

Committee-of-the-Whole Agenda

6:30 p.m.

Tuesday, September 16, 2014

Proclamation

A Proclamation from the HAVlife™ Foundation to declare September 19, 2014, as “Preventing Lost Potential Day.”

Questions on the Agenda

Agenda Items

1. **Purchase of Six Compressed Natural Gas Maintenance Vehicles** (JD Schulte, Fleet Services Manager)
2. **Other**

Explanation

1. **Purchase of Six Compressed Natural Gas Maintenance Vehicles** (JD Schulte, Fleet Services Manager)

Explanation: The Fleet Services staff has budgeted to replace six maintenance vehicles for the Public Works Department in 2014. These units have all exceeded their reliable, useful life. Each of these units can be more efficiently replaced with a model that operates on compressed natural gas (CNG). The Suburban Purchasing Cooperative has a joint purchase contract available with Currie Motors Ford in Frankfurt, Illinois, that offers discounted pricing for all of these units. Using lifecycle costing to compare the fossil fuel drivetrain to the CNG drivetrain, CNG is the lowest cost option for these applications. Staff is requesting the approval to purchase six units as specified along with the authorization to reassign and in due course, dispose of six units by the method most advantageous to the City. Additional documentation is attached.

Staff Recommendation: Approval of Joint Purchase Contract with Currie Motors Ford in Frankfurt, Illinois, in the amount of \$213,960.00

Fiscal Impact: \$280,660.00 is budgeted in Fleet Services Account #448-0867-437.07-03

Public Notice/Recording: N/A

Goals Impacted: Financially Strong City

Options ↓↓↓↓	Unit →	113	803	Option Totals
Ford F250 XL 4X2 Super Cab Contract #142	\$23,318.00	2015	2015	\$46,636.00
Oxford White Exterior	\$0.00	X	X	\$0.00
Grey Interior	\$0.00	X	X	\$0.00
Venchurs CNG Conversion System	\$8,750.00	X	X	\$17,500.00
License and Title	\$105.00	X	X	\$210.00
Dealer Delivery	\$185.00	X	X	\$370.00
CNG Factory Prep package	\$268.00	X	X	\$536.00
Ship Thru Charge for F250	\$400.00	X	X	\$800.00
Total Cost per vehicle	\$33,026.00			\$66,052.00

Options ↓↓↓↓	Unit →	503
Ford F250 XL 4X4 Crew Cab Contract #142	\$26,924.00	2015
7'6" Plow	\$4,795.00	X
Oxford White Exterior	\$0.00	X
Grey Interior	\$0.00	X
Venchurs CNG Conversion System	\$8,750.00	X
License and Title	\$105.00	X
Dealer Delivery	\$185.00	X
CNG Factory Prep package	\$268.00	X
Ship Thru Charge for F250	\$400.00	X
Total Cost	\$41,427.00	

Options ↓↓↓↓	Unit →	714	109	Option Totals
Ford Transit Connect Cargo Van Contract #139	\$24,968.00	2015	2015	\$49,936.00
Frozen White Exterior	\$0.00	X	X	\$0.00
Pewter Vinyl Interior	\$0.00	X	X	\$0.00
Venchurs CNG Conversion System	\$8,350.00	X	X	\$16,700.00
CNG Factory Prep package 2.5L Engine	\$268.00	X	X	\$536.00
Shipping Charge for Transit Connect	\$450.00	X	X	\$900.00
Total Cost per vehicle	\$34,036.00			\$68,072.00

Options ↓↓↓↓	Unit →	211
Ford F250 XL 4X2 Utility Contract #142	\$19,511.00	2015
Service Body with Tailgate lift system	\$9,190.00	X
Oxford White Exterior	\$0.00	X
Grey Interior	\$0.00	X
Venchurs CNG Conversion System	\$8,750.00	X
License and Title	\$105.00	X
Dealer Delivery	\$185.00	X
CNG Factory Prep package	\$268.00	X
Ship Thru Charge for F250	\$400.00	X
Total Cost	\$38,409.00	

Grand Total for (6) Vehicles: \$213,960.00

	A	B	C	D	E	F	G
1	Lifecycle Cost Analysis Transit Connect Gas versus CNG						
2	Universal Variable Data			Derived Values		FORMULA/SOURCE:	
3	Target Months in Service:	96	Actual Months:	94	Actual Months in Service given the Maximum Replacement Mileage and Mileage-per-Month		
4	Target Replacement Mileage:	160,000	Actual Mileage:	160,000	Actual Miles at Replacement given the Maximum Service Months and Mileage-per-Month		
5	Expected Mileage-per-Month:	1,700	Daily Mileage:	55.9	Expected Average Miles-per-Month driven; Average Daily Miles driven given the Mileage-per-Month entered		
6	Annual Interest Rate:	2.50%	Monthly Interest:	0.208%	Annual Interest Rate/12-months		
9	Book Depreciation Rate:	1.67%			Rate currently used by Fleet Services		
10	Gasoline Fuel Cost-per-Gallon:	\$ 3.25			Average price of fuel per gallon for gasoline		
11	CNG Fuel Cost-per-Gallon:	\$ 1.08			Average price of fuel per gallon for Compressed Natural Gas (CNG)		
12	Estimated Personal Use:	0%			Percentage of personal use for which the employee reimburses the City		
14							
15		Gas Engine	CNG Engine		Models being analyzed		
16	Acquisition Cost						
17	Factory Invoice Price	\$ 24,968.00	\$ 34,036.00		Price quoted by dealer		
19	AFV Rebate Illinois EPA	\$ -	\$ (4,000.00)		Illinois EPA Green Fleet Rebate for alternative vehicle purchase		
22	Net Acquisition Cost	\$ 24,968.00	\$ 30,036.00	\$ -	Invoice Price - Fleet Incentives		
23	Fixed Costs						
24	Effective Depreciation	\$ 21,143.00	\$ 24,236.00		Net Acquisition Cost - Projected Resale Price		
25	<i>Projected Resale Price</i>	\$ 3,825.00	\$ 5,800.00		Value anticipated from historic comparisons		
28	Cost of Money	\$ 1,708.53	\$ 2,055.33	\$ -	Cost of Money not invested for rate of return. (Year 1 interest + Year 2 interest + Year 3 interest + Year 4 interest + Year 5 interest)		
29	<i>Year 1</i>	\$ 566.87	\$ 681.93	\$ -	(Net Vehicle Cost * Year 1 Interest Factor) * Year 1 Total Months		
30	<i>Year 2</i>	\$ 441.78	\$ 531.45	\$ -	(Net Vehicle Cost * Year 2 Interest Factor) * Year 2 Total Months		
31	<i>Year 3</i>	\$ 316.69	\$ 380.97	\$ -	(Net Vehicle Cost * Year 3 Interest Factor) * Year 3 Total Months		
32	<i>Year 4</i>	\$ 191.60	\$ 230.49	\$ -	(Net Vehicle Cost * Year 4 Interest Factor) * Year 4 Total Months		
33	<i>Year 5</i>	\$ 191.60	\$ 230.49	\$ -	(Net Vehicle Cost * Year 5 Interest Factor) * Year 5 Total Months		
37	<i>Delivery Days</i>	180	180		Calendar days for guaranteed delivery		
40	Total Fixed Cost:	\$ 22,851.53	\$ 26,291.33	\$ -	Actual Depreciation + Interest + Build Time Delay Cost		
41	Operating Costs						
42	Total Fuel Cost	\$ 24,761.90	\$ 7,854.55		(Actual Miles/Estimated Miles-per-Gallon) * Fuel Cost-per-Gallon		
43	<i>Estimated Miles-per-Gallon</i>	21	22		Value from actual experience		
44	Total Maintenance Cost	\$ 24,000.00	\$ 16,000.00		Actual Mileage * Estimated Maintenance Cost-per-Mile		
45	<i>Estimated Maintenance Cost-per-Mile</i>	\$ 0.1500	\$ 0.1000		Value from actual experience (Insurance, license, maintenance, etc...)		
46	Total Operating Cost:	\$ 48,761.90	\$ 23,854.55	\$ -	Total Fuel Cost + Total Maintenance Cost		
47	Personal Use Costs						
48	Fixed Cost for Personal Use	\$ -	\$ -	\$ -	Total Fixed Cost * Estimated Personal Use		
49	Operating Cost for Personal Use	\$ -	\$ -	\$ -	Total Operating Cost * Estimated Personal Use		
50	Total Personal Use Cost	\$ -	\$ -	\$ -	Fixed Cost for Personal Use + Operating Cost for Personal Use (amount to be reimbursed to City by employee)		
51							
52	Total Lifecycle Cost:	\$ 71,613.43	\$ 50,145.87	\$ -	Total Fixed Cost + Total Operating Cost - Total Personal Use Cost		
53	Lifecycle Cost-per-Mile:	\$ 0.4476	\$ 0.3134	\$ -	Total Lifecycle Cost / Actual Miles		
54							

	A	B	C	D	E	F	G
1	Lifecycle Cost Analysis F250 Diesel versus CNG						
2	Universal Variable Data			Derived Values		FORMULA/SOURCE:	
3	Target Months in Service:	120	Actual Months:	120	Actual Months in Service given the Maximum Replacement Mileage and Mileage-per-Month		
4	Target Replacement Mileage:	100,000	Actual Mileage:	96,000	Actual Miles at Replacement given the Maximum Service Months and Mileage-per-Month		
5	Expected Mileage-per-Month:	800	Daily Mileage:	26.3	Expected Average Miles-per-Month driven; Average Daily Miles driven given the Mileage-per-Month entered		
6	Annual Interest Rate:	2.50%	Monthly Interest:	0.208%	Annual Interest Rate/12-months		
9	Book Depreciation Rate:	1.67%			Rate currently used by Fleet Services		
10	Diesel Fuel Cost-per-Gallon:	\$ 3.40			Average price of fuel per gallon for Diesel Fuel (B20 ULSC)		
11	CNG Fuel Cost-per-Gallon:	\$ 1.08			Average price of fuel per gallon for Compressed Natural Gas (CNG)		
12	Estimated Personal Use:	0%			Percentage of personal use for which the employee reimburses the City		
14							
15		Diesel Engine	CNG Engine		Models being analyzed		
16	Acquisition Cost						
17	Factory Invoice Price	\$ 39,238.00	\$ 41,427.00		Price quoted by dealer		
19	AFV Rebate Illinois EPA	\$ -	\$ (4,000.00)		Illinois EPA Green Fleet Rebate for alternative vehicle purchase		
22	Net Acquisition Cost	\$ 39,238.00	\$ 37,427.00	\$ -	Invoice Price - Fleet Incentives		
23	Fixed Costs						
24	Effective Depreciation	\$ 29,966.00	\$ 24,307.00		Net Acquisition Cost - Projected Resale Price		
25	<i>Projected Resale Price</i>	\$ 9,272.00	\$ 13,120.00		Value anticipated from historic comparisons		
28	Cost of Money	\$ 2,685.01	\$ 2,561.08	\$ -	Cost of Money not invested for rate of return. (Year 1 interest + Year 2 interest + Year 3 interest + Year 4 interest + Year 5 interest)		
29	<i>Year 1</i>	\$ 890.85	\$ 849.73	\$ -	(Net Vehicle Cost * Year 1 Interest Factor) * Year 1 Total Months		
30	<i>Year 2</i>	\$ 694.27	\$ 662.22	\$ -	(Net Vehicle Cost * Year 2 Interest Factor) * Year 2 Total Months		
31	<i>Year 3</i>	\$ 497.68	\$ 474.71	\$ -	(Net Vehicle Cost * Year 3 Interest Factor) * Year 3 Total Months		
32	<i>Year 4</i>	\$ 301.10	\$ 287.21	\$ -	(Net Vehicle Cost * Year 4 Interest Factor) * Year 4 Total Months		
33	<i>Year 5</i>	\$ 301.10	\$ 287.21	\$ -	(Net Vehicle Cost * Year 5 Interest Factor) * Year 5 Total Months		
37	<i>Delivery Days</i>	180	180		Calendar days for guaranteed delivery		
40	Total Fixed Cost:	\$ 32,651.01	\$ 26,868.08	\$ -	Actual Depreciation + Interest + Build Time Delay Cost		
41	Operating Costs						
42	Total Fuel Cost	\$ 27,200.00	\$ 8,640.00		(Actual Miles/Estimated Miles-per-Gallon) * Fuel Cost-per-Gallon		
43	<i>Estimated Miles-per-Gallon</i>	12	12		Value from actual experience		
44	Total Maintenance Cost	\$ 24,000.00	\$ 14,400.00		Actual Mileage * Estimated Maintenance Cost-per-Mile		
45	<i>Estimated Maintenance Cost-per-Mile</i>	\$ 0.2500	\$ 0.1500		Value from actual experience (Insurance, license, maintenance, etc...)		
46	Total Operating Cost:	\$ 51,200.00	\$ 23,040.00	\$ -	Total Fuel Cost + Total Maintenance Cost		
47	Personal Use Costs						
48	Fixed Cost for Personal Use	\$ -	\$ -	\$ -	Total Fixed Cost * Estimated Personal Use		
49	Operating Cost for Personal Use	\$ -	\$ -	\$ -	Total Operating Cost * Estimated Personal Use		
50	Total Personal Use Cost	\$ -	\$ -	\$ -	Fixed Cost for Personal Use + Operating Cost for Personal Use (amount to be reimbursed to City by employee)		
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52	Total Lifecycle Cost:	\$ 83,851.01	\$ 49,908.08	\$ -	Total Fixed Cost + Total Operating Cost - Total Personal Use Cost		
53	Lifecycle Cost-per-Mile:	\$ 0.8734	\$ 0.5199	\$ -	Total Lifecycle Cost / Actual Miles		
54							