's Legislative Secretary for Renewable Energy Development and Conservation. He has also worked in many roles for the Saskatchewan Environmental Society, most recently serving as their Director of Energy and Water Policy.



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