SEAFORTH ENERGY

March 17, 2011

Nancy McNeil
Regulatory Affairs Officer/Clerk
Nova Scotia Utility and Review Board
3rd Floor, Summit Place
1601 Lower Water Street
Halifax, Nova Scotia B3J 3P6

Geoff Keith
Synapse Energy Economics, Inc.
22 Pearl Street
Cambridge, MA 02139

Re: BRD-E-R-10 Renewable Energy Community Feed-in Tariffs

Dear Mr. Keith and Ms. McNeil:

In response to the evidence submissions on the small wind COMFIT, Seaforth Energy is pleased to provide the following feedback (which can be supported with additional evidence where necessary) on the final Synapse financial model.

Equipment and Installation

We believe the current estimates in final evidence provided by Synapse reflect the average installed cost of a 50kW turbine.

Interconnection Costs

Nova Scotia Power has estimated an interconnection cost of $13,300. We would like to further review the supporting details that make up this cost to ensure that there is no overlap. We also want to ensure that it suitably estimates interconnection costs to account for a variety of installation locations around Nova Scotia. We have received one document from Synapse to support this estimate and it is included in this submission as "Exhibit A". Similar to CanWEA, we would like to consult with Nova Scotia Power and Synapse to ensure that all parties are considering the same cost estimates for interconnection.

Debt Financing

The Synapse model proposes that small wind projects will receive 50% debt financing from financial institutions – an improvement from the last submission and one for which are very supportive. However, our experience in Nova Scotia still indicates that this ratio is unlikely for community groups without guarantees or additional security that can be used to satisfy a bank. We recommend changing this rate to no more than 40% until such time as specific financial institutions formally commit to a higher level of financing based on proposed projects without further guarantees or security from individual projects or community groups/investors. If not changed now, we would recommend that this item be reviewed by government closely as it reviews the success of the COMFIT program.

Loan Term

We believe that a loan term of 10 years is challenging but possible for good projects.

Capacity Factor

Currently the Synapse model uses a capacity factor of 20% which is the generally accepted appropriate rate for small wind systems. We support the information provided by CanWEA regarding the average of 20% being much more realistic. However, taking into account the objective to spur more efficient renewable energy development and to encourage projects in good wind regimes, we continue to believe that the capacity factor can be 23% in good wind sites. This will encourage better producing sites and better projects yet still make the COMFIT available across all of the counties in Nova Scotia. A positive by-product of this approach may be an increase of wind turbine R&D in Nova Scotia to improve small wind turbines and associated projects to attain an improved capacity factor.

Operations and Maintenance

Currently the Synapse model uses an annual operations and maintenance formula that is based off the kWh produced. Despite CanWEA's previous input, this is not the customary way we would estimate operations and maintenance in small wind systems. A 50kW turbine should have at least 2 maintenance services per year. Routine maintenance is critical to the safe and ongoing operation of any turbine and one of the primary reasons why small wind systems have not always performed to their potential. Historically, many small wind systems have not budgeted properly for ongoing maintenance and service. This is a situation we should avoid in Nova Scotia. We should ensure the proper budgeting and the proper ongoing maintenance of small wind systems to ensure they deliver the power and performance possible. Large wind systems are constantly maintained and have operations and maintenance budgets of approximately 2%-3% of initial project costs. The CEDIF Community Based Watts Wind Energy project, a 1.5MW project located near Sheet Harbour, NS has operating and maintenance costs at 3% of the initial capital cost of the project. We strongly recommend that this COMFIT program encourage proper budgeting and ongoing maintenance so we have safe and properly maintained small wind systems in our province. We recommend that the formula for operations and maintenance be changed to be $0.0375 of the kWh produced so that the operations and maintenance costs estimate is $3778. Given this amount also includes the capital reserve, this should be the minimum amount of operations, maintenance and capital reserve allocated for proper project budgeting. The ongoing operations and maintenance component is critical to banks and financing groups in their evaluation of successful projects and therefore this estimate must be based on real costs. As per our previous submission to the UARB, our estimate is based on data from over one hundred installations around the world and many right here in Nova Scotia. It also represents our experience with many other small wind turbines and our related company experience and expertise in managing construction, project development and/or maintenance for large wind turbine farms such as Watts Wind Energy, Fermeuse in Newfoundland and many of the major wind projects in Nova Scotia (Higgins Mountain, Springhill, Digby Neck, Maryvale).

Certification Criteria

CanWEA's submission recommends the Nova Scotia COMFIT program to support certified turbines that meet minimum testing criteria from IEC 614002-2 or IEC 61400-1 for safety, duration and reliability, power performance and acoustics. They recommend supporting either the Small Wind Certification Council or in an interim period, creating a Nova Scotia COMFIT list of qualified turbines similar to the NYSERDA list of qualified turbines. This recommendation is due to the NYSERDA list criteria of eligible turbines having to demonstrate that their turbine has been tested by independent third party, accredited international test organizations. Currently this would include organizations such as the Wind Energy Institute of Canada (WEICan), the United States National Renewable Energy Labs (NREL) or TUV NEL in the United Kingdom. We are supportive of turbines having to meet these levels of safety and certification and suggest that the COMFIT program adopt a similar approach to the Small Wind Certification Council and NYSERDA lists where it requires qualifying turbine manufacturers and installers to meet minimum levels of installation, safety and ongoing operation expertise. This will ensure the COMFIT program has installed small wind turbines that are properly certified, sited, installed and maintained.

Taking only the operations and maintenance recommendation into account, Seaforth has updated the Synapse model (attached to our email submission) to determine a potential rate for the small wind COMFIT. The result is a recommended rate of $469.90/MWh.

We reiterate our strong appreciation of the work of the UARB, the government and Synapse in the development and open process of this COMFIT rate setting. The information provided and the spreadsheet model makes for highly effective and efficient feedback.

Please contact us if you have any questions.

Sincerely,

Jonathan Barry
President

File Attachment: Seaforth Energy Additions to Synapse Exhibit I Small Wind 3-2-11

Exhibit A – Information Provided to Seaforth Energy from Synapse regarding the Interconnection Costs Estimate from Nova Scotia Power[1]

For projects less than 50 kW, the typical NSPI facilities required (and therefore the costs) can vary greatly depending on the type and capacity of the generation.

- *Generally for small (less than 10 kW) single phase wind installations there would be minimal NSPI facilities costs, assuming there is already a power supply at the site. The NSPI facilities in this case could include:*

  - 25 kVA Distribution transformer c/w fused cutout
  - Revenue meter and meter base
  - Overhead conductor
  - Poles, insulators, anchors, pole and line hardware etc.
  - Distribution class lightning arrestors

  Estimated Cost: $5000

- *Larger (>20 kW) wind turbines generally are three-phase machine and require additional equipment:*
  - 3 X 25 kVA Distribution transformers c/w fused cutout
  - 3 element revenue meter c/w test block and meter base
  - Overhead conductor
  - Poles, anchors etc, as required to support equipment
  - Distribution class lightning arrestors

  Estimated Cost: $10,000

1. The text above is taken from an email of February 9, 2011 from Synapse to Jonathan Barry of Seaforth Energy which included a Word document attachment, the text of which appears exactly as above.

Nova Scotia Utility & Review Board FIT Model **Small Wind (50 kW and smaller)**

Assumptions		Notes:
General Inflation Factor (revenue and expenses)	1.92%	From NSPI 2009 IRP Update
Capital Costs (Uses of Funds)		
Development	$0	
Equipment & Installation	$268,000	
Interconnection	$13,300	
Reserves		
Up-Front Maintenance	$1,889	(Half of year-one O&M)
Working Capital	$2,894	(Half of year-one expenses)
Debt Service Reserve	$11,975	(Half of year-one debt service.)
Financing		
Debt Closing Costs & Fees	$9,642	(Summed from below)
Equity Closing Costs & Fees	$6,424	(Estimated as 4% of equity)
Interest During Construction	$9,377	
Total Project Cost	$323,500	
Total Project Cost ($/kW)	$6,470	
Initial Reserve Account Sizing		
Upfront Maintenance (months of Year 1 O&M)	6	
Working Capital (months of Year 1 OPEX)	6	
Debt Service Reserve (months of P&I)	6	
Capital Structure (Sources of Funds)		
Amount ($)		
Grants (net value)	0	
Debt	160,700	
Equity	162,800	
Total Sources of Funds	323,500	
Amount (%)		
Grants	0.0%	
Debt	49.68%	
Equity	50.32%	
Total Sources of Funds	100.0%	
Grants:		
State and Federal Incentives	0	
State/Provincial Tax 1	0	
State/Provincial Tax 2	0	
Federal tax	0	
Net Value of Grants	0	
Debt Terms		
Amount	160,700	(Based on target debt/equity ratio)
Amortization period	10	
Interest Rate	8.00%	
Up-Front Fee (%)	1.00%	
Up-Front Fee ($)	1,607	
Closing Costs	8,035	(5% of loan value)
Tax Depreciation Allocation		
% of Total Project Cost		
30% Double Declining	0.0%	
50% Double Declining	78.7%	95% of installed cost
20-yr SL	0.0%	
40-yr SL	0.0%	
Other	0.0%	
Non-Depreciable	21.30%	
Total	100.0%	
Amount Allocated		
30% Double Declining	0	
50% Double Declining	254,600	
20-yr SL	0	
40-yr SL	0	
Other	0	
Non-Depreciable	68,900	
Total	323,500	
Year One Depreciation		
Year One Percent	25.0%	(Based on the "half year rule")
Year One Amount	63,650	

Assumptions:		Notes:
Operating Inputs		
Net Generator Capacity (MW)	0.05	
Energy Production:		
Net Capacity Factor	23%	Net of plant availability and other loss factors
Net Output in MWhs	101	
Annual Operating Expenses		
Annual Fuel Cost		
Fuel Required per Year (mmBtu)	0	
Initial year Fuel Price ($/mmBtu)	0	
Routine O&M (expensed)	3,778	Escalates at inflation.
Site Maintenance	0	Escalates at inflation.
General & Administrative	0	Escalates at inflation.
Insurance	2,010	Escalates at inflation.
Land Lease	0	Escalates at inflation.
Other	0	Escalates at inflation.
Property Tax		
Project hard costs less interconnection	268,000	
Assessed Value (%)	0.00%	
Assessed Value ($)	0	
Annual Decline in Assessed Value	0.00%	
Assessed Value Minimum %	0.00%	
Property Tax Rate	0.00%	Based on Wind Turbine Facilities Municipal Taxation Act
Revenue Assumptions		
Levelized Energy Price ($/MWh)	469.90	
% of Levelized Rate Escalating @ Infl.	0.0%	
Other Revenues (increases with inflation)	0	
Return Metrics		
20-year Equity IRR		
Pre-Tax	13.00%	
After-Tax	12.09%	
Average Debt Service Coverage Ratio	1.73	
Minimum Debt Service Coverage Ratio	1.70	
Minimum Annual After-Tax Equity Net Benefits	9,804	Includes tax benefit/(liability)
Tax Rates:		
Federal Income Tax	15.0%	
State/Provincial Income Tax		
Small Business Tax Rate		
Applicable Income (less than X)	400,000	
Small Business Tax Rate	4.5%	
Corporate rate (income greater than X)	16.0%	
Major Maintenance		
Replacement Occurs Every X Years	5	
Cost of Replacement (Year 0 Dollars)	0	Included in the cost of Routine O&M.
Tax Depreciation Classification of Spending	50% Double Declining	
Book Depreciation Classification of Spending	30-yr SL	
Residual Value		
Residual Value (Net Book Value)	-0	
Book Depreciation Classifications		
20-yr SL	100.0%	
30-yr SL	0.0%	
37-yr SL	0.0%	
40-yr SL	0.0%	
Non-Depreciable	0.00%	
Total	100.0%	
Amount Allocated		
20-yr SL	323,500	
30-yr SL	0	
37-yr SL	0	
40-yr SL	0	
Non-Depreciable	0	
Total	323,500	

Nova Scotia Utility & Review Board FIT Model

Operating Year		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Generation (MWh)			101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101
Partial Income Statement																						
Revenue																						
Standard Offer Price ($/MWh)																						
Fixed Price Component	100%		469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90
Escalating Price Component	0%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Standard Offer Price			469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90	469.90
Revenues From Energy Production			47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338	47,338
Other Revenues			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Revenue			322	322	322	322	322	322	322	322	322	322	92	92	92	92	92	92	92	92	92	92
Total Revenue			47,659	47,659	47,659	47,659	47,659	47,659	47,659	47,659	47,659	47,659	47,430	47,430	47,430	47,430	47,430	47,430	47,430	47,430	47,430	47,430
Expenses																						
Fuel Cost			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
O&M			-3,778	-3,850	-3,924	-4,000	-4,076	-4,155	-4,234	-4,316	-4,399	-4,483	-4,569	-4,657	-4,746	-4,837	-4,930	-5,025	-5,121	-5,220	-5,320	-5,422
Site Maintenance			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G&A			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance			-2,010	-2,049	-2,088	-2,128	-2,169	-2,211	-2,253	-2,296	-2,340	-2,385	-2,431	-2,478	-2,525	-2,574	-2,623	-2,674	-2,725	-2,777	-2,831	-2,885
Land Lease			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property tax			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total			-5,788	-5,899	-6,012	-6,128	-6,245	-6,365	-6,487	-6,612	-6,739	-6,868	-7,000	-7,134	-7,271	-7,411	-7,553	-7,698	-7,846	-7,997	-8,150	-8,307
EBITDA			41,872	41,761	41,647	41,532	41,414	41,294	41,172	41,048	40,921	40,791	40,429	40,295	40,158	40,018	39,876	39,731	39,583	39,433	39,279	39,123
Equity Return																						
Cash																						
EBITDA			41,872	41,761	41,647	41,532	41,414	41,294	41,172	41,048	40,921	40,791	40,429	40,295	40,158	40,018	39,876	39,731	39,583	39,433	39,279	39,123
Plus: Release of Debt Service Reserve			0	0	0	0	0	0	0	0	0	11,975	0	0	0	0	0	0	0	0	0	0
Plus: Release of WC & Up-Front Maint Reserves			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,783
Plus: Release of Major Maintenance Reserves			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plus: Residual Value			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0
Less: Major Maintenance Spending			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less: Major Maintenance Reserve Funding			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less: Principal			-11,093	-11,980	-12,939	-13,974	-15,092	-16,299	-17,603	-19,012	-20,532	-22,175	0	0	0	0	0	0	0	0	0	0
Less: Interest			-12,856	-11,969	-11,010	-9,975	-8,857	-7,650	-6,346	-4,938	-3,417	-1,774	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
Total Cash			17,923	17,812	17,698	17,583	17,465	17,345	17,223	17,099	16,972	28,817	40,429	40,295	40,158	40,018	39,876	39,731	39,583	39,433	39,279	43,905
Equity Investment		-162,800																				
Total Pre-Tax Equity Return		-162,800	17,923	17,812	17,698	17,583	17,465	17,345	17,223	17,099	16,972	28,817	40,429	40,295	40,158	40,018	39,876	39,731	39,583	39,433	39,279	43,905
Pre-Tax Internal Rate of Return	13.00%																					
Taxable Income Benefit/(Liability)																						
EBITDA			41,872	41,761	41,647	41,532	41,414	41,294	41,172	41,048	40,921	40,791	40,429	40,295	40,158	40,018	39,876	39,731	39,583	39,433	39,279	39,123
Less: Interest			-12,856	-11,969	-11,010	-9,975	-8,857	-7,650	-6,346	-4,938	-3,417	-1,774	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
Less: Tax Depreciation			-63,650	-95,475	-47,738	-23,869	-11,934	-5,967	-2,984	-1,492	-746	-373	-186	-93	-47	-23	-12	-6	-3	-1	-1	-0
Taxable Income/(Loss)			-34,634	-65,683	-17,100	7,688	20,623	27,677	31,843	34,618	36,758	38,644	40,243	40,202	40,111	39,995	39,865	39,725	39,580	39,431	39,278	39,122
Tax Benefit/(Liability)																						
State/Provincial 1			1,559	2,956	770	-346	-928	-1,245	-1,433	-1,558	-1,654	-1,739	-1,811	-1,809	-1,805	-1,800	-1,794	-1,788	-1,781	-1,774	-1,768	-1,761
State/Provincial 2			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal			5,195	9,852	2,565	-1,153	-3,093	-4,152	-4,776	-5,193	-5,514	-5,797	-6,036	-6,030	-6,017	-5,999	-5,980	-5,959	-5,937	-5,915	-5,892	-5,868
Total Tax Benefit/(Liability)			6,754	12,808	3,335	-1,499	-4,021	-5,397	-6,209	-6,751	-7,168	-7,536	-7,847	-7,839	-7,822	-7,799	-7,774	-7,746	-7,718	-7,689	-7,659	-7,629
Equity Investment		-162,800																				
Total After-Tax Equity Return		-162,800	24,676	30,620	21,033	16,084	13,444	11,948	11,014	10,348	9,804	21,281	32,582	32,456	32,336	32,219	32,103	31,985	31,865	31,744	31,620	36,277
After-Tax Internal Rate of Return	12.09%																					
Debt																						
Loan Balance		160,700	149,607	137,626	124,688	110,714	95,622	79,322	61,719	42,707	22,175	0	0	0	0	0	0	0	0	0	0	0
Interest	8.00%	-78,790	-12,856	-11,969	-11,010	-9,975	-8,857	-7,650	-6,346	-4,938	-3,417	-1,774	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
Principal		-160,700	-11,093	-11,980	-12,939	-13,974	-15,092	-16,299	-17,603	-19,012	-20,532	-22,175	0	0	0	0	0	0	0	0	0	0
Annual payment			-23,949	-23,949	-23,949	-23,949	-23,949	-23,949	-23,949	-23,949	-23,949	-23,949	0	0	0	0	0	0	0	0	0	0
Debt Service Coverage Ratio																						
EBITDA			41,872	41,761	41,647	41,532	41,414	41,294	41,172	41,048	40,921	40,791	0	0	0	0	0	0	0	0	0	0
Less: Major Maintenance Reserve Funding			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash Available for Debt Service			41,872	41,761	41,647	41,532	41,414	41,294	41,172	41,048	40,921	40,791	0	0	0	0	0	0	0	0	0	0
P&I			23,949	23,949	23,949	23,949	23,949	23,949	23,949	23,949	23,949	23,949	0	0	0	0	0	0	0	0	0	0
Debt Service Coverage Ratio			1.75	1.74	1.74	1.73	1.73	1.72	1.72	1.71	1.71	1.70										
Average		1.73																				
Minimum		1.70																				
Reserve Accounts																						
Reserves Funded As Part of Capital Cost																						
Beginning Balance		0	16,757	16,757	16,757	16,757	16,757	16,757	16,757	16,757	16,757	16,757	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783
Up-Front Maintenance Reserve		1,889	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1,889
Working Capital		2,894	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2,894
Debt Service Reserve		11,975	0	0	0	0	0	0	0	0	0	-11,975	0	0	0	0	0	0	0	0	0	0

Nova Scotia Utility & Review Board FIT Model

Operating Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Total	16,757	16,757	16,757	16,757	16,757	16,757	16,757	16,757	16,757	16,757	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	0
Major Maintenance Reserve Funded Through Operations																					
Beginning Balance		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Funding		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Release of Funds		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending Balance		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Major Maintenance Costs																					
Occurrence 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Major Maintenance Funding																					
Occurrence 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest on Reserves		322	322	322	322	322	322	322	322	322	322	92	92	92	92	92	92	92	92	92	92
Property Tax Calculation																					
Original Assessed Value		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual Decline in Assessed Value		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Annual Assessed Value		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property Tax Rate		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Property Tax Expense		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Nova Scotia Utility & Review Board FIT Model

Operating Year		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Calendar Year		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Tax Depreciation																						
Calendar Year Depreciation per Classification (%)																						
30% Double Declining			30.00%	21.00%	14.70%	10.29%	7.20%	5.04%	3.53%	2.47%	1.73%	1.21%	0.85%	0.59%	0.42%	0.29%	0.20%	0.14%	0.10%	0.07%	0.05%	0.03%
50% Double Declining			50.00%	25.00%	12.50%	6.25%	3.13%	1.56%	0.78%	0.39%	0.20%	0.10%	0.05%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
20-yr SL			2.50%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
40-yr SL			1.25%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Other			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Calendar Year Depreciation per Classification ($)																						
Year One Capital Cost Allocation	63,650		63,650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30% Double Declining	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50% Double Declining	190,950		0	95,475	47,738	23,869	11,934	5,967	2,984	1,492	746	373	186	93	47	23	12	6	3	1	1	0
20-yr SL	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40-yr SL	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Major Maintenance			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual Depreciation	254,600		63,650	95,475	47,738	23,869	11,934	5,967	2,984	1,492	746	373	186	93	47	23	12	6	3	1	1	0
Major Maintenance																						
Timing of Spending																						
Occurrence 1			0	0	0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Occurrence 2			0	0	0	0	0	0	0	0	0	1	2	3	4	5	6	7	8	9	10	11
Occurrence 3			0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4	5	6
Occurrence 4			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Depreciation Classification	50% Double Declining																					
Year		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Depreciation Schedule		0.00%	50.00%	25.00%	12.50%	6.25%	3.13%	1.56%	0.78%	0.39%	0.20%	0.10%	0.05%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Depreciation Expense	Expense	Depreciation Amount																				
Occurrence 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Book Depreciation																						
Calendar Year Depreciation per Classification (%)																						
20-yr SL			5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
30-yr SL			3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
37-yr SL			2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%
40-yr SL			2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Calendar Year Depreciation per Classification ($)																						
20-yr SL	323,500		16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175
30-yr SL	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37-yr SL	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40-yr SL	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Major Maintenance			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual Depreciation	323,500		16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175	16,175
Major Maintenance																						
Timing of Spending																						
Occurrence 1			0	0	0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Occurrence 2			0	0	0	0	0	0	0	0	0	1	2	3	4	5	6	7	8	9	10	11
Occurrence 3			0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4	5	6
Occurrence 4			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Depreciation Classification	30-yr SL																					
Year		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Depreciation Schedule		0.00%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
Depreciation Expense	Expense	Depreciation Amount																				
Occurrence 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Occurrence 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Book Value																						
Beginning Balance			0	307,325	291,150	274,975	258,800	242,625	226,450	210,275	194,100	177,925	161,750	145,575	129,400	113,225	97,050	80,875	64,700	48,525	32,350	16,175
Original Book Value			323,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plus: Major Maintenance			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less: Depreciation			-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175	-16,175
Net Book Value			307,325	291,150	274,975	258,800	242,625	226,450	210,275	194,100	177,925	161,750	145,575	129,400	113,225	97,050	80,875	64,700	48,525	32,350	16,175	-0