

# SD63 Energy Management



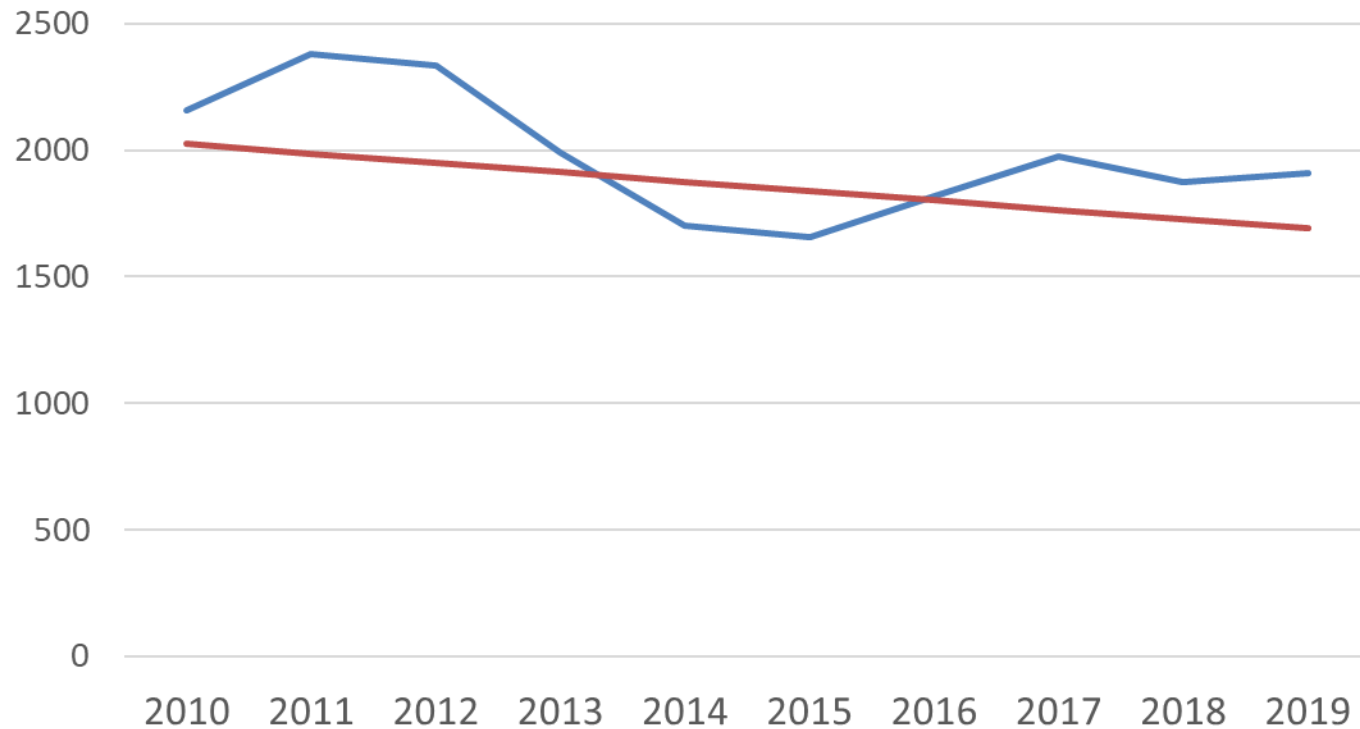
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SD63  
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# CleanBC Regulations

- In May 2018, the Province updated targets for GHG emissions. Using 2007 as the baseline, the Province is committed to emissions reductions of:
  - 40% by 2030
  - 60% by 2040
  - 80% by 2050

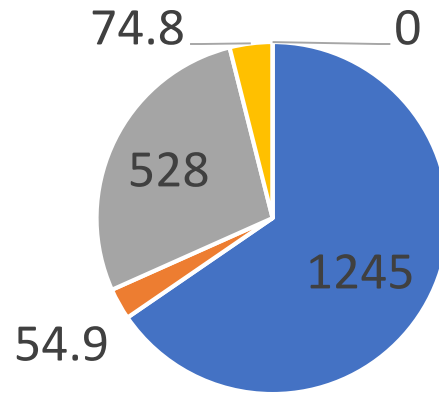
# GHG Emissions Yearly Comparison

Total GHG Emmissions



# 2019 GHG Emissions by Source

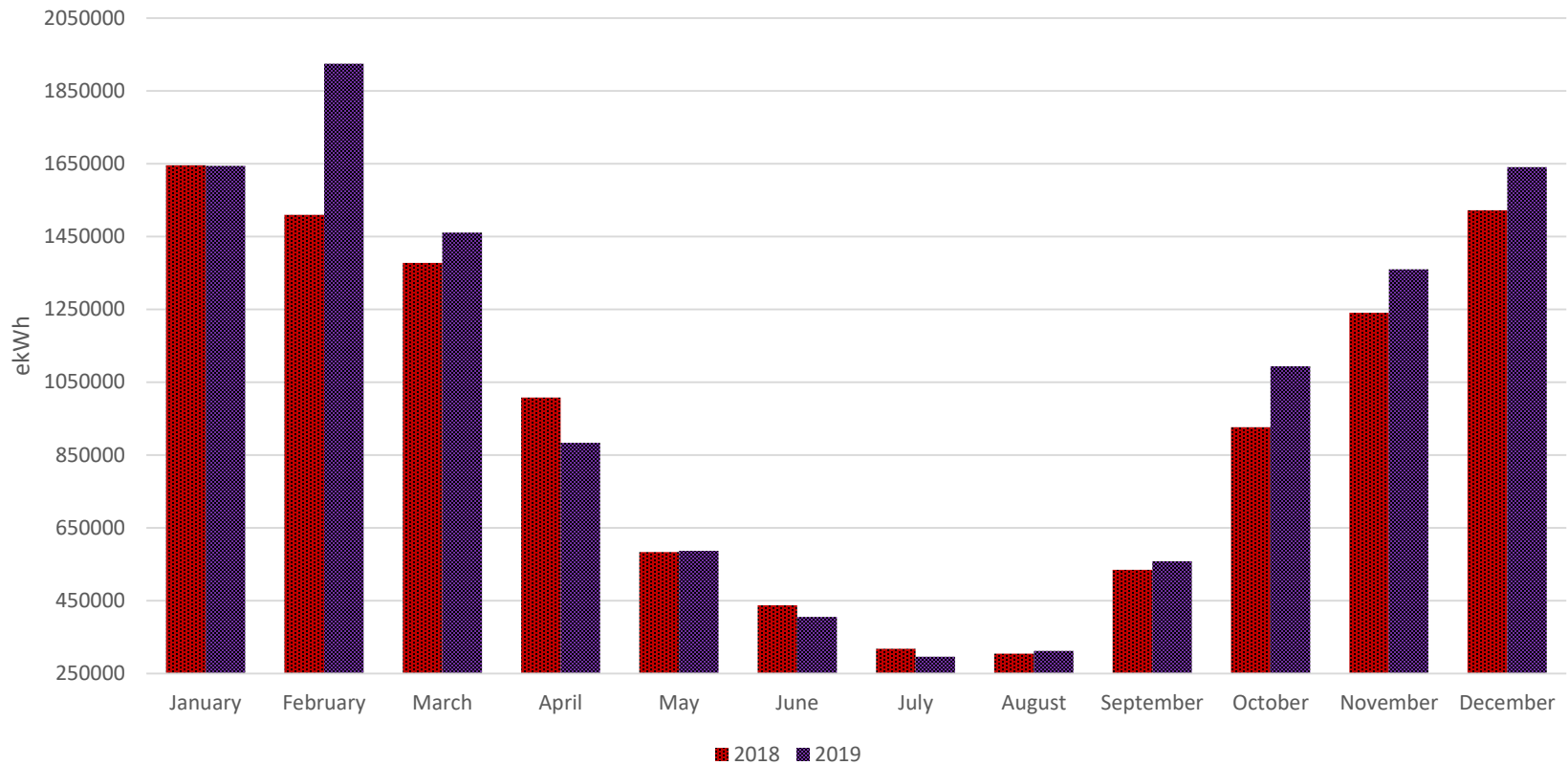
TOTAL GHG = 1902.7 Tonnes



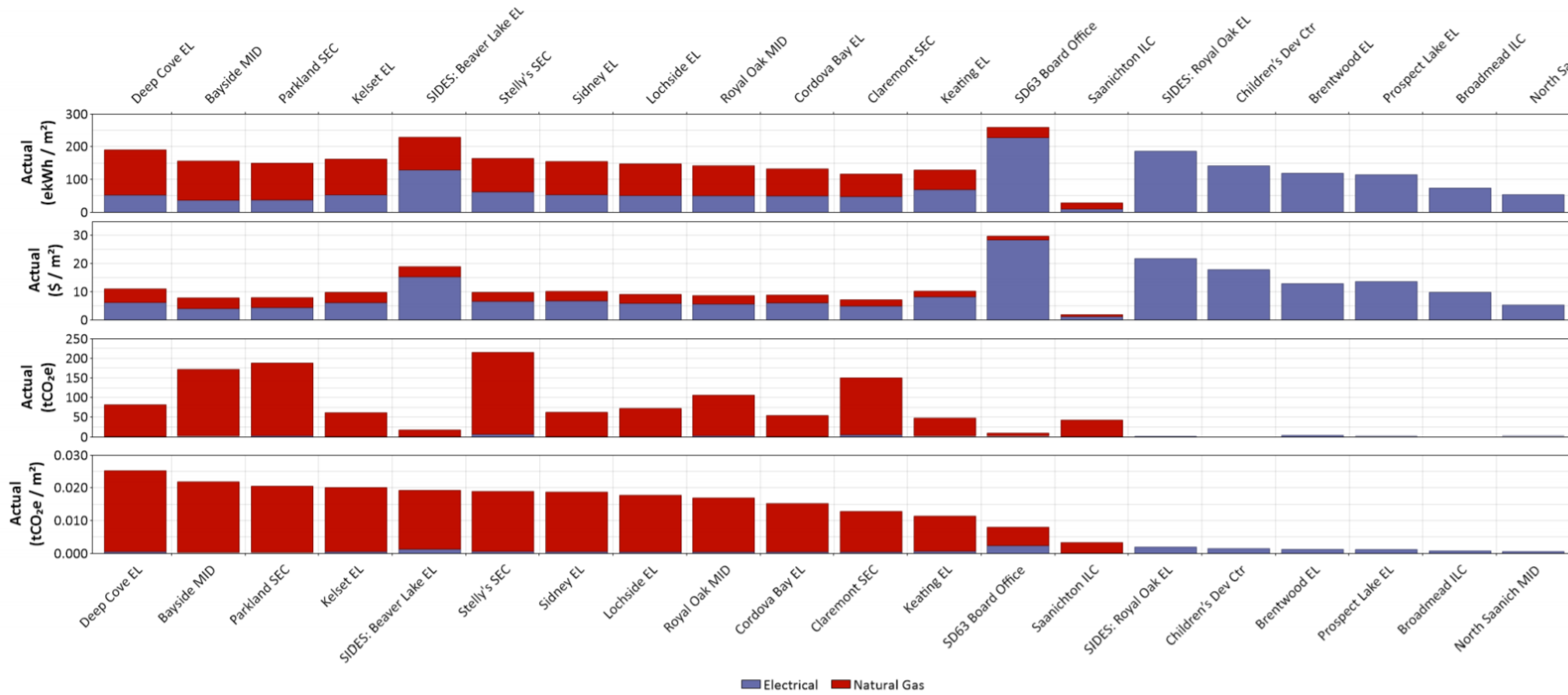
- Direct Fuel Combustion (Heating Fuel)
- Purchased Energy (Electricity)
- Mobile Energy (Vehicles)
- Office Paper
- Fugitive Emissions (Refrigerant Gases)

# 2019 Energy Emissions

Total Energy Usage



# 2019 Performance Index by Energy Type + Site



# Energy Management Recap

- GHG emissions down 12% since 2007
- External funding of \$790K since 2014
- Numerous Projects completed
  - Heat Pump Conversions – Prospect Lake, Board Office
  - LED Lighting installs
  - Lighting Reductions / Controls
  - VFD / Fan Controls
  - Heating Schedules

# 2019 review

- Replacement of dust collectors at Claremont Secondary and Royal Oak Middle School.
- Demolition of 4 portables at Keating Elementary daycare and replacement with new efficient units.
- Completion of re-lighting and controls at:
  - Keating Elementary
  - Lochside Elementary
  - KELSET Elementary
  - Prospect Lake Elementary
  - North Saanich Middle School



# Going Forward

Steady improvement to our existing sites

- Upgrading heating plants at a rate of 1 per year with newer energy efficient systems (MOE funding dependent).
- New build at CDC was designed to be LEED Gold standard, including solar panels.
- Continue to request any electric bus opportunities as they come forward.
- Replacement of fleet vehicles with smaller more efficient vehicles where practical and as industry improves with supply and costing.
- All new construction permits to be done in accordance to municipality requirements, i.e. step codes aimed at reducing GHG through design and materials.
- Monitor building performance, focusing on our least performing buildings to develop fiscally responsible action plans using PUMA utility monitoring software to point us in the right direction.

# Going Forward

- We will continue upgrades in our facilities as required and will keep energy conservation as a priority while doing so.
- We will utilize funding from the MOE's Capital as reflected in our yearly submissions.

## Implication of Declaration of and Energy Crisis

- Declaration alone does not remove challenges / barriers

## Challenges

- "Low hanging fruit" projects have been completed.
- Opportunity for improvement requires mainly capital intensive projects that rely on Ministry Funding.

**Thank you.**

