



**Halifax, March 21, 2014**

# Blue Sky Electricity: who we are

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- The Blue Sky Electricity Cooperative is a business that will generate and sell electricity.
- We intend to create a series of small wind NS Community Feed-in Tariff projects across Nova Scotia.
- We will seek to sell the electricity to NS Power under a Power Purchase Agreement as set out by the NS COMFIT.
- The Power Purchase Agreement has a duration of 20 years, and have a set purchase price of \$0.499 kWh.



# Small wind projects

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- We worked extensively with the Cooperative Council of Nova Scotia and the Inspector of Cooperatives to create a structure that complies with their regulations.
- The result is a structure where a portion of the equity is available to community members.
- The first cooperative has been incorporated in November, Blue Sky II and Blue Sky III are in the process of being enacted.



# Blue Sky Electricity: who we are

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- Each wind project location will be owned by a separate local cooperative.
- The core members of each cooperative will be:
  - Crannog Developments Ltd
  - Aeolus Nova Scotia Ltd
  - 25 local community members



# Advanced-stage projects



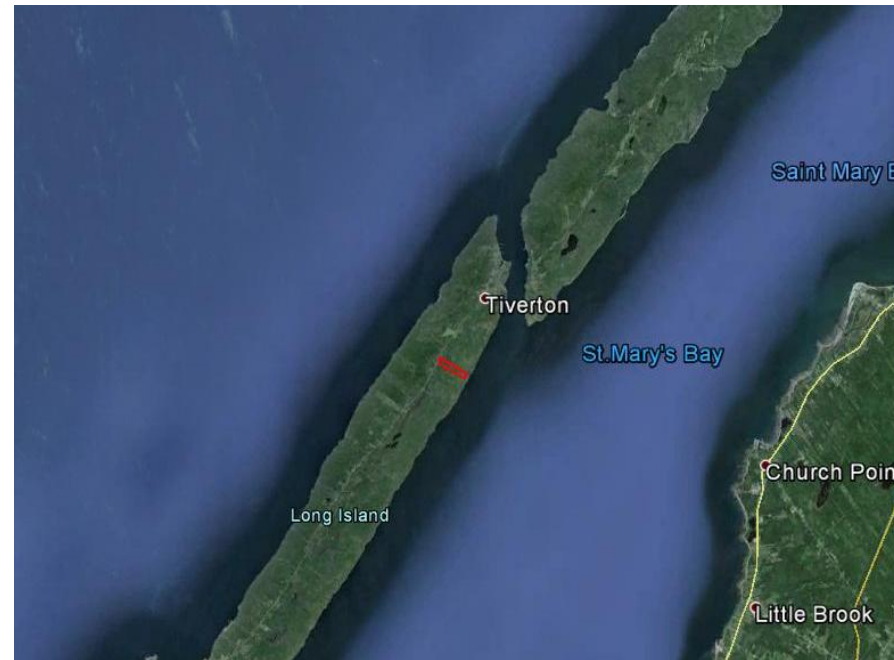
- 3 sites have been in development since June 2013.
- Each site's 6 COMFIT applications are ready to be submitted.
- The required equity is available.



# Advanced-stage projects: Tiverton

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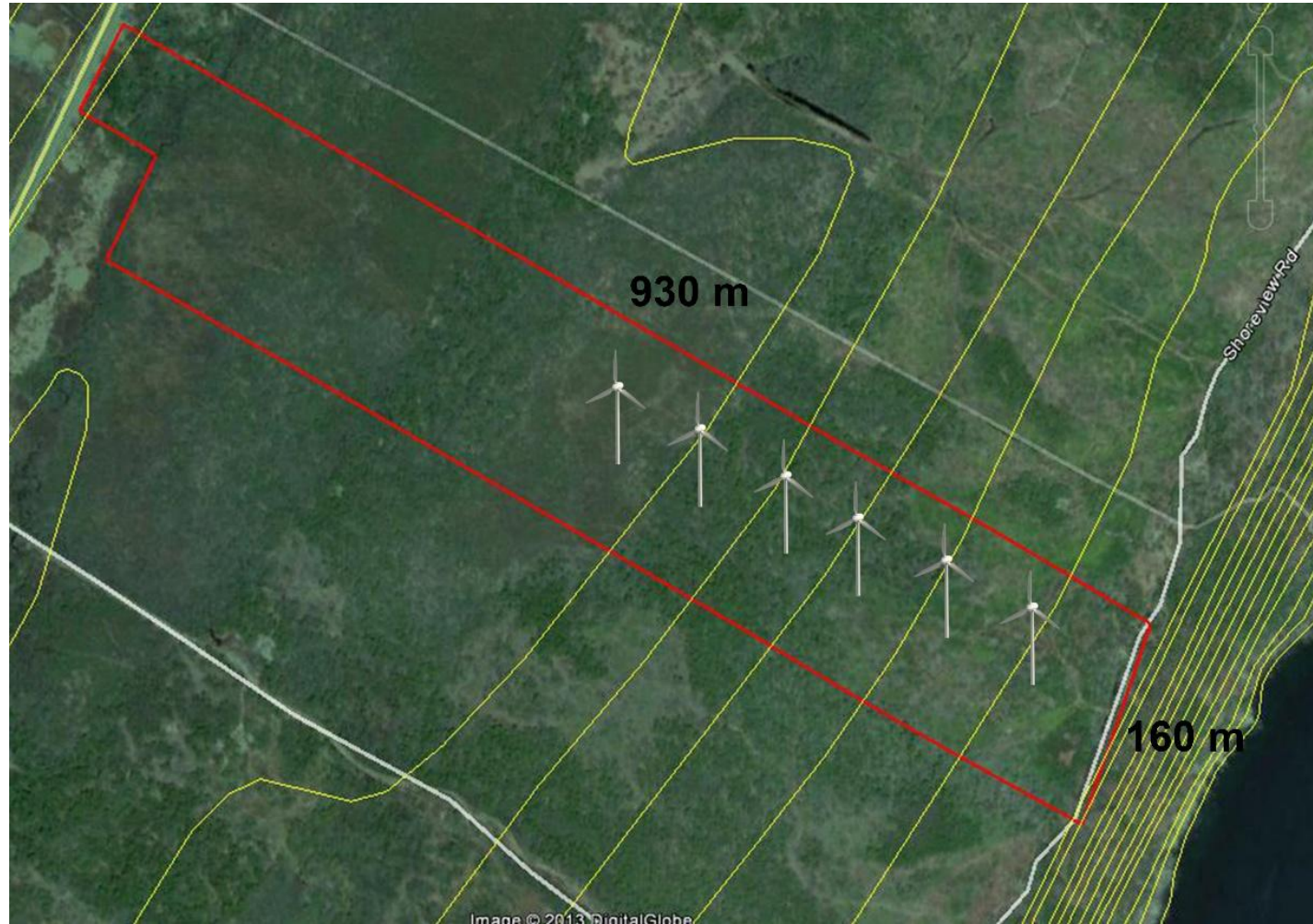
Site name:	Central Grove
City:	Tiverton
County:	Digby
Mean wind speed:	7,3 m/s
Dominant wind:	NW/S





# Advanced-stage projects: Tiverton

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# Advanced-stage projects: Tiverton

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# Tiverton – Wind Resource Assessment

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Mean annual Wind Speed:	7.28 m/s (16.28 mph)
Power Density:	437 W/m <sup>2</sup>
Weibull A:	8.19 m/s (18.31 mph)
Weibull k:	2.27
50 Year Max Gust:	49.95 m/s (111.73 mph)
Uncertainty Estimate:	+/- 0.35 m/s (0.78 mph)
Interannual Variation:	0.2

# Tiverton – Net Energy Production

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	Endurance E-3120 (3P)
Rated Capacity	50 kW
Hub Height	42m
Gross Energy Production	231.99 MWh
Loss Estimation Range	15% - 30%
Net Energy Production	162.39 MWh - 197.19 MWh

# Tiverton – Wind Rose

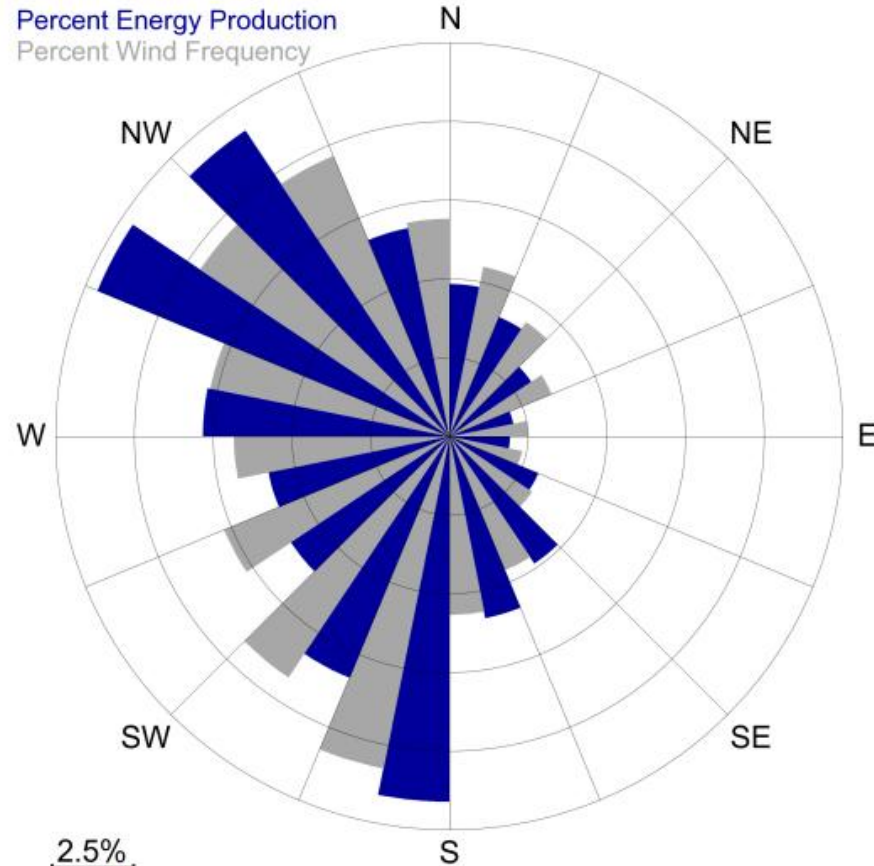


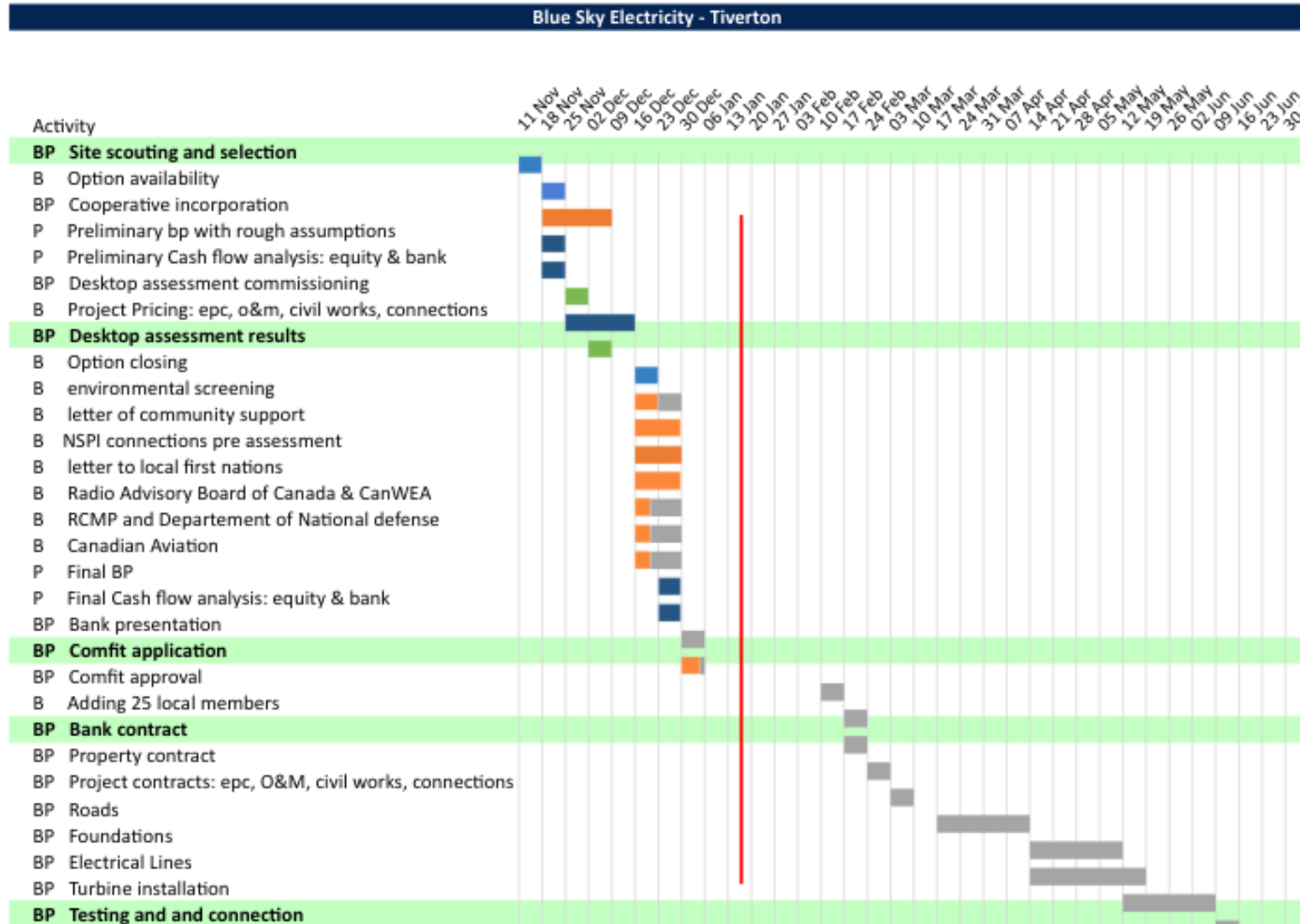
Figure 1: Annual wind frequency and energy content (percent) by direction sector at 42m height.

Table 1: Annual wind frequency and energy content (percent) by direction sector at 42m height.

Sector	Freq	Pct Energy
N	5.5	4.8
NNE	4.4	4.1
NE	3.5	3.1
ENE	2.5	2.1
E	2.4	1.9
ESE	3.2	3.1
SE	4.6	4.9
SSE	5.7	5.9
S	10.8	11.6
SSW	9.2	8.3
SW	7.8	6.1
WSW	6.9	5.9
W	7.7	7.8
WNW	9.5	12.1
NW	9.6	11.7
NNW	6.9	6.7



# Tiverton – Schedule



# Tiverton – Business Plan

Blue Sky Electricity - Tiverton					
Technical assumptions		Annual Revenues		Annual Opex kC\$	
Wind turbine generator (WTG)	E-3120	Net Energy Yield (MWh/y)	1056,0	O&M	27,0
Hub Height (m)	42	Average electricity price (kC\$/MWh)	0	Insurance	9,0
Number of WTGs	6	Incentive (C\$/MWh)	499	Property taxes	1,5
Total Capacity (MW)	0,3	<b>Total annual revenues (kC\$)</b>	<b>527</b>	Local Management	20,0
Capacity Factor	40,18%			Remote Management	10,0
				Local Accounting	10,0
				Site maintenance	1,5
				Miscellaneous	4,5
				<b>Total annual opex (kC\$/y)</b>	<b>83,5</b>
Capex kC\$		Debt Terms		Tax rates	
Soft costs	10	D/(D+E) (%)	75%	Federal Income Tax	11%
Turbines	1650	Equity (kC\$)	875	Small Business Tax	3%
Installation & Commissioning	500	Debt (kC\$)	2625	Available CCA - First year (kC\$)	875
Towers	442	Reference rate (%)	6,0%	Inflation Rate	2%
Foundations installation	372	Life of financing (y)	15		
Site preparation & Civil Works	139	Annual loan payment (kC\$)	270		
Transformers and connections	114				
Property	60				
Local Development	100				
PentaEnergon Development	100				
Miscellaneous	14				
<b>Total capex (kC\$)</b>	<b>3500</b>				
				Return Metrics	
				Pre-tax IRR (%)	19,61%
				<b>After-Tax IRR (%)</b>	<b>18,78%</b>
				Pay-Back time (y)	5
				Average DSCR	1,60
				Minimum DSCR	1,55



# Tiverton – Business Plan

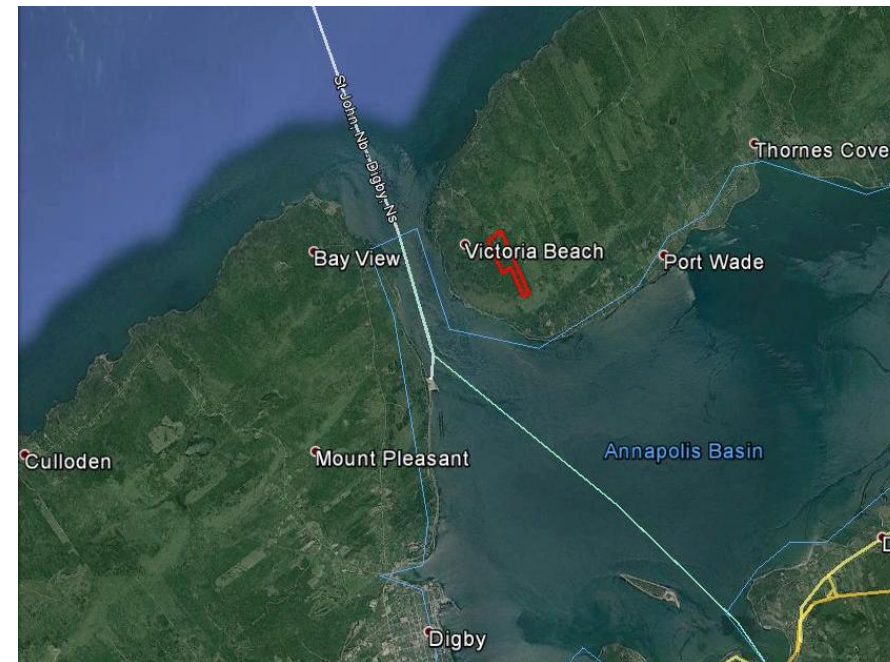
Blue Sky Electricity - Tiverton																					
	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Total annual revenues (kC\$)	527	527	527	527	527	527	527	527	527	527	527	527	527	527	527	527	527	527	527	527	527
Total annual opex (kC\$/y)	84	85	87	88	90	92	94	95	97	99	101	103	105	107	109	111	113	115	118	120	120
<b>Ebitda</b>	<b>443</b>	<b>442</b>	<b>440</b>	<b>439</b>	<b>437</b>	<b>435</b>	<b>433</b>	<b>432</b>	<b>430</b>	<b>428</b>	<b>426</b>	<b>424</b>	<b>422</b>	<b>420</b>	<b>418</b>	<b>416</b>	<b>414</b>	<b>412</b>	<b>409</b>	<b>407</b>	<b>407</b>
Ebitda margin	84%	84%	84%	83%	83%	83%	82%	82%	82%	81%	81%	80%	80%	80%	79%	79%	79%	78%	78%	77%	77%
D&A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Ebit</b>	<b>443</b>	<b>442</b>	<b>440</b>	<b>439</b>	<b>437</b>	<b>435</b>	<b>433</b>	<b>432</b>	<b>430</b>	<b>428</b>	<b>426</b>	<b>424</b>	<b>422</b>	<b>420</b>	<b>418</b>	<b>416</b>	<b>414</b>	<b>412</b>	<b>409</b>	<b>407</b>	<b>407</b>
Ebit margin	84%	84%	84%	83%	83%	83%	82%	82%	82%	81%	81%	80%	80%	80%	79%	79%	79%	78%	78%	77%	77%
Financial interest	158	151	144	136	128	119	110	101	91	80	68	56	43	30	15	0	0	0	0	0	0
Principal repayment	113	120	127	134	142	151	160	170	180	191	202	214	227	241	255	0	0	0	0	0	0
<b>Ebt</b>	<b>286</b>	<b>291</b>	<b>297</b>	<b>303</b>	<b>309</b>	<b>316</b>	<b>323</b>	<b>331</b>	<b>339</b>	<b>348</b>	<b>358</b>	<b>368</b>	<b>379</b>	<b>390</b>	<b>403</b>	<b>416</b>	<b>414</b>	<b>412</b>	<b>409</b>	<b>407</b>	<b>407</b>
<b>Cash Flow</b>	<b>-875</b>	<b>173</b>	<b>172</b>	<b>170</b>	<b>168</b>	<b>167</b>	<b>165</b>	<b>163</b>	<b>161</b>	<b>159</b>	<b>158</b>	<b>156</b>	<b>154</b>	<b>152</b>	<b>150</b>	<b>148</b>	<b>416</b>	<b>414</b>	<b>412</b>	<b>409</b>	<b>407</b>
Taxes	40	41	42	42	43	44	45	46	47	49	50	51	53	55	56	58	58	58	57	57	57
Tax Shield	875	1607	1461	1313	1162	1007	850	688	523	353	179	0	0	0	0	0	0	0	0	0	0
Taxes net of Tax Shield	0	0	0	0	0	0	0	0	0	0	25	51	53	55	56	58	58	58	57	57	57
<b>Net Cash Flow</b>	<b>-875</b>	<b>173</b>	<b>172</b>	<b>170</b>	<b>168</b>	<b>167</b>	<b>165</b>	<b>163</b>	<b>161</b>	<b>159</b>	<b>158</b>	<b>131</b>	<b>102</b>	<b>99</b>	<b>95</b>	<b>91</b>	<b>358</b>	<b>356</b>	<b>354</b>	<b>352</b>	<b>350</b>
Cumulative cash inflow	173	345	515	683	849	1014	1177	1339	1498	1656	1786	1889	1987	2082	2174	2531	2887	3241	3593	3943	3943
DSCR	1,64	1,63	1,63	1,62	1,62	1,61	1,60	1,60	1,59	1,58	1,58	1,57	1,56	1,55	1,55						



# Advanced-stage projects: Victoria Beach

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Site name:	Everett Mountain Road
City:	Victoria Beach
County:	Annapolis
Mean wind speed:	7 m/s
Dominant wind:	SW





# Advanced-stage projects: Victoria Beach

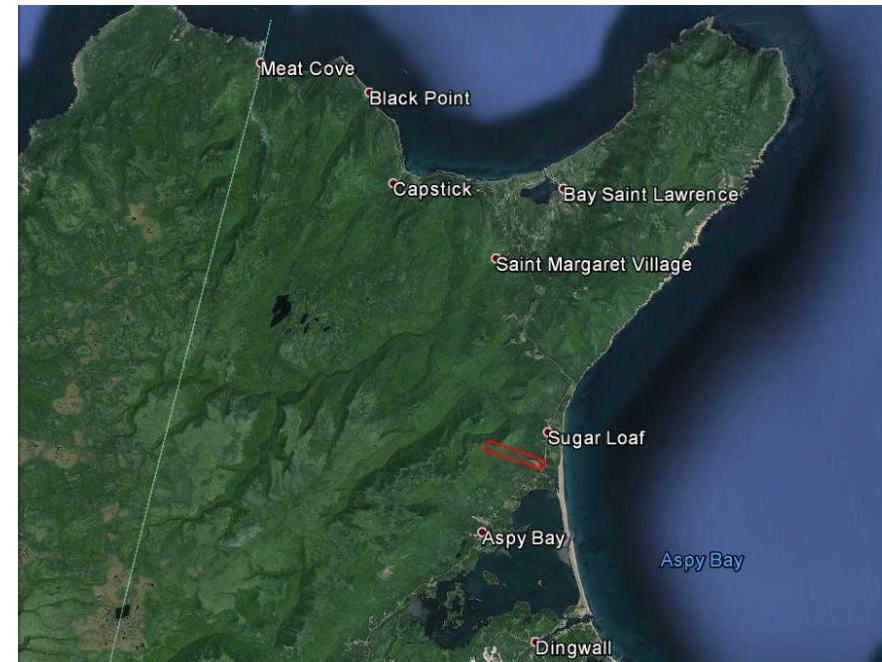
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# Advanced-stage projects: Sugarloaf

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Site name:	6014 Road
City:	1769 Bay St Lawrence rd
County:	Cape Breton
Mean wind speed:	7,5 m/s
Dominant wind:	W/SW





# Advanced-stage projects: Sugarloaf

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