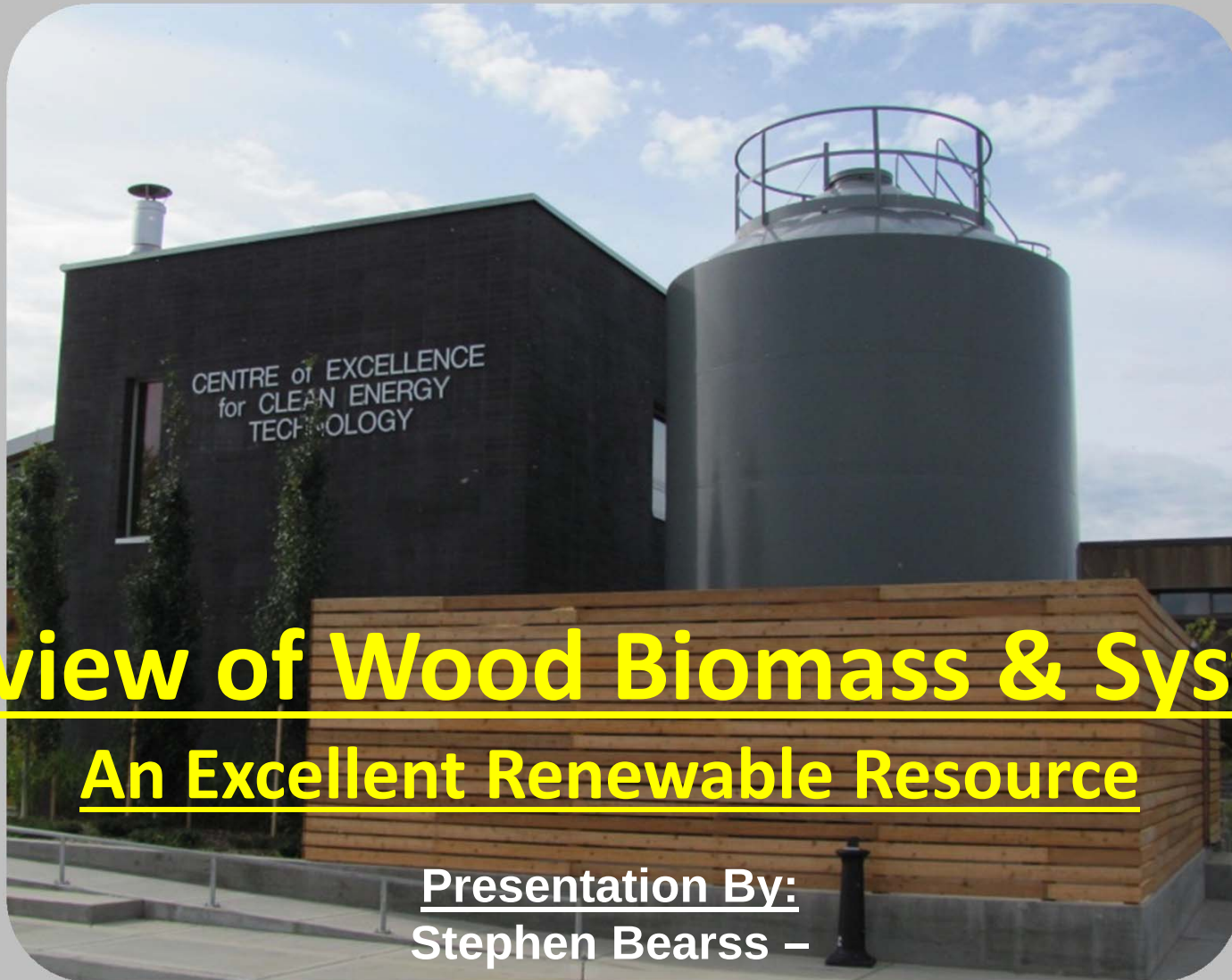




Overview of Wood Biomass & Systems

An Excellent Renewable Resource

Presentation By:
Stephen Bearss –
Sales Representative

FINK
MACHINE INC.

WOOD WASTE
2 RURAL HEAT



What is Wood?



Chemical Content Natural Wood	% By Weight
Carbon (C)	49
Hydrogen (H)	6
Oxygen (O)	44
Ash (Potassium, Sodium, Calcium, Phosphorus, Silicon, ...)	0.8 (trunk wood spruce incl. bark)

Woody Biomass is stored solar energy through photosynthesis

Trees sequester the elements of CO₂ over its life time

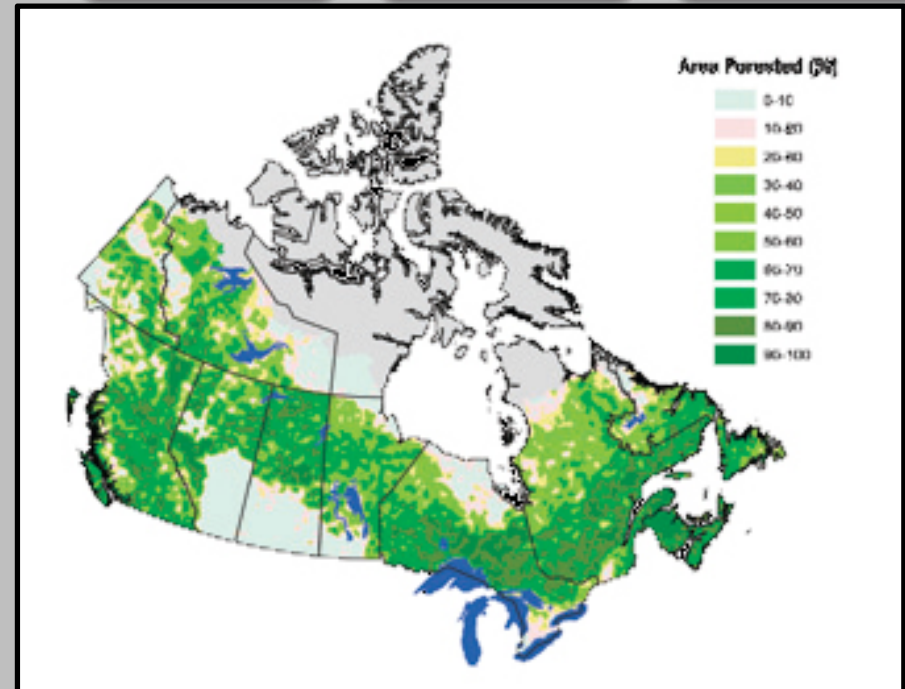
Once harvested, wood waste is converted into useful energy.



Do We Have Enough?



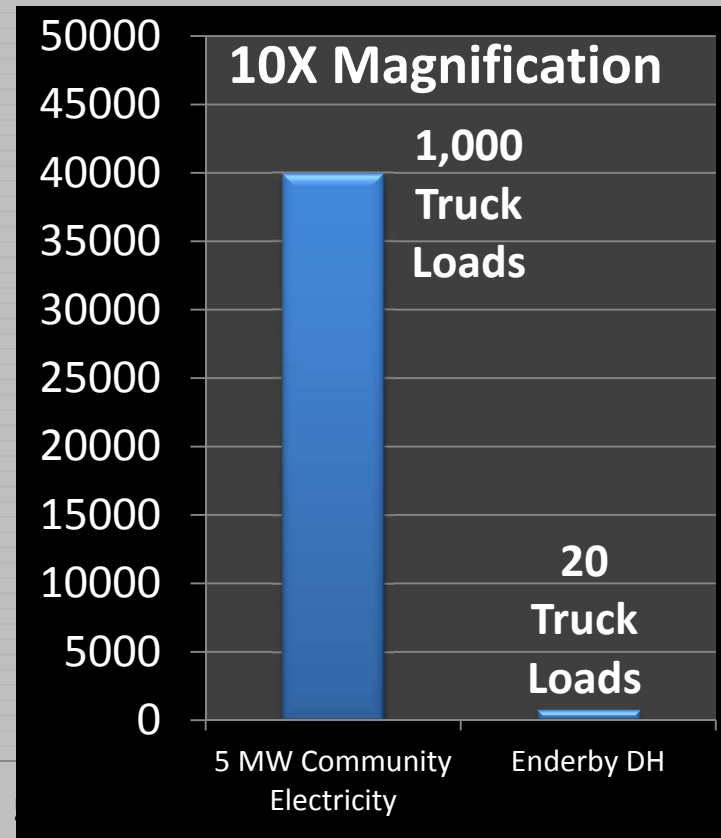
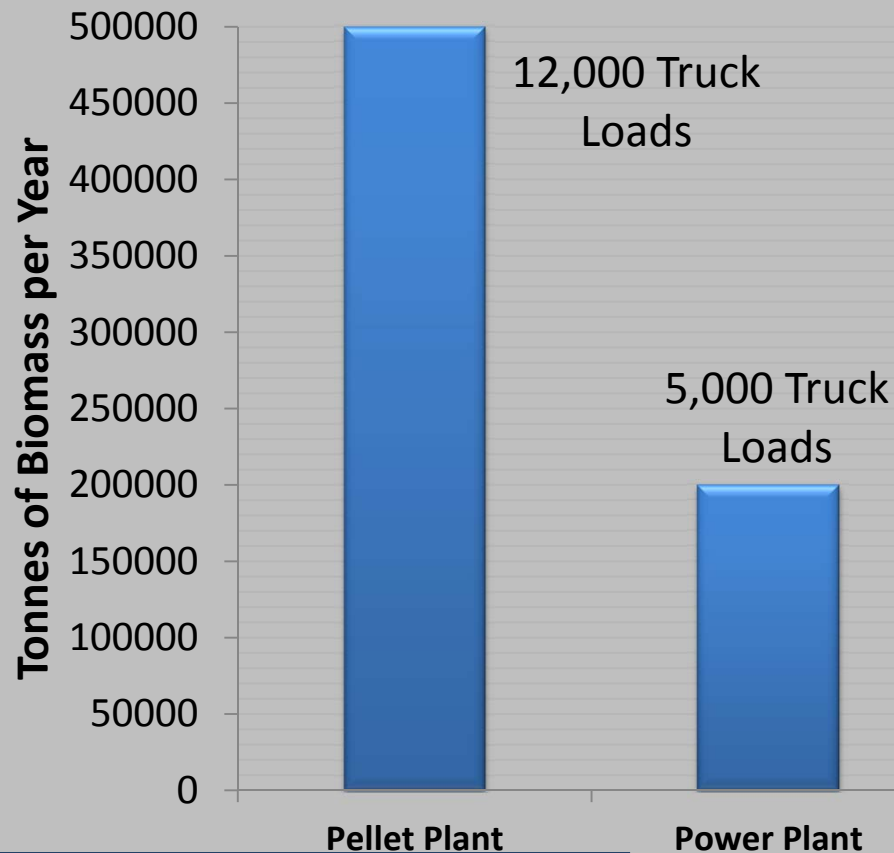
- 402,000,000 ha or 41% of Canada is Forest
- 66% of BC's – 60,000,000 ha - is forest.
- < 1% of BC Forests are harvested annually.
- BC Pellet Mills produced 1,950,000 Tonne in 2012
- Canada estimates 20,000,000 Tonne SUSTAINABLE potential.



How Much Do I Need?



Typical Biomass Consumption by Usage



FINK
MACHINE INC.

WOOD WASTE
2 RURAL HEAT



Notes on Wood Pellets



- Uniform in shape & energy content
5000 kWh/Tonne
- Lower capital cost of installation
- Higher fuel cost per tonne
- Quantity per m³ = 650kg/m³



FINK
MACHINE INC.



Notes on Wood Chips



- Chips need to be very clean and consistent
- Moisture below 35% is IDEAL but as high as 55%
- kWh / kg – Does not vary much between wood species
- Higher Capital Cost for Storage and Transport of Chips, Shavings, Grindings, Mix vs. Pellets.
- Quantity m³ = 160 – 300 kg/m³



On a Scale of 0% to 65%



Wood Pellets

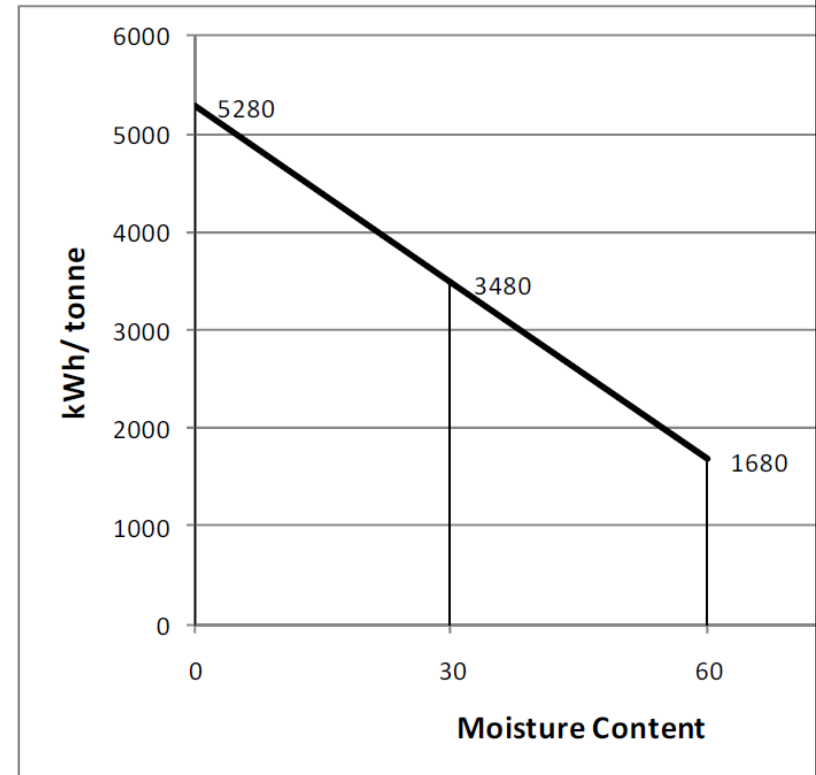
Dimensional Waste
– Pallets, 2x4 etc.

Kiln Dry Chips

Outside Pile of Dry
Chips

Road Side Trimmings

Moisture content %	Wood energy (kWh / tonne)
0%	5280
5%	4980
10%	4680
15%	4380
20%	4080
25%	3780
30%	3480
35%	3180
40%	2880
45%	2580
50%	2280
55%	1980
60%	1680
65%	1380



FINK
MACHINE INC.

Highland Birchwoods web site
www.highlandbirchwoods.co.uk/



**HIGHLAND
BIRCHWOODS**

Coille Beithe na Gàidhealtachd

How Much for Biomass?



- How much can you pay and how much do you need?
- cost is VERY local market driven
- need to understand local market
 - What goes where?
 - How much do they pay?
 - How long is the contract?
- from -\$30 to \$120 per tonne



Cost and Emissions



Fuel Comparisons (kWh)		Emission Comparisons (kWh)	
Fuel Types	Cents / kWh	Fuel Types	kg of CO2e / kWh
Wood Chips 50% MC	1.0 – 2.25	Wood Chips	.008 up to .039
Wood Pellets 5% MC	2.25 – 3.5	Wood Pellets	.050
Natural Gas	3.0 – 6.0	Natural Gas	.1773
BC Hydro	6.8 & 10.19	BC Hydro	.0000171
Heating Oil	7.0 – 9.0	Heating Oil	.266
Propane	8.5 – 11.0 (25)*	Propane	.214

CARBON NEUTRAL?

- Some studies wood biomass is worse than coal
- In other studies it produces 75% more CO2 than Natural Gas
- **Good News** → BC M.O.E. Best Practices for GHG Emissions along with U.K. & EU countries, woody biomass used from wood waste streams or landfills is CO2 neutral. **NOTE: are to Record Bio CO2 = 93.33 kg/GJ**

How Much for Biomass?



FINK
MACHINE INC.
134 Old Vernon Rd, Enderby, BC V0E 1V0
Tel: 250-638-0077
Web: www.finkmachine.com

State of the Art Bio Energy Heating Systems
Revolutionary Wood Heating Technology
Highly Economical For Commercial, Industrial Buildings

Metric - Heating Values and Cost Comparisons for Various Fuel Types

TYPE OF FUEL	Wood Chips / Grindings				Softwood	Hardwood	Wood Pellets	Firewood (Douglas Fir)	Electricity	Natural Gas	Natural Gas	Fuel Oil		Propane
	Green (50% WC)	Semidried (30% WC)	Air-dried (20% WC)	Dimensional Lumber (10% WC)	(kiln dried) (13% WC)	(kiln dried) (8% WC)	(5-7% WC)	(20% WC)				Red Diesel #2	Diesel / Oil#6	
Heating Value	1,900	3,499	3,957	4,650	4,361	4,490	4,907	6,155	1.000	1.000	11.020	10.743	11.840	7.100
	kWh/tonne	kWh/tonne	kWh/tonne	kWh/tonne	kWh/tonne	kWh/tonne	kWh/tonne	(kWh/Cord)	kWh	GJ	kWh/M3	kWh/L	kWh/L	kWh/L
\$ per kWh	\$ per tonne	\$ per tonne	\$ per tonne	\$ per tonne	\$ per tonne	\$ per tonne	\$ per tonne	\$ per Cord	\$ per kWh	\$ per GJ	\$ per cu/metre	\$ per L	\$ per L	\$ per L
0.0100	19.00	34.99	39.57	46.50	43.61	44.90	49.07	61.55	0.0100	2.780	0.110	0.1074	0.1184	0.07
0.0125	23.75	43.73	49.47	58.13	54.52	56.13	61.34	76.93	0.0125	3.475	0.138	0.1343	0.1480	0.089
0.0150	28.50	52.48	59.36	69.75	65.42	67.36	73.61	92.32	0.0150	4.170	0.165	0.1611	0.1776	0.107
0.0200	38.00	69.97	79.15	93.00	87.23	89.81	98.14	123.09	0.0200	5.560	0.220	0.2149	0.2368	0.142
0.0225	42.75	78.72	89.04	104.63	98.13	101.04	110.41	138.48	0.0225	6.255	0.248	0.2417	0.2664	0.160
0.0250	47.50	87.47	98.94	116.25	109.03	112.26	122.68	153.87	0.0250	6.950	0.276	0.2686	0.2960	0.178
0.0275	52.25	96.21	108.83	127.88	119.93	123.49	134.95	169.26	0.0275	7.645	0.303	0.2954	0.3256	0.195
0.0300	57.00	104.96	118.72	139.50	130.84	134.71	147.22	184.64	0.0300	8.340	0.331	0.3223	0.3552	0.213
0.0350	66.50	122.45	138.51	162.75	152.64	157.17	171.75	215.42	0.0350	9.730	0.386	0.3760	0.4144	0.249
0.0400	76.00	139.95	158.30	186.00	174.45	179.62	196.29	246.19	0.0400	11.120	0.441	0.4297	0.4736	0.284
0.0450	85.50	157.44	178.08	209.25	196.26	202.07	220.82	276.96	0.0450	12.510	0.496	0.4834	0.5328	0.320
0.0500	95.00	174.93	197.87	232.50	218.06	224.52	245.36	307.74	0.0500	13.900	0.551	0.5372	0.5920	0.355
0.0550	104.50	192.43	217.66	255.75	239.87	246.98	269.90	338.51	0.0550	15.290	0.606	0.5909	0.6512	0.391
0.0600	114.00	209.92	237.45	279.00	261.68	269.43	294.43	369.28	0.0600	16.680	0.661	0.6446	0.7104	0.426
0.0627	119.13	219.37	248.13	291.56	273.45	281.55	307.68	385.90	0.0627	17.431	0.691	0.6736	0.7424	0.445
0.0650	123.50	227.41	257.23	302.25	283.48	291.88	318.97	400.06	0.0650	18.070	0.716	0.6983	0.7696	0.462
0.0680	129.20	237.91	269.11	316.20	296.57	305.35	333.69	418.52	0.0680	18.904	0.749	0.7305	0.8051	0.483
0.0700	133.00	244.91	277.02	325.50	305.29	314.33	343.50	430.83	0.0700	19.460	0.771	0.7520	0.8288	0.497
0.0750	142.50	262.40	296.81	348.75	327.09	336.79	368.04	461.61	0.0750	20.850	0.827	0.8057	0.8880	0.533
0.0800	152.00	279.90	316.59	372.00	348.90	359.24	392.58	492.38	0.0800	22.240	0.882	0.8594	0.9472	0.568
0.0850	161.50	297.39	336.38	395.25	370.71	381.69	417.11	523.15	0.0850	23.630	0.937	0.9132	1.0064	0.604
0.0878	166.82	307.19	347.46	408.27	382.92	394.26	430.85	540.39	0.0878	24.408	0.968	0.9432	1.0396	0.623
0.0900	171.00	314.88	356.17	418.50	392.51	404.14	441.65	553.93	0.0900	25.020	0.992	0.9669	1.0656	0.639
0.1000	190.00	349.87	395.74	465.00	436.13	449.05	490.72	615.47	0.1000	27.800	1.102	1.0743	1.1840	0.710
0.1019	193.61	356.52	403.26	473.84	444.41	457.58	500.05	627.17	0.1019	28.328	1.123	1.0947	1.2065	0.723
0.1100	209.00	384.86	435.32	511.50	479.74	493.95	539.79	677.02	0.1100	30.580	1.212	1.1817	1.3024	0.781
0.1200	228.00	419.84	474.89	558.00	523.35	538.86	588.87	738.57	0.1200	33.360	1.322	1.2892	1.4208	0.852
0.1300	247.00	454.83	514.47	604.50	566.96	583.76	637.94	800.12	0.1300	36.140	1.433	1.3966	1.5392	0.923
0.1400	266.00	489.82	554.04	651.00	610.58	628.67	687.01	861.66	0.1400	38.920	1.543	1.5040	1.6576	0.994
0.1500	285.00	524.80	593.61	697.50	654.19	673.57	736.08	923.21	0.1500	41.700	1.653	1.6115	1.7760	1.065
0.1975	375.25	690.99	781.59	918.38	861.35	886.87	969.17	1215.56	0.1975	54.905	2.176	2.1218	2.3384	1.402
0.2500	475.00	874.67	989.36	1162.50	1090.31	1122.62	1226.80	1538.69	0.2500	69.500	2.755	2.6858	2.9600	1.775
0.3000	570.00	1049.61	1187.23	1395.00	1308.38	1347.14	1472.16	1846.42	0.3000	83.400	3.306	3.2229	3.5520	2.130
0.3500	665.00	1224.54	1385.10	1627.50	1526.44	1571.67	1717.52	2154.16	0.3500	97.300	3.857	3.7601	4.1440	2.485

*Source Information compiled by Fink Machine Inc. with template from FPL, US EPA and UK Carbon Trust Values Incorporated into chart.

Challenge of Biomass Heating



- Retrofit to Hydronic Heating
- Capital vs. Operating Cost
- **Education!**

Biomass heat system scrapped

The city has abandoned its plan to power an innovative district heat system for its Olympic Village site by burning wood waste, because people just couldn't believe it was a good environmental choice.

Vancouver Sun April 18, 2007

STOP LETHAL INCINERATORS IN DOWNTOWN SEATTLE!
PROTEST + MARCH
JUNE 11TH / 11AM
PIKE PLACE MARKET
VICTOR STEINBRUECK PARK AT NORTH END OF MARKET, 2001 WESTERN AVE.



TWO SEATTLE STEAM INCINERATORS
THREATEN TO TURN DOWNTOWN SEATTLE INTO A LETHAL POLLUTION ZONE. ONE INCINERATOR NEAR PIKE PLACE MARKET IS ALREADY BURNING "DIRTY" WASTE WOOD. THE HUGE 50MW, \$80M INCINERATOR PLANNED NEAR PIONEER SQUARE WOULD EMIT KILLER PARTICLE POLLUTION AND MORE THAN 200,000 TONS PER YEAR OF CARBON DIOXIDE

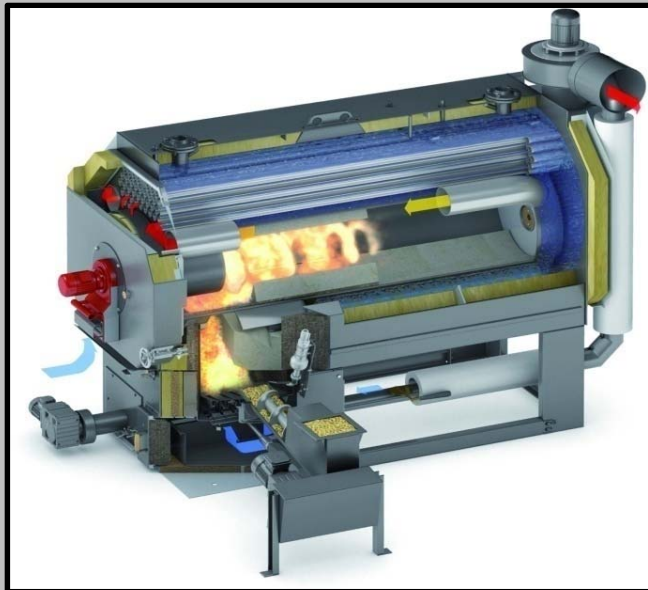
NOBIOMASSBURN.ORG
contact: duff@nobiomassburn.org | 206-283-0621

JOIN US to fight both incinerators: Stop pollution in downtown Seattle so lethal it can "kill on the very day" of exposure!
-source: american lung assn.

Old is New

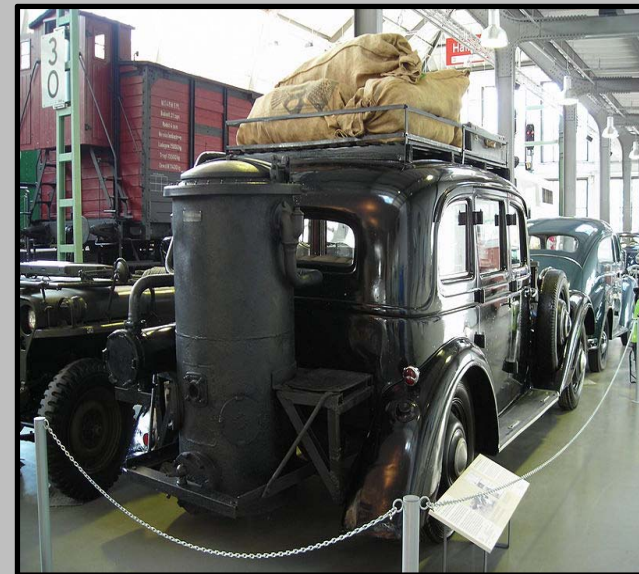
Viessmann - KOB Pyrot Biomass Boiler

10,000 KOB systems worldwide
principles of gasification with modern
technology
low emission, 85+% efficient



1941 Adler Diplomat 3

By 1945, end of WW2 – 9,000,000
vehicles were travelling on syn
gas all over the world.



FINK
MACHINE INC.

Hot Model

Since Inception 1995

Patented Burn Chamber

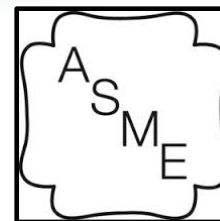
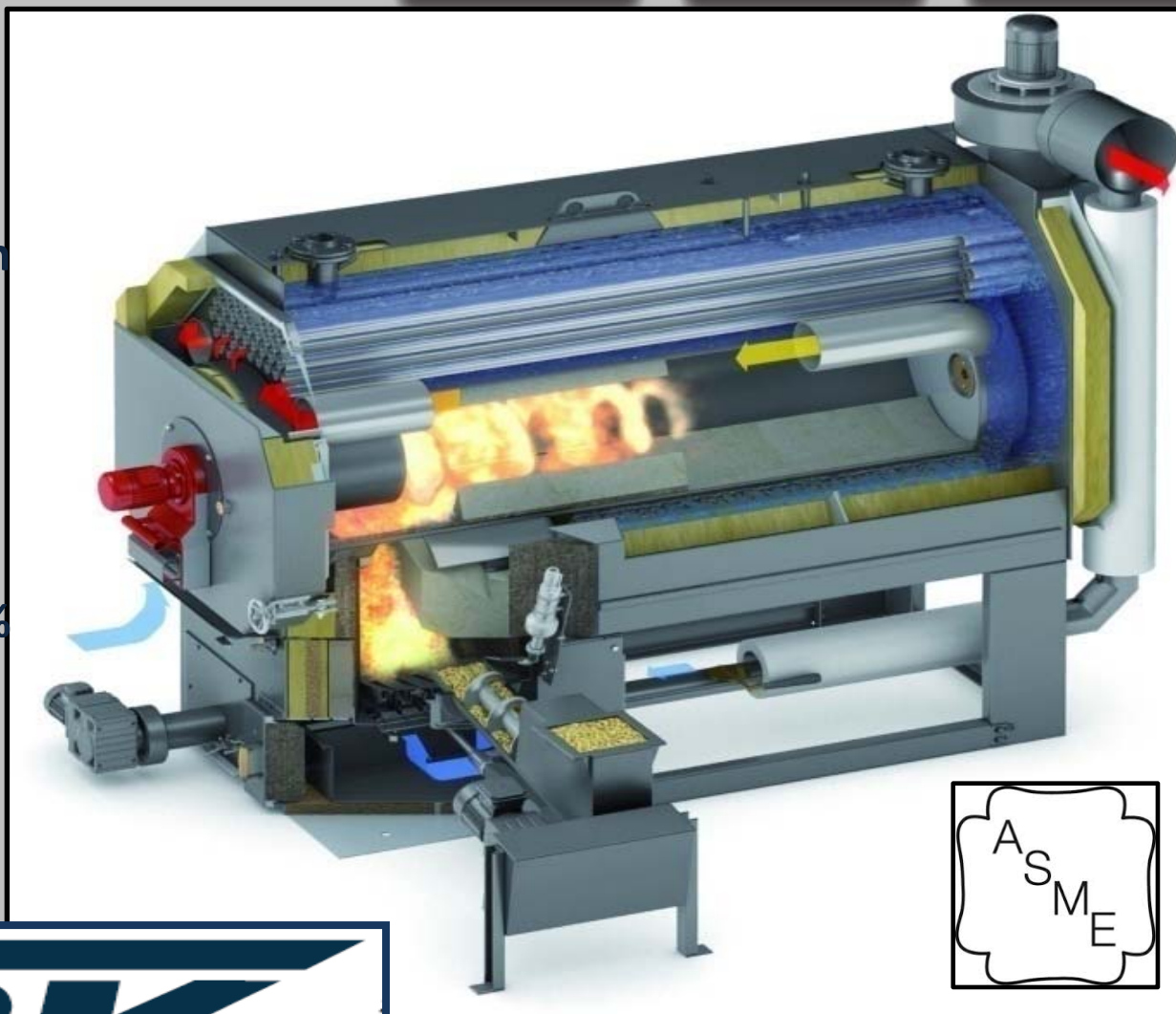
Awards for Innovation

540kW

Feed Design

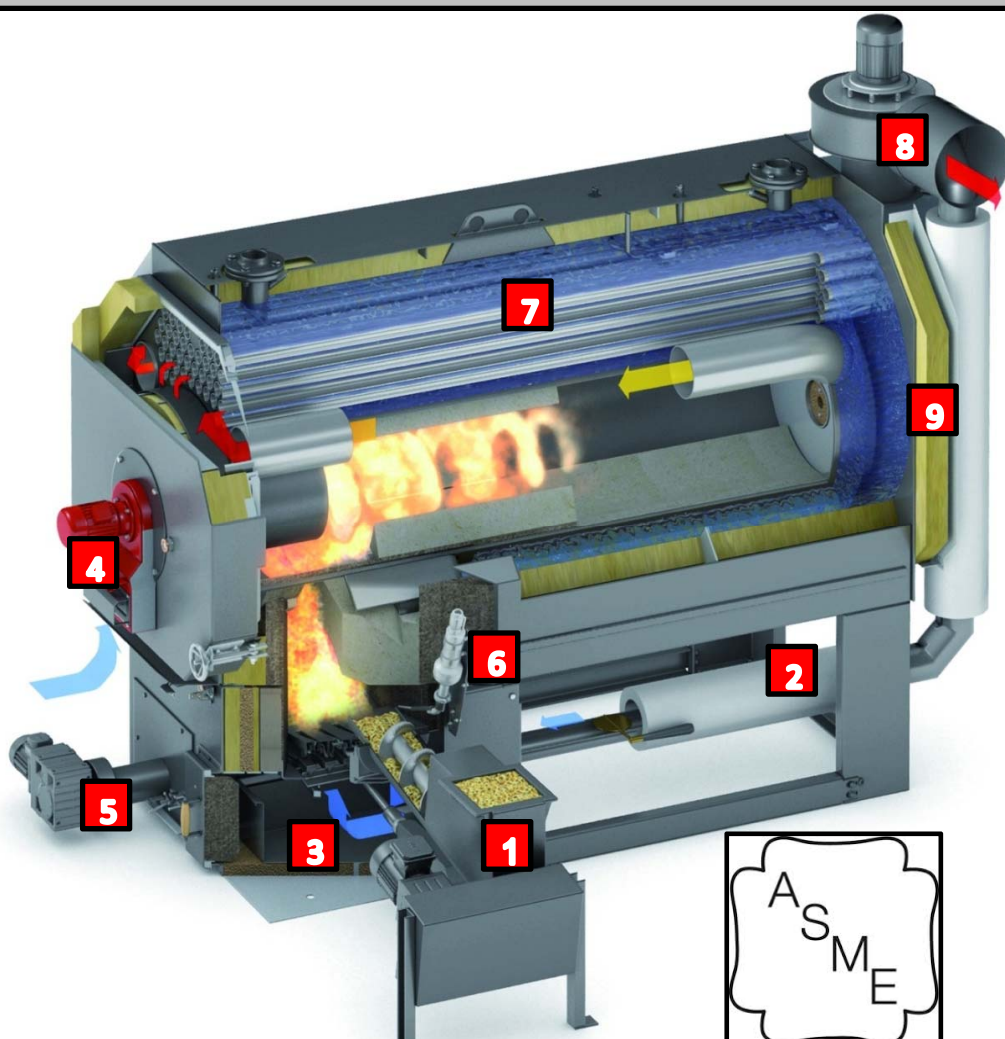
Efficient burn. 85-90%
Fuel efficient

Wet Content Fuel



At A Wood Stove

Feed auger and Grate
Recirculation Gas – 7 to 10% O₂
Primary Air - 800 Deg C
(Low Nox & Low Clinker)
Secondary Air – 1100 Deg C
(Complete Combustion – CO₂)
Ash-ashing system
Ignition
Triple pass heat exchanger
Induced draft fan
High Density Insulation



otec Model



n Inception 1987

al 1000 worldwide

V to 1250kW

feed / Grate Design

efficient burn. 85-
thermal efficient

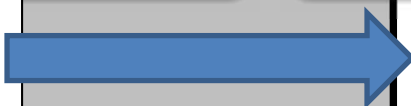
Wet Content Fuel



emission Control – GVRD 1190



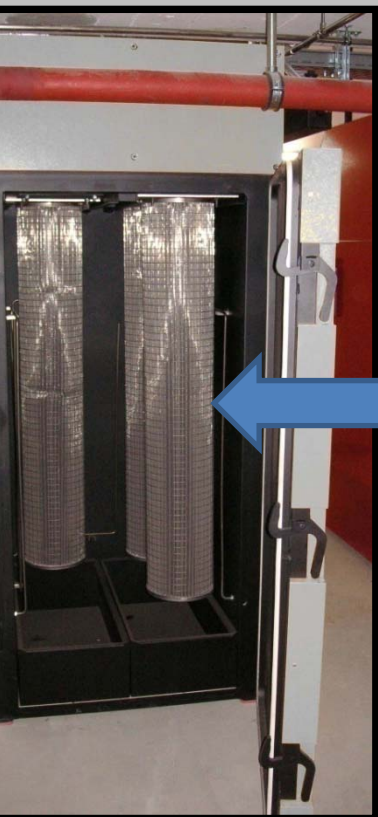
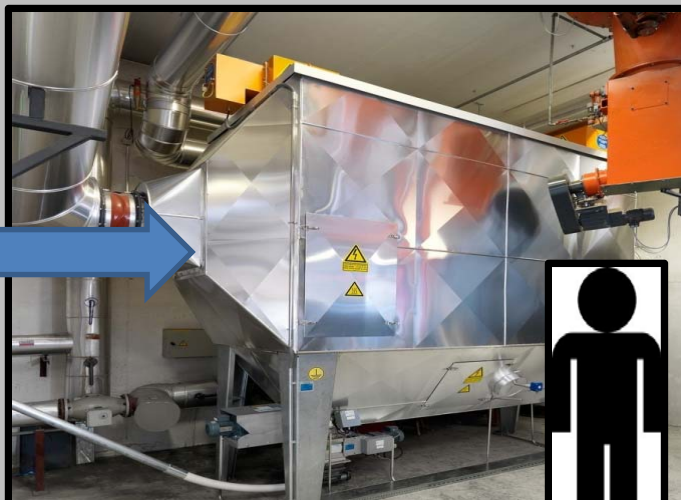
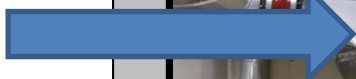
**Flue Gas
Cyclone PM 10**



**Metal Mesh
Filtration
PM 2.5
< 18 mg/Nm3**



**Electrostatic
Precipitator
PM 2.5
< 18 mg/Nm3**



Black Enderby District Energy



out this System



1st of it's Kind in Canada:

- **Privately Funded**
- **Owner / Operator Model**
- **<1MW in size**
- **In Natural Gas Territory**

Built Entire Ourselves

- **Retrofitted Clients facilities**
- **Installed Line ourselves for \$400 L/M (Line, Labour, Trench)**



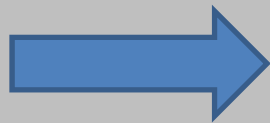
ts and Figures



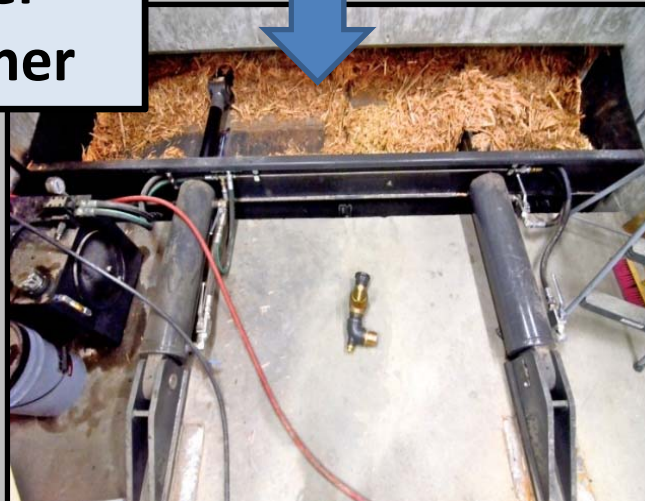
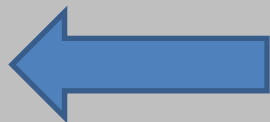
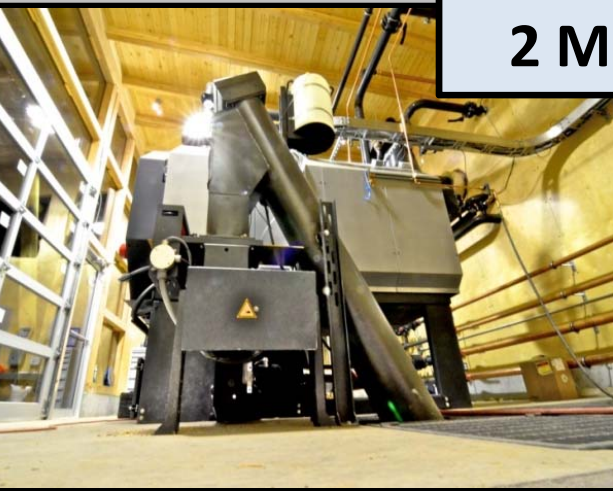
- Present: 275 TPY (50% Capacity)
- Winter: 20T truck load/week
- Approximately 225t GHG year
- Fuel: wood chips 25 - 60 minutes away.
- Fuel options in region.
- Price \$35 - \$60 BDT
- Viessmann Gas Boiler Back-up (have not used back-up once!)
- Estimated Payback 15 years (10 Years with IHA & Senior Complex)
- OPERATIONAL IN 8 MONTHS



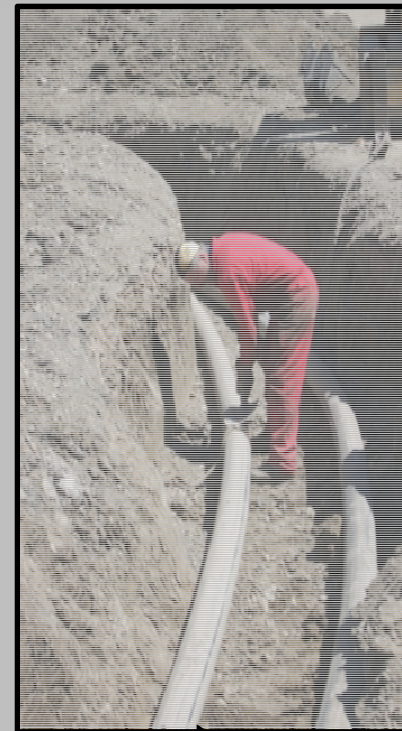
el to Energy



**Hold 50 Tonne
2 Weeks Winter
2 Months Summer**



oving Energy



Boiler

Water Mgmt Tanks

Manifold

Clients



Customer Enderby Pool



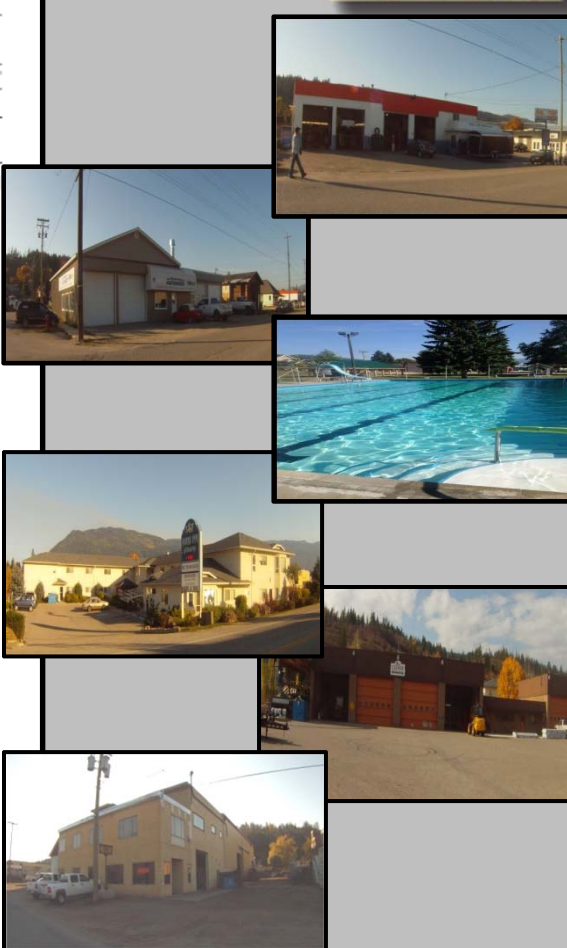
alled 250 metres
erational in 3 Weeks
sonal Heat Load
at Demand - 85kW



District Layout in 2014...



Present Customers (Map A)



Present Customers

- 1 Tony's Tire (35 kW)
- 2 Edwin D. (15 kW)
- 3 Enderby Autobody (35 kW)
- 4 Enderby Lions Pool (80 kW)
- 5 Royal Inn (DHW) (15 kW)
- 6 Cedar Solution (60 kW)
- 7 Fink Machine (85 kW)
- 8 Boiler House (Pyrot 540)
- 9 ENFAB (90kW)

Future Customers

- 1 Parkview Place (120 kW)
- 2 Marvin's Mechanical (20 kW)
- 3 CNC (45 kW)

atsin First Nation 2015



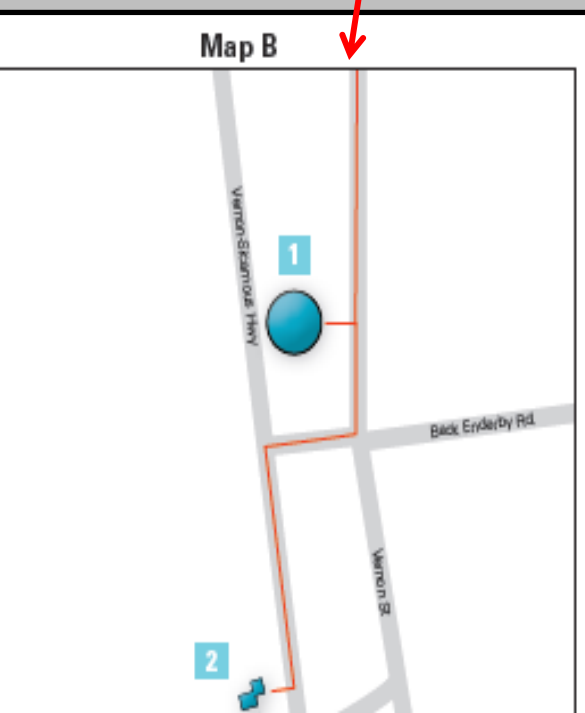
customers for 2014-15

atsin First Nation – Conference Facility 30,000 sq/ft

atsin First Nation – Gas Station / Restaurant 13,000 sq/ft



- 950 metres of new district lines
- No Internal Redundancy Heating Systems



of in Print

 E C O M - E N 2 *

atum Zeit
 5.11.13 11:25:48

 -Norm M 7510

rennstoffart
 od (17% H_2O)

Luft	34	°C
Gas	128	°C
	7.1	%
10% O_2	2	mg/m ³
02 10% O_2	91	mg/m ³
02	13.5	%
ta	85.4	%
erluste	14.6	%
mbda	1.51	

 ank Machine Inc.
 4 old Vernon Rd.
 nderby B.C.
 DE 1VO



80 kW Energy Transfer Station



ing Customers



CS	P
Wh	m³MWh
	daily consumption
	today's peak power
	total peak power
	max. station

ambient temp.



1 Swimming Pool

name:

adress: Old Vernon Rd

average ambient temp.

11.6 °C

control

10.8 °C

switch off

Clients have found 10-15% direct decrease in Heating Costs:

- Improved Efficiencies (OLD units)
- Transfer of Maintenance Costs

water

Wh energy
m³ volume
W current power

difference





BRITISH COLUMBIA



Boer Furniture: 1st Install 2003



- Size: 30,000 sq ft plant
- Boiler: Pyrot 540 kW
- Fuel: Chips and Sawdust
- Owner physically removed gas line from property!
- Gas Displaced 5850GJ
- GHG Reduction 119 Tonne
- Payback was < 5 Years

Boet Aquatic Centre

ed 2011 – Pyrot 400

Wood Pellets

ng Source: UBCM (Union BC Municipalities)

egic Priorities & Innovation Fund \$467,000

g 30% over Propane

onne CO2e Reduction GHG



WOOD WASTE
2 RURAL HEAT



Table 5 - Rate of Return

	Boiler System Only Actual	Entire BEP Actual
Total Project Capital Investment	\$411,000	\$705,000
DoL Investment	\$140,000	\$238,000
Savings	\$26,000	\$26,000
Simple Payback	5.4 Years	9.2 Years
Net present Value (15 years and 7%)	\$96,806	\$152,000
Internal Rate of Return	17%	7%



School District #79

Cowichan Secondary School

Fit Scenario

g Boilers Averaged 67,500 litres of
Oil

school consumed 60% of the Fuel
the School District



ool District #79

Cowichan Secondary School



OPTIONS	<i>Propane Fired Condensing Boiler</i>	<i>Air Source Heat Pumps</i>	<i>Ground Source Heat Pumps</i>	<i>Biomass Boiler</i>
Project Cost	\$250,000	\$490,000	\$870,000	\$490,000
Energy Efficiency Increase	23.3%	67%	75.2%	23.3%
Utility Cost Savings	(\$20,000)	\$22,750	\$31,000	\$37,000 - \$55,000
Electrical Increase kWh	None	171,000	182,000	None
GHG Reduction tCO2e	83.3	194	211	168



School District #79

Cowichan Secondary School

Installation: February 2014

Canadian Neutral Funding (CNCP) \$217,375

Local District Funding \$272,625

Payback 4.6 – 6.5 Years

CO₂ Reduction 75% or 160 Tonne



Lonnie Schemerhorn: Capital Coordinator



ALBERTA



Madsen Cabinets

nton, AB

standing Customer (2003)

0 sq/ft production plant
ake-up spray booth

540 Boiler

50mm Briquettes & Mill Waste

placement 6860 GJ
eduction: 336 Tonne
ck 5.5 Years



Administration Office



Rose County Sustainable Wood Energy Project

3

: 2365 sq/m

: 120 tonne of chips per annum

graded 55% efficient gas for 85% efficient woody biomass

L Award for Innovation



CO Waste Solutions

rd Ave. Landfill, Calgary

Customer: Installed 2 – 540kW Pyrot

g Coverall Building 2008

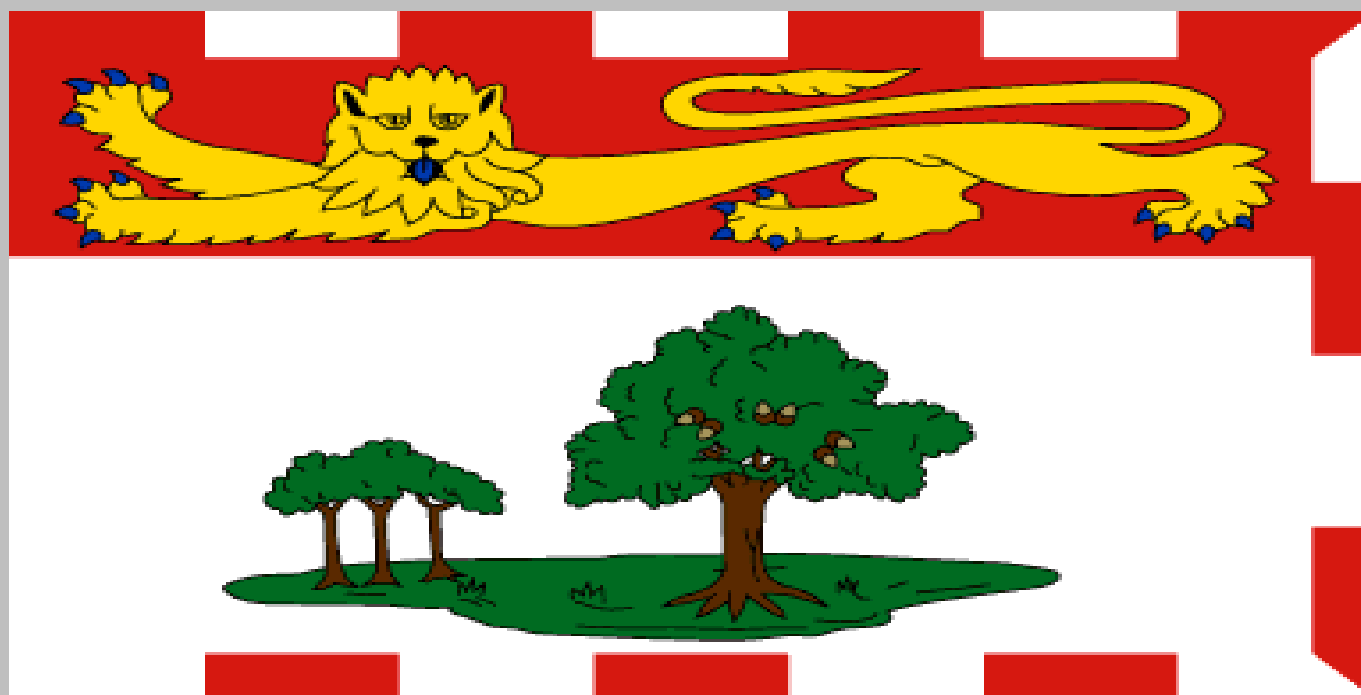
MRF Building in 2011

lean Construction Waste (Pallets, etc.)





PRINCE EDWARD ISLAND



Fuel Oil as of November 30th : 93.7 cents/Litre

Atlantic Bio Heat:

→ Supply Contract Heat to Total 7 Buildings



Westisle Composite School

Pyrotec 720, installed 2010

Size: 180,000 sq/ft

Dick Arsenault: Atlantic Bio-Heat

**Fuel: Wood Chips – New Brunswick
& PEI – Forest Mgmt Programs**

Oil Displacement 210,000 L/year

GHG Reduction 660 Tonnes

Payback <6 years



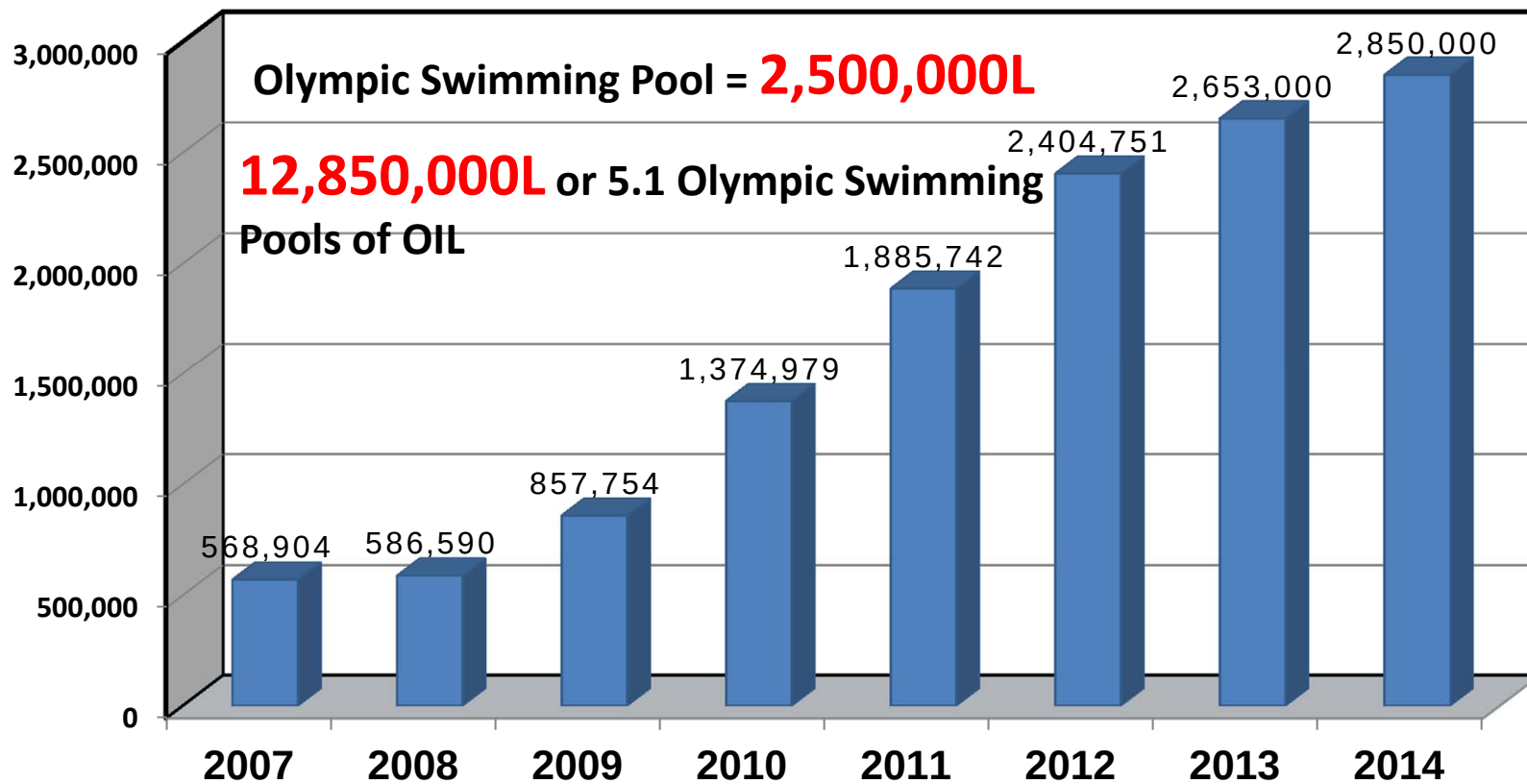


NORTHWEST TERRITORIES



2006 -2013 → 16 Systems in GNWT

(by KOB-Viessmann / Fink Machine Inc.)



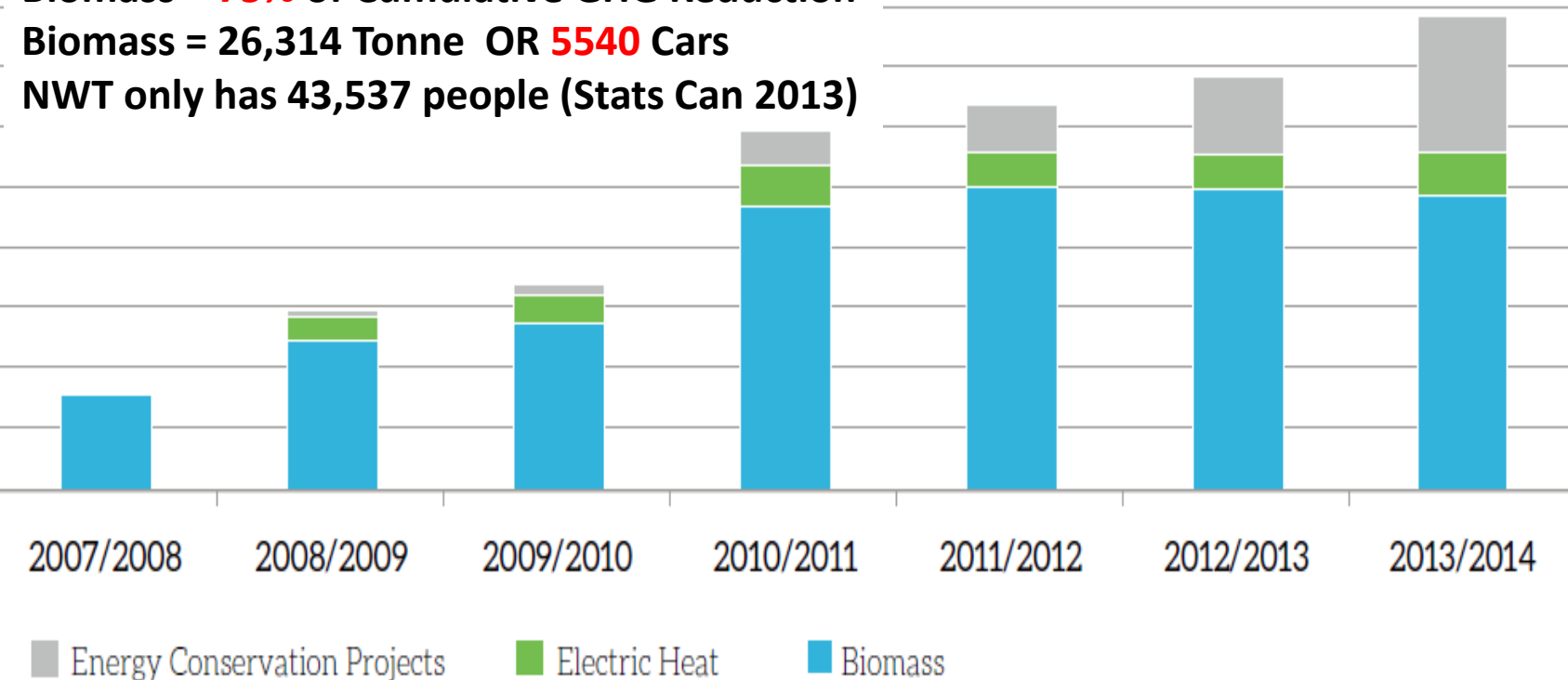
2014 - 2015 → 8 More Systems Coming

(24 GNWT systems are Fink Machine Inc.)



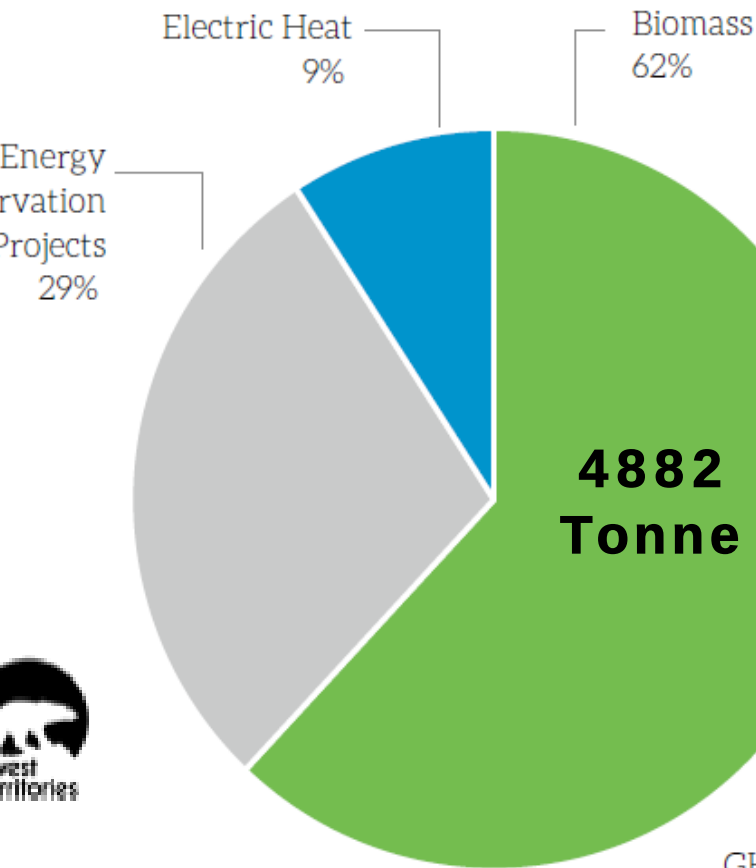
Annual Reductions in GHG Emissions (Tonne)

Biomass = **75%** of Cumulative GHG Reduction
Biomass = 26,314 Tonne OR **5540** Cars
NWT only has 43,537 people (Stats Can 2013)



2014 -2015 → 8 More Biomass

(24 GNWT systems are Fink Machine Inc.)



Fiscal Year 2013 / 2014 – 15 Biomass Systems

produced **\$594,000** in Operational Savings

Biomass is **30%** cheaper than Heating Oil

\$5,800,000 saved since 2007

Fiscal 2014/2015 - 24 Biomass Systems:

-11,500 Tonnes of GHG Annual Reduction

- Reinvest **\$1,720,000** into Capital Asset Retrofit Fund

North West Territories



Ecole St. Joseph School Yellowknife, NWT

- 540 kW Pyrot Pellet Boiler
- Fuel Oil reduction 102,000 liters per year

Legislative Assembly Building

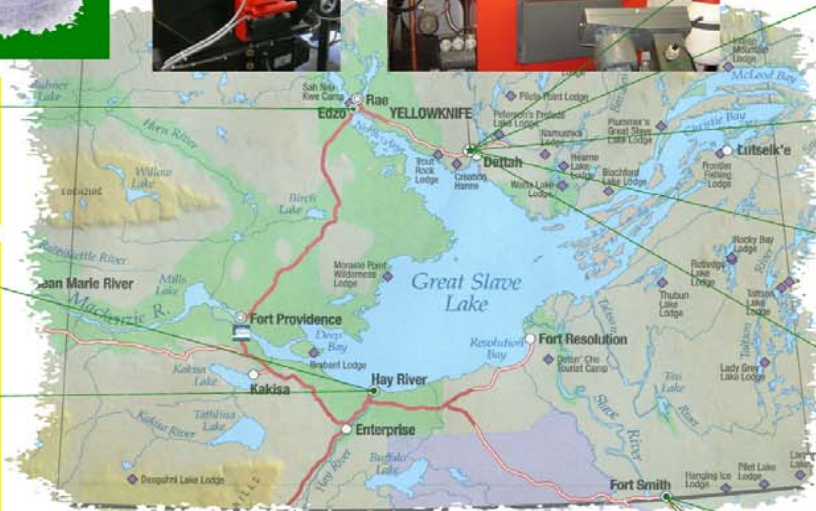
- 300kW BINDER Boiler
- Fuel Oil displaced 99,000 liters per year

BIOMASS HEATING SYSTEMS FOR GNWT BUILDINGS



INSTALLED AND PLANNED WOOD PELLET BOILERS

OCTOBER 2009



Chief Jimmy Bruneau School, Behchoko

- One KOB 750 kW wood pellet boiler
- Expected fuel oil reduction of 155,000 litres per year
- Expected GHG reduction of 410 tonnes per year
- Installation completed in 2009

Highways Maintenance Garage, Hay River

- One KOB 260 kW wood pellet boiler
- Fuel oil reduction of 100,000 litres per year
- Expected GHG reduction of 270 tonnes per year
- Installation to be completed in 2010

Central Heating Plant Serving Four Schools, Hay River

- One KOB 1 MW wood pellet boiler
- Expected fuel oil and propane reduction equivalent to 318,000 litres of fuel oil per year
- Expected GHG reduction of 850 tonnes per year
- Installation to be completed in 2010
- Diamond Jenness School & new Tradeshop
- Harry Cammell School
- Ecole Boreale
- Princess Alexandra School



A BRIEF HISTORY

The first wood pellet boilers for a Territorial Government building were installed at the North Slave Correctional Centre in 2006. Arctic Green Energy (AGE) owns and installed the boiler, and sells heat to the Government of the NWT (GNWT). Thanks to the success of that project, the GNWT is now investing in its own wood pellet boilers for other facilities, where economically viable.

Since the cost to transport wood pellets is higher than that of other fuels, the most viable locations for wood pellet boilers are those closest to the source of wood pellets. Currently, that source is in La Crete in northern Alberta. Therefore, the GNWT is investing in wood pellet boilers in communities on the road network in the South and North Slave regions.

Kalemi Dene School, N'Dilo

- Three Bosch MESys 23 kW wood pellet boilers
- Expected fuel oil reduction of 30,000 litres per year
- Expected GHG reduction of 80 tonnes
- Installation completed in September 2009



North Slave Correctional Facility, Yellowknife

- Two BINDER 750 kW wood pellet boilers
- Fuel oil reduction of 587,000 litres in 2008
- GHG reduction of 1,560 tonnes in 2008
- Installation completed in November 2006



Legislative Assembly Building, Yellowknife

- One BINDER 300 kW wood pellet boiler
- Expected fuel oil reduction of 63,000 litres per year
- Expected GHG reduction of 220 tonnes per year
- Installation to be completed in 2009/10



St Joes School, Yellowknife

- One KOB 540 kW wood pellet boiler
- Expected fuel reduction of 102,000 litres per year
- Expected GHG reduction of 270 tonnes per year
- Installation completed in 2009



Sir John Franklin School, Yellowknife

- One BINDER 750 kW wood pellet boiler
- Expected fuel reduction of 142,500 litres per year
- Expected GHG reduction of 360 tonnes per year
- Installation completed in 2008



PWK School & Recreation Complex, Fort Smith

- One KOB 750 kW wood pellet boiler
- Expected fuel oil reduction of 200,000 litres per year
- Expected GHG reduction of 530 tonnes per year
- Installation to be completed in 2010



Thebacha College, Fort Smith

- One KOB 750 kW wood pellet boiler
- Expected fuel oil reduction of 200,000 litres per year
- Expected GHG reduction of 530 tonnes per year
- Installation to be completed in 2010



Health Centre, Fort Smith

- One KOB 750 kW wood pellet boiler
- Expected fuel oil reduction of 200,000 litres per year
- Expected GHG reduction of 530 tonnes per year
- Installation to be completed in 2010



Anderson Thomson Tower

AR
DEVELOPMENTS
LTD
(EST. 1974)

Viessmann-KOB USED Pyrotec 720 kW
Installation: 2013
1 year payback

Wood Pellets Back-Up: Oil Boilers

plans an installation of a Viessmann-
for his 2nd Hotel Tower in Yellowknife.



Variety of Installs



Industrial – ECCO Waste

Residential D.E.

Educational – E.M.E



First Nations

Hospitals

Government Facilities





Thank You for Coming

January 8th, 2015 School District 79 will be hosting a site visit at Lake Cowichan Secondary School. Please see me if you are interested.

<http://www.youtube.com/watch?v=EggSPcpohuM#action=share>

