



## Energy & Sustainability Framework

# Project Background

City Council voted unanimously for Regina to join the growing number of municipalities around the world and commit to becoming a 100 per cent renewable city by 2050. To achieve this goal, the City is developing an Energy & Sustainability Framework.

### **The Framework will:**

- outline guiding principles
- establish energy and emissions reduction targets
- identify corporate and community-wide action plans
- develop methods for regular and transparent reporting to City Council and the community
- consider collectively the community's economic, social and environmental health

### **Informed by Community**

Community engagement is a very important part of developing the Framework. The City is committed to being informed by impacted stakeholders and the community at large to develop policies and action plans, and to ensuring the Framework builds on work that is already being done throughout Regina. This will include initiatives and methodology to reduce greenhouse gas (GHG) emissions to net-zero and create greater reliance on renewable sources of energy.

A key component of the City's public engagement is the creation of a Community Advisory Group. This Group will represent multiple sectors within Regina to give ongoing feedback and will consist of representatives from non-profit organizations, business, industry and community groups.

### **Timeline and Scope**

The Energy & Sustainability Framework will be developed throughout 2021 and will include both corporate and community-wide actions plans to move Regina to renewable energy sources and achieve net-zero GHG emissions. The Framework will be primarily focused on climate change mitigation through a three-pronged approach:

1. Reduce energy consumption
2. Improve energy usage/efficiency
3. Switch to renewable or low-carbon energy sources

### **Why are we doing this?**

In 2018, the International Panel on Climate Change (IPCC), the world's leading scientific body on climate change released a report titled Global Warming of 1.5°C. The report states that the risks of climate change can be substantially reduced by limiting warming to 1.5°C above pre-industrial levels. If the world continues to emit its current level of GHGs, the limit of 1.5°C of warming will be passed in roughly ten years. It is important to begin this work now to help collectively limit global warming to below 1.5C. The sooner we begin, the easier the task as changes can be less drastic when spread out over time. Also, the sooner we begin, the sooner the community can experience the economic and social co-benefits.

The Framework is important for Regina to do its part, along with most major Canadian cities that already have similar plans in place. The work is also timely given the federal government's newly proposed legislation that will set national GHG reduction targets to meet Canada's commitments to the Paris Agreements along with likely increasing carbon tax.

# Defining Energy

In developing and discussing the Energy & Sustainability Framework, having a shared and consistent understanding of various terms is important to ensure we are speaking the same language. This page provides an overview of key terminology and definitions as they relate to the Framework.

**Renewable energy** is any form of energy from solar, geophysical or biological sources that is replenished by natural processes at a rate that equals or exceeds its rate of use. Alternatively, fossil fuels are not renewable because they are not replenished within a time frame that is short, relative to their rate of utilization.

## Renewable energy sources:



## Non-renewable energy sources:



**Sustainable energy** is the provision of energy to meet the needs of the present without compromising the ability of future generations to meet their needs. One main overlapping feature between sustainable energy and renewable energy is that neither include fossil fuels.

## Sustainable and renewable energy sources:



## Non-emitting energy sources:



**Environmental sustainability** can be interpreted more broadly to mean ecosystem continuity and health. It means taking care of the environment in such a way as to not compromise the environment for future generations.

**Net-zero emissions** refers to removing greenhouse gases (GHGs) from the atmosphere to balance out human-caused GHG emissions. Ideally, Net-zero emissions refers to the end state where we reduce emissions to as low as possible and then offset the remaining emissions using carbon capture techniques and purchased carbon offsets.

- Consumption of non-renewable energy is offset by the production of as much or more renewable energy.
- Emissions of GHGs into the atmosphere are balanced by removing existing GHGs from the atmosphere over a specified period.

An **Equitable Transition** minimizes the impact on workers and communities and engages with the individuals and organizations who will be impacted by the City's Framework. Regina can preferentially deploy strategies or actions that simultaneously deliver other objectives related to health, equity, poverty alleviation, and reconciliation all to ensure an equitable transition.

**Climate change mitigation** means deliberately acting to reduce GHG emissions to slow, stop, and even reverse the effects of climate change.

**Climate change adaptation (resilience)** means deliberately acting to reduce the vulnerability of natural and human systems against actual or expected climate change impacts.