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# RESOURCES COMMITTEE School Board Office 3143 Jacklin Road January 27, 2020 – 7:00 p.m.

## AGENDA

#### 1. CALL TO ORDER AND ACKNOWLEDGMENT OF FIRST NATIONS TERRITORIES

We are honoured to be meeting on the traditional territories of the Coast Salish, specifically Esquimalt Nation, Songhees Nation, and acknowledge the three nations SD62 works with directly in our schools: Scia'new Nation, Coast Salish, and T'Sou-ke Nation; including the West Coast Pacheedaht Nation, Nuu-chah-nulth. (words gifted by the three nations SD62 works with)

- 2. REPORT
- 3. PRESENTATIONS (10 min.)
- 4. **NEW BUSINESS** 
  - 4.1 20/21 Budget Development Process
  - 4.2 19/20 Amended Budget
  - 4.3 Energy Management Policy
  - 4.4 School Traffic Crossings Hwy 14 (Luxton, Saseenos, EMCS, Sooke, John Muir)
- 5. ADJOURNMENT
- **6. NEXT MEETING DATE**: February 11, 2020

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# Committee Report of Decisions/Discussions Resources Committee Meeting December 3, 2019

#### Attendees:

Ravi Parmar, Trustee (A/Committee Chair)
Wendy Hobbs (Committee Member)
Allison Watson, Trustee (Committee Member)
Margot Swinburnson, Trustee
Jennifer Anderson, STA
Amanda Dowhy, SPEAC
Georgie Walker, SPVPA
Maggie Clark, CUPE

#### Staff:

Scott Stinson, Superintendent & CEO Harold Cull, Secretary Treasurer Tracey Syrota, Transportation & Grounds Manager

#### **Absent:**

Dianna Seaton, Committee Chair Ed Berlando, STA Amber Leonard, CUPE Krista Leakey, SPVPA

## 1 Territorial Acknowledgement

Ravi Parmar, A/Committee Chair, called the meeting to order and read the acknowledgement of the first nations' territories.

### 4.1 Transportation Review Modelling

- Staff presented the initial data collected (15 districts reporting so far) from the provincial transportation survey
- Staff also reviewed the Traversa bus routing software showing the capability from a modeling perspective
- Staff chose to model the routes in the Milnes Landing Family for illustrative purposes
- Of the 1,055 registered riders in this family, 137 (13%) live within a km of their schools and 149 (14%) live within two kms

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 Staff have not been able to determine the impact on ride (RT) and wait (WT) times for the remaining riders if walk limits were introduced

- The Ministry's proposal to acquire electric buses was also discussed
- The Ministry is expected to approve 4 new buses for 20/21 and the option of electric buses at a net cost to the District of \$95,000 (for a full size bus) has been identified
- The payback of this initial investment is expected to be 5 years with an estimated net savings of \$100,000 between years 6 and 10
- The Committee supports the Board considering the following motion:

**Proposed Motion:** That the Board of Education of School District #62 (Sooke) consider purchasing up to 4 electric buses for a total of \$325,000 from the District's financial reserve in the 20/21 school year

## 4.2 Capital Asset Management Schedule

- The Committee was provided an update on the work completed on the capital asset management project
- The Committee expressed their support in taking a pro-active planning approach to asset replacement and taking into consideration the estimated useful life of assets to ensure funding is available
- Staff were asked to bring back a capital asset management proposal during the upcoming budget development process

#### 4.3 Childcare

- The Committee discussed the recent presentation made to the Board by Sharon Gregson on childcare
- The discussion included the type of programming in potential childcare spaces to be created by the
  District and a process to determine the strategic locations of where in the District these spaces can be
  created
- Maggie re-iterated that CUPE would like to be considered as a service provider if additional childcare spaces are created
- The Committee supports the Board considering the following motion:

**Proposed Motion:** That the Board of Education of School District #62 (Sooke) directs staff to apply for funding under government's New Childcare Spaces Fund

### 4.4 20/21 Budget Development Process

- The Committee discussed how to improve the budget development process for the 20/21 school year
- The discussion was focused on making the information as useable/friendly as possible and accessible to as many stakeholders as we can
- Staff were asked to bring back a proposed strategy to the January Resources Committee meeting

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## 4.5 Clean BC Letter Response

• The correspondence between the District and government around the Clean BC project was discussed

- It was determined that it was valuable to meet with Ministry staff, as offered in government's response, to discuss the issues
- Staff will ensure the Board's policy on energy management is up to date
- The Committee would like staff to present their energy management report at the January Resources Committee meeting to ensure their expertise can be shared prior to updating the Board's policy



# Committee Info Note Resources Committee Meeting January 27, 2020

Agenda Item: 4.1 – 2020-21 Budget Development Process

- Attached is a summary of the proposed budget development timelines with anticipated roles for the:
  - ✓ Board of Education
  - ✓ Resource Committee
  - ✓ Leadership Team
  - ✓ Executive
- It is proposed that this year's development process will continue to be based on work completed by the Leadership Team and then will flow through the Resource Committee for input and feedback prior to going to the Board for review and approval
- Staff are cognizant that the provincial funding formula may change and will need to be considered as we build the 2020/21 budget although any changes are not expected to impact the process

## **Board of Education**

- Similar to previous years, the Board will be asked to review and approve the Executive's proposed budget plan in April (28<sup>th</sup>) and May (26<sup>th</sup>)
- If additional development time is required, staff may ask the Board to consider hosting a Special Board meeting on May 12<sup>th</sup> to conduct the 1<sup>st</sup> reading of the budget
- It is being proposed that the District's direct stakeholders will be invited to provide their budget priorities to the Board in separate and in-camera meetings on the 24<sup>th</sup> of February
- Staff are also offering to meet separately with the Executives of our direct stakeholders to
  provide greater context and details behind the 20/21 Operational Plan and the proposed
  budget flowing from that plan
- These meetings can be scheduled in early February to review the Operational Plan and then early April to review the proposed budget

- Page 6 of 25 This extra step in the process is intended to provide greater depth of discussion with our stakeholder groups and increased touch points in the process
  - Staff are also suggesting hosting a district wide Public Budget meeting on April 21<sup>st</sup> so the public can see the highlights of the budget and any material changes from the previous year

### **Resource Committee**

- The Committee will have the opportunity to review and provide input into the budget process, timelines and priorities as outlined in the Strategic Plan
- Committee members will be updated on a regular basis (monthly meetings) and will see and consider the different iterations of the budget as it is developed
- Given the responsibilities of the Resource Committee and participation of our stakeholder groups, it is felt that this Committee can provide a deeper role and input into the development process

### **Leadership Team**

- The Leadership Team (Principals, Vice Principals, Directors, Managers and Executive) will also provide input into the process and identification of priorities by creating the 20/21 Operational Plan
- Once the activities for year 3 of our strategic plan have been identified on the Operational Plan, the Leadership Team will then begin to cost and prioritize the actions listed on the plan

## **Executive**

- As in previous years, the Executive will work with the different groups noted above to develop a financial plan to fund the work identified in the Operational Plan
- It is anticipated that this year's process will provide greater certainty in the link between the District's **Strategic Plan** to the **Operational Plan** to the **Annual Budget**

#### **Next Steps**

• Staff would like the Committee members to consider supporting the following recommendation for the Board to consider and debate at their January 28<sup>th</sup> meeting:

**Recommended Motion:** That the Board of Education of School District #62 (Sooke) approve the proposed 20/21 budget development process as outlined at the January 27<sup>th</sup> Resource Committee meeting.

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# School District Six Two Proposed Budget Timelines Fiscal 2020/21

Month	Executive	Leadership Team	Resource Committee	<b>Board Meetings</b>
January	Develop Budget process and	Jan 15 – Create initial 20/21	Jan 27 – Review and input on	Jan 28 – Approve Budget process and
	timelines	Operational Plan	process & timelines	timelines
February	Confirm 20/21 (Year 3)	Feb 6 – Identify proposed costs	Feb 11 – Review & input on draft	Feb 25 – Review & input on draft
	Operational Plan	for Operational Plan	Operational Plan	Operational Plan; Stakeholder
				Presentations (Feb 24)
March	Draft Budget based on	Mar 5 – Review and prioritize	Mar 4 – Review & input on draft	Mar 10 – Review & input on draft
	Operational Plan	activities on the Operational Plan	Operational Plan priorities	Operational Plan priorities
April	Finalize Budget for	Apr 8 – Review and input on	Apr 14 – Review and input on	<b>April 28</b> – 1 <sup>st</sup> reading of the Budget
	presentation	draft Budget	draft Budget	
May	Tweak Budget (if applicable)	May 7- Review revised Budget (if	May 12 – Review and input on	May 26 – 2 <sup>nd</sup> and 3 <sup>rd</sup> readings of the
		applicable)	revised Budget (if applicable)	Budget

# **Notes:**

- 1) Executive and Leadership Team work in unison to identify priorities and to create/review the Budget
- 2) Resource Committee reviews and provides input on draft priorities and the Budget in support of the Board's approval process
- 3) Staff are able to meet with stakeholders' Executives to discuss Operational Plan (early February) and the draft Budget (early April)
- 4) The work of the Leadership Team/Resource Committee replaces the previously defined Budget Management Team (BMT)
- 5) A public meeting can be scheduled for April 21st where staff will provide details of the budget with an emphasis on changes from 19/20
- 6) A Special Board meeting may be required (May 12<sup>th</sup>) to conduct 1<sup>st</sup> reading if additional development time is required
- 7) Once approved, timelines should be shared and public encouraged to attend Resource Committee/Board meetings for budget discussions

**18-21 Strategic Plan** 

20/21 Operational Plan

20/21 Annual Budget



# Committee Info Note Resources Committee Meeting January 27, 2020

Agenda Item: 4.2 - 2019-20 Amended Budget

 With the September enrolment finalized, the Ministry recalculated the Operating Grant and the Classroom Enhancement Fund (CEF) Grant distributed to the school districts across the province.

# **Operating Grant**

SEPTEMBER OPERATING GRANT ALLOCATIONS BY YEAR				SEPTEME	BER SCHOOL-AGI	E FTE ENROLM	ENT BY YEAR	
	PROVINCE SD62		SD62 %		PROVINCE		SD62 %	
	\$	\$	OF PROV		FTE	FTE	OF PROV	
2015-16	4,798,868,916	83,256,640	1.73%	2015-16	526,436	9,515	1.81%	
2016-17	4,880,222,730	88,089,981	1.81%	2016-17	532,113	10,087	1.90%	
2017-18	4,993,923,535	92,411,610	1.85%	2017-18	537,086	10,459	1.95%	
2018-19	5,150,153,678	98,251,034	1.91%	2018-19	542,650	10,832	2.00%	
2019-20	5,317,090,307	103,386,671	1.94%	2019-20	547,830	11,114	2.03%	

PROVINCIAL SCHOOL-AGE FTE INCR BY YEAR			SD	SD62 SCHOOL-AGE FTE INCR BY YEAR					
	TOTAL	INCR / (DECR)	INCR /		TOTAL	INCR / (DECR)	INCR /		
	PROVINCE	FROM PRIOR	(DECR)		SD62	FROM PRIOR	(DECR)		
	FTE	\$	%		FTE	\$	%		
2015-16	526,436			2015-16	9,515				
2016-17	532,113	5,676	1.08%	2016-17	10,087	572	6.02%		
2017-18	537,086	4,974	0.93%	2017-18	10,459	372	3.69%		
2018-19	542,650	5,564	1.04%	2018-19	10,832	373	3.57%		
2019-20	547,830	5,179	0.95%	2019-20	11,114	281	2.60%		
4-YR AVER	AGE INCREASE		1.00%	4-YR AVER	AGE INCREASE		3.979		

- There was no change in the per pupil funding from the rate announced in March (\$7,468 for standard school-age enrolment).
- There will be a separate special grant for the CUPE collective agreement increases.
- This year was the 5<sup>th</sup> consecutive September enrolment increase for the province with 40 of the 60 districts having an increase this year.

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• The total provincial operating grant allocation for the September enrolment count was \$5.317 billion of which SD62 was allocated \$103.387 million (1.94% of the provincial total).

- The District's September operating grant allocation of \$103.387 million is an increase of \$5.136 million (5.23%) from the prior year. This is largely due to a 2.60% in school-age FTE enrolment from the prior year (Sept 2019 = 11,114 FTE; Sept 2018 = 10,832 FTE).
- The \$103.387 million is an increase of \$0.246 million from the board approved preliminary budget of \$103.141 million. The increase is largely due to an increase in the salary differential of \$0.210 million.

# **Classroom Enhancement Fund (CEF)**

- The Ministry approved maximum CEF funding of \$13.327 million for teacher staffing. The District will only be funded for the actual teacher staffing and overhead costs for the year. Any funds unspent by the end of the year are subject to recovery from the Ministry.
- The \$13.327 million in teacher staffing funds is for 132.2 teacher FTE. District staff are forecasting actual funding usage of \$13.218 for the year which is a \$0.430 higher funding source from the board approved preliminary budget of \$12.788 million. This will result in savings to the Operating Fund budget of \$0.430 million.

# **Next Steps**

- Based on the information from the Ministry on the budget recalculation and the District's internal quarter 2 forecasting process, staff will be preparing the Amended Budget Bylaw for the February Resource Committee meeting
- The School Act requires the Board to pass the amended budget bylaw by the end of February
- If supported by the Resource Committee, the Board will be asked to consider passing the amended budget bylaw at their February 25<sup>th</sup> meeting
- In order to pass all 3 readings on February 25<sup>th</sup>, the Board is required to pass a motion that approves all 3 readings at one meeting and that motion needs to be approved unanimously
- Staff would like the Committee members to consider supporting the following recommendation for the Board to consider and debate at their January 28<sup>th</sup> meeting:

**Recommended Motion:** That the Board of Education of School District #62 (Sooke) allow all three readings of the 2019/20 Amended Budget Bylaw at its meeting of February 25, 2020.

# Summary of FTE and \$ Changes from the Preliminary (June) to Amended (September) Budgets Fiscal 2019/20 Page 10 of 25

Description	A FTE PRELIMINARY BUDGET 2019-20	B FTE AMENDED BUDGET 2019-20	C = B-A FTE AMENDED BUDGET INCR/(DECR)	P	D \$ RELIMINARY BUDGET 2019-20	E \$ AMENDED BUDGET 2019-20		F = E-D \$ AMENDED BUDGET INCR/(DECR)
TOTAL Standard (Regular) Schools	10,840.00	10,700.81	(139.19)	\$	80,953,120 \$	79,913,668	\$	(1,039,452)
Continuing Education Alternate Schools	21.00 240.00	17.81 258.00	(3.19) 18.00	\$ \$	156,828 \$ 1,792,320 \$	133,024 1,926,744	\$ \$	(23,804) 134,424
Distributed Learning	124.69	137.00	12.31	\$	760,594 \$	835,700	\$	75,106
Home Schooling	5.00	6.00	1.00	\$	1,250 \$	1,500	\$	250
Course Challenges	1.00	-	(1.00)	\$	233 \$	-	\$	(233)
TOTAL ENROLMENT-BASED FUNDING	11,231.69	11,119.63	(112.06)	\$	83,664,345 \$	82,810,636	\$	(853,709)
Level 1 Special Needs	12.00	12.00	-	\$	508,800 \$	508,800	\$	-
Level 2 Special Needs	400.00	418.00	18.00	\$	8,080,000 \$	8,443,600	\$	363,600
Level 3 Special Needs	270.00	297.00	27.00	\$	2,767,500 \$	3,044,250	\$	276,750
English Language Learning	551.00	681.00	130.00	\$	823,745 \$	1,018,095	\$	194,350
Aboriginal Education	1,173.00	1,205.00	32.00	\$	1,700,850 \$	1,747,250	\$	46,400
Adult Education TOTAL SUPPLEMENT FOR UNIQUE STUDENT NEEDS	10.00 2,416.00	11.81 2,624.81	1.81 208.81	\$	47,730 \$ 13,928,625 \$	56,381 14,818,376	\$ \$	8,651 889,751
Supplement for Salary Differential				\$	1,690,934 \$	1,900,558	\$	209,624
Supplement for Unique Geographic Factors				\$	3,640,455 \$	3,640,455	\$	-
Supplement for BC Education Plan				\$	216,646 \$	216,646	\$	-
Subtotal - September	13,647.69	13,744.44	96.75	\$	103,141,005 \$	103,386,671	\$	245,666
Summer Learning Grade 1-7	_	_	_	\$	- \$	_	\$	_
Summer Learning Grade 8-9	-	_	_	Ś	- \$	-	\$	_
Summer Learning Grade 10-12	-	-	-	\$	- \$	-	\$	_
Grade 8-9 Cross-Enrolment	1.00	7.00	6.00	\$	430 \$	2,795	\$	2,365
Subtotal - July	1.00	7.00	6.00	\$	430 \$	2,795	\$	2,365
School-Age FTE - Continuing Education	10.00	10.00	=	\$	74,680 \$	74,680	\$	_
Adult FTE - Continuing Education	1.00	1.00	-	Ś	4,773 \$	4,773	\$	-
K-Gr 9 School-Age FTE - Distributed Learning	-	-	-	\$	- \$	-	\$	-
Gr 10-12 School-Age FTE - Dist. Learning	100.00	100.00	-	\$	610,000 \$	610,000	\$	-
Adult FTE - Distributed Learning	25.00	25.00	-	\$	119,325 \$	119,325	\$	-
Level 1 Special Needs	-	-	-	\$	- \$	-	\$	-
Level 2 Special Needs	-	-	-	\$	- \$	-	\$	-
Level 3 Special Needs	-	-	-	\$	- \$ - \$	-	\$	-
Newcomer Refugees ELL Supplement - Newcomer Refugees	-	-	-	\$	- \$ - \$	-	\$ \$	-
Subtotal - February	136.00	136.00	- <u>-</u>	\$	808,778 \$	808,778	\$	
School-Age FTE - Continuing Education	10.00	10.00	_	\$	74,680 \$	74,680	\$	_
Adult FTE - Continuing Education	1.00	1.00	-	Ś	4,773 \$	4,773	\$	-
K-Gr 9 School-Age FTE - Distributed Learning	-	-	-	\$	- \$	-	\$	-
Gr 10-12 School-Age FTE - Dist. Learning	15.00	15.00	-	\$	91,500 \$	91,500	\$	-
Adult FTE - Distributed Learning	20.00	20.00	-	\$	95,460 \$	95,460	\$	-
Subtotal - May	46.00	46.00	-	\$	266,413 \$	266,413	\$	-
GRAND TOTAL	13,830.69	13,933.44	102.75	\$	104,216,626 \$	104,464,657	\$	248,031
LEA/INAC - Estimated 2019/20 Operating Grant from Abor	riginal Affairs & Northern	n Development Canada		\$	(370,051) \$	(323,885)	\$	46,166
TOTAL ESTIMATED 2019/20 OPERATING GRANT FROM	13,830.69	13,933.44	102.75	\$	103,846,575 \$	104,140,772	\$	294,197
								<u></u>
SUMMARY:	14.075.00	12 004 44	25.75	<b>.</b>	01 150 476	00 730 757	ė	(420.740)
TOTAL OP GRANT - OTHER TOTAL OP GRANT - SSS	11,975.69 682.00	12,001.44 727.00	25.75 45.00	\$ \$	91,159,476 \$ 11,356,300 \$	90,720,757 11,996,650	\$	(438,719) 640,350
TOTAL OF GRANT - 333	1,173.00	1,205.00	32.00	\$	1,700,850 \$	1,747,250	\$	46,400
TOTAL OP GRANT - LEA	-	-	-	\$	(370,051) \$	(323,885)	\$	46,166
TOTAL	13,830.69	13,933.44	102.75	\$	103,846,575 \$	104,140,772	\$	294,197

OP GRANT, MOE \$ 104,216,626 DISC/LEA RECOV \$ (370,051) HOLDBACK

TOTAL PER SCHED 2A \$ 103,846,575

\$



# Committee Info Note Resources Committee Meeting January 27, 2020

**Agenda Item: 4.3 – Energy Management Policy** 

# **Background**

- The Board and staff have determined that it is an appropriate time to review the policy and regulation on the District's energy management (F-201) for a number of different reasons:
  - 1) The last revision was conducted in 2009;
  - 2) The Strategic Plan identifies a strategy of reducing our carbon footprint, looking for other energy sources and minimizing current usage (G3-O2-SB); and
  - 3) CleanBC has issued public sector targets to be reached beginning in 2030.
- The applicable CleanBC standards for Greenhouse Gas (GHG) emissions are a reduction of 50% for buildings and 40% for vehicles by 2030 (as compared to 2007 levels)
- As you can see by the following chart, the District has been successful in striving towards the building targets but not the fleet
- This is largely to do with the increased fleet (both buses and white fleet) although the Board has made a decision to acquire electric buses for the 20/21 school year

Reduction Target by 2030 based on 2010 GHG Emission

Scope	Target, %	Target, tCO2	Target, 2030	Actual, 2018	Actual,2010
Buildings	50%	405	1,019	1,424	2,038
Fleet	40%	541	450	991	750

Actual Reductions 30% -32%

The District has taken an active approach to energy management and environmental sustainability –
 these are different issues and sometimes include conflicting priorities

- Page 12 of 25 Our approach has been to focus on environmental sustainability (by reducing GHG emissions) but our electricity usage has increased
- The table below reflects our energy usage (by source) using 2010 as the base

**Energy Consumption History, GJ** 

Energy, GJ	2010	2011	2012	2013	2014	2015	2016	2017	2018
Electricity	22,412.66	22,917.99	22,485.30	21,896.14	20,020.65	22,755.75	25,359.17	24,882.38	24,494.62
Light Fuel Oil	1,112.63	1,191.74	1,122.23	410.42	392.58	452.11	312.55	445.11	487.70
Natural Gas	35,691.62	40,335.25	39,918.79	36,656.80	29,169.10	29,205.94	26,846.80	30,865.04	25,638.30
Propane Gas	201.47	170.80	270.63	395.36	516.19	871.95	990.81	964.84	611.59
Energy, % to 2010	2010	2011	2012	2013	2014	2015	2016	2017	2018
Electricity		102%	100%	98%	89%	102%	113%	111%	109%
Light Fuel Oil		107%	101%	37%	35%	41%	28%	40%	44%
Natural Gas		113%	112%	103%	82%	82%	75%	86%	72%
Propane Gas		85%	134%	196%	256%	433%	492%	479%	304%

This table reflects the shift from oil and gas boilers to efficient heat pumps powered by electricity –
 better for the environment but a greater draw on electricity (a more expensive energy source)

# **Work to Date**

- The District has made great strides in regards on this file
- This work includes:
  - ✓ Hiring of an Energy Specialist to monitor and manage usage
  - ✓ Installation of efficient boilers
  - ✓ Shift to heat pumps
  - ✓ Centralized control over buildings' heat and air distribution
  - ✓ Decision to acquire electric buses
- In terms of **GHG emissions**, the existing Board policy has identified a 2020 target reduction of 33% from 2007 levels the above noted chart reflects the District has achieved a 30% reduction as of 2018 (on a 2010 base)
- Much of these savings have been derived from a shift to electric heat pumps as a result, our District's electricity use has increased by 9%
- This increase is also a result of adding a 2<sup>nd</sup> secondary school to the District

# Next Steps / Game Plan

- Staff feel that a dedicated approach/plan is required for the District to be in a position to meet the Clean BC targets for 2030 and beyond
- Work will continue on ensuring our buildings meet the allowable emissions and the real challenge will be on meeting the vehicle targets that have been established
- In order to be successful in meeting these targets, a number of activities are required:
  - 1) Update the Board's policy and regulation to reflect the Clean BC targets and necessary action staff have reached out to the provincial trustees' association for updated copies of other Districts policies and regulations;
  - 2) Create an Energy Sustainability Plan (ESP) that is the game plan of the required work to meet the targets there are some consultants available that the District can access to ensure the required expertise is used in the development of the plan; and
  - 3) Incorporate the strategies of the ESP into the 2022-2025 Strategic Plan to be successful, the District needs to make meeting these targets a priority and that can be done through the next iteration of the District's Strategic Plan.
- Before embarking on this process, staff would like to the Committee to discuss the issue and proposed process before taking it to the Board
- Once discussed, staff would like the Committee members to consider supporting the following recommendation for the Board to consider and debate at their January 28th meeting:

**Recommended Motion:** That the Board of Education of School District #62 (Sooke) direct staff to work towards updating policy and regulation F-201 and to develop an Energy Sustainability Plan in order for the District to meet the Clean BC Standards set for 2030 and beyond.

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Sea

# F-201 Policy Energy Management

School District #62 (Sooke)



#### **SCHOOL BOARD POLICY**

As part of an overall environmental strategy, School District No. 62 (Sooke) is committed to responsible energy management.

It is the intent of the District to manage all of its activities to ensure that the consumption of energy and natural resources is reduced to a practical minimum. Energy efficiency practices will include School District facilities, equipment, staff training and curriculum. This will require an ongoing, systematic approach to energy management, including assessing performance, setting goals, creating an action plan, tracking and communicating results.

While reducing energy consumption, the District is also committed to ensuring that a healthy and comfortable environment is maintained for students, staff and other users of the District's facilities.

This policy is written such that the District expects that its staff will:

- 1. Operate and maintain all equipment (i.e. electronic devices, heating/cooling equipment, etc.) for the optimal consumption of energy.
- 2. Ensure that new facilities and additions or renovations are designed for optimum energy efficiency and sustainability (subject to school program requirements, construction and maintenance costs).
- 3. Develop facilities and equipment upgrading programs for energy efficiency and environmental sustainability.
- 4. Where appropriate, recommend the closing of under-utilized space to reduce energy costs.
- 5. Provide relevant in-service training for staff and curriculum support materials for teacher use.

The fulfillment of this policy shall be the joint responsibility of the Board of Education, administrators, staff and support personnel. The success of the policy is dependent upon total co-operation from all levels within School District No. 62 (Sooke).

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New SD62 Job Descriptions School Supplies **Policies And Procedures Wiki** 

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# F-201 Regulations Energy Management

School District #62 (Sooke)

SharePoint

	No.: F-201
ENERGY MANAGEMENT	Effective: Mar. 23/82 Revised: June 23/09

#### **ADMINISTRATIVE REGULATIONS**

Building energy consumption for School District #62 will be reviewed monthly by the District Energy Manager and reports will be made regularly to the Director of Facilities. Annual reports will be prepared for the Board of Trustees, the Ministry of Education, and the BC Provincial Government. The School District will strive to reach the reduction targets set below.

In accordance with the BC Energy Plan, School District #62 has set targets to achieve 20% electricity reduction from the 2006 (calendar year) baseline in all existing buildings. The following table illustrates set targets that School District #62 will follow to achieve the required 20% reduction in electricity consumption.

SD62 Electricity Conservation Plan							
Calendar Year	% Reduction						
2006	0%						
2011	5%						
2016	14%						
2020	20%						

**Table 1: SD62 Electricity Reduction Targets** 

Intermediate reduction goals are planned and reviewed annually to achieve the targets set in this policy.

Electricity savings will mainly be generated through but not limited to:

- · Computer power management software
- Implementation of motion sensors, timers, and automation systems for lighting and HVAC controls
- · Choosing energy efficient lighting systems
- Reviewing current lighting systems for optimal efficiencies
- · Maintaining equipment in good working order
- Replacing inefficient & outdated equipment with EnergyStar rated equipment
- · Investigating the use of solar, wind, and other alternative energy
- · Adopting a vacation shutdown program
- Providing energy efficiency training

B.C.'s Bill 44 (Green House Gas Reduction Targets Act) sets guidelines to reduce the amount of Green House Gases (GHG's) released into the environment. As part of School District #62's responsibility to abide by Bill 44 and become carbon neutral by 2010, School District #62 is committed to following the reduction targets set by Bill 44.

SD62 GHG Emissions Conservation Plan						
Calendar Year	% Reduction					
2007	0%					
2012	6%					
2016	18%					
2020	33%					
2050	80%					

**Table 2: SD62 GHG Reduction Targets** 

The calendar year of 2007 is set as the baseline with the primary goals being a 33% reduction in GHG's by 2020, and an 80% reduction in GHG's by 2050.

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 $\ensuremath{\mathsf{GHG}}$  savings are expected to be mainly generated but not limited to:

- Fuel conversions (i.e. Heating Oil to Natural Gas)
  HVAC improvements
  HVAC optimization (computer monitoring)
  Maintaining HVAC equipment in good working order

Improved insulation

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# School District 62 (Sooke) Energy Performance Report

# **Executive Summary**

School District No.62 (SD62) has an obligation to reduce its carbon foot print for CleanBC, a plan the B.C Government released for a cleaner future. Public buildings are expected to lead, with an emission reduction of 50% in buildings and 40% in fleets by 2030. As part of the District's Strategic Plan (Goal 1, Objective 2 Strategy B), SD62 will continue to monitor, measure and create programs in order to reduce our carbon footprint.

SD62 hired an Energy manager in 2009 and their first task was to create and introduce a Strategic Energy Management Plan (SEMP) with targets of 20% a reduction in electricity and 33% reduction in Greenhouse Gas Emissions and to be carbon neutral by 2020. In 2011 the Provincial Government added the requirement to submit an annual Carbon Neutral Action Report (CNAR) and purchase carbon off-sets in tons of carbon dioxide. In 2012, SD62 no longer hit Hydro's threshold for funding an Energy Manager and applied for and received Fortis funding for an Energy Specialist, who was added in 2013 for only an additional year. In 2018, SD62 recognized the need for a full time position to monitor, measure and provide input on the district's energy use.

With no Energy Manager or Energy Specialist from 2014 to 2017, there was a significant impact on the energy consumption in SD62 buildings. This, along with the district's growth has also had an impact hitting our initial targets.

The major source of carbon emissions is from the natural gas usage. Other sources of emissions are paper, propane, furnace oil and fuel for vehicles.

SD62 has completed energy projects to improve energy performance by upgrading equipment to more efficient units and using air source heat pumps that use electricity rather than fossil fuels.

SD62 will continue to look for ways to reduce emissions in existing buildings and on new school projects by replacing and upgrading to more efficient HVAC systems and installing and upgrading control systems for the schools showing high energy consumptions, with the priority to meet our carbon foot print reduction target of 20% by 2030

We will also look for help from school communities to cooperate with behavior changes from students, staffs, teachers.

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# **Executive Summary Table**

ITEM	YE	AR	CHANGE		COMMENTS
I I EIVI	2010	2018	Unit	%	COIVIIVIEN 13
1) Greenhouse Gas Emission(tCO <sub>2</sub> )	2,895.0	2,525.0	-370.0		- Greenhouse Gas emission's sources : building energy, fleet fuels, papers, other fuels.
Greenhouse Gas Emission(kgCO <sub>2</sub> /m²)	26.0	20.8	-5.2	-20%	<ul> <li>energy savings in natural gas and electricity</li> <li>resourcing fuels from natural gas to electricity by ASHP</li> </ul>
2) Carbon offset(\$)	57,739.0	42,900.0	-14,839.0	-26%	- \$25/tCO2 for offset (school buses' fuel exempted)
3) Energy Usage(GJ)	59,390.4	51,232.0	-8,158.4		- Energy Projects: upgrading old boilers with condensing boilers or ASHP, upgrading DDC, upgrading other HVAC
Natural gas, %	62.3	50.0	-12.3		systems - Monitoring, modifying, programing HAVC systems by Energy Speciallist/Energy Manager
Electricity, %	37.7	48.0	10.3	27%	- ASHP/HRUs(Heat Recovery Units) in Belmont/Royal Bay * 1 GJ is equivalent to two BBQ propane tanks
4) Total Energy Cost(\$),	1,131,284.0	1,081,651.0	-49,633.0	-4%	- BC Hydro rate change : (+) 41% - Natural gas rate change : (-) 35%
Natural gas(\$)	595,086.0	222,683.0	-372,403.0	-63%	- decrese in ussage and rate
Electricity (\$)	536,198.0	817,842.0	281,644.0	53%	- increse in usage and rate (ASHP/HRUs)
Total Energy Cost(\$/m²)	10.2	8.6	-1.6	-15%	
5) Area(square metre)	111,321.0	121,370.0	10,049.0	9%	- opening new schools, closing schools, adding portables

# Performance and Plan

### 1) Greenhouse Gas Emission

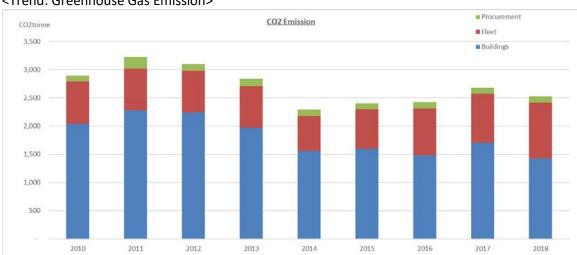
Greenhouse Gas is carbon dioxide equivalent(CO2e) gas which is formed from the process of burning fuels or imbedded in electricity and paper.

SD62 uses natural gas, propane gas and Light Fuel Oil for heating and electricity for heating and running equipment such as pumps, compressors, and lighting in buildings. The percentage of building energy emission is 56 % of total emission, and natural gas takes 90% of emission from building energy sources. Fleet vehicles such as school buses, vans, trucks, other duty vehicles have 39 % of total emission, and paper is following with 4 %.

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The average annual emission in the year between 2010 and 2018 is 2,732 CO2e tonne. The highest is 3,227 CO2e tonne in 2011 and the lowest is 2,288 CO2 tonne in 2014. The most reduction source in the year 2014 is from reduction of natural gas.

The overall trend shows historical reduction of emission since 2011, and it starts to increase from 2015 with the increase of building and fleet sources.

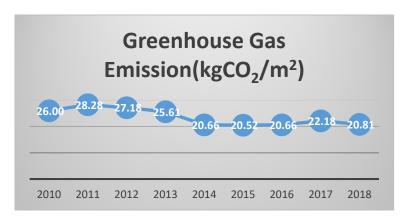


<Trend: Greenhouse Gas Emission>

SD62 has been grown and will be continuing to grow, and the Greenhouse Gas emission is subjected to the growth. Therefore, it is worth in showing unit Greenhouse Gas emission per square meter in  $kgCO_2/m^2$ .

SD62's unit emission decreased to 20.66  $kgCO_2/m^2$  in 2016 from 28.28  $kgCO_2/m^2$  in 2011. Considering New Belmont and Royal Bay schools' lower unit emission, the unit emission from 2015 shows that other schools' emission has increased since 2015.

<Trend: Greenhouse Gas Emission per square metre>



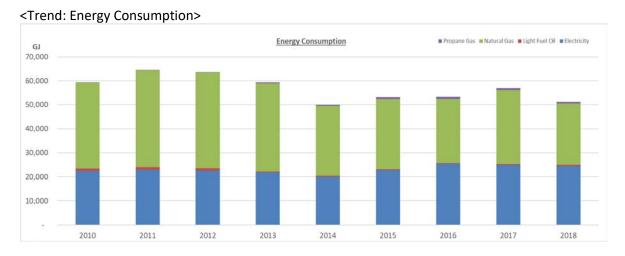
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#### 2) Carbon offset

SD62 has the mandatory responsibility to collect all consumption data of the fuels, electricity, papers purchased in a year and provide information to the Government for Carbon Neutral Action Report. Also, SD62 has to pay \$25 per CO₂e tonne for off-settable amount which excludes school buses' fuel, and SD62 paid \$42,900 with GST included for the carbon offset of 1,716 tCO2 in 2018

#### 3) Energy Usage

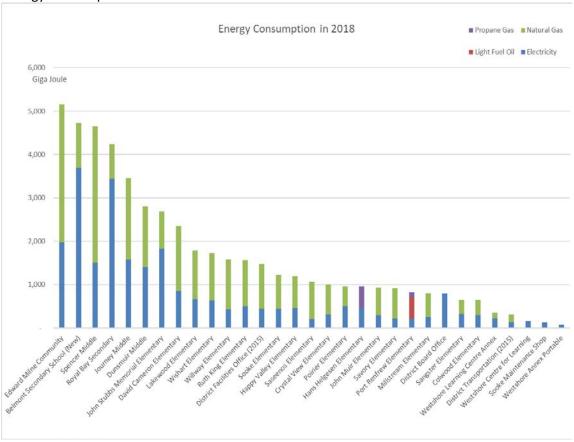
Main energy source for heating is natural gas from FortisBC except Hans Helgesen/School Board Office/Port Renfrew school. Electricity is used for electric equipment and heating as well for ASHP, Heat Recovery Units and electric baseboard heaters and for lighting and other electric devices. Total energy consumption in 2018 is 51,232 GJ from natural gas 50%, electricity 48% and other sources 2%. The amount of 51,232 GJ is equivalent to the amount of energy consumption for 570 households' in BC. Usually 1 GJ is the energy amount equivalent to two propane BBQ tanks. (We burns 114,000 propane tanks every year). SD62 has decreased energy usage from 2012 by programs and projects and achieved energy savings in natural gas mostly and electricity as well. In 2014 energy consumption dropped to 50,036 GJ by 23% compared to the amount of 2012. From 2015, energy consumption starts to increase slightly.



Edward Milne Secondary School used highest amount of energy with 10 % of total energy consumption of SD62 and 12% of total natural gas consumption. Belmont and Royal Bay school have lower natural gas consumption and higher electricity consumption due to ASHP and HRUs for heating.

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# **Energy Savings by Energy Specialist Program**

SD62 hired Energy Specialist in 2013 for 1 year and Energy Specialist performed monitoring, energy saving projects. Natural gas consumption in 2014 shows 23 % of reduction compared to the consumption in 2012 without major energy savings projects mostly thorough monitoring, modifying operation parameter on DDC systems, reporting and fixing mechanical problems on HVAC systems. SD62 hired Energy Specialist again from March 2018 to continue energy savings.

#### **Energy Savings by Projects**

Since 2013, old low efficient boilers have been replaced with high efficient condensing boilers and tank type domestic hot water heater have been replaced with instantaneous hot water heaters. DDC (Direct Digital Control) systems have been upgraded and installed as well for efficient control. Also, project plan for replacing boilers, water heaters and DDC already has been established for the future replacement.

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# Projects completed/planned:

				Energy Saving Cumulative Energy Sav	
ECM Project	School	Completed Year	Base	Annual Savings	
			GJ	GJ	CO2ton
Condensing Boiler, Gas	Boilers_EMCS_15%	2014	4,609	691	34
	Boilers_Journey Middle	2015	2,149	430	21
	Boilers_Sooke Elementary	2015	939	188	9
	Boilers_Spencer Middle School	2015	4,085	817	41
	Boilers_Dunsumuir Middle School	2016	1,100	220	11
	Boilers_Lakewood Elementary	2017	1,391	209	10
	Windows_Ruth King Elementary with new windows	2017/18	1,391	278	14
	Boilers_Poirier Elementary	2018	569	57	3
	Boilers_David Cameron	plan	2,247	494	25
	Boilers_Willway	plan	1,319	158	8
	Boilers_John Muir	plan	720	216	11
	Boilers_Sangster	plan	371	111	6
	Boilers_Milstream	plan	618	185	9
	MUAs/UVs_Dunsmuir	plan			
	Sum			4,055	202
On-Demand DWH, Gas	DHW Heater_Happy Valley	2013	168	25	1
·	DHW Heater_David Cameron	2014	168	25	1
	DHW Heater_EMCS	2014	420	63	3
	DHW Heater_Poirier	2014	168	25	1
	DHW Heater_Lakewood	2017	168	25	1
	DHW Heater_Ruth King : 1 unit	plan	210	31	2
	DHW Heater_Spencer : 2 units	plan	189	28	1
	DHW Heater_Willway : 1 units	plan	168	25	1
	DHW Heater_Sangster : 1 units	plan	168	25	1
	DHW Heater_Milstream : 1 units	plan	168	25	1
	DHW Heater_Sooke : 1 units	plan	168	25	1
	Sum	•		324	16
DDC System, Gas/Elec	DDC_Honeywell_Journey	2015	4,070	611	30
min.15% saving(fr.NRCan)	DDC_Alerton_Lakewood	2015	1,452	218	11
,	DDC_Alerton_John Muir	2016	1,052	158	8
	DDC_Alerton_David Cameron	2016	1,554	233	12
	DDC_Alerton_Sooke	2016	754	113	6
	DDC_Alerton_Saseenos	Plan	1,101	165	8
	DDC_Alerton_Sangster	Plan	725	109	5
	DDC_Alerton_Miltream	Plan	866	130	6
	Sum			1,736	87
			Sum	6,115	305

## 4) Energy Cost

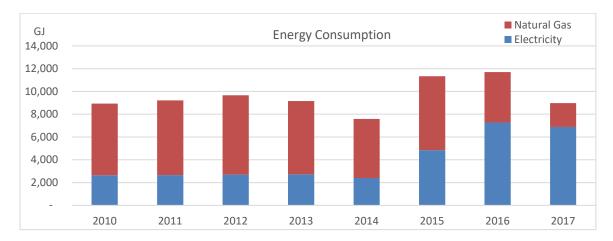
Utility Cost	2010	2011	2012	2013	2014	2015	2016	2017	2018
Natural Gas, \$	595086	702517	656,226	614,437	495,666	384,058	313,431	324,552	222,683
incremental, \$		107,431	(46,291)	(41,789)	(118,771)	(111,608)	(70,627)	11,121	(101,869)
Electricity, \$	536198	514957	606,507	613,446	571,263	602,457	793,705	840,714	817,842
incremental, \$		(21,241)	91,550	6,939	(42,183)	31,194	191,248	47,009	(22,872)
Sum, \$	1,131,284	1,217,474	1,262,733	1,227,883	1,066,929	986,515	1,107,136	1,165,266	1,040,525
incremental. \$		86.190	45,259	(34.850)	(160.954)	(80.414)	120.621	58.130	(124,741)

Annual energy cost for natural gas and electricity is about \$1.0 M  $^{\sim}$  1.2 M. The percentage of natural gas cost has dropped down to 22% from 50% with natural gas rate and consumption decreased since 2013. On the other hand, electricity cost has increased with BC Hydro rate and consumption increased. Energy cost per unit Giga Joule is about \$10 for natural gas and \$30 for electricity.

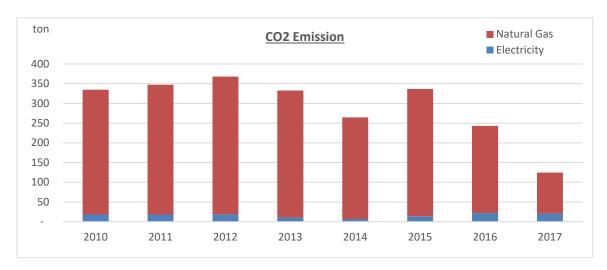
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### 5) New Belmont and Royal Bay School Performance

The graph shows natural gas/electricity consumption for old Belmont Secondary School from 2010 to 2015, and for new Belmont Secondary School and Royal Bay Secondary School after 2015. As of 2017, energy usage of two new schools is about same or higher than the energy usage of one old Belmont school in 2013. The graph in 2017 shows resourcing energy from Natural gas to electricity compared to the graphs in years before 2015.



CO2 emission has decreased by 65% in 2017 compared to 2013. The reduction in CO2 emission comes from resourcing heating energy source changing from natural gas to electricity by having Air Source Heat Pump and Heat Recovery Units installed in New Belmont and Royal Bay School.



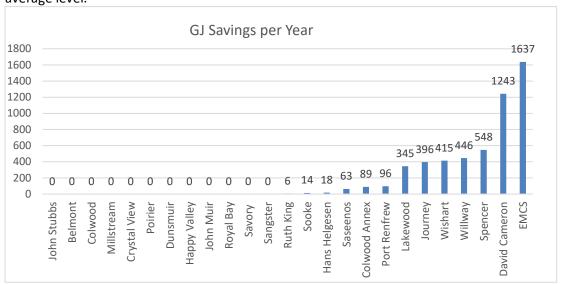
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# **Future Projects**

Expecting projects for existing buildings
 Specific energy savings measurements will be implemented depending on the energy wasting conditions on each school

- ✓ Lower boiler efficiency schools: upgrading furnaces/conventional boilers to condensing boiler or ASHP
- ✓ Old/non DDC controlled schools: upgrading and implementing DDC system for optimal operation
- ✓ Lower building enveloped schools: upgrade building envelope with replacing single pane window/lower heat insulated walls and roofs
- ✓ Replacing old/low efficient heat delivering system

Expected Energy Saving with projects for the lower energy efficient school improved to average level.



New buildings
 New Schools in the plan will be designed and built with the highest energy efficiency HVAC systems and measures

# Targets

School District will be continuing to reduce carbon footprint along with the policy of BC Government.

# **Next Steps**

Behavior changes to reduce usage

cleanBC

Highlights Report

# **MEASURING OUR PROGRESS**

CleanBC protects our communities and sets us on a path to a stronger, more sustainable future. The measures announced in this plan include ambitious goals for transforming the buildings we work and live in, how we get around, and how we power our economy and use cleaner energy.

# Goal snapshot

Where we live and work  By 2030, emissions from buildings dropped by 40%.	<ul> <li>By 2032, new buildings will be 80% more efficient than a home built today (highest tier of B.C. energy step code)</li> <li>By 2030, 70,000 homes and 10 million m2 of commercial buildings will be retrofitted to use clean electricity in space heating</li> <li>60% of homes and 40% of commercial buildings will be heated with clean electricity</li> </ul>
	<ul> <li>Public buildings will lead the way, reducing emissions by 50% by 2030</li> <li>Overall, emissions from buildings will drop by 40%</li> </ul>
<b>Getting around</b> By 2030, fossil fuel use for transportation has dropped 20%	<ul> <li>By 2030, 30% of all sales of new light-duty cars and trucks will be zero-emission vehicles, rising to 100% by 2040</li> <li>To help meet increased demand for lower-carbon fuels, B.C. will support the production of 650 million litres of renewable fuels per year</li> </ul>
	<ul> <li>The Province will reduce GHG emissions from government vehicles by 40%</li> <li>Overall, fossil fuel use for transportation will drop by 20%</li> </ul>
Cleaner Industry	<ul> <li>The CleanBC program for industry will reduce industrial emissions by 2.5 Mt per year</li> </ul>
	By 2025, methane emissions from the natural gas sector will drop by 45%
Reduce waste and turn it into a resource	By 2030, 95% of organic waste (including municipal, industrial, and agricultural) will be diverted from landfills and turned into other products
A.L. A.At.	By 2030, 75% of landfill methane will be captured
Adaptation	<ul> <li>By 2020, the Province will develop an Adaptation Strategy based on a province-wide climate risk assessment</li> </ul>

In May 2018 – recognizing the impacts of our growing economy and population – the Province set new targets for GHG emissions. Compared to 2007 levels, we are now committed to reductions of:

- 40 per cent by 2030,
- 60 per cent by 2040, and
- 80 per cent by 2050.