

Alberta is one of the most light polluted areas in North America. Most of this light pollution comes from antiquated and poorly designed streetlights created when electrical power was cheap and plentiful and there was little regard for the environment and energy conservation. Most streetlights now installed **waste up to 1/3 of the energy** they consume into the night sky.

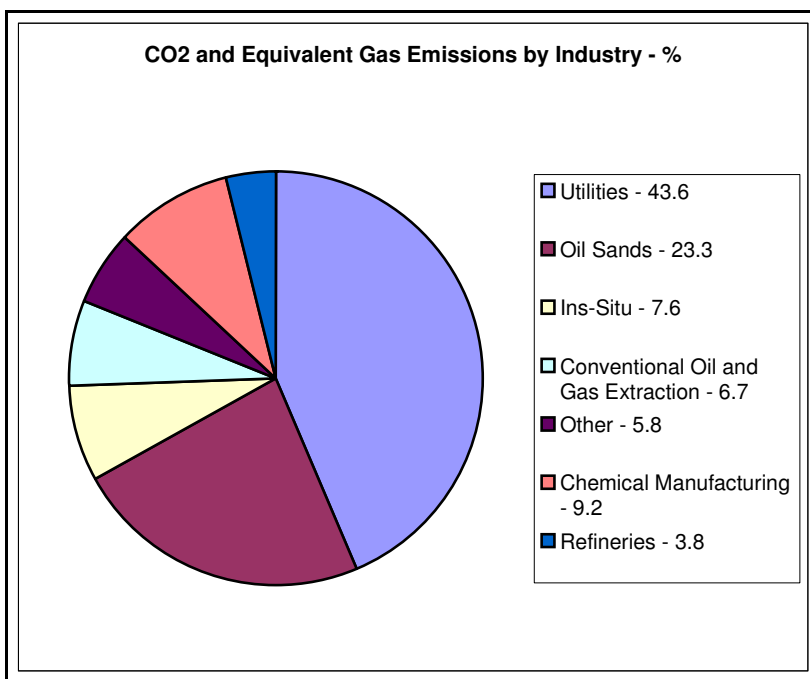
***By November 2004, in an initiative called Environsmart, Calgary had retrofitted over 37,000 residential streetlights for a savings of 25,000 MWh with on-going electricity savings of \$1.7 Million per year.*** In the rest of the province, the move to retrofit outdated fixtures is slow or non-existent, continuing light pollution and glare while increasing our carbon footprint.

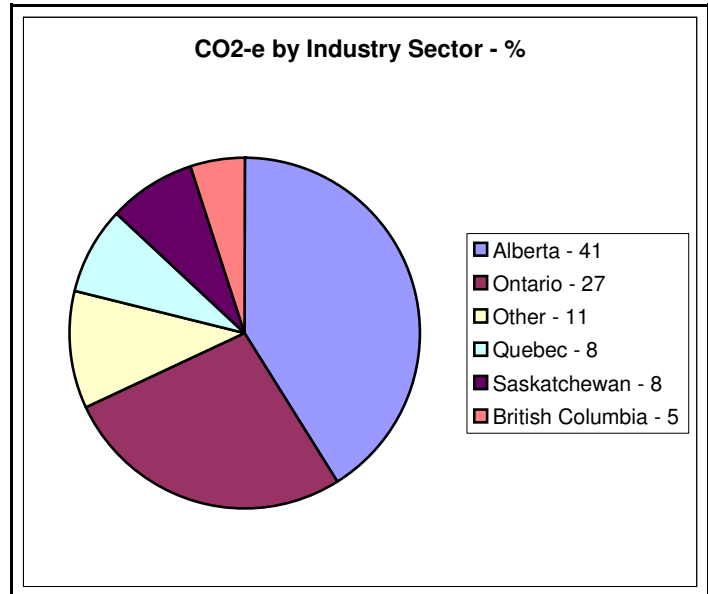
Alberta Environment provides 2007 statistics on Alberta's CO<sub>2</sub> and equivalent gas emissions from utilities and other sources in its annual reports:

“The eight largest emitters all reported over four Mt and together accounted for 62 per cent of total emission. Of these eight facilities, five were utilities facilities, two were oil sands facilities and one was an in-situ facility.”

A cobra-head streetlight lens showing the pattern of grooves in the glass that help this fixture reflect and refract the light far, wide and high. Low pressure sodium lighting is much more energy efficient than mercury vapour lighting, but when placed in non-cut-off fixtures, they continue to light pollute. They must be placed in full cut-off fixtures to be fully effective.

Light pollution affects the amount of air and other types of pollution! The more energy we consume, the more coal and gas is burned, adding more pollutants to the environment.





“The 106 facilities located in Alberta were the source of the largest portion of total reported greenhouse gas emissions with 114.4 Mt or 41 per cent of Canadian emissions. “

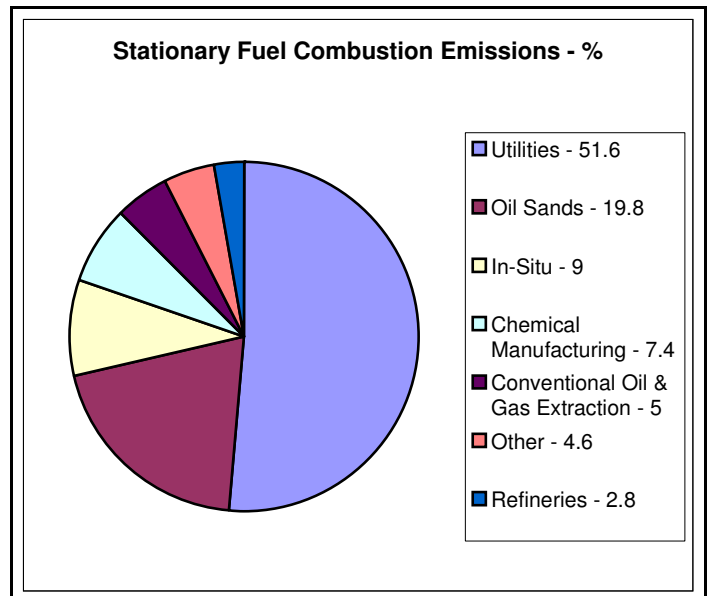
“Carbon dioxide was the source of more than 90 per cent of greenhouse gas emissions for the mineral manufacturing, chemical manufacturing, refineries, utilities, oil sands and conventional oil and gas extraction sectors.

The largest quantity of 2007 reported Alberta greenhouse gas emissions were from stationary fuel combustion sources. Emissions from this source category totaled 96.3 Mt or 84 per cent of the 114.4 Mt reported by all Alberta facilities.

The utilities sector was the largest source of 2007 emissions with 49.9 Mt representing 44 per cent of 2007 total emissions.”

Note: All text in quotes has been derived from Alberta Environment’s “ALBERTA ENVIRONMENT REPORT ON 2007 GREENHOUSE GAS EMISSIONS “

***In 2007, Alberta utilities alone produced an amount of CO2 equivalent in weight to 9 of Egypt’s Great Pyramids (each 140 m or 482 ft. high and 77m or 755.5 ft per side) covering a total area of 117 acres!***



“Greenhouse gas emissions from stationary fuel combustion sources for this sector totaled 49.7 Mt or 52 per cent of the 96 Mt reported combustion emissions by all Alberta facilities. “

More utilities reported in 2007 vs. 2004. There has been an increase of emissions by utilities over the past year.