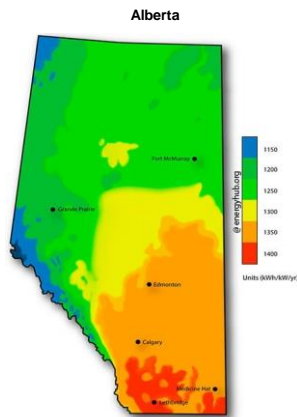


<p>William R Johnson 43217 Twp Rd 634 MD of Bonnyville, Alberta Box 359, Cold Lake, AB, T9M 1P1 790.812.9500 <a href="mailto:wjohn1@gmail.com">wjohn1@gmail.com</a></p> <p><a href="http://www.alberta.ca/micro-generation.aspx">www.alberta.ca/micro-generation.aspx</a></p>	<p><b>Selected Solar Panels</b></p> <p>Source: <a href="http://RaySolar.ca">RaySolar.ca</a>  Rating: 330 watts  Ht: 77.20 in  Width: 39.10 in  Area: 20.96 ft2  Operating Current: 8.88 Amps  Price: \$299.99  Net Output: 15.74 watts/ft2  Cost/100 watts: \$0.9091</p> <p>System Panel Voltage: 24 VDC</p> <p>Lost investment if Savings Used  Future Value : \$30,308</p>	<p><b>Results</b></p> <p>Price Escalation Factor: 1.200  Trans/Dist Escalation Factor: 1.200  Base Electric Rate: 0.08516 \$/kwh  Adjusted Rate: 0.10219 \$/kwh  (A) Base Charges: <b>\$2,841.51</b> /year</p> <p>Solar:  (B) Net Billing: <b>\$2,456.53</b> /year  (C = A - B) Gross Savings: <b>\$384.98</b> /year</p> <p>Interest rate 4.50%  Term: 20 /year  Principal: \$18,210  Payment: \$115 /mo  (D) <b>\$1,382.44</b> /year  (E = B - D) <b>Total Costs: \$3,838.97</b></p> <p style="border: 2px solid red; padding: 5px; display: inline-block;"><b>Added Cost: \$997.46 /year</b></p>	<p>Watts Required: 6901  Panel Rating (watts): 330  Minimum Panels Req'd: 21  Groups Required: 11  <b>Panels Required: 22</b> <a href="http://RaySolar - Panels">RaySolar - Panels</a>  Installed Wattage: 7260  Unit Cost: <del>\$299.99</del>  Panel Cost: <b>\$6,600</b></p> <p>Micro Inverters Required 11  Unit Cost: 299.99 <a href="http://RaySolar - Microinverters">RaySolar - Microinverters</a>  Microinverters \$3,300  Safety Disconnect: \$550  Other Components: \$1,500  Total Components: <b>\$5,350</b> <a href="http://www.raysolar.ca/grid-tied/">www.raysolar.ca/grid-tied/</a>  Freight: \$500 RS6.6: \$11,350  Design.&amp; Permits: \$500  Labor (House): \$3,500  Labor (Panels): \$1,760  Total Labor: <b>\$6,260</b>  <b>\$18,210</b>  <b>\$2.64</b></p> <p>Cost per installed Watt:</p>
	<p>Micro-Generation-in-Alberta</p>		



	Solar Production Potential		Panel Calculations			Split - From and To Grid					Balance		Checksum	
	Alberta (kwh/kw)	Cold Lake (kwh/kw)	Demand	Contingency	Panel Production	Days per Month	Daily Demand	Daily Production	Solar (hrs/day)	Non-Solar (hrs/day)	Solar to House Demand	To Grid		From Grid
Total (Year)	1276	1350	kwh/mo	10.0%			kwh	kwh	1.200					
Jan	74	78.3	660	726	540	31	23.4	17.4	3.031	21.0	25.7	515	634	0
Feb	101	106.9	784	862	737	28	30.8	26.3	4.580	19.4	86.2	651	698	0
Mar	121	128.0	892	981	884	31	31.7	28.5	4.956	19.0	113.4	770	779	0
Apr	129	136.5	1118	1230	942	30	41.0	31.4	5.459	18.5	167.9	774	950	0
May	120	127.0	633	696	876	31	22.5	28.3	4.915	19.1	79.3	797	554	0
Jun	124	131.2	525	578	905	30	19.3	30.2	5.248	18.8	73.8	832	451	0
Jul	128	135.4	551	606	935	31	19.6	30.1	5.242	18.8	77.3	857	474	0
Aug	123	130.1	651	716	898	31	23.1	29.0	5.037	19.0	85.2	813	566	0
Sep	115	121.7	642	706	840	30	23.5	28.0	4.867	19.1	79.0	761	563	0
Oct	104	110.0	663	729	759	31	23.5	24.5	4.259	19.7	63.1	696	600	0
Nov	75	79.3	844	928	548	30	30.9	18.3	3.174	20.8	38.4	509	806	0
Dec	62	65.6	507	558	453	31	18.0	14.6	2.539	21.5	8.3	444	499	0
			8470	9317	9317							8419	7572	

	Purchased From Grid									Sold to Grid				Net Billing
	Energy Charges	Admin Fee	GST	Total Energy	Transmission Charge	Distribution Charge	GST	Total Distribution	Total Charge	Energy Charges	Transmission Charge	Distribution Charge	Total Recovered	
	\$0.1022	\$3.25			\$0.0468	\$0.1557				\$0.1022	\$0.00	\$0.00		
Jan	\$64.82	\$3.25	\$3.40	\$71.48	\$29.69	\$98.75	\$6.42	\$206.34	\$277.82	\$52.59	\$0.00	\$0.00	\$52.59	\$225.22
Feb	\$71.31	\$3.25	\$3.73	\$78.29	\$32.66	\$108.64	\$7.07	\$226.66	\$304.95	\$66.56	\$0.00	\$0.00	\$66.56	\$238.39
Mar	\$79.57	\$3.25	\$4.14	\$86.96	\$36.44	\$121.21	\$7.88	\$252.49	\$339.45	\$78.70	\$0.00	\$0.00	\$78.70	\$260.75
Apr	\$97.09	\$3.25	\$5.02	\$105.36	\$44.47	\$147.90	\$9.62	\$307.35	\$412.70	\$79.10	\$0.00	\$0.00	\$79.10	\$333.61
May	\$56.59	\$3.25	\$2.99	\$62.83	\$25.92	\$86.20	\$5.61	\$180.55	\$243.38	\$81.44	\$0.00	\$0.00	\$81.44	\$161.94
Jun	\$46.11	\$3.25	\$2.47	\$51.83	\$21.12	\$70.25	\$4.57	\$147.76	\$199.59	\$84.99	\$0.00	\$0.00	\$84.99	\$114.61
Jul	\$48.41	\$3.25	\$2.58	\$54.24	\$22.17	\$73.75	\$4.80	\$154.96	\$209.20	\$87.61	\$0.00	\$0.00	\$87.61	\$121.59
Aug	\$57.82	\$3.25	\$3.05	\$64.12	\$26.48	\$88.08	\$5.73	\$184.42	\$248.54	\$83.07	\$0.00	\$0.00	\$83.07	\$165.47
Sep	\$57.53	\$3.25	\$3.04	\$63.82	\$26.35	\$87.65	\$5.70	\$183.52	\$247.34	\$77.74	\$0.00	\$0.00	\$77.74	\$169.61
Oct	\$61.30	\$3.25	\$3.23	\$67.78	\$28.08	\$93.39	\$6.07	\$195.32	\$263.10	\$71.15	\$0.00	\$0.00	\$71.15	\$191.95
Nov	\$82.33	\$3.25	\$4.28	\$89.86	\$37.71	\$125.42	\$8.16	\$261.14	\$350.99	\$52.04	\$0.00	\$0.00	\$52.04	\$298.95
Dec	\$50.96	\$3.25	\$2.71	\$56.92	\$23.34	\$77.64	\$5.05	\$162.95	\$219.87	\$45.41	\$0.00	\$0.00	\$45.41	\$174.46
	\$773.85	\$39.00	\$40.64	\$853.49	\$354.42	\$1,178.87	\$76.66	\$2,463.45	\$3,316.94	\$860.41	\$0.00	\$0.00	\$860.41	\$2,456.53

