

ETC  
Cooperative

# Q3 2020 Transparency Report

November 10, 2020



[etccooperative.org](https://etccooperative.org)



# Sections

- 1 Overview
- 2 Protocol
- 3 Infrastructure
- 4 Comms & Marketing
- 5 Grants
- 6 Finance
- 7 Goals & Objectives – Q3 Update

# Purpose Transparency Report



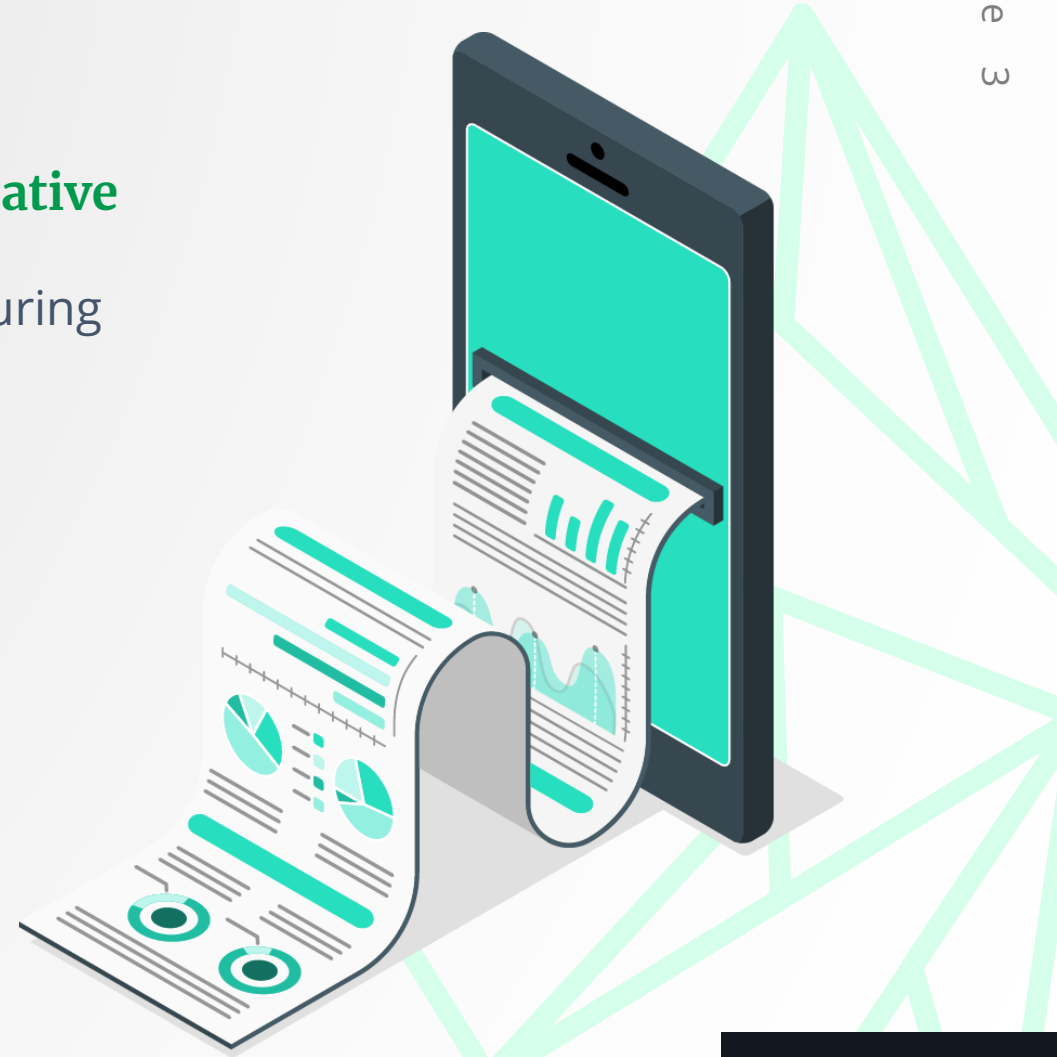
The purpose of the report is to update **ETC Cooperative stakeholders and the public** about the activities, operations, and progress of the ETC Cooperative, during the last fiscal quarter.



These presentation will include a **financial section** as well as progress towards the annual goals and objectives.



A full 2020 annual report, similar to the 2019 retrospective will be completed in 2021.





# Overview

- › Staffing changes – Yaz, Kevin and Stev.
- › **ETC suffered three 51% attacks within a month**
- › Return of Charles Hoskinson and IOHK.
- › All the proposals for 51% attack resistance.
- › Work begun on 1099 for Besu with Thanos hardfork in November.
- › All infrastructure switched to Besu (ethercluster, BlockScout, full and boot nodes)
- › Rebooting of grants process deferred. Funding Besu is the new focus.
- › Collaboration with IOHK started.
- › Comms and Marketing.

# Staffing Changes

- › Kevin Lord joined the ETC Cooperative as Community Manager at the start of July on a part-time basis. He turned full-time in September.



- › Stevan Lohja joined the ETC Cooperative in September, replacing Yaz Khoury as Director of Developer Relations.



## Protocol

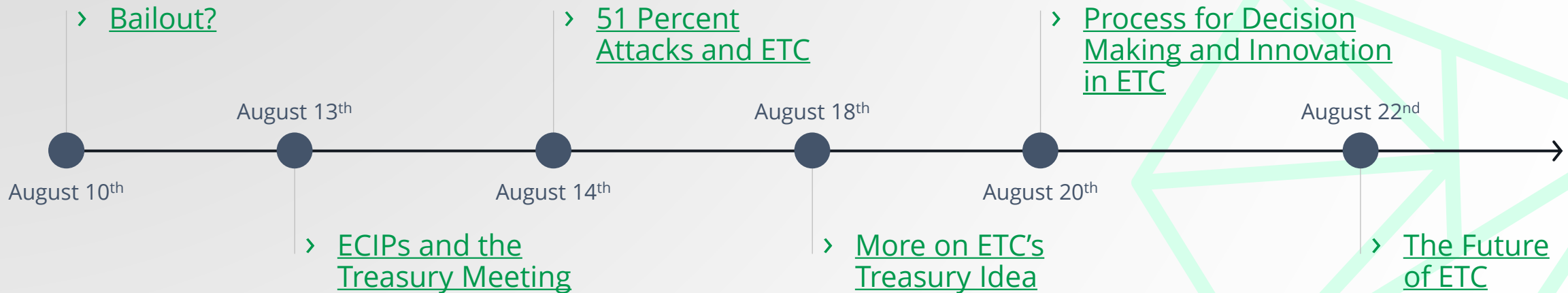
# Three 51% attacks within a month

- › CoinDesk article on [31<sup>st</sup> July attack](#), reorg of ~3,600 blocks (~12 hours mining)
- › CoinDesk article on [6<sup>th</sup> August attack](#), reorg of ~4,200 blocks (~15 hours mining)
- › CoinDesk article on [29<sup>th</sup> August attack](#), reorg of ~7,000 blocks (~2 days mining)
- › ETC experienced a 51% attack on 31<sup>st</sup> July with double spends and a network split. Here is our [blog post](#) about this first attack with links to various articles from other parties. Bitquery [later identified \\$5.6M in double-spends](#) against the OKEx exchange.
- › On August 21<sup>st</sup> Coinbase published an [analysis of the first two attacks](#), identifying a \$3.2M double-spend in the second attack. We are unaware of any detailed analysis of the third attack.
- › On August 19<sup>th</sup> we co-published an “[ETC Network Security Plan](#)” put together by Afri and co-signed by Terry Culver and Bob, enumerating various proposals.

## Protocol

# Return of Charles and IOHK

- › In early August, in response to the first two 51% attacks we saw Charles Hoskinson and IOHK return to the table. IOHK had ceased development on the Mantis client in December 2018 because there was no apparent path for sustainable funding.
- › Charles proposed the revival of the Mantis client, a proposal for a checkpointing solution and the introduction of a Treasury model. He released a series of videos during August and was very active on Discord.



## Protocol

# New 51% proposals

Numerous proposals were brought to the table during August for possible protocol changes in reaction to the 51% attacks, some short-term, some long-term.

### ECIP-1092

- › [51-percent attack solution PirlGuard by Callisto](#)

### ECIP-1093

- › [If GPU-friendly Ethash is Removed then Change the ETC Proof of Work Algorithm to CPU-friendly RandomX](#)

### ECIP-1094

- › [VeriBlock Proof-of-Proof 51%-Attack Prevention](#)

### ECIP-1095

- › [Change the ETC Proof of Work Algorithm to Sha-3-256](#)

### ECIP-1096

- › [51% Attack protection system based on Bitcoin Merged Mining](#)

### ECIP-1097

- › [Checkpointing based 51% attack resistance](#)

### ECIP-1098

- › [Proto Treasury System](#)





## Protocol

# Existing proposals

- › There was also renewed support for these long-standing proposals:
  - › [ECIP-1049 - Change the ETC Proof of Work Algorithm to Keccak256](#)
  - › [ECIP-1043 - Fixed DAG limit restriction](#)
- › ETC Cooperative funded work by Whiteblock at the start of this year on ECIP-1049 so it was great to see increased interest and support for that proposal. It appears likely that change of hash algorithm will proceed in 2021, when we have better answers on migration plan, data from testnets, etc.

- › Changing the DAG size has also seen a lot of support. In September [ECIP-1099 - Calibrate Epoch Duration](#) was authored and that ECIP will be activated in a pending hardfork called Thanos.

## Protocol

# Thanos Hardfork

- › A hardfork named “Thanos” is planned for late November 2020.
  - › There is a single protocol change as part of this hardfork:
  - › [ECIP 1099 – Calibrate Epoch Duration](#)
  - › The essence of the change is to reduce both the size and rate of growth of the DAG, so that 3GB and 4GB mining hardware can continue to mine ETC.
  - › The goal is to raise the hash-rate.
- › During July, Multi-Geth and OpenEthereum clients both dropped support for ETC.
  - › That means that at the Thanos hardfork any remaining nodes using that client code will drop off the network.
  - › As of October 29<sup>th</sup> around 20% of active nodes are still using those codebases as per [etcnodes.org](#).
  - › The majority of nodes are running Core-Geth (71%) with a minority running Besu (6%)
  - › Mantis will also be coming to the table.



## Infrastructure now Besu exclusive

- › During this quarter, all the ETC Cooperative's infrastructure was migrated to use Hyperledger Besu exclusively.
- › That includes BlockScout, Ethercluster, full nodes, boot nodes and the Kotti validator.
- › All systems are now in a steady maintenance state.
- › No further development is planned at the time of writing.



**HYPERLEDGER**  
**BESU**

# Comms and Marketing

- › In early Q3 the ETC Cooperative and Connex [announced](#) a collaboration on deploying "State Channels" on the ETC network. We released a blog post on how to integrate this tech into their Dapps.
- › Connex [content release plan](#) (reeled back on content since multiple 51% attacks)
- › During this quarter, the ETC Messari [Disclosures Registry Application](#) was completed and is now displaying accurate information on the [Messari site](#).
- › Over the course of Q3 all ETC Core Dev Calls and dev meetings were recorded and posted to the [ETC Coop YouTube](#).
- › The Coop helped many ECIP authors of proposals to mitigate 51% attacks create their [Github Presentation Pages](#).
- › There's been ongoing crisis management in light of the recent 51% attacks. The Coop began liaising with IOHK and other stakeholders regarding proposed solutions.
- › Ongoing social media management, content creation and curation, and overall community management.



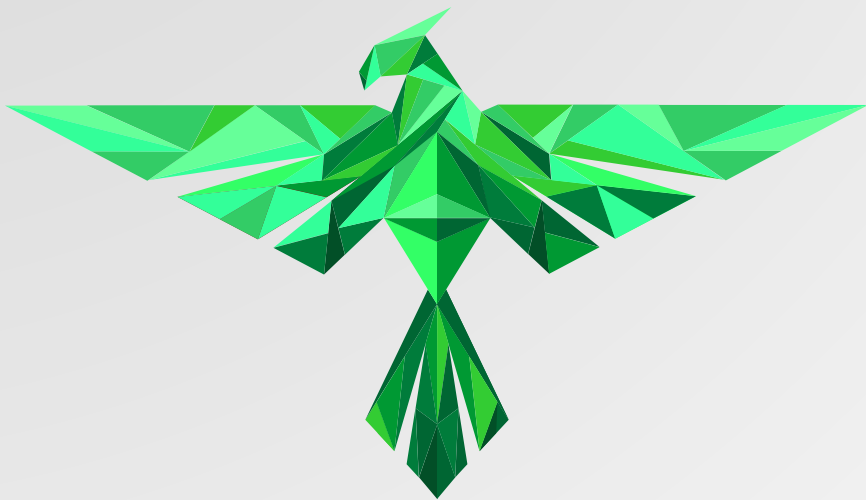
connex



ETHEREUM  
CLASSIC

# Grants

- › We paused our spending on grants during Q2 as the global pandemic raged.
- › We did intend to resume spending on grants and external projects during Q3 but before that started, we were hit with the 51% attacks.



- › Spending will instead be focused on the Hyperledger Besu client which has become critically important now that OpenEthereum and Multi-Geth are gone.
- › Some likely funded activities:
  - › ECIP-1099 support for Thanos HF
  - › First-class mining support
  - › Keccak256 hash algorithm support
  - › Checkpointing support
  - › Treasury support
  - › General bug-fixing and support.

# Finance

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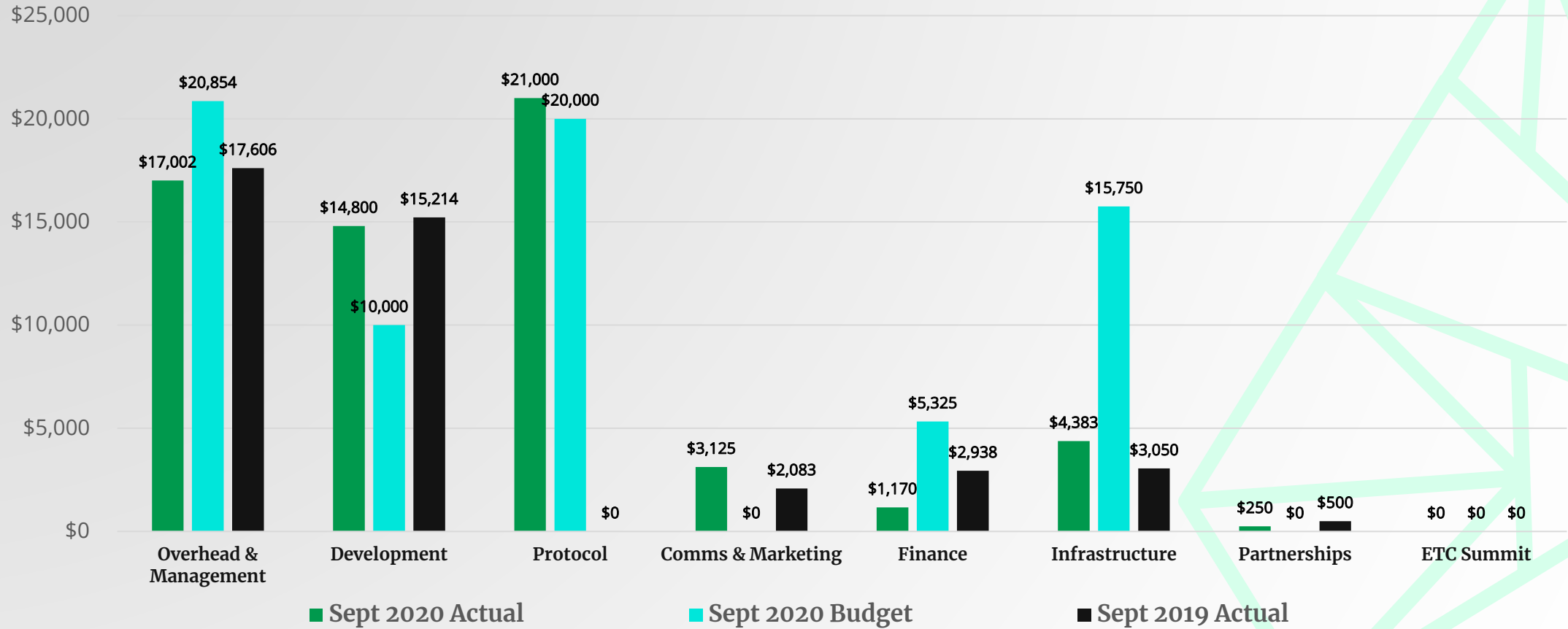
# Finance

Expenditures in \$US						
	Sept 2020 Actual	Sept 2020 Budget	Variance \$ Sept 2020 vs Sept 2020 Budget	Sept 2019 Actual	Variance \$ Sept 2020 vs Sept 2019	
Overhead & Management	\$17,002	\$20,854	\$(3,852)	\$17,606	\$(604)	
Development	\$14,800	\$10,000	\$4,800	\$15,214	\$(414)	
Protocol	\$21,000	\$20,000	\$1,000	\$0	\$21,000	
Comms & Marketing	\$3,125	\$0	\$3,125	\$2,083	\$1,042	
Finance	\$1,170	\$5,325	\$(4,155)	\$2,938	\$(1,768)	
Infrastructure	\$4,383	\$15,750	\$(11,367)	\$3,050	\$1,333	
Partnerships	\$250	\$0	\$250	\$500	\$(250)	
ETC Summit	\$0	\$0	\$0	\$0	\$0	
<b>Total Expenditures</b>	<b>\$61,730</b>	<b>\$71,929</b>	<b>\$(10,199)</b>	<b>\$41,391</b>	<b>\$20,339</b>	
<i>Non-cash Items</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	
<b>Total Operating Expenses</b>	<b>\$61,730</b>	<b>\$71,929</b>	<b>\$(10,199)</b>	<b>\$41,391</b>	<b>\$20,339</b>	

- › Expenditures in September 2020 were higher than September 2019, but lower than September budget. As related to 2019, the costs are higher due to Protocol spending related to BESU. Sept actual costs were lower than Sept budget, due to lower infrastructure costs.
- › Overall, spending on regular recurring items such as salaries and overhead, has been fairly consistent, however there will be a slightly increase in salaries, due the change in headcount. Most spending other than salaries and small overhead amounts, is related to protocol work around BESU.

# Finance

## Expenditures in \$US





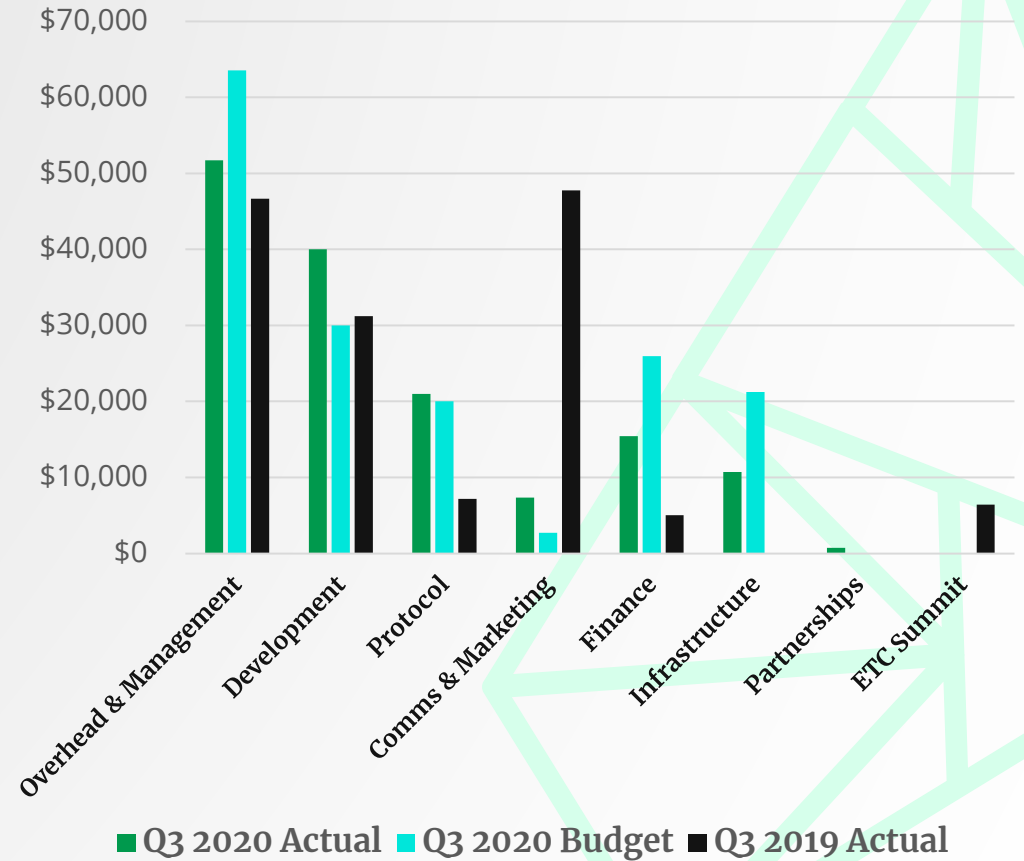
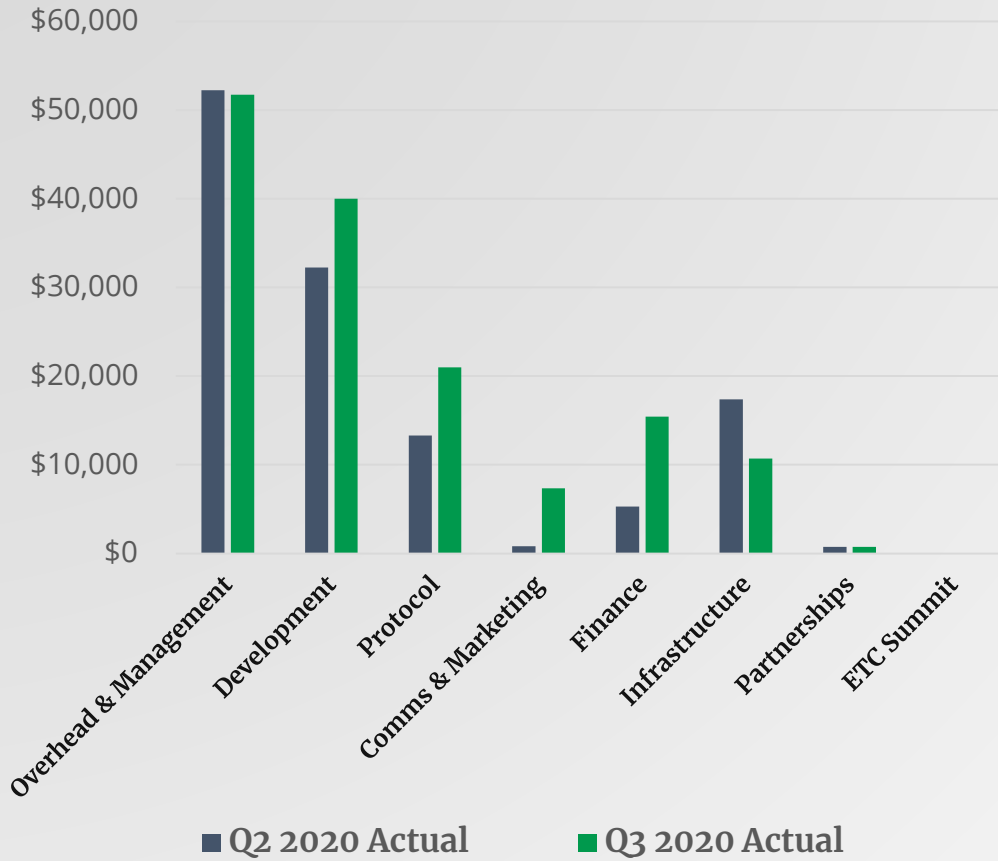
# Finance

Expenditures in \$US								
	Q3 2020	Actual	Q2 2020 Actual	Variance \$ Q3 2020 vs Q2 2020	Q3 2020 Budget	Variance \$ Q3 2020 vs Q3 2020 Budget	Q3 2019 Actual	Variance \$ Q3 2020 vs Q3 2019
Overhead & Management	\$51,723		\$52,220	\$(497)	\$63,563	\$(11,839)	\$46,684	\$5,040
Development	\$40,014		\$32,249	\$7,765	\$30,000	\$10,014	\$31,214	\$8,800
Protocol	\$21,000		\$13,300	\$7,700	\$20,000	\$1,000	\$7,175	\$13,825
Comms & Marketing	\$7,361		\$829	\$6,532	\$2,723	\$4,639	\$47,748	\$(40,387)
Finance	\$15,428		\$5,290	\$10,138	\$25,975	\$(10,547)	\$5,021	\$10,407
Infrastructure	\$10,715		\$17,377	\$(6,662)	\$21,250	\$(10,535)	\$0	\$10,715
Partnerships	\$750		\$750	\$0	\$0	\$750	\$0	\$750
ETC Summit	\$0		\$0	\$0	\$0	\$0	\$6,411	\$(6,411)
<b>Total Expenditures</b>	<b>\$146,992</b>		<b>\$122,015</b>	<b>\$24,977</b>	<b>\$163,510</b>	<b>\$(16,518)</b>	<b>\$144,252</b>	<b>\$2,740</b>
<i>Non-cash Items</i>	<i>\$5,000</i>		<i>\$7,057</i>	<i>\$(2,057)</i>	<i>\$0</i>	<i>\$5,000</i>	<i>\$0</i>	<i>\$5,000</i>
<b>Total Operating Expenses</b>	<b>\$151,992</b>		<b>\$129,072</b>	<b>\$22,920</b>	<b>\$163,510</b>	<b>\$(11,518)</b>	<b>\$144,252</b>	<b>\$7,740</b>

- › Overall, expenditures in Q3 2020 were higher than Q2 2020, but lower than Q3 Budget. The largest variances Q3 vs Q2 relates to protocol costs as well as within in finance for tax related work. Compared to Budget, almost all costs were lower except for Comms and Marketing as there is now a full time staff member in that department.
- › Expenditures were slightly higher than Q3 2019, due to limited technical work being done in Q2 2019, slightly offset by higher Comms & Marketing costs due to several international conferences.
- › The Non-cash items in Q3 2020 relate to a write off of an uncollectible conference sponsorship receivable.

# Finance

## Expenditures in \$US



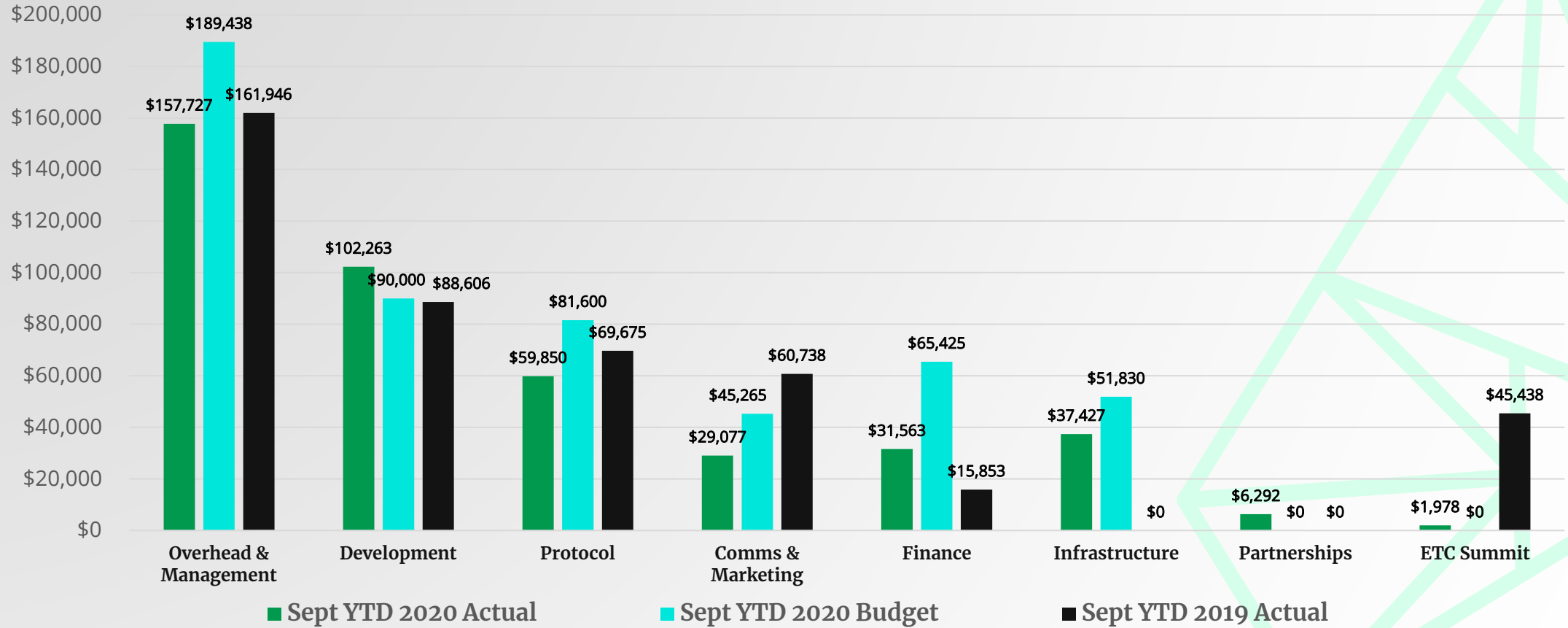
# Finance

Expenditures in \$US					
	Sept YTD 2020 Actual	Sept YTD 2020 Budget	Variance \$ Sept YTD 2020 vs Sept 2020 Budget	Sept YTD 2019 Actual	Variance \$ Sept 2020 vs Sept 2019
Overhead & Management	\$157,727	\$189,438	\$(31,710)	\$161,946	\$(4,219)
Development	\$102,263	\$90,000	\$12,263	\$88,606	\$13,656
Protocol	\$59,850	\$81,600	\$(21,750)	\$69,675	\$(9,825)
Comms & Marketing	\$29,077	\$45,265	\$(16,188)	\$60,738	\$(31,661)
Finance	\$31,563	\$65,425	\$(33,862)	\$15,853	\$15,710
Infrastructure	\$37,427	\$51,830	\$(14,403)	\$0	\$37,427
Partnerships	\$6,292	\$0	\$6,292	\$0	\$6,292
ETC Summit	\$1,978	\$0	\$1,978	\$45,438	\$(43,461)
<b>Total Expenditures</b>	<b>\$426,177</b>	<b>\$523,558</b>	<b>\$(97,381)</b>	<b>\$442,256</b>	<b>\$(16,080)</b>
<i>Non-cash Items</i>	<i>\$28,686</i>	<i>\$0</i>	<i>\$28,686</i>	<i>\$0</i>	<i>\$28,686</i>
<b>Total Operating Expenses</b>	<b>\$454,862</b>	<b>\$523,558</b>	<b>\$(68,695)</b>	<b>\$442,256</b>	<b>\$12,606</b>

- › Overall, expenditures in 2020 have been consistent with 2019 due to decreased spending in most areas, to conserve cashflows, in uncertain times and less travel. Finance costs are higher due to compliance fees, software fees and part time staff, with ETC Summit fees only being some small overflow from 2019, that was not accrued.
- › YTD costs have been lower than budget by 100K due to lower spending in almost all categories. We expect to see this trend continue, although there may be further BESU protocol costs to be incurred.
- › Non-cash items consist of the loss on sale of ETC, FX gain/loss, and bad debt expense.

# Finance

## Expenditures in \$US



# Finance

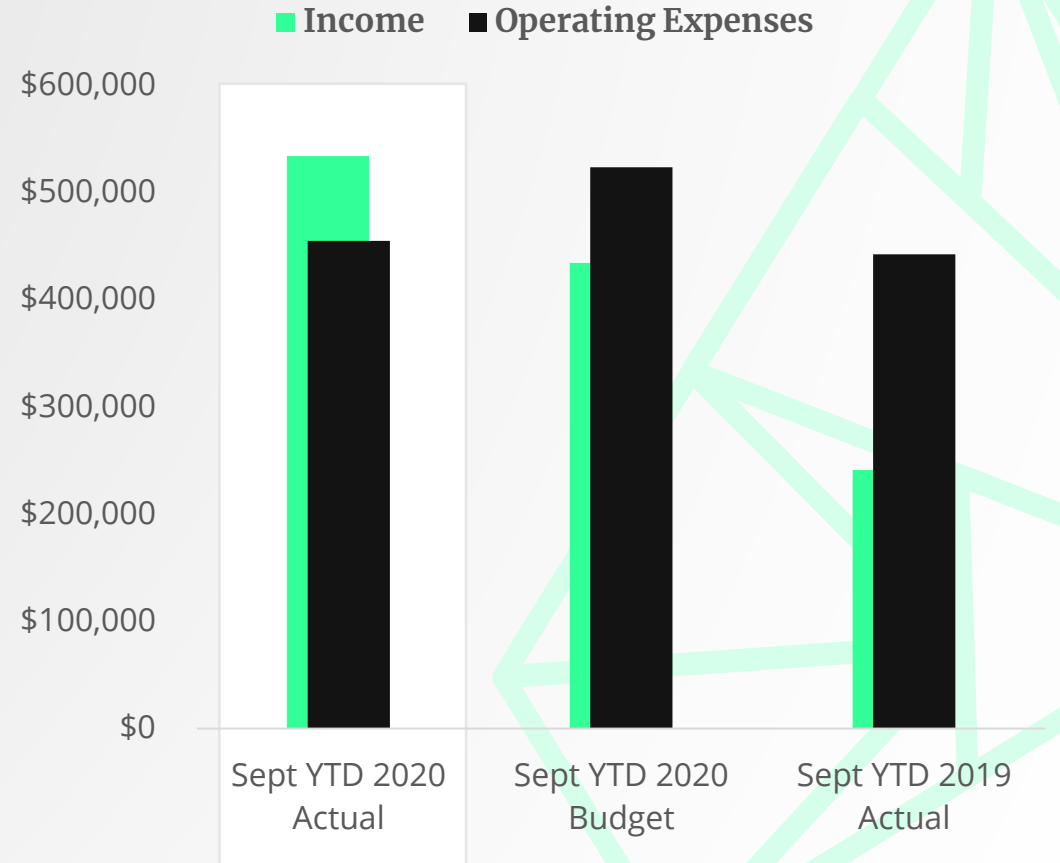
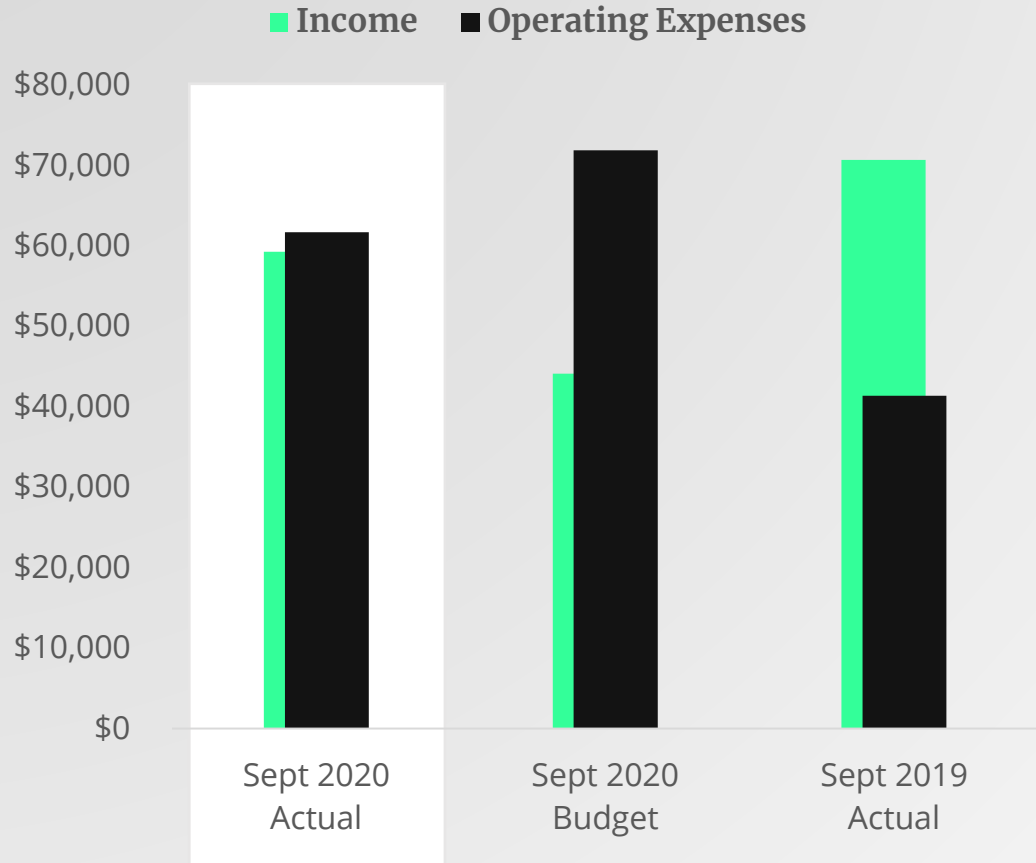
Net (Loss)/Income in \$US			
	Sept 2020 Actual	Sept 2020 Budget	Sept 2019 Actual
Income	\$59,318	\$44,160	\$70,746
Operating Expenses	\$61,730	\$71,929	\$41,391
Net (Loss)/Income	\$(2,412)	\$(27,769)	\$29,355
<i>Non-cash items</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
<b>Adjusted Net Income</b>	<b>\$(2,412)</b>	<b>\$(27,769)</b>	<b>\$29,355</b>

Net (Loss)/Income in \$US			
	Sept YTD 2020 Actual	Sept YTD 2020 Budget	Sept YTD 2019 Actual
Income	\$534,063	\$434,280	\$241,214
Operating Expenses	\$454,862	\$523,558	\$442,256
Net (Loss)/Income	\$79,201	\$(89,278)	\$(201,043)
<i>Non-cash items</i>	<i>\$28,686</i>	<i>\$0</i>	<i>\$0</i>
<b>Adjusted Net Income</b>	<b>\$107,887</b>	<b>\$(89,278)</b>	<b>\$(201,043)</b>

- › Net Income for the period was significantly higher than budget, but lower than 2019. The variance with budget can be partially attributed to the higher ETC price in 2020, which is correlated to the ETC Fees received from Grayscale, as well as lower cash-costs. September 2019, the ETC price was fairly consistent, however earnings were slightly lower, as well as lower operating expenses.
- › As at September 30, 2020, the ETC Coop held 8,163 ETC.

# Finance

## Net (Loss)/Income in \$US



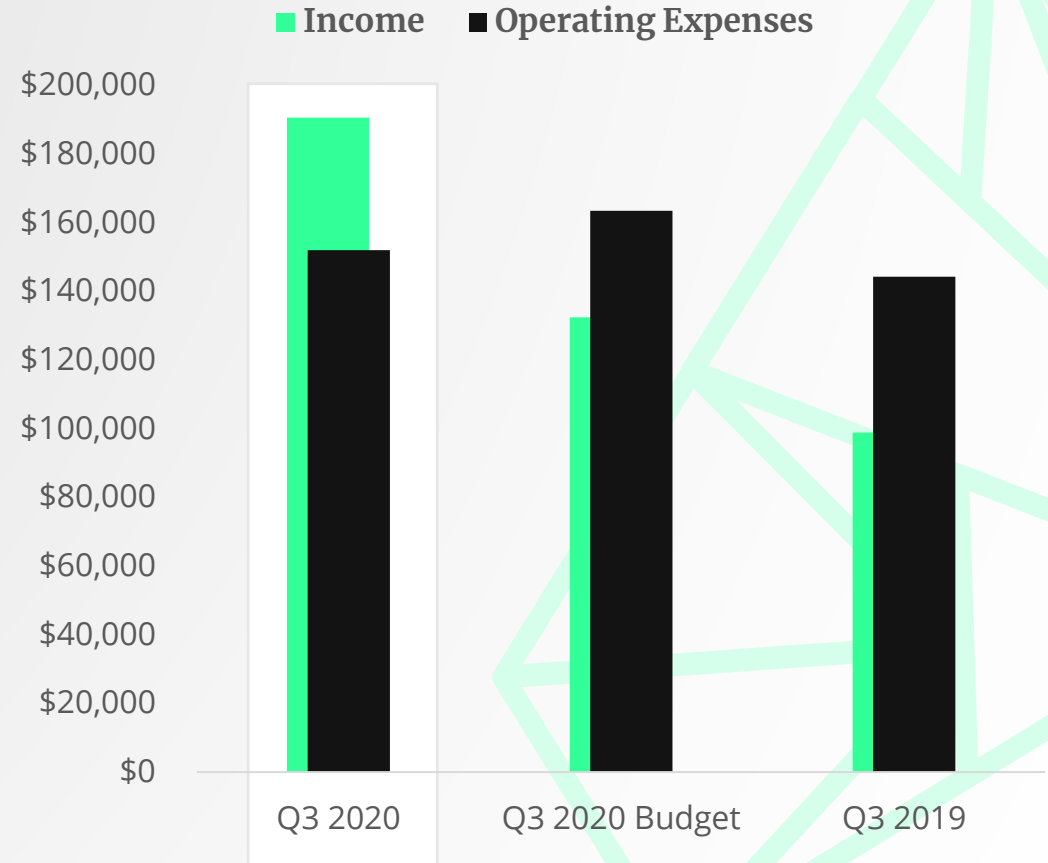
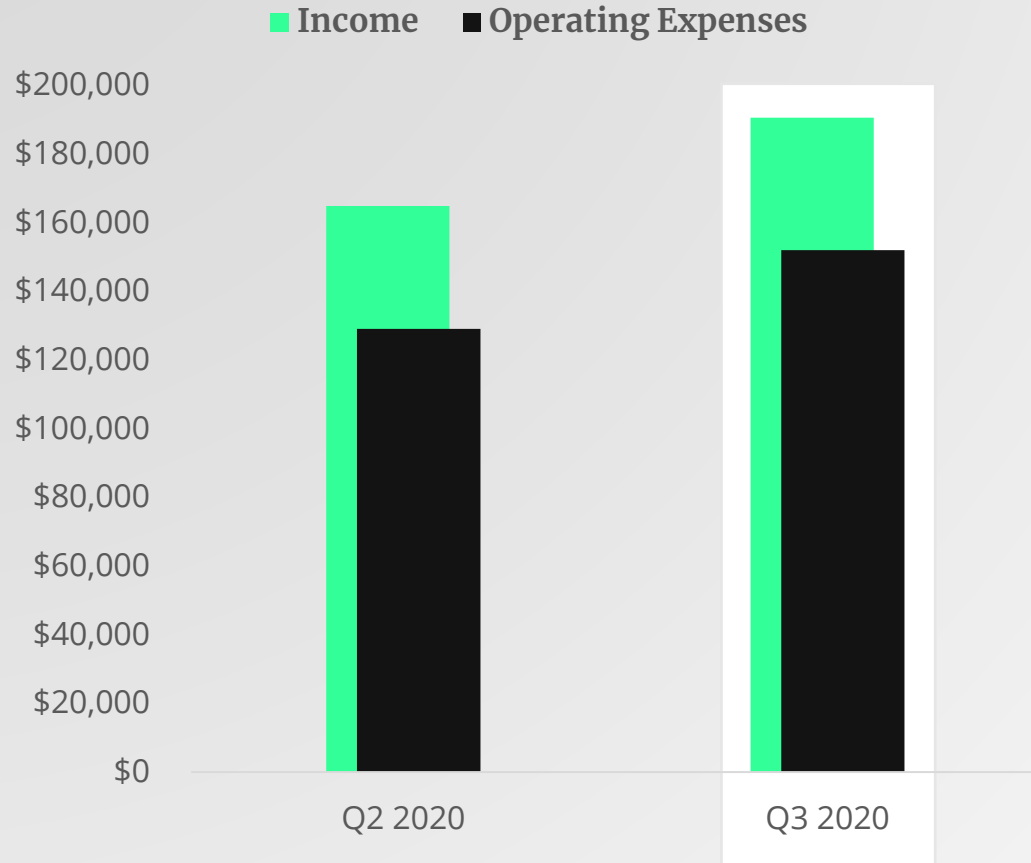
# Finance

Net (Loss)/Income in \$US				
	Q3 2020	Q2 2020	Q3 2020 Budget	Q3 2019 Actual
Income	\$190,573	\$164,899	\$132,480	\$98,928
Operating Expenses	\$151,992	\$129,072	\$163,510	\$144,252
Net (Loss)/Income	\$38,582	\$35,827	\$(31,030)	\$(45,324)
<i>Non-cash items</i>	<i>\$5,000</i>	<i>\$7,057</i>	<i>\$0</i>	<i>\$0</i>
<b>Adjusted Net Income</b>	<b>\$43,582</b>	<b>\$42,884</b>	<b>\$(31,030)</b>	<b>\$(45,324)</b>

- › Net Income for the period was significantly higher than the budget and Q3 2019 and slightly higher than Q2 2020. This can be partially attributed to the higher ETC price in F2020, which is correlated to the ETC Fees received from Grayscale, as well as lower cash-costs.

# Finance

## Net (Loss)/Income in \$US





# Finance

Financial Positions in \$US						
	30-Sep-20	30-Jun-20	31-Mar-20	31-Dec-19	31-Dec-18	31-Dec-17
<b>Assets</b>						
Cash & Cash Equivalents	\$273,538	\$233,278	\$195,538	\$146,318	\$530,268	\$0
ETC (at book value) <sup>1</sup>	\$78,115	\$78,115	\$78,115	\$154,363	\$154,363	\$0
Accounts Receivable	\$0	\$5,000	\$12,057	\$12,057	\$7,057	\$0
Due from Grayscale	\$48,089	\$46,849	\$34,890	\$18,808	\$(6,729)	\$371,505
Prepaid Expenses & Deposits	\$0	\$750	\$1,500	\$2,250	\$0	\$0
<b>Total Assets</b>	<b>\$399,741</b>	<b>\$363,992</b>	<b>\$322,100</b>	<b>\$333,796</b>	<b>\$684,960</b>	<b>\$371,505</b>
<b>Liabilities</b>						
Accounts Payable & Accrued Liabilities	\$29,889	\$34,888	\$26,905	\$44,393	\$20,305	\$0
Due to Grayscale	\$0	\$0	\$0	\$(1,000)	\$3,022	\$131,864
<b>Total Liabilities</b>	<b>\$29,889</b>	<b>\$34,888</b>	<b>\$26,905</b>	<b>\$43,393</b>	<b>\$23,328</b>	<b>\$131,864</b>
<b>Equity</b>						
Retained Earnings	\$290,403	\$290,403	\$290,403	\$661,632	\$239,640	\$0
Net Income/(Loss) for the year	\$79,450	\$38,701	\$4,792	\$(371,229)	\$421,992	\$239,640
<b>Total Equity</b>	<b>\$369,853</b>	<b>\$329,104</b>	<b>\$295,195</b>	<b>\$290,403</b>	<b>\$661,632</b>	<b>\$239,640</b>
<b>Total Liabilities &amp; Equity</b>	<b>\$399,741</b>	<b>\$363,992</b>	<b>\$322,100</b>	<b>\$333,796</b>	<b>\$684,960</b>	<b>\$371,505</b>
<i>ETC at Market Value<sup>1</sup></i>	<i>\$44,128</i>	<i>\$46,812</i>	<i>\$40,386</i>	<i>\$72,540</i>	<i>\$81,430</i>	<i>\$0</i>
<b>Liquid assets<sup>2</sup></b>	<b>317,666</b>	<b>280,090</b>	<b>235,924</b>	<b>218,858</b>	<b>611,698</b>	<b>0</b>

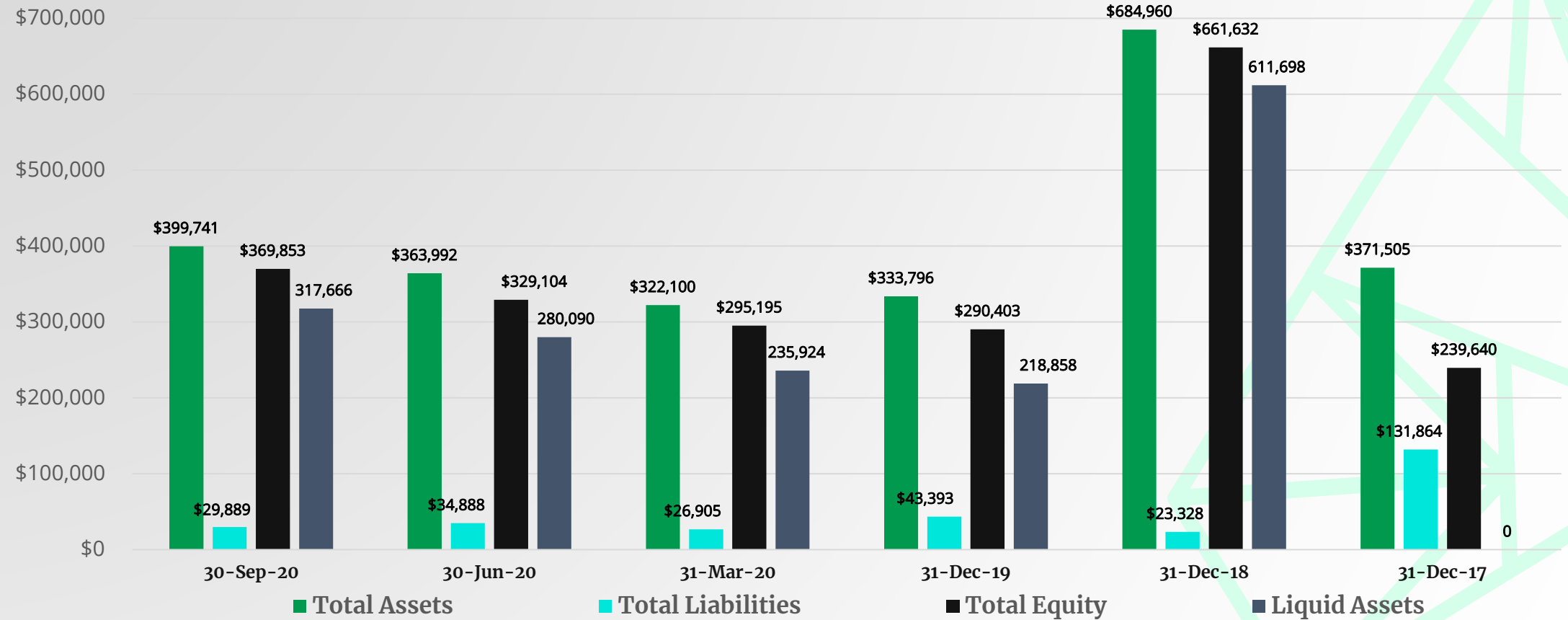
<sup>1</sup>Book value is the value when the ETC was originally purchased. Market value is the value at the end of the reporting period (prices from Yahoo finance)

<sup>2</sup>Liquid assets consists of Cash & Cash equivalents plus ETC at market value.

- › In January 2020, the Coop sold 7,500 ETC for an amount of \$56,400 USD, to help fund operations. This led to an increase in cash and decrease in ETC at book value. Due to higher ETC price and subsequent revenues, along with lower expenses, the cash balance increased by \$40K in Q3.
- › The Coop wrote off a receivable of \$12.1K from previous years ETC Summit sponsorship, that has been deemed uncollectible (2018 Summit & 2019 Summit).
- › Accounts payable and accrued liabilities consist of September staffing costs, which will be paid in October.

# Finance

## Financial Positions in \$US



# Goals & Objectives – Q3 Update

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*The quarterly update to the goals and objectives is too comprehensive to summarize.*

*Please see separate workbook.*

