



# Recommendations for a Municipal Greenhouse Gas Emission Reduction Strategy for the City of Saskatoon Focused On Community-Wide Emissions

October 28, 2015

The board of directors of the Saskatchewan Environmental Society is pleased to offer the following suggestions on important components of a community-wide greenhouse gas reduction strategy that we would like to see the City of Saskatoon move forward with. There are many important policy levers that can be exercised at a municipal level to reduce the City's greenhouse gas footprint.

## **Monitoring, Assessment and Public Education**

### **1. Community GHG Reduction Target**

We hope the City of Saskatoon will adopt an official target for community-wide reduction of greenhouse gases (GHGs). The Saskatchewan Environmental Society (SES) urges the City of Saskatoon to adopt an ambitious reduction target followed by the establishment of clear city policies needed to achieve it. Based on the physical realities of climate science and the threat posed by rising greenhouse gas concentrations in the atmosphere, SES recommends an overall community GHG reduction target of at least 35% below current emission levels by 2025. In the items that follow, we recommend several key policy directions for the City to consider as it works to achieve that goal.

### **2. An Up-to Date Assessment Of Current Community GHG Emissions**

The City of Saskatoon does not have an up-to-date detailed assessment/inventory of current annual community-wide greenhouse gas emissions. This assessment is essential for tracking future emission reduction progress, for setting emission reduction targets for each sector of the Saskatoon economy, and for formulating good public policy for each sector. We urge the City to publish such an assessment in the near future and to update it every two years.

### **3. Public Education Campaign on Climate Change**

Community-wide emissions will only decline if the public supports and actively participates in local initiatives towards that end. To achieve higher levels of public engagement, a local information campaign on the urgency of climate change and the exceptionally long-lived nature of greenhouse gases is needed. Such a campaign could also highlight potential monetary savings from reduced fossil fuel use.

### **4. Reporting Progress On Emission Reduction**

SES recommends that the City take steps to ensure that residents are kept aware of progress being made to reduce greenhouse gas emissions in our community. One option would be to consider updates on signs or billboards - similar to what the United Way does when informing the public how close it is to reaching its annual fund raising goal. A chart could show the reduction of total GHG emissions put out by Saskatoon and our progress towards meeting our 2025 goal.



## **Buildings and Subdivision Design**

### **5. Energy Efficiency Provisions in the Municipal Building Code**

The Saskatchewan government has conducted consultations on introducing energy efficiency provisions into the provincial building code, and received a positive response. Unfortunately, the Province has yet to take action, and may not do so for some time. However, the City of Saskatoon has the authority to adopt its own energy efficiency provisions for new building construction. We recommend that the City do so, and urge City Council to adopt R80 (ENERGY STAR®) as the official standard, and then continually upgrade the standard every 5 years. ENERGY STAR® would represent a significant improvement over current building practice, and offers a good starting point, since many builders have some experience with it. ENERGY STAR® has also been widely promoted by the Saskatchewan Home Builders Association, and is already the requirement for all new home construction in the Province of Ontario.

### **6. Medium Term Goal for Energy Efficiency: Net Zero Energy Buildings**

If Saskatoon is to grow over the medium and long term without significantly adding to its existing level of greenhouse gas emissions, it is important - within a decade - to move to a level of energy efficiency in new building construction that does not rely on fossil fuels for heating or electricity. Net-zero energy house construction is becoming more widely adopted in Canada and costs are declining. The City should work towards the goal of making net-zero energy building construction the municipal standard for energy efficiency by 2025 for both new homes and new commercial buildings. With this in mind, appropriate training sponsored by the City of Saskatoon, SIAST and numerous other partners should get underway as soon as possible for architects, home builders, carpenters, electricians, plumbers and other relevant building trades.

### **7. Design Standards for New Neighbourhoods To Utilize Solar Energy**

The Saskatchewan Environmental Society urges the City of Saskatoon to modify all new subdivision design so as to maximize the ability of homeowners to use solar energy in both passive and active applications. The City should require that future subdivision design and street layout allows all new homes to have good south facing exposure and to be able to make full use of passive solar energy.

### **8. Solar Provisions In New House Construction And Protection of Solar Access**

The City of Saskatoon should require that all new homes be designed and wired for future potential installation of solar photovoltaic systems. The City should also actively encourage builders to install solar hot water as a standard feature in new home construction. The City of Saskatoon should also consider taking steps to ensure that those who have installed solar systems will have their right to access sunlight on their solar installation protected.

### **9. Financial Incentives for All Forms of Solar Energy**

As a way of incenting solar installations, the City of Saskatoon could consider giving a small property tax discount to homeowners that install solar hot water systems, solar heating systems, or solar photovoltaic systems.

### **10. Model Low GHG Emission Neighbourhood**

We suggest the City of Saskatoon consider the development of a model environmentally sustainable neighbourhood. Examples of features that could be built into such a neighbourhood include: (a) well designed walking and cycling paths (b) all homes designed for passive solar energy use (c) all homes super-insulated (d) all homes equipped with solar hot water and solar photovoltaic systems (e) all homes designed to conserve water.



## **Greenhouse Gas Reduction in the Electricity Generation Sector**

### **11. Use of Saskatoon Light & Power As A Vehicle for GHG Reduction**

The City of Saskatoon is fortunate to have its own municipal utility. This provides it with enormous potential to set its own policy path in support of clean, sustainable electricity production. It would be valuable for Council to consider using this potential to incent the use of energy efficiency measures, and to incent the most promising source of renewable power the City has available to it: solar energy.

### **12. Net Metering As A Policy Initiative for SLP**

The Saskatchewan Environmental Society congratulates the City of Saskatoon and Saskatoon Light and Power on the decision to adopt net metering for the SLP area. This is an important element in building a municipal greenhouse gas reduction strategy.

### **13. Financial Options for Accelerating Installation of Solar Photovoltaic Systems**

Here are two options to consider:

#### **a) Facilitating Payment of Capital Costs For Solar Photovoltaic Installations**

The City of Saskatoon could follow the lead of several other cities and offer financial assistance to help offset the significant up-front capital investment associated with solar electric installations. This might mean a small subsidy on loans for solar power installations or permitting residents to pay off the cost of their solar installations on their property taxes.

#### **b) The City Could Explore the Option of a Feed-In-Tariff**

More than 70 countries in the world now have a feed in tariff to incent renewable electricity installations. A feed-in-tariff is a policy under which customers who install renewable power receive a price for the electricity they produce that reflects actual installation costs plus a modest profit. In the absence of the Province of Saskatchewan having adopted such a policy measure, Saskatoon could follow the lead of several other cities in North America and consider a modest feed in tariff targeted at accelerating the adoption of solar power. Banff, Alberta was the first city in Canada to adopt a feed-in-tariff at the municipal level. Given the good sunlight resource in Saskatchewan and the pace at which solar costs are dropping, the extra incentive would not need to be high.

### **14. Saskatoon Light and Power Could Consider Direct Installation of Electricity Efficiency Technologies**

The City of Saskatoon could ask Saskatoon Light and Power to consider 'direct installation' of electricity saving measures to help customers cut their power bill and reduce their greenhouse gas emissions. SLP could offer to cover the up-front cost of electricity saving measures that pay for themselves within six years, and then allow their customers to pay off the installation costs via their monthly payment on their electricity bill. After each electricity-saving installation was complete, a customer's electricity bill would remain the same (except for regular rate increases charged to all customers) until such time as costs of the installation had been fully paid for. In other words, installation costs and interest charges would be paid in full through energy savings.

### **15. The City of Saskatoon Could Move into Wind Power and Ask the Province of Saskatchewan for Permission to Build Wind Turbines Outside the City**

Saskatoon Light and Power is currently limited to installing renewable power within the SLP district. This places unreasonable limits on the City of Saskatoon being able to pursue wind power. A 20-50 MW wind power installation would be financially attractive for Saskatoon and



would be an important vehicle for reducing GHG emissions, but it naturally needs to be located outside City limits. Saskatoon Light and Power should consider asking permission from SaskPower to be able to build a wind generation station outside Saskatoon city limits and within a 50 km range of Saskatoon.

#### **16. LED Street Lighting for all Neighbourhoods**

The City is to be commended for installing 100% LED street lighting in the Evergreen neighbourhood and in all new areas of the city. We recommend converting every neighbourhood in Saskatoon to LED street lighting. The majority of street lights in Saskatoon are still high pressure sodium. A switch to LED lighting would offer a 60% reduction in energy use.

#### **17. A Bylaw To Regulate Over-lighting On Signs**

Numerous establishments in Saskatoon are using unnecessary amounts of light on their signs and their outdoor lighting. The City should consider an educational campaign to discourage the unnecessary use of electricity for outdoor lighting purposes, and should also consider the adoption of a bylaw that would have the effect of curbing outdoor over-lighting practices. The initial application of the bylaw should be with respect to signage.

## **Transportation**

#### **18. City Support for Low-Emission Transport Options**

Climate change and public health are two important reasons why the City of Saskatoon should encourage local residents to reduce their vehicle use. SES supports many of the improvements the City of Saskatoon is planning for the transit system, but encourages the City to set much higher targets for transit ridership. Increasing transit ridership will require more bus frequency, lower bus fares, better snow maintenance around bus shelters, and a system that gets people to their destination more efficiently. SES also encourages the City of Saskatoon to support a large increase in cycling during the spring, summer and fall months. Saskatoon needs a comprehensive system of bicycle lanes and bicycle paths, with built-in safety features for cyclists when they need to travel along or cross major traffic routes. Such a system will foster higher rates of cycling in Saskatoon.

#### **19. Adoption of an Idle-Free Bylaw**

Many cities in eastern Canada have adopted bylaws to limit vehicle idling. Idling is typically not allowed for more than 3 minutes on private property, municipal property, or while parked on the side of the road within city limits. Exemptions are usually provided for police, fire or ambulance vehicles or any other vehicles responding to an emergency situation. There are usually several other categories of exemptions such as armoured vehicles, vehicles that need to preserve cargo on board with heating or refrigeration, and vehicles where idling is required in order to service the engine, conduct repairs or refuel. The Saskatchewan Environmental Society urges the City of Saskatoon to adopt an idle-free bylaw that will apply in the spring, summer and fall months (when temperatures are above freezing), and that will limit vehicle idling to no more than 3 minutes.

#### **20. Incentives For Ultra-Low Emission Vehicles**

Ultra-low emission vehicle use needs to be actively encouraged in Saskatoon. The Saskatchewan Environmental Society urges the City to consider incentives/privileges to reward motorists who have purchased a super-energy efficient vehicle or an electric car powered by a renewable energy source.



## 21. GHG Emission Reduction in the Industrial Sector

The industrial sector is Saskatoon's largest source of greenhouse gas emissions and one that the City of Saskatoon has little direct control over, making it a very challenging sector to manage. We have three suggestions on steps the City may wish to consider. First, we recommend the City of Saskatoon adopt strict standards for space heating and electrical efficiency for all industrial facilities built in Saskatoon in the future. Second, we suggest that the City explore options for tax incentives for major energy efficiency initiatives by industrial companies. Third, we recommend that Saskatoon Light and Power be mandated by Council to negotiate with large industrial facilities on a schedule for energy efficiency improvements.

## Conclusion

The recommendations we have made here are our observations about best places to start in reducing community-wide greenhouse gas emissions in Saskatoon. We hope these suggestions are helpful in your deliberations. Thank you very much for considering them.