APPENDIX J

Table J-1

Storage and Distribution Study

PROPANE

Full Load Tractor Trailer Propane Deliveries to Bulk Depots

	55,000 Litres Full Trailer Loads Loaded at 80% = 44,000 litres	To PPPC	Distance One Way	Total Overall Trip Cost	Calculated T/T Rate To Bulk Plant	Add Diesel Fuel Surcharge at Rate	Total Calculated Delivery Rates Including DFS
Source Terminal	Bulk Plant Location	Zone	Kms	\$	CPL	7.00%	CPL
Come By Chance	St. John's	1	146	\$565.00	1.284	7.00%	1.374
Come By Chance	Grand Falls	3	279	\$865.00	1.966	7.00%	2.104
Come By Chance	Pasadena	6	512	\$1,506.00	3.423	7.00%	3.662

TABLE J-2

Home Deliveries of Propane via Tank Wagon - Estimated Costs

Home Heat operation Based on 250 days per year operational availability

<u>Tandem Axle Tank Wagon - 20,000 Liquid Litres Capacity</u> <u>Delivery Cost Per Annum and per Day</u>

Direct Operating Expenses

Annual Operating Cost

Driver salary and benefits
Helper salary and benefits (Part Year)
Interest- Vehicle financing
Depreciation- Vehicle*
Fuel consumed
Repairs and maintenance
Insurance
Licence
Miscellaneous

	Assumed	Cost per	Cost Per	Cost Per
	Operating	Average	day when	day when
Estimated	Days Per	Operating	Idle with	ldle
Cost	Year	Day	Driver	Laid-Up
\$/Annum	Days	\$/Day	\$/Day	\$/Day
\$35,900	250	\$144	\$144	\$22
8,300	250	\$33	\$33	\$0
19,500	250	\$78	\$78	\$78
35,000	250	\$140	\$140	\$140
12,000	250	\$48	\$0	\$0
12,000	250	\$48	\$48	\$10
5,000	250	\$20	\$20	\$16
1,000	250	\$4	\$4	\$3
300	250	\$1	\$1	\$0
\$129,000	250	\$516	\$468	\$268

Equivalent Cost per Hour - 8 hour working day - 5 days per week

\$64.50 \$58.50

\$33.52

*Based on a tandem at a cost of \$225,000 less an estimated residual value of \$50,000 after 5 years with straight line depreciation.

Single Axle Tank Wagon - 13,000 Liquid Litres Capacity Delivery Cost Per Annum and per Day

Direct Operating Expenses

Driver salary and benefits
Helper salary and benefits (Part Year)
Interest- Vehicle financing
Depreciation- Vehicle**
Fuel consumed
Repairs and maintenance
Insurance
Licence
Miscellaneous

	Assumed	Cost per	Cost Per	Cost Per
	Operating	Average	day when	day when
Estimated	Days Per	Operating	Idle with	ldle
Cost	Year	Day	Driver	Laid-Up
\$/Annum	Days	\$/Day	\$/Day	\$/Day
\$35,900	250	\$144	\$144	\$17
8,300	250	\$33	\$33	\$0
16,000	250	\$64	\$64	\$52
30,000	250	\$120	\$120	\$90
11,500	250	\$46	\$0	\$0
12,000	250	\$48	\$48	\$8
5,000	250	\$20	\$20	\$16
1,000	250	\$4	\$4	\$3
300	250	\$1	\$1	\$0
\$120,000		\$480	\$434	\$186

Equivalent Cost per Hour - 8 hour working day

<u>\$60.00</u>

<u>\$54.25</u>

<u>\$23.30</u>

**Based on a single-axle at a cost of \$185,000 less an estimated residual value of \$35,000 after 5 years with straight line depreciation..

TABLE J-3

<u>Heating Fuels - Residential Propane</u> <u>Maximum Tank Wagon Prices - Effective October 15, 2004</u>

		Residential	Differential
Zone	Geographic Area	Propane	From
		CPL	Zone 2
1	St. John's & Avalon	69.5	2.0
1a	Bell Island	70.5	3.0
2	Clarenville/ Burin-Bonavista Peninsulas	67.5	0.0
3	Central Newfoundland - Glovertown to Buchans	70.0	2.5
3a	St. Brendan's (Island)	N/A	N/A
3b	Fogo Island	N/A	N/A
3с	Change Islands	N/A	N/A
4	Connaigre Peninsula	71.0	3.5
4a	Gaultois to Francois / Rencontre East	N/A	N/A
5	Springdale & Baie Verte Peninsula	71.0	3.5
5a	Long Island	N/A	N/A
5b	Little Bay Island	N/A	N/A
6	Deer Lake - Corner Brook Areas	71.5	4.0
7	Gallants to Port aux Basques / Burgeo	72.5	5.0
7a	Ramea	N/A	N/A
7b	Grey River/ Grand Bruit / La Poile	N/A	N/A
8	Northern Peninsula - Gros Morne National Park, to Belburns	72.5	5.0
9	Northern Peninsula - to Englee and St. Anthony	73.5	6.0
10	Labrador Straits - L'Anse au Clair to Red Bay	N/A	N/A
10a	Mary's Harbour to Cartwright (road access)	N/A	N/A
11	Coastal Labrador - South	N/A	N/A
12	Central Labrador - Goose Bay Area	N/A	N/A
13	Western Labrador - Labrador City / Wabush	N/A	N/A
13a	Churchills Falls	N/A	N/A
14	Coastal Labrador - North	N/A	N/A

TABLE J-4

TW Delivery of Propane to Bell Island - Extra Cost from Zone 1

Full time vehicle operating cost calculation	Single Axle	Tandem
Volume delivered per full load	13,000	20,000
Annual Operating cost of Vehicle	\$120,000	\$129,000
Assumed operating days per year	250	250
Vehicle Operating Cost per day	\$480	\$516
Standard Operating Hours per day	8.0	8.0
Vehicle cost per hr	\$60.00	\$64.50
Vehicle cost per hr Idle with Driver	\$51.75	\$58.50

Zone 1a - Bell Island

From Donavans Depot (Reduced Load Tandem)	Extra Cost Return Ferry Crossing
Location	Ferry
Supplier	Any
Tank Wagon	Tandem
Capacity (litres)	16,000
Distance one way (kms)	N/A
Less Average Dist for Avalon areas	
one way(kms)	
Net Extra Distance to Portugal Cove	
Avg Speed of TW (kms/hr)	N/A
Load Time at Bulk Plant (Per Delivery)	N/A
Discharge time (Per household)	N/A
Round trip Driving time (Minutes)	N/A
Ferry Crossing Time (Return)	40
Allowance for delays	30
Total Extra time for return trip (hours)	1.17
Operating cost \$/hr	\$58.50
Ferry Crossing Charge Return + Driver	\$111.50
Meals and Overnight for Driver	
Total Extra Cost for load delivered	\$179.75
Delivered cost in cents per litre	1.12

TABLE J-5

TW Delivery of Propane to Connaigre Peninsula - Extra Cost from Zone 3

Full time vehicle operating cost calculation	Single Axle	Tandem
Volume delivered per full load	13,000	20,000
Annual Operating cost of Vehicle	\$120,000	\$129,000
Assumed operating days per year	250	250
Vehicle Operating Cost per day	\$480	\$516
Standard Operating Hours per day	8.0	8.0
Vehicle cost per hr	\$60.00	\$64.50
Vehicle cost per hr Idle with Driver	\$51.75	\$58.50

Zone 4 - Grand Falls to Households in Connaigre Peninsula Using Tandem TW

From Bulk Plant at:	Grand Falls	Grand Falls	Grand Falls
To:Outlet	Households	Households	Households
Location	St. Alban's	Hr. Breton	ST. Jaques- Coomb's Cove
Tank Wagon	Tandem	Tandem	Tandem
Capacity (litres)	20,000	20,000	20,000
Distance one way (kms)	179	225	217
Less Average Dist for Zone 3-Central one way(kms)	81	81	81
Net Extra Distance to Connaigre Location	98	144	136
Avg Speed of TW (kms/hr)	65	65	65
Load Time at Bulk Plant (Per Delivery)	N/A	N/A	N/A
Discharge time (Per household)	N/A	N/A	N/A
Round trip Driving Extra time (Minutes)	90	133	126
Allowance for delays	30	30	30
Total Extra time for return trip (hours)	2.01	2.72	2.59
Operating cost \$/hr	\$64.50	\$64.50	\$64.50
Total Extra Cost for load delivered	\$129.50	\$175.14	\$167.20
Delivered cost in cents per litre	0.65	0.88	0.84

Average Extra Delivery Cost to Area

<u>0.79</u>

CPL

TABLE J-6

TW Delivery of Propane to Springdale Areas from Zone 3

Full time vehicle operating cost calculation	Single Axle	Tandem
Volume delivered per full load	13,000	20,000
Annual Operating cost of Vehicle	\$120,000	\$129,000
Assumed operating days per year	250	250
Vehicle Operating Cost per day	\$480	\$516
Standard Operating Hours per day	8.0	8.0
Vehicle cost per hr	\$60.00	\$64.50
Vehicle cost per hr Idle with Driver	\$51.75	\$58.50

Zone 5 - Grand Falls to Households at Triton - Springdale - Baie Verte Areas

Zone 3 - Grand Fails to Households at Triton - Springdale - Dale Verte Aleas				
From Bulk Depot at	Grand Falls	Grand Falls	Springdale Area	
To:Outlet	Households	Households	Households	
Location	Triton	Springdale	Baie Verte	
Tank Wagon	Tandem	Tandem	Tandem	
Capacity (litres)	20,000	20,000	20,000	
Distance one way (kms)	125	104	177	
Less Average Dist for Central one way(kms)	81	81	81	
Net Extra Distance to Area Location	44	23	96	
Avg Speed of TW (kms/hr)	75	85	75	
Load Time at Bulk Plant (Per Delivery)	N/A	N/A	N/A	
Discharge time (Per household)	N/A	N/A	N/A	
Round trip Driving Extra time (Minutes)	70	32	154	
Allowance for delays	30	30	30	
Total Extra time for return trip (hours)	1.67	1.04	3.06	
Operating cost \$/hr	\$64.50	\$64.50	\$64.50	
Total Extra Cost for load delivered	\$107.93	\$67.16	\$197.37	
Delivered cost in cents per litre	0.54	0.34	0.99	

Average Extra Delivery Cost to Area

<u>0.62</u>

CPL

TABLE J-7

TW Delivery of Propane to Stephenville / Port aux Basques/ Burgeo Areas from Zone 6 - Corner Brook Depot

Full time vehicle operating cost calculation	Single Axle	Tandem
Volume delivered per full load	13,000	20,000
Annual Operating cost of Vehicle	\$120,000	\$129,000
Assumed operating days per year	250	250
Vehicle Operating Cost per day	\$480	\$516
Standard Operating Hours per day	8.0	8.0
Vehicle cost per hr	\$60.00	\$64.50
Vehicle cost per hr Idle with Driver	\$51.75	\$58.50

Zone 7 - Corner Brook to Households in Stephenvile / Port aux Basques/ Burgeo Areas

From Bulk Depot at	Corner Brook	Corner Brook	Corner Brook
To:Outlet	Households	Households	Households
Location		Port aux Basques	Burgeo
Location	Stephenville / Port au Port	Fort aux basques	Burgeo
Tank Wagon	Tandem	Tandem	Tandem
Capacity (litres)	20,000	20,000	20,000
Distance one way (kms)	106	219	213
Less Average Dist for Corner Brook Area			
one way (kms)	48	48	48
Net Extra Distance to Location	58	171	165
Avg Speed of TW (kms/hr)	70	85	75
Load Time at Bulk Plant (Per Delivery)	N/A	N/A	N/A
Discharge time (Per household)	N/A	N/A	N/A
Round trip Driving Extra time (Minutes)	99	241	264
Allowance for delays	30	30	30
Total Extra time for return trip (hours)	2.16	4.52	4.90
Operating cost \$/hr	\$64.50	\$64.50	\$64.50
Total Extra Cost for load delivered	\$139.14	\$291.77	\$316.05
Delivered cost in cents per litre	0.70	1.46	1.58

Average Extra Delivery Cost to Area

TABLE J-8

TW Delivery of Propane to Sourthern Part of Northern Peninsula from Zone 6 - Corner Brook Depot

Full time vehicle operating cost calculation	Single Axle	Tandem
Volume delivered per full load	13,000	20,000
Annual Operating cost of Vehicle	\$120,000	\$129,000
Assumed operating days per year	250	250
Vehicle Operating Cost per day	\$480	\$516
Standard Operating Hours per day	8.0	8.0
Vehicle cost per hr	\$60.00	\$64.50
Vehicle cost per hr Idle with Driver	\$51.75	\$58.50

Zone 8 - Corner Brook to Households in Southern Part of Northern Peninsula

From Bulk Depot at	Corner Brook	Corner Brook	Corner Brook
To:Outlet	Households	Households	Households
Location	Rocky Harbour	Trout River	Belburns
Tank Wagon	Tandem	Tandem	Tandem
Capacity (litres)	20,000	20,000	20,000
Distance one way (kms)	121	134	218
Less Average Dist for Corner Brook Area			
one way (kms)	48	48	48
Net Extra Distance to Location	73	86	170
Avg Speed of TW (kms/hr)	75	85	80
Load Time at Bulk Plant (Per Delivery)	N/A	N/A	N/A
Discharge time (Per household)	N/A	N/A	N/A
Round trip Driving Extra time (Minutes)	117	121	255
Allowance for delays	30	30	30
Total Extra time for return trip (hours)	2.45	2.52	4.75
Operating cost \$/hr	\$64.50	\$64.50	\$64.50
Total Extra Cost for load delivered	\$157.81	\$162.77	\$306.38
Delivered cost in cents per litre	0.79	0.81	1.53

Average Extra Delivery Cost to Area

TABLE J-9

TW Delivery of Propane to Northern Peninsula Areas (North) form Zone 6 - Corner Brook Depot

Full time vehicle operating cost calculation	Single Axle	Tandem
Volume delivered per full load	13,000	20,000
Annual Operating cost of Vehicle	\$120,000	\$129,000
Assumed operating days per year	250	250
Vehicle Operating Cost per day	\$480	\$516
Standard Operating Hours per day	8.0	8.0
Vehicle cost per hr	\$60.00	\$64.50
Vehicle cost per hr Idle with Driver	\$51.75	\$58.50

Zone 9 - Corner Brook to Households in Nothern Part of Northern Peninsula

From Bulk Depot at	Corner Brook	Corner Brook	Corner Brook
To:Outlet	Households	Households	Households
Location	Port Au Choix	Roddicton	St. Anthony
Tank Wagon	Tandem	Tandem	Tandem
Capacity (litres)	20,000	20,000	20,000
Distance one way (kms)	282	401	467
Less Average Dist for Corner Brook Area			
one way (kms)	48	48	48
Net Extra Distance to Location	234	353	419
Avg Speed of TW (kms/hr)	75	75	80
Load Time at Bulk Plant (Per Delivery)	N/A	N/A	N/A
Discharge time (Per household)	N/A	N/A	N/A
Round trip Driving Extra time (Minutes)	374	565	629
Allowance for delays	30	30	30
Total Extra time for return trip (hours)	6.74	9.91	10.98
Operating cost \$/hr	\$64.50	\$64.50	\$64.50
Total Extra Cost for load delivered	\$434.73	\$639.41	\$707.89
Delivered cost in cents per litre	2.17	3.20	3.54

Average Extra Delivery Cost to Area

<u>2.97</u>

CPL