Ethereum Mining Profitability & Scenario Analysis (NVIDIA)

Prepared on: August 21, 2021 *All dollar amounts in CAD

	Electricity Cost (¢/kV Network Hashrate (T		10.325 634.29			Price leward	4145 13836		,	Blocks Reward	6431 2.151		¢/МН	I/Day	9.04166		
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
	Revenue/Day	2.71	2.88	3.25	4.16	2.71	2.89	3.82	3.98	3.89	3.89	3.82	5.35	5.47	5.48	8.68	10.85
	Hashrate (MH/s)	30.0	31.9	36.0	46.0	30.0	32.0	42.3	44.0	43.0	43.0	42.2	59.2	60.5	60.6	96.0	120.0
nt	Power Usage (W)	120	135	135	240	90	90	110	120	125	108	140	230	120	120	260	285
ē	El. Costs (\$ /Day)	0.30	0.33	0.33	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	2.42	2.55	2.92	3.56	2.49	2.67	3.55	3.68	3.58	3.62	3.47	4.78	5.17	5.18	8.04	10.14
J C	Market Price ²	600	650	700	950	500	800	950	1000	1000	1000	1000	1200	1200	1300	1850	2777
	Efficiency (kH/s/W)	250	236	267	192	333	356	384	367	344	398	301	257	504	505	369	421
	ROI Time (Days)	248	255	240	267	201	300	268	272	279	276	288	251	232	251	230	274
	Annual Returns ³	147%	143%	152%	137%	182%	122%	136%	134%	131%	132%	127%	145%	157%	145%	159%	133%

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

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.

	Discount	7%															
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
	Revenue/Day (CAD)*	2.52	2.68	3.03	3.87	2.52	2.69	3.55	3.70	3.61	3.61	3.55	4.98	5.09	5.09	8.07	10.09
	Gross Profit/Day (CAD)	2.22	2.35	2.69	3.27	2.30	2.47	3.28	3.40	3.30	3.35	3.20	4.41	4.79	4.79	7.42	9.38
59	ROI Time (days)	270	277	260	290	218	324	290	294	303	299	312	272	251	271	249	296
55	Annual Returns	135%	132%	140%	126%	168%	113%	126%	124%	121%	122%	117%	134%	146%	135%	146%	123%

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.

	Discount	94%															
_	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
당	Revenue/Day (CAD)*	0.16	0.17	0.19	0.25	0.16	0.17	0.23	0.24	0.23	0.23	0.23	0.32	0.32	0.32	0.51	0.64
Ö	Gross Profit/Day (CAD)	-0.14	-0.16	-0.14	-0.35	-0.06	-0.05	-0.05	-0.06	-0.08	-0.04	-0.12	-0.25	0.03	0.03	-0.13	-0.07
j	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	46528	49787	N/A	N/A
ب	Annual Returns	-8%	-9%	-7%	-13%	-5%	-2%	-2%	-2%	-3%	-1%	-4%	-8%	1%	1%	-3%	-1%

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.

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)*	0.94	1.00	1.12	1.44	0.94	1.00	1.32	1.37	1.34	1.34	1.32	1.85	1.89	1.89	3.00	3.75
Gross Profit/Day (CAD)	0.64	0.66	0.79	0.84	0.71	0.78	1.05	1.08	1.03	1.07	0.97	1.28	1.59	1.59	2.35	3.04
ROI Time (days)	939	983	887	1130	701	1031	908	929	969	931	1031	939	754	816	787	914
Annual Returns	39%	37%	41%	32%	52%	35%	40%	39%	38%	39%	35%	39%	48%	45%	46%	40%
	Card Revenue/Day (CAD)* Gross Profit/Day (CAD) ROI Time (days)	Card 1070 Revenue/Day (CAD)* 0.94 Gross Profit/Day (CAD) 0.64 ROI Time (days) 939	Card 1070 1070 Ti Revenue/Day (CAD)* 0.94 1.00 Gross Profit/Day (CAD) 0.64 0.66 ROI Time (days) 939 983	Card 1070 1070 Ti 1080 Revenue/Day (CAD)* 0.94 1.00 1.12 Gross Profit/Day (CAD) 0.64 0.66 0.79 ROI Time (days) 939 983 887	Card 1070 1070 Ti 1080 1080 Ti Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 ROI Time (days) 939 983 887 1130	Card 1070 1070 Ti 1080 1080 Ti 1660s Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 ROI Time (days) 939 983 887 1130 701	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 ROI Time (days) 939 983 887 1130 701 1031	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 ROI Time (days) 939 983 887 1130 701 1031 908	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 1.37 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 1.08 ROI Time (days) 939 983 887 1130 701 1031 908 929	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 1.37 1.34 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 1.08 1.03 ROI Time (days) 939 983 887 1130 701 1031 908 929 969	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s 2080 Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 1.37 1.34 1.34 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 1.08 1.03 1.07 ROI Time (days) 939 983 887 1130 701 1031 908 929 969 931	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s 2080 2080s Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 1.37 1.34 1.34 1.32 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 1.08 1.03 1.07 0.97 ROI Time (days) 939 983 887 1130 701 1031 908 929 969 931 1031	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s 2080 2080s 2080 Ti Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 1.37 1.34 1.34 1.32 1.85 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 1.08 1.03 1.07 0.97 1.28 ROI Time (days) 939 983 887 1130 701 1031 908 929 969 931 1031 939	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s 2080 2080s 2080Ti 3060 Ti Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 1.37 1.34 1.34 1.32 1.85 1.89 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 1.08 1.03 1.07 0.97 1.28 1.59 ROI Time (days) 939 983 887 1130 701 1031 908 929 969 931 1031 939 754	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s 2080 2080 Ti 3060 Ti 3070 Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 1.37 1.34 1.34 1.32 1.85 1.89 1.89 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 1.08 1.03 1.07 0.97 1.28 1.59 1.59 ROI Time (days) 939 983 887 1130 701 1031 908 929 969 931 1031 939 754 816	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s 2080 2080s 2080 Ti 3060 Ti 3070 3080 Revenue/Day (CAD)* 0.94 1.00 1.12 1.44 0.94 1.00 1.32 1.37 1.34 1.34 1.32 1.85 1.89 1.89 3.00 Gross Profit/Day (CAD) 0.64 0.66 0.79 0.84 0.71 0.78 1.05 1.08 1.03 1.07 0.97 1.28 1.59 1.59 2.35 ROI Time (days) 939 983 887 1130 701 1031 908 929 969 931 1031 939 754 816 787

LIKELY

* 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: August 21, 2021 *All dollar amounts in CAD

	Electricity Cost (¢/kV	Vh)	10.325	ľ	ETH	Price	4145	1 1	Daily	Blocks	6431	ľ	. /	. /=	0.04466		
	Network Hashrate (TI	1/s)	634.29		Daily F	Reward	13836		Block I	Reward	2.151		¢/Mi	I/Day	9.04166		
	·	•														J	
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day	2.75	2.75	2.76	2.83	2.78	2.35	3.35	4.84	4.95	4.25	5.73	5.82	5.79	3.49	4.25	8.18
	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
2	Power Usage (W)	120	130	130	130	130	70	100	160	140	170	175	190	220	215	220	220
urrent	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
J	Gross Profit/Day ¹	2.45	2.43	2.44	2.51	2.46	2.18	3.10	4.44	4.60	3.83	5.30	5.35	5.24	2.96	3.70	7.64
	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)	204	206	205	199	203	230	210	203	207	209	245	318	305	237	229	275
	Annual Returns ³	179%	177%	178%	183%	180%	159%	174%	180%	177%	175%	149%	115%	120%	154%	159%	133%
										1							
6	Discount	7%	1														
2	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
15	Revenue/Day (CAD)*	2.56	2.56	2.56	2.63	2.59	2.19	3.11	4.50	4.60	3.95	5.33	5.41	5.38	3.24	3.95	7.61
	Gross Profit/Day (CAD)	2.26	2.23	2.24	2.31	2.27	2.01	2.86	4.10	4.25	3.53	4.90	4.94	4.83	2.71	3.41	7.06
_	ROI Time (days)	221	224	223	217	221	249	227	219	223	227	266	344	331	258	250	297
Ш	Annual Returns	165%	163%	164%	169%	165%	147%	161%	166%	163%	161%	137%	106%	110%	141%	146%	123%
	-		_														
	Discount	94%															
_	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
Crash	Revenue/Day (CAD)*	0.16	0.16	0.16	0.17	0.16	0.14	0.20	0.29	0.29	0.25	0.34	0.34	0.34	0.21	0.25	0.48
1 12	Gross Profit/Day (CAD)	-0.13	-0.16	-0.16	-0.15	-0.16	-0.03	-0.05	-0.11	-0.05	-0.17	-0.10	-0.13	-0.20	-0.33	-0.29	-0.06
	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%	-12%	-12%	-11%	-12%	-3%	-3%	-4%	-2%	-8%	-3%	-3%	-5%	-17%	-13%	-1%
	Discount	65%															
ן ק	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
<u> </u>	Revenue/Day (CAD)*	0.95	0.95	0.95	0.98	0.96	0.81	1.15	1.67	1.71	1.47	1.98	2.01	2.00	1.20	1.47	2.82
Correct	Gross Profit/Day (CAD)	0.65	0.63	0.63	0.65	0.64	0.64	0.91	1.27	1.36	1.05	1.55	1.54	1.45	0.67	0.92	2.28
	ROI Time (days)	767	798	794	764	782	784	717	707	698	765	841	1104	1102	1042	922	921

40%

Annual Returns