## Municipality of North Cowichan Environmental Advisory Committee ADDENDUM AGENDA

Tuesday, March 2, 2021, 1:30 p.m. Electronically

#### 4. BUSINESS

4.2.	Presentation by Sandy McPherson and Cam Campbell

4.2.1. Presentation

2 - 12

Pages

#### **Orientation / Update for 2021 Environment Advisory Committee**

INTRO: EAC 2003 to 2021 {Sandy}

#### The CAEP Story:

- Historical overview where the CAEP came from and why {Councillor Marsh}
  - Core components in the CAEP {Cam}
    - CAEP Reserve Fund {Sandy}
    - Corporate actions {Shaun}
    - Community actions {Cam}
  - Community Engagement Initiatives {Sandy}
    - Why update the GHG modelling? {Cam/Shaun}
      - Looking to the Future {All}

# **Reflections on CAEP : Past and Present:**

EAC Alumni – March 2<sup>nd</sup>, 2021





#### CAEP (2013) Targets

The CAEP document (2013) contains greenhouse gas (GHG) emission and energy consumption targets based on baseline data assessment (the model), community consultations and Provincial government legislation. Its reduction targets were adopted by Council; however, adjustments were never made to align the OCP with the CAEP targets. (G. McIntosh 2018)

## **Core Components of the CAEP (2013): Targets**



#### CAEP (2013) Targets

#### <u>Community</u>

- Reduce GHG emissions by 33% by 2025 based on 2007 levels
- Reduce GHG emissions 80% by 2050 based on 2007 levels
- Be carbon neutral as soon as possible
- Sequester more carbon than we produce

#### <u>Corporate</u>

- Being carbon neutral in respect to operations by 2012
- Measuring and reporting on the community's GHG emissions profile
- Creating compact, more energy efficient rural and urban communities

## **Core Components of the CAEP (2013): Targets**



Scenario 2: Mixed Use Nodes (33% Reduction by 2025 / 80% 2050) CAEP 2013, Pg 65

- 1. Reducing the average car trip length from 12.2 km to 8.1 km (66% of the Baseline)
- 2. Increasing the dwellings within 400 metres of a commercial core area from 2,949 in the Baseline to 5,898 (200% increase)
- 3. Increasing the dwellings within 400 metres of frequent public transit from 4,863 to 6,382 (131% increase)
- 4. Restricting new dwellings to 50% detached homes, 50% apartments
- 5. Attaching a district-energy system to a major industrial or commercial facility to also serve a residential neighbourhood

## **Core Components of the CAEP (2013): Modelling Outcomes**



Scenario 2: Mixed Use Nodes (33% Reduction by 2025 / 80% 2050) CAEP 2013, Pg 65

- 6. Decreasing per capita solid waste production by 10%
- 7. Replacing 75% of the heating oil and 60% of the natural gas with renewable energy sources
- 8. Increasing the amount of food that is locally produced by 25% and locally consumed by 100%
- 9. Increasing the total forest cover by 20% (includes adopting an urban forest strategy)
- 10. Increasing the efficiency of new dwellings by 39% over the existing building stock 11. Retrofitting 1% of the existing building stock for an 18% energy savings 12. Implementing the same vehicle fuel efficiency standards in Canada as in the United States (federal government responsibility).

## **Core Components of the CAEP (2013): Modelling Outcomes**





Scenario 2 - Marginal Abatement Curve (\$/tCO2e saved | total tCO2e saved between 2007 and 2050 over BAU scenario)

#### **Core Components of the CAEP (2013): Modelling Outcomes**



## Seven Focus Areas Guided Development of the Monitoring Indicators / Implementation Strategy

- Transportation
- Land Use
- Energy
- Agriculture
- Forestry
- Adaptation
- Financing

## **Core Components (2014): Implementation and Monitoring Framework**



## **Core Components (2014): Implementation and Monitoring Framework**

#### 11

		SHORT TERM ACTIONS (0-5 years)	Lead (Support)		STORT LERIVI ACTIONS (U-3 years)
Lead (Support)					
	Α	Transportation	PL (Eng)	C 1	Energy Community Energy Facility (NB - marked as 5-10 years, but there is comm'y interest
			Eng (all)	2	Reduce NC building energy (NB- establish "green team", sustainable development standard)
PL, Admin, Eng	1.	Begin discussions with partners towards creation of a Transportation Planning Program	PL (Bldg)	3.	Home Energy Program (including incentives)
PL, Eng		4. Investigate new park and ride locations	PL (Bidg)	4.	increase energy efficiencies and renewable energy in new and renovated buildings - CEM (Brigid)
CVRD (PL, Eng)		5. trip diary survey	( 6)		e,e,e,e,e,e,e,e,e,e,e,
PL (Eng)		<ol><li>research policy framework for travel demand management for developments</li></ol>	**	D	Agriculture
PL (Bldg)		<ol><li>create EV ready (charging station installation) policy for new developments</li></ol>			** Ag committee and others working on this. Keep informed and supportive
PW (Eng)	2.	Join Get Ready Project; transition NC fleet to EV or low CO2			
PW (Eng)	3.	Increase Biodiesel consumption in community and in NC fleet		E	Financing
			COMPLETED	1.	Establish Green Revolving Loan Fund
	В	Land Use	PL	2.	seek funding for implementation
PL (P&R)	1.	Ensure strict implementation of OCP Development Guidelines: renewable energy policy framework; Bill 27 re			
		updating standards and bylaws		F	Forestry
	2.	Univ Village and Crofton Local Area Plans	PL, (For, P&R, PW)	1.	develop urban/rural forestry strategy
PL (Eng, PW, P&R, Adm)	3.	Chemainus revit'z'n plan: amend zoning, bylaws; energy modelling for growth centre	For	4.	consider climte change implications for forests/ecosystems, role of forests - review available tools
PL	4.	research density bonus program & amenity contribution policy framework (zoning bylaws)			
PL (Eng, PW, P&R, Adm, Fin)	5.	complete and adopt OCP Implementn Framework - develop 5 year dep'tl work plans	PL, Eng (Admin, P&R, PW, Fin	For, G	Adaptation
PL (Eng, PW, Bldg)	6.	re flood, sea level and wildfire risk: review and update DP Guidelines, Zoning Bylaw, OCP, other bylaws (appx 4 of		1.	Review risks and vulnerability and actions outlined in CAEP
		CAEP and Greenshores development Rating System)			i. form working group
Eng (PL)	7.	participate in Cowichan Basin Watershed Board with tech and political represent'n			ii. conduct assessment
Eng (PL)	8.	Integrated Flood Management study (with CVRD)			iii. asset mgmt review of NC infrastructure
Eng. PW (PI, P&R, BidgP	9.	review and revise Eng and Parks and Trails green infrastructure standards and fixtures: active transport'n plans:			iv. develop action impementation strategy
		amenity contrib'n policy; subdiv'n; ZB and DP Guidelines review			
PL, Eng, P&R	10.	Develop a comprehensive water conservation strategy	Departments Adm: Administratation Bldg: Building Eng: Engineering Fin: Finance	For: Forestry PL: Planning PW: Public V P&R: Parks a	/ Norks nd Rec

Core Components (2015): Implementation Plan Priority Setting (EAC / Staff)

CAEP IMPLEMENTATION PLAN PRIORITY SETTING FRAMEWORK

2015-02-23

CAEP IMPLEMENTATION PLAN PRIORITY SETTING FRAMEWORK

SUORT TERMA ACTIONS (0 E weare)

2015-02-23

A draft scope of work Council and the EAC's consideration: (staff report – EAC Sept. 26- 2018)

- 1. Review the current CAEP and then update assumptions and data used for the model.
- 2. Develop a user-friendly model in order to make the modelling of scenarios, ideally by trained staff, feasible.
- 3. Develop a user manual for the model, outline input data requirements, clearly identify assumptions and how they were derived, and identify key metrics and methodologies for monitoring the progress of plan implementation.
- 4. Using the new model, develop an updated project list **confirm/add/delete projects from the current implementation framework**, identify costs vs GHG reductions, identify lead and supporting jurisdictions, and identify resource requirements).

#### CAEP Update Strategy (2018): Excerpts from Staff Report (Sept. 26, 2018)