

Muskraat and Beyond

Energy and Cost – Alternatives for
Municipalities



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+



**Newfoundland and Labrador
Environmental Industry Association**



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point and purpose:

- o Understand why now is an important time to address energy
- o 5 panelists → expert advise and case studies
- o Ultimate goal of session is to:
 - Provide tools for Municipalities to address energy efficiency and climate change
 - Identify first action steps
 - Identify funding support



1.

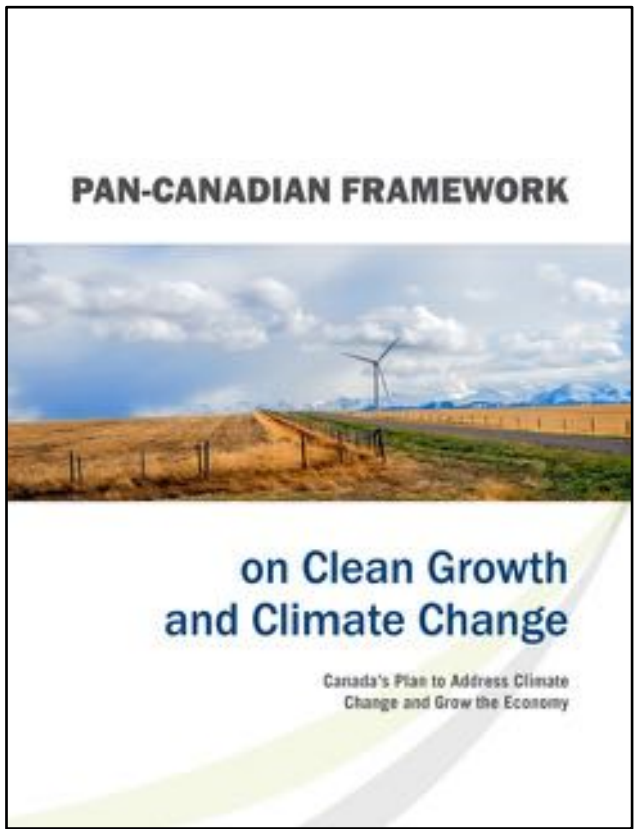
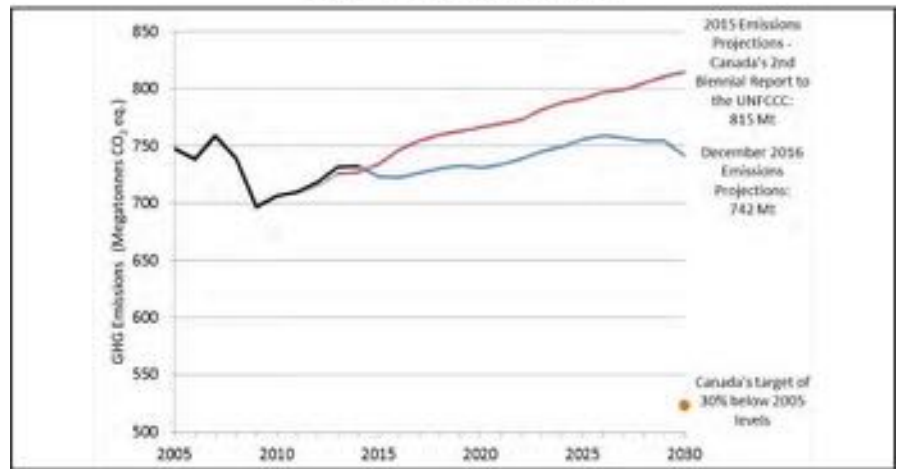


Figure 1: Emissions Projections to 2030



why now?

Source:
<https://www.canada.ca/en/services/environment/weather/climatechange/pan-canadian-framework/climate-change-plan.html>

2.



2022

• 23.3¢/kWh

We currently pay approx. 11¢/kWh

why now?

Source: <http://www.cbc.ca/news/canada/newfoundland-labrador/7-facts-figures-muskrat-falls-update-1.4177899>

HOW NET METERING WORKS

3.



NEWFOUNDLAND
POWER
A FORTIS COMPANY

newfoundland labrador
hydro
a nalcor energy company

why now?



Councillor Chris Palmer



Jesse McCaw



Delia Warren



Eddie Oldfield



Jacob Rodgers

let's hear from our panelists ...



community energy planning



ENERGY USE



**TRANSPORTATION
PLANNING**



LAND USE



**WATER
MANAGEMENT**

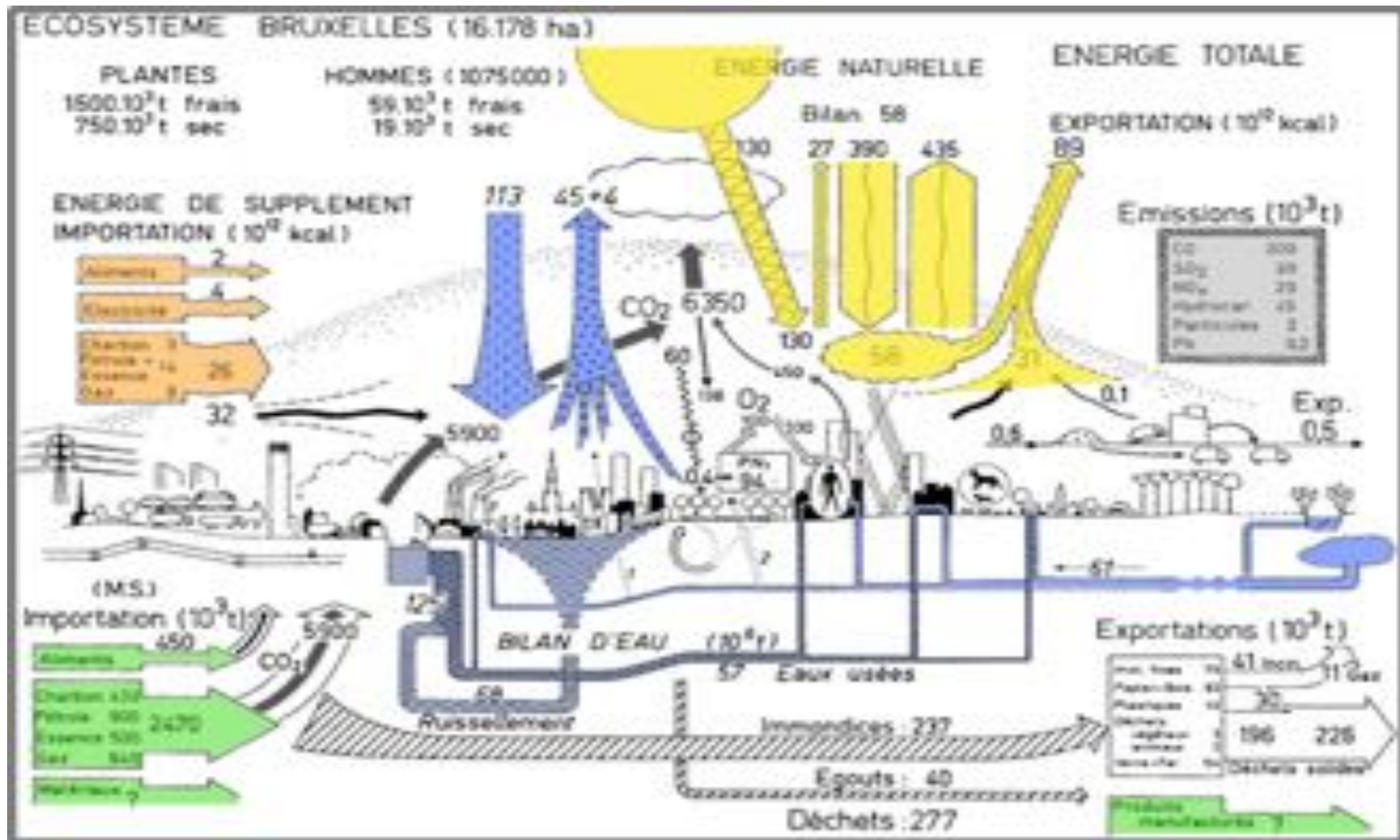


**WASTE
MANAGEMENT**

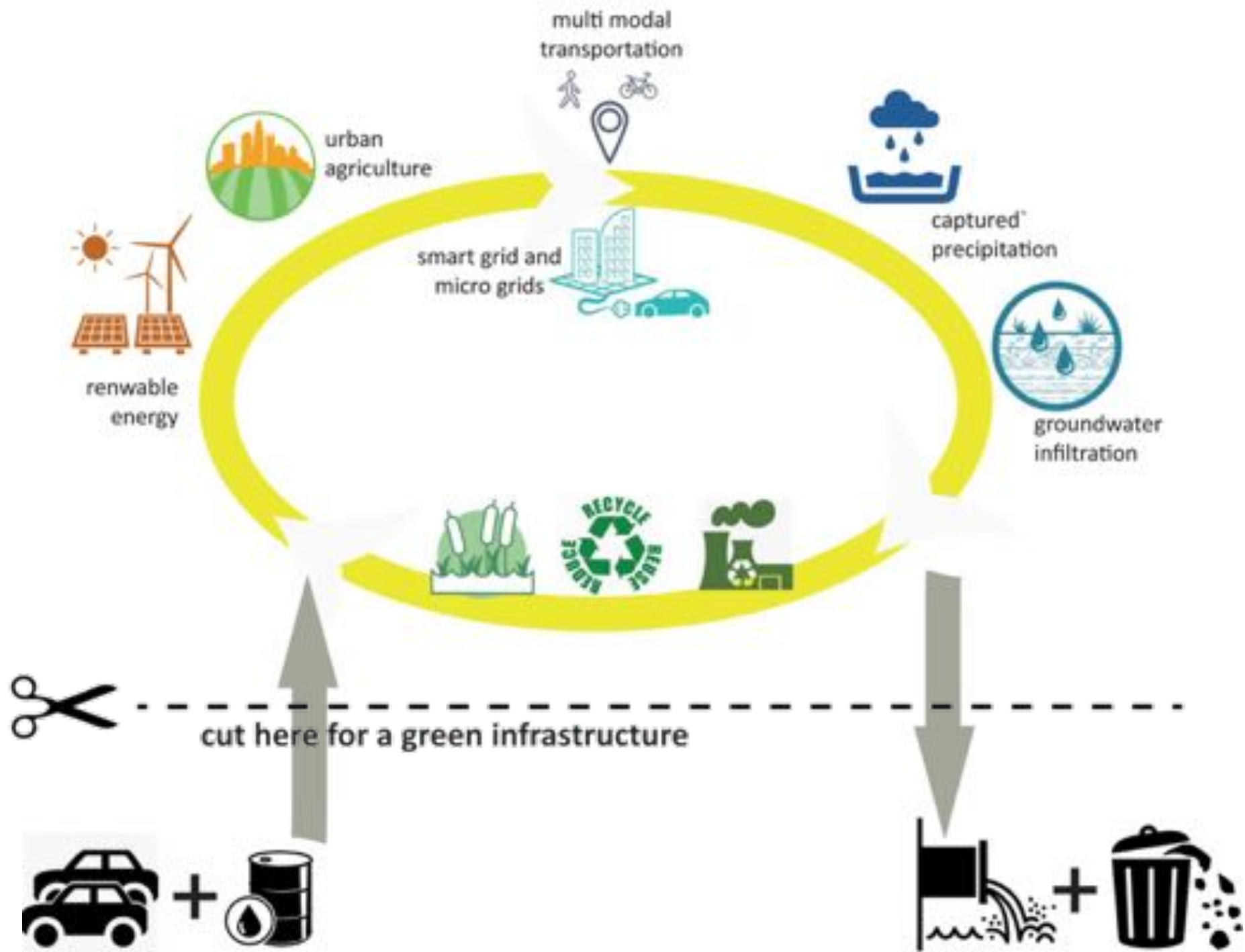
cep – places to start



cep – places to start



cep – places to start





Strategy – places to start

AUDITS/ASSESSMENTS –

- Lean and Green Assessment
- Energy Audit
- Water Audit
- Transportation Assessment – 3PL
- Productivity Assessment



EMPLOYEE/RESIDENT SUGGESTION BOARD –

- Carbon/energy focus
- Offer a price or incentive to stir up competition

COLLABORATION –

- Peers
- Community members
- Support organizations
- Google

Strategy – places to start



- Thermal scan of building
 - Insulation
 - Weather stripping
- Insulate ovens/vessels
- Paint color of building
- Heat recovery from processes
- Operating Procedures
 - Loading dock door operation
 - Equipment schedules
- Building Controls
 - Programmable Thermostats
 - DDC systems
- Heating/Cooling “Dead” Spaces
- Preventative Maintenance
- Behavior Change
 - “Sweater Day”
 - Energy Saver competition

Strategy – quick wins: HEATING



- Lighting
 - Fixture upgrades
 - Occupancy sensors
 - Daylight optimization
 - Timers
- Computers/IT Equipment
- Energy Mgmt
 - Peak shaving studies
 - Phantom power losses
 - Equipment schedules
 - Variable speed drives
- Preventative Maintenance
- Timers
- Building Upgrades
 - Window film
 - Reduce air infiltration
 - Insulation
- High efficiency mechanical systems
- Energy Star appliances
- Renewable energy
 - Solar
 - Wind

Strategy – quick wins: **ELECTRICITY**



- Route and load optimization
- Reduce necessary trips
- Local sourcing of materials
- Side skirts
- Fuel efficiency driver training
- Install L/100km guage
- Avoid left hand turns
- No idle policy
- Increase tire pressure
- Regular vehicle maintenance
- Electric
 - Forklifts
 - Staff vehicles

Strategy – quick wins: FLEET



- Dry Sanitation
- Low Flow Fixtures / Toilets
- Landscaping
 - Low water or native species
 - Efficient irrigation systems
- Insulation:
 - Pipes
 - Jackets for tanks vessels
- Lower water heater settings
- Consider demand-style heaters
- Preventative maintenance
- Sanitation Optimization
- Waste heat recovery
- Renewable energy on-site

Strategy – quick wins: WATER



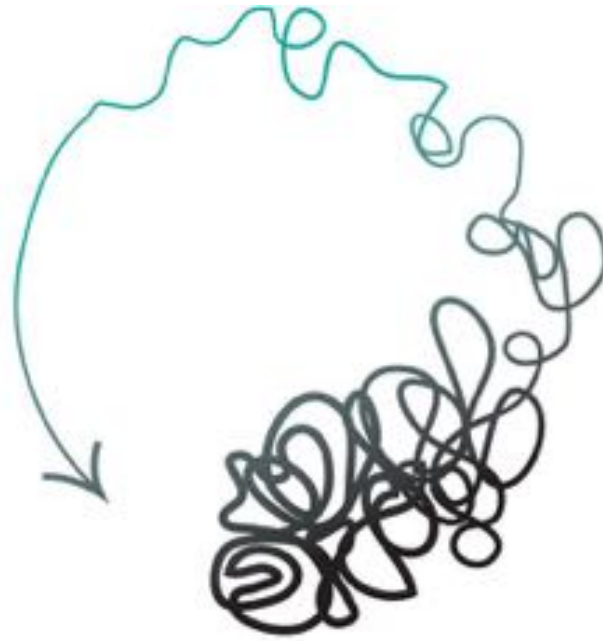
- Tourism Culture Industry and Innovation (TCII)
- Atlantic Canada Opportunities Agency (ACOA)
- Natural Resources Canada (NRCan)
 - Low Carbon Economy Fund – Challenge Stream and Partnerships Stream
 - Clean Energy for Rural and Remote Communities
- Skills and Innovation Canada
- Take Charge! Business Efficiency Program
- Environment and Climate Change Canada
- Infrastructure Canada Smart Cities Program
- Federation for Canadian Municipalities

available funding



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THANK YOU!

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