

# OTHER PROGRAMS

## **Carbon Neutral Capital Program (CNCP)**

Funds originate from carbon offset payments from school districts.

### JV Humphries Boiler Replacement

Value \$250,000 (approximately)

Replacement of boiler with new equipment for increased reliability, reduced emissions, and greater energy efficiency. Self-funding increased project scope to include low-level returns.

Four projects submitted on recent program intake:

Control upgrades for three elementary school (Rosemont, Canyon, and Blewett).

HVAC upgrade (Hume Elementary)

## **Routine Capital**

Boiler Replacement Project (2015-2016) \$526,000

Funding for replacement/upgrades to three boiler systems:

LV Rogers Secondary

Hume Elementary

WE Graham Community School

New equipment will reduce emissions, increase reliability, and save on energy.

Project will be complete April, 2016.

## **Public Sector Energy Conservation Program (PSECA 1 and 2)**

This program no longer exists. SD 8 has received funding from this program in the past for the following projects:

Lighting upgrades at Prince Charles Secondary School

Geo-exchange system (JV Humphries Elementary-Secondary School)

## **Municipal Government Gas Tax Rebate Funds**

RDCK contributed \$75,000 of these funds towards some of the costs for the geo-exchange system at the new Crawford Bay School which opened in April, 2009.

## **Mechanical System Upgrade Program (MSUP)**

Existing Ministry of Education capital program

SD8 has submitted numerous projects for consideration

No funding has been approved to date

## Ministry of Education Service Delivery Project

Current ministry initiative involving the following Operations related activities:

- Energy Management
- Procurement
- Custodial
  - Increased mechanization
  - Centre of excellence
- Transportation
  - Risk management (insurance)
  - Route optimization

## **Briefing Note**

**Prepared by: Kim Morris, Secretary Treasurer**

**Date Prepared: November 18, 2010**

## **Climate Action and School District No. XX**

### Backgrounder:

Over the past two years significant developments have occurred with regard to carbon neutrality that affect School District No. XX. From signing the Climate Action Charter to producing annual Carbon Neutral Action Reports to paying Carbon Offsets this briefing note is intended to update the Board of Education and the School District No. XX community at large regarding government initiatives to have Public Sector Organizations carbon neutral by January 1, 2010.

### History:

1. **March 2009** – Board of Education signs the BC Climate Action Charter between Province of BC and Boards of Education outlining:
  - common understanding around global warming and how Greenhouse Gas (GHG) emissions impact our environment
  - government and district roles in addressing climate change
  - goals: reduction of emissions, program implementation, policy, educational engagement; sustainable building, transportation and procurement practices
  - contributions to reducing GHG: anti-idling initiatives, operational reductions, educational opportunities, reporting
2. **March 2009** – Secretary Treasurer submits Carbon Tax Reimbursement form for July 1 to December 31, 2008; District receives 100% carbon tax reimbursement of \$11,638
3. **June 2009** – Board of Education submits first Carbon Neutral Action Report for 2008 outlining actions taken and actions planned to reduce GHG emissions in three main areas: vehicle fuel combustion, building emissions and supplies.
4. **February 2010** – Secretary Treasurer submits Carbon Tax Reimbursement form for January 1 to December 31, 2009; District receives 100% carbon tax reimbursement of \$45,371
5. **June 2010** – Board of Education submits second annual Carbon Neutral Action Report for 2009
6. **June 2010** – Ministry of Citizens' Services and Shared Services BC deploys SMARTTool, a software tool to simplify GHG measurement and reporting, support emission reduction planning and provide consistency for the province. Cost to school districts is \$0.82 per student (headcount) or \$3,246 for SDXX
7. **Summer 2010** – Director of Operations and Accounts Payable Clerk begin measuring and inputting SDXX's fuel, electricity, natural gas and paper supply data into SMARTTool on an on-going basis
8. **September 2010** – Pacific Carbon Trust issues directive for reporting Carbon Offsets and payment deadlines; January 1, 2010 to December 31, 2010 carbon offset purchase is estimated to be \$60,000 total or \$13 per student and staff member for SDXX
9. **November 2010** – Director of Operations and Secretary Treasurer attend webinar on BC Core Government and Broader Public Sector Verification and Self Certification of Public Sector Emissions Reporting to outline process for ensuring PSO's emissions reporting is error free and

meets provincial requirements and ensure that PSO's have a consistent understanding of the verification and self-certification requirements.

Actions:

1. To date, and as outlined in the District's two annual Carbon Neutral Action Reports, some of the actions SDXX has taken in an effort to become carbon neutral are:
  - Lighting Retrofit in all buildings
  - Anti-idling program for School District drivers
  - Trees for Tomorrow grant
  - Low or reduced emission vehicle replacements: fleet and buses
  - School District driver training in the Smart Driver course
  - Reprogramming of DDC (Direct Digital Control) to maximize efficiency of HVAC systems
  - High efficiency furnace installation in one location
  - High efficiency domestic hot water heaters at two locations
  - Power management software to shutdown computers after hours
  - Energy Star rated appliance replacements
  - Paperless board meetings
  - certified Green paper products, cleaning products and garbage bags
  
2. Future actions may include:
  - Purchase of utility management software to facilitate comparisons in utility performance, opportunities for savings and correct billing
  - Purchase of Zonar software. Zonar is a GPS system which will allow SDXX to monitor where our vehicle assets are and where they have been including information such as speed, idle times and stop times. Zonar will allow us to provide staff and students with increased safety, and response times in emergencies and breakdowns with the estimated savings of fuel and GHG emissions offsetting the cost.
  - Potential partnership with utility companies to utilize alternative energy methods to heat and cool facilities in SDXX
  - Potential reductions in space requirements for SDXX educational programs and operations through partnerships for shared space or closure of space
  - Potential partnerships with other school districts or community organizations to staff shared energy manager
  - Development of policy, regulations and procedures for carbon action quality control, quality assurance and management of SDXX's GHG emissions.

### Considerations:

1. Financial impact for SDXX:
  - Carbon Tax: \$0
    - SDXX pays tax at source but is reimbursed annually for previous year's tax paid.
  - Carbon Offsets: \$60,000 annual estimate
    - Payable to Pacific Carbon Trust, a crown corporation that will invest in BC projects that reduce or offset emissions, e.g. afforestation, clean energy etc.
    - \$60,000 = \$15 per student, \$13 per student and staff member, \$0.98 per square metre
  - SMARTTool Ministry Software: \$3,246 annual cost
    - \$3,246 = \$0.82 per student
  - Carbon emissions reduction operational savings: \$Unknown
    - As the district begins tracking and reporting emissions annually, projects to reduce GHG will be more easily measured in terms of savings and comparables
2. Human Resource Impact for SDXX
  - Annual
    - Preparation of Carbon Neutral Action Report
    - Preparation of Carbon Tax reimbursement form
  - Quarterly
    - Preparation and payment of Carbon Offsets
  - On-Going
    - educational programs for students, families and educational, business and operations staff
    - pursuit of grants for capital projects to reduce GHG
    - entry of SDXX's emissions data into SMARTTool
  - One Time
    - Setting policy, regulations and procedures for Verification and Self Certification of Public Sector Emissions Reporting

As SDXX and other PSO's move toward carbon neutrality, and indeed if complete neutrality can ever be achieved, the question to be answered is at what point do the actions taken provide enough savings to offset the purchase of carbon offsets? If this can be achieved: operational savings of \$60,000 offset carbon offset purchases of \$60,000, then any additional savings as a result of improved carbon neutrality efforts will be recognized as true operational savings and can be injected into educational programs and services in schools and classrooms to further district achievement goals and to provide safe, efficient and sustainable learning environments.

### Recommendations:




None at this time; briefing note provided for information only.



**Capital Additions - 12 Year History**

		Sites	Buildings	Furniture & Equipment	Vehicles	Computer Software	Computer Hardware	Total
Operating	2003-2004							-
Special Purpose (AFG)	2003-2004							-
By-Law (MOE Other Programs)	2003-2004							-
Deferred Contributions	2003-2004		3,961,974	193,914	205,578		8,571	<b>4,370,037</b>
Operating	2004-2005							-
Special Purpose (AFG)	2004-2005							-
By-Law (MOE Other Programs)	2004-2005	358,554	143,597	1,725			6,777	<b>510,653</b>
Deferred Contributions	2004-2005							-
Operating	2005-2006					26,429		<b>26,429</b>
Special Purpose (AFG)	2005-2006							-
By-Law (MOE Other Programs)	2005-2006	-	-	13,135	813,130		-	<b>826,265</b>
Deferred Contributions	2005-2006							-
Operating	2006-2007			205,759	234,792	25,854	247,100	<b>713,505</b>
Special Purpose (AFG)	2006-2007		1,457,541	28,089				<b>1,485,630</b>
By-Law (MOE Other Programs)	2006-2007	745,935						<b>745,935</b>
By-Law (MOE WIP)	2006-2007		136,205					<b>136,205</b>
Deferred Contributions	2006-2007							-
Operating	2007-2008			38,792	49,229	20,411	115,017	<b>223,449</b>
Special Purpose (AFG)	2007-2008		1,739,782	13,954				<b>1,753,736</b>
By-Law (MOE Other Programs)	2007-2008	2,137,215			870,573			<b>3,007,788</b>
By-Law (MOE WIP)	2007-2008							-
Local Capital	2007-2008			293,296			76,645	<b>369,941</b>
Deferred Contributions	2007-2008							-
Operating	2008-2009			278,418	10,122	33,054	179,749	<b>501,343</b>
Special Purpose (AFG)	2008-2009		2,091,810	20,645				<b>2,112,455</b>
By-Law (MOE Other Programs)	2008-2009	2,416,809	5,148,011					<b>7,564,820</b>
By-Law (MOE WIP)	2008-2009		3,928,778					<b>3,928,778</b>
Local Capital	2008-2009		122,248					<b>122,248</b>
Deferred Contributions	2008-2009		373,750					<b>373,750</b>
Operating	2009-2010		515,082	122,656		36,519	57,138	<b>731,395</b>
Special Purpose (AFG)	2009-2010		468,326					<b>468,326</b>
By-Law (MOE Other Programs)	2009-2010				576,218			<b>576,218</b>
By-Law (MOE WIP)	2009-2010							-
Local Capital	2009-2010							-
Deferred Contributions	2009-2010							-
Operating	2010-2011			113,104		41,331	201,105	<b>355,540</b>
Special Purpose (AFG)	2010-2011		600,719					<b>600,719</b>
By-Law (MOE Other Programs)	2010-2011		432,527		582,807			<b>1,015,334</b>
By-Law (MOE WIP)	2010-2011							-
Local Capital	2010-2011		11,010					<b>11,010</b>
Deferred Contributions	2010-2011							-
Operating	2011-2012			5,838	61,413	34,501	5,002	<b>106,754</b>
Special Purpose (AFG)	2011-2012		361,125	14,367			21,941	<b>397,433</b>
By-Law (MOE Other Programs)	2011-2012		920,934		404,837		21,516	<b>1,347,287</b>
By-Law (MOE WIP)	2011-2012							-
Local Capital	2011-2012							-
Deferred Contributions	2011-2012							-
Operating	2012-2013			94,334	46,211	66,124	41,833	<b>248,502</b>
Special Purpose (AFG)	2012-2013		457,782					<b>457,782</b>
By-Law (MOE Other Programs)	2012-2013		1,094,603		419,603			<b>1,514,206</b>
By-Law (MOE WIP)	2012-2013							-
Local Capital	2012-2013							-
Deferred Contributions	2012-2013							-
Operating	2013-2014		302,398	107,994	108,914	30,692		<b>549,998</b>
Special Purpose (AFG)	2013-2014		58,499					<b>58,499</b>
By-Law (MOE Other Programs)	2013-2014		1,104,623		436,559			<b>1,541,182</b>
By-Law (MOE WIP)	2013-2014							-
Local Capital	2013-2014							-
Deferred Contributions	2013-2014							-
Operating	2014-2015		367,657	24,123	37,221		152,137	<b>581,138</b>
Special Purpose (AFG)	2014-2015		164,225					<b>164,225</b>
By-Law (MOE Other Programs)	2014-2015		899,196		582,362			<b>1,481,558</b>
By-Law (MOE WIP)	2014-2015							-
Local Capital	2014-2015							-
Deferred Contributions	2014-2015							-
		<b>5,658,513</b>	<b>26,862,402</b>	<b>1,570,143</b>	<b>5,439,569</b>	<b>314,915</b>	<b>1,134,531</b>	<b>40,980,073</b>

**19. OTHER PROJECTS VERBAL UPDATE – DIRECTOR BROWN**

- a) Adam Robertson Elementary Traffic Improvements 
- b) Rosemont Elementary Retaining Wall 
- c) South Nelson Elementary Windows 
- d) Shovel Ready Energy Projects 