

## Ethereum Mining Profitability & Scenario Analysis (NVIDIA)

<b>Prepared on:</b>	August 03, 2021
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\*All dollar amounts in CAD

	Electricity Cost (¢/kWh)	10.325		ETH Price	3102		Daily Blocks	6396		¢/MH/Day	9.15959
	Network Hashrate (TH/s)	572.77		Daily Reward	16915		Block Reward	2.645			

Current	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
	Revenue/Day	2.75	2.92	3.30	4.21	2.75	2.93	3.87	4.03	3.94	3.94	3.87	5.42	5.54	5.55	8.79	10.99
	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
	Power Usage (W)	120	135	135	240	90	90	110	120	125	108	140	230	120	120	260	285
	El. Costs (\$ /W)	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 <sup>1</sup>	2.45	2.59	2.96	3.62	2.52	2.71	3.60	3.73	3.63	3.67	3.52	4.85	5.24	5.25	8.15	10.29
	Market Price <sup>2</sup>	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)	245	251	236	263	198	295	264	268	276	272	284	247	229	248	227	270
	Annual Returns <sup>3</sup>	149%	145%	154%	139%	184%	124%	138%	136%	132%	134%	128%	148%	160%	147%	161%	135%

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

<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.

559	Discount	24%																
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090	
	Revenue/Day (CAD)*	2.08	2.21	2.49	3.19	2.08	2.22	2.93	3.05	2.98	2.98	2.92	4.10	4.19	4.19	6.65	8.31	
	Gross Profit/Day (CAD)	1.78	1.88	2.16	2.59	1.86	1.99	2.65	2.75	2.67	2.71	2.58	3.53	3.89	3.90	6.01	7.61	
	ROI Time (days)	337	347	324	367	270	401	358	364	375	369	388	340	308	334	308	365	
	Annual Returns	108%	105%	113%	100%	135%	91%	102%	100%	97%	99%	94%	107%	118%	109%	118%	100%	

**2- 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.

t 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	0.17	0.19	0.25	0.16	0.17	0.23	0.24	0.23	0.23	0.23	0.32	0.33	0.33	0.52	0.65
	Gross Profit/Day (CAD)	-0.14	-0.16	-0.14	-0.35	-0.06	-0.05	-0.04	-0.06	-0.08	-0.03	-0.12	-0.25	0.03	0.03	-0.12	-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	39992	42861	N/A	N/A
	Annual Returns	-8%	-9%	-7%	-13%	-4%	-2%	-2%	-2%	-3%	-1%	-4%	-8%	1%	1%	-2%	-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.

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)*	0.95	1.01	1.14	1.45	0.95	1.01	1.34	1.39	1.36	1.36	1.33	1.87	1.91	1.91	3.04	3.79	
	Gross Profit/Day (CAD)	0.65	0.67	0.80	0.86	0.73	0.79	1.06	1.09	1.05	1.09	0.99	1.30	1.62	1.62	2.39	3.09	
	ROI Time (days)	921	964	871	1105	689	1014	893	914	953	916	1013	922	743	804	774	899	
	Annual Returns	40%	38%	42%	33%	53%	36%	41%	40%	38%	40%	36%	40%	49%	45%	47%	41%	

## et 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 03, 2021

\*All dollar amounts in CAD

Current	Electricity Cost (¢/kWh)	10.325															
	Network Hashrate (TH/s)	572.77															
	ETH Price	3102															
	Daily Reward	16915															
	Daily Blocks	6396															
	Block Reward	2.645															
	¢/MH/Day	9.15959															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day	2.78	2.78	2.79	2.87	2.82	2.38	3.39	4.90	5.01	4.31	5.81	5.90	5.86	3.54	4.31	8.29
	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	24%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	2.11	2.11	2.11	2.17	2.13	1.80	2.56	3.71	3.79	3.26	4.39	4.46	4.43	2.67	3.26	6.27
	Gross Profit/Day (CAD)	1.81	1.78	1.79	1.85	1.81	1.63	2.32	3.31	3.44	2.83	3.96	3.99	3.89	2.14	2.71	5.72
	ROI Time (days)	276	280	279	271	276	307	281	272	276	282	328	426	412	327	314	367

Crash	Discount	94%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	0.16	0.16	0.17	0.17	0.17	0.14	0.20	0.29	0.30	0.25	0.34	0.35	0.35	0.21	0.25	0.49
	Gross Profit/Day (CAD)	-0.13	-0.16	-0.16	-0.15	-0.16	-0.03	-0.05	-0.11	-0.05	-0.17	-0.09	-0.12	-0.20	-0.32	-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

Correct	Discount	65%															
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
	Revenue/Day (CAD)*	0.96	0.96	0.96	0.99	0.97	0.82	1.17	1.69	1.73	1.49	2.00	2.04	2.02	1.22	1.49	2.86
	Gross Profit/Day (CAD)	0.66	0.64	0.64	0.67	0.65	0.65	0.92	1.30	1.38	1.06	1.57	1.57	1.48	0.69	0.94	2.32
	ROI Time (days)	753	782	779	749	767	771	705	695	687	751	828	1086	1082	1018	903	907