

## Ethereum Mining Profitability & Scenario Analysis (NVIDIA)

<b>Prepared on:</b>	Sep 11, 2021
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\*All dollar amounts in CAD

¢/MH/Day	8.16
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Current	Electricity Cost (¢/kWh)			10.325		ETH Price			4121		Daily Blocks			6396		¢/MH/Day			8.16	
	Network Hashrate (TH/s)			695.99		Daily Reward			13788		Block Reward			2.156						
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090			
	Revenue/Day	2.45	2.60	2.78	3.76	2.45	2.61	3.45	3.59	3.51	3.51	3.45	4.83	4.94	4.94	7.59	9.80			
	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 <sup>1</sup>	2.15	2.27	2.35	3.16	2.23	2.39	3.18	3.29	3.20	3.24	3.10	4.26	4.64	4.65	6.95	9.09			
	Market Price <sup>2</sup>	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)	246	242	234	269	292	314	268	273	297	293	355	281	323	377	338	385				
Annual Returns <sup>3</sup>	148%	151%	156%	136%	125%	116%	136%	134%	123%	125%	103%	130%	113%	97%	108%	95%				

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

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

	Discount	7%
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559	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)*	2.27	2.42	2.58	3.48	2.27	2.42	3.20	3.33	3.26	3.26	3.20	4.48	4.58	4.59	7.04	9.09
	Gross Profit/Day (CAD)	1.97	2.08	2.15	2.89	2.05	2.20	2.93	3.04	2.95	2.99	2.85	3.91	4.28	4.29	6.40	8.38
	ROI Time (days)	268	264	255	294	317	341	290	297	322	318	386	307	350	408	367	418
	Annual Returns	136%	138%	143%	124%	115%	107%	126%	123%	113%	115%	95%	119%	104%	89%	99%	87%

**1 - 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.

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Net 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)*	0.14	0.15	0.16	0.22	0.14	0.15	0.20	0.21	0.21	0.21	0.20	0.29	0.29	0.29	0.45	0.58
	Gross Profit/Day (CAD)	-0.15	-0.18	-0.26	-0.37	-0.08	-0.07	-0.07	-0.09	-0.10	-0.06	-0.14	-0.28	-0.01	-0.01	-0.20	-0.13
	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	-11%	-12%	-17%	-16%	-4%	-3%	-3%	-3%	-4%	-2%	-5%	-9%	0%	0%	-3%	-1%

ket	Annual Returns	-11%	12%	-17%	-16%	-4%	-3%	-3%	-3%	-4%	-2%	-3%	-9%	0%	0%	-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.

[illegible]

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)*	0.85	0.90	0.96	1.30	0.85	0.90	1.19	1.24	1.21	1.21	1.19	1.67	1.70	1.71	2.62	3.38
	Gross Profit/Day (CAD)	0.55	0.56	0.54	0.70	0.62	0.68	0.92	0.94	0.90	0.94	0.84	1.10	1.41	1.41	1.98	2.68
	ROI Time (days)	967	974	1024	1212	1044	1105	926	955	1053	1006	1306	1093	1066	1242	1189	1308
	Annual Returns	38%	37%	36%	30%	35%	33%	39%	38%	35%	36%	28%	33%	34%	29%	31%	28%

[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 11, 2021

\*All dollar amounts in CAD

Current	Electricity Cost (¢/kWh)	10.325															
	Network Hashrate (TH/s)	695.99															
	ETH Price	4121															
	Daily Reward	13788															
	Daily Blocks	6396															
	Block Reward	2.156															
	¢/MH/Day	8.16															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day	2.48	2.48	2.49	2.56	2.51	2.12	3.02	4.37	4.47	3.84	5.18	5.26	5.22	3.15	3.84	7.39
	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

EIP- 1559	Discount	7%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	2.30	2.30	2.31	2.37	2.33	1.97	2.80	4.05	4.14	3.56	4.80	4.88	4.85	2.92	3.56	6.85
	Gross Profit/Day (CAD)	2.01	1.98	1.99	2.05	2.01	1.80	2.55	3.66	3.80	3.14	4.37	4.41	4.30	2.39	3.01	6.31
	ROI Time (days)	249	252	252	244	249	278	254	246	250	255	298	386	372	293	282	333

Crash	Discount	94%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	0.15	0.15	0.15	0.15	0.15	0.13	0.18	0.26	0.26	0.23	0.31	0.31	0.31	0.19	0.23	0.44
	Gross Profit/Day (CAD)	-0.15	-0.18	-0.18	-0.17	-0.17	-0.05	-0.07	-0.14	-0.08	-0.19	-0.13	-0.16	-0.24	-0.35	-0.32	-0.11
	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

Correct	Discount	65%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	0.86	0.86	0.86	0.88	0.87	0.73	1.04	1.51	1.54	1.32	1.79	1.81	1.80	1.09	1.32	2.55
	Gross Profit/Day (CAD)	0.56	0.53	0.54	0.56	0.55	0.56	0.79	1.11	1.19	0.90	1.35	1.34	1.26	0.55	0.78	2.01
	ROI Time (days)	894	935	930	893	916	894	818	810	795	886	961	1265	1271	1261	1091	1047