

Ethereum Mining Profitability & Scenario Analysis

Current	Electricity Cost (CAD/kWh)			0.10325		ETH Price (CAD)			3590					
	Card	1080	1080 Ti	2060	2060s	2070	2070s	2080	2080s	2080Ti	3060 Ti	3070	3080	3090
	Revenue/Day (CAD) ¹	4.23	5.23	3.69	4.83	4.88	4.89	5.23	5.30	7.04	6.92	6.92	10.97	13.57
	Hashrate (MH/s)	37	45.69	32	42.25	42.7	43	43	42.2	59.2	60.5	60.56	96	120
	Power Usage (W)	135	170	90	110	120	125	108	140	230	120	120	220	285
	El. Costs (CAD/day)	0.33	0.42	0.22	0.27	0.30	0.31	0.27	0.35	0.57	0.30	0.30	0.55	0.71
	Gross Profit/Day (CAD) ²	3.90	4.81	3.47	4.56	4.58	4.58	4.96	4.95	6.47	6.62	6.62	10.42	12.86
	Market Price (CAD) ³	700	1050	800	950	1000	1000	1300	1300	1800	1850	1850	2900	4300
	Efficiency (MH/s/W)	0.27	0.27	0.36	0.38	0.36	0.34	0.40	0.30	0.26	0.50	0.50	0.44	0.42
	ROI Time (days)	180	218	231	208	218	218	262	262	278	279	279	278	334
Annual Returns ⁴	203%	167%	158%	175%	167%	167%	139%	139%	131%	131%	131%	131%	109%	
¹ Sourced from Nicehash's profitability calculator on May 1, 2021. These numbers are approximate and subject to volatility in relation to ETH price.														
² Gross profits take into account only cost of electricity. Taxes, withdrawal fees, transaction fees and depreciation has not been considered.														
³ Sourced from historic Ebay sold listings in Canada on May 1, 2021. These are approximate prices and subject to volatility in demand and supply.														
⁴ Return on investment into a graphics card to be used for mining 100% of the time for a period of 365 days.														

EIP- 1559	Discount	35%												
	Card	1080	1080 Ti	2060	2060s	2070	2070s	2080	2080s	2080Ti	3060 Ti	3070	3080	3090
	Revenue/Day (CAD)*	2.75	3.40	2.40	3.14	3.17	3.18	3.40	3.45	4.58	4.50	4.50	7.13	8.82
	Gross Profit/Day (CAD)	2.41	2.98	2.18	2.87	2.87	2.87	3.13	3.10	4.01	4.20	4.20	6.59	8.11
	ROI Time (days)	290	353	368	331	348	349	415	420	449	440	440	440	530
	Annual Returns	126%	104%	99%	110%	105%	105%	88%	87%	81%	83%	83%	83%	69%
	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. This scenario discounts the revenue from mining by 35% to simulate the effects of EIP-1559.													

Market Crash	Discount	94%												
	Card	1080	1080 Ti	2060	2060s	2070	2070s	2080	2080s	2080Ti	3060 Ti	3070	3080	3090
	Revenue/Day (CAD)*	0.25	0.31	0.22	0.29	0.29	0.29	0.31	0.31	0.42	0.41	0.41	0.65	0.80
	Gross Profit/Day (CAD)	-0.08	-0.11	-0.01	0.01	-0.01	-0.02	0.04	-0.03	-0.15	0.11	0.11	0.10	0.10
	ROI Time (days)	N/A	N/A	N/A	74504	N/A	N/A	31449	N/A	N/A	16601	16601	28185	45067
	Annual Returns	-4%	-4%	0%	0%	0%	-1%	1%	-1%	-3%	2%	2%	1%	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.													

Market Correction	Discount	65%												
	Card	1080	1080 Ti	2060	2060s	2070	2070s	2080	2080s	2080Ti	3060 Ti	3070	3080	3090
	Revenue/Day (CAD)*	1.46	1.81	1.27	1.67	1.68	1.69	1.81	1.83	2.43	2.39	2.39	3.79	4.68
	Gross Profit/Day (CAD)	1.13	1.38	1.05	1.39	1.39	1.38	1.54	1.48	1.86	2.09	2.09	3.24	3.98
	ROI Time (days)	622	759	761	681	721	726	845	877	968	885	885	895	1081
	Annual Returns	59%	48%	48%	54%	51%	50%	43%	42%	38%	41%	41%	41%	34%
	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.													