

Ethereum Mining Profitability & Scenario Analysis (NVIDIA)

Prepared on:	Sep 7, 2021
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*All dollar amounts in CAD

¢/MH/Day	9.30
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Current	Electricity Cost (¢/kWh)			10.325		ETH Price			4356		Daily Blocks			6459		¢/MH/Day			9.30	
	Network Hashrate (TH/s)			686.85		Daily Reward			14666		Block Reward			2.271						
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090			
	Revenue/Day	2.79	2.97	3.16	4.28	2.79	2.98	3.93	4.09	4.00	4.00	3.93	5.51	5.63	5.63	8.65	11.16			
	Hashrate (MH/s)	30.0	31.9	34.0	46.0	30.0	32.0	42.3	44.0	43.0	43.0	42.2	59.2	60.5	60.6	93.0	120.0			
	Power Usage (W)	120	135	170	240	90	90	110	120	125	108	140	230	120	120	260	285			
	El. Costs (\$ /Day)	0.30	0.33	0.42	0.59	0.22	0.22	0.27	0.30	0.31	0.27	0.35	0.57	0.30	0.30	0.64	0.71			
	Gross Profit/Day ¹	2.49	2.63	2.74	3.68	2.57	2.75	3.66	3.80	3.69	3.73	3.58	4.94	5.33	5.34	8.01	10.46			
	Market Price ²	530	550	550	850	650	750	850	900	950	950	1100	1200	1500	1750	2350	3500			
	Efficiency (kH/s/W)	250	236	200	192	333	356	384	367	344	398	301	257	504	505	358	421			
ROI Time (Days)	213	209	201	231	253	272	232	237	257	255	307	243	281	328	294	335				
Annual Returns ³	172%	175%	182%	158%	144%	134%	157%	154%	142%	143%	119%	150%	130%	111%	124%	109%				

¹ Gross profits take into account only cost of electricity. Taxes, withdrawal fees, transaction fees and depreciation has not been considered.

² Sourced from historic Ebay sold listings in Canada on May 1, 2021. These are approximate prices and subject to volatility in demand and supply.

³ Return on investment into a graphics card to be used for mining 100% of the time for a period of 365 days.

559	Discount	12%															
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
	Revenue/Day (CAD)*	2.46	2.61	2.79	3.77	2.46	2.62	3.46	3.60	3.52	3.52	3.46	4.85	4.96	4.96	7.62	9.83
	Gross Profit/Day (CAD)	2.16	2.28	2.36	3.17	2.23	2.40	3.19	3.31	3.21	3.26	3.11	4.28	4.66	4.66	6.98	9.13
	ROI Time (days)	245	241	233	268	291	313	267	272	296	292	354	280	322	375	337	384
	Annual Returns	149%	151%	157%	136%	125%	117%	137%	134%	123%	125%	103%	130%	113%	97%	108%	95%

9-1 VERY LIKELY

* This scenario takes into account the effects of the EIP-1559 resolution. The current average block reward on May 1, 2021 is 2.5 eth (from etherscan) and the profitability numbers above reflect this amount. After the EIP-1559 resolution is implemented (expected in sometime July 2021), this block reward will be lowered to the standard 2 ether per block (plus rush fees). This will lower our profits from mining from its current number to 2/2.5 of what it is now, or 80% of what it is now (a decrease of 20%). Note that due to miners potentially exiting the network from the reduced fees, we may see a reduced network difficulty, so this is a conservative estimate of the results. Furthermore, the block reward will not only be the 2 ether per block, but will also include priority transaction fees. So the amount of discount in this scenario represents a worst-case scenario for a reduced block reward. This scenario discounts the revenue from mining by 35% to simulate the effects of EIP-1559.

Crash	Discount	94%															
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
	Revenue/Day (CAD)*	0.16	0.18	0.19	0.25	0.16	0.18	0.23	0.24	0.24	0.24	0.23	0.33	0.33	0.33	0.51	0.66
	Gross Profit/Day (CAD)	-0.13	-0.16	-0.23	-0.34	-0.06	-0.05	-0.04	-0.06	-0.07	-0.03	-0.12	-0.24	0.04	0.04	-0.13	-0.05
	ROI Time (days)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	42759	49421	N/A	N/A
	Annual Returns	-9%	-11%	-16%	-15%	-3%	-2%	-2%	-2%	-3%	-1%	-4%	-7%	1%	1%	-2%	0%

VERY UNLIKELY

* This scenario will consider then impacts of an immediate market crash similar to the one following the 2017-2018 speculative bubble into cryptocurrencies. In 2018, the price of Ethereum fell from a high of \$1405 on Jan 9 to 83 USD at the lowest point on Dec 15 (from Coindesk). This reflects a 94% reduction in price and hence mining profits. This scenario discounts revenue by 94% to simulate a market crash. Note that in this scenario, in contrast to the above scenario, the loss of mining revenue is due to a discounted price of Ethereum whereas in the above scenario, revenue decreased from a reduction in ETH paid as a block reward for mining.

Correction	Discount	65%																
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090	
	Revenue/Day (CAD)*	0.96	1.02	1.09	1.48	0.96	1.03	1.36	1.41	1.38	1.38	1.35	1.90	1.94	1.94	2.99	3.85	
	Gross Profit/Day (CAD)	0.67	0.69	0.67	0.88	0.74	0.80	1.08	1.12	1.07	1.11	1.01	1.33	1.65	1.65	2.34	3.15	
	ROI Time (days)	796	797	820	963	878	932	784	807	887	854	1091	902	912	1062	1003	1112	
	Annual Returns	46%	46%	44%	38%	42%	39%	47%	45%	41%	43%	33%	40%	40%	34%	36%	33%	

[illegible]

* This scenario recognizes that the price depreciation from a market correction will not be instantaneous and will take time similar to the previous crash. This scenario will consider the impacts that a market pullback of similar proportion to the one observed in 2018. In that market pullback from Jan 9 to Dec 15 2018, the average daily closing price of Ethereum was \$485 compared to the peak of \$1405 USD. In this scenario, we will consider a revenue reduction in Ethereum by 65% to simulate the actual average daily profitability in the case of a similar market decline.

Ethereum Mining Profitability & Scenario Analysis (AMD)

Prepared on: Sep 7, 2021

*All dollar amounts in CAD

Current	Electricity Cost (¢/kWh)			10.325			ETH Price			4356			Daily Blocks			6459			¢/MH/Day			9.30		
	Network Hashrate (TH/s)			686.85			Daily Reward			14666			Block Reward			2.271								
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII							
	Revenue/Day	2.83	2.83	2.84	2.91	2.86	2.42	3.44	4.98	5.09	4.37	5.90	5.99	5.95	3.59	4.37	8.42							
	Hashrate (MH/s)	30.4	30.4	30.5	31.3	30.8	26.0	37.0	53.5	54.7	47.0	63.4	64.4	64.0	38.6	47.0	90.5							
	Power Usage (W)	120	130	130	130	130	70	100	160	140	170	175	190	220	215	220	220							
	El. Costs (\$ /Day)	0.30	0.32	0.32	0.32	0.32	0.17	0.25	0.40	0.35	0.42	0.43	0.47	0.55	0.53	0.55	0.55							
	Gross Profit/Day ¹	2.53	2.51	2.51	2.59	2.54	2.24	3.19	4.58	4.74	3.95	5.46	5.52	5.41	3.06	3.83	7.87							
	Market Price ²	500	500	500	500	500	500	650	900	950	800	1300	1700	1600	700	850	2100							
	Efficiency (kH/s/W)	253	234	235	241	237	371	370	334	391	276	362	339	291	180	214	411							
	ROI Time (Days)	198	200	199	193	197	223	204	197	200	203	238	308	296	229	222	267							
	Annual Returns ³	185%	183%	184%	189%	186%	164%	179%	186%	182%	180%	153%	119%	123%	159%	164%	137%							

EIP- 1559	Discount	12%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	2.49	2.49	2.50	2.56	2.52	2.13	3.03	4.38	4.48	3.85	5.19	5.28	5.24	3.16	3.85	7.41
	Gross Profit/Day (CAD)	2.19	2.17	2.18	2.24	2.20	1.96	2.78	3.99	4.13	3.43	4.76	4.81	4.70	2.63	3.31	6.87
	ROI Time (days)	228	231	230	223	227	256	234	226	230	233	273	354	341	266	257	306
	Annual Returns	160%	158%	159%	164%	161%	143%	156%	162%	159%	156%	134%	103%	107%	137%	142%	119%

Crash	Discount	94%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	0.17	0.17	0.17	0.17	0.17	0.14	0.20	0.29	0.30	0.26	0.35	0.35	0.35	0.21	0.26	0.50
	Gross Profit/Day (CAD)	-0.13	-0.16	-0.15	-0.15	-0.15	-0.03	-0.04	-0.10	-0.05	-0.16	-0.09	-0.12	-0.19	-0.32	-0.29	-0.05
	ROI Time (days)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Annual Returns	-10%	-11%	-11%	-11%	-11%	-2%	-2%	-4%	-2%	-7%	-2%	-3%	-4%	-17%	-12%	-1%

Correct	Discount	65%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	0.98	0.98	0.98	1.01	0.99	0.83	1.19	1.72	1.76	1.51	2.04	2.07	2.05	1.24	1.51	2.91
	Gross Profit/Day (CAD)	0.68	0.65	0.66	0.68	0.67	0.66	0.94	1.32	1.41	1.09	1.60	1.60	1.51	0.71	0.96	2.36
	ROI Time (days)	737	765	761	732	750	756	691	681	674	735	811	1065	1060	991	882	890
	Annual Returns	50%	48%	48%	50%	49%	48%	53%	54%	54%	50%	45%	34%	34%	37%	41%	41%