

March 22, 2018

TO: The Zerocoin Electric Coin Company

FROM: Bryan Smith

RE: **Certain Federal Income Tax Consequences Applicable to Retention and Distribution of Zcash**

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This memorandum discusses certain federal income tax consequences applicable to The Zerocoin Electric Coin Company (“ZECC”) and its members with respect to the retention and distribution of Zcash, as defined below.

## 1. Background

We understand the facts to be as follows. ZECC was formed on November 13, 2014, with the purpose of developing an open-source, decentralized software protocol that produces and defines the rights to a virtual currency referred to as Zcash. The platform created by ZECC allows owners of Zcash to engage in transactions with Zcash such that the details of the transaction (monetary amounts, transaction metadata, and counterparty identifiers) are not disclosed to all parties via the Zcash blockchain, but can still be disclosed to selected third parties. Zcash is also more fungible than other virtual currencies, as Zcash coins may be unlinked from their history on the Zcash blockchain. ZECC developed a working Zcash prototype during 2015, deployed and announced the prototype on January 20, 2016, and launched the Zcash protocol and blockchain on October 28, 2016 (the “Launch Date”). Since the Launch Date, ZECC has monitored the Zcash blockchain, and it regularly releases protocol upgrades, security fixes, and usability improvements. However, ZECC does not engage in any activities related to verifying transactions or maintaining the blockchain, nor does it devote any computing or other resources to “mining” activities.<sup>1</sup> Moreover, following the Launch Date, ZECC does not exercise control over the Zcash protocol or blockchain. Rather, similar to Bitcoin, any changes to the protocol must be adopted by the Zcash users.

ZECC’s protocol established 21 million Zcash virtual currency units, which are “mined” or “unlocked” over time, similar to the manner in which Bitcoin is mined. Of those total units, 10% ultimately will be retained by ZECC as the “Founders Reward.” Half of all Zcash will be mined in the first four years following the Launch Date (the “First Halving”), and the entire Founders Reward will be retained by ZECC during this time. Accordingly, whenever a new valid block is mined between the Launch Date and the First Halving, the block is split between the “Miners Reward” (80%), which is received by the miner, and the Founders Reward (20%), which is retained by ZECC. While each miner chooses his or her own address for receipt of mined Zcash, the Founders Reward is automatically assigned to a ZECC address pursuant to the

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<sup>1</sup> Accordingly, ZECC is not engaged in any “mining” activities, as that term is generally understood in the context of virtual currencies. See Notice 2014-21, 2014-16 I.R.B. 938, Q/A-8 (April 14, 2014).

Zcash protocol in the source code. ZECC is not required to perform any services or take any other action in order to retain the Founders Reward. After the First Halving, 100% of any mined Zcash will go to the miner.

ZECC is treated as a partnership for U.S. federal income tax purposes. The rights and responsibilities of ZECC's members (the "Members") are governed by ZECC's Fifth Amended Limited Liability Company Agreement (the "Operating Agreement"). The Members own either common units, which are held by ZECC's founders, employees, and advisors, or preferred units, which were issued to investors through two rounds of funding in 2016.

The Operating Agreement describes the Founders Reward, providing that, of the twenty-one (21) million units of Zcash to be created by ZECC, ten percent (10%), or 2.1 million Zcash units, shall be "retained" for the benefit of ZECC for distribution to ZECC's Members. Under the Operating Agreement, a portion of the Founders Reward will be distributed to the Members in proportion to the number of units held by each Member. Prior to the Launch Date, ZECC issued a report identifying the number of Zcash units of the Founders Reward to be distributed to each Member based on that Member's ownership percentage in ZECC. Of the total Founders Reward of 10%, ZECC's common Members will collectively receive 5.72%, the preferred Members will receive 1.65%, ZECC will retain 1.19% for use in its operations, and the Zcash Foundation (a nonprofit created to further the interests of Zcash) will receive 1.44%. While the Founders Reward will be unlocked to ZECC over the four-year period following the Launch Date, in accordance with the terms of the Operating Agreement, the Members holding preferred units were distributed their entire share of the Founders Reward during the first year following the Launch Date.

Similar to Bitcoin and other virtual currencies, Zcash may be purchased and sold on various virtual currency exchanges (e.g., Bitfinex). However, Zcash is not traded on any regulated securities or commodities exchange.

## **2. Issues**

This memorandum addresses two federal income tax issues that are relevant to ZECC and its Members:

- (a) Whether ZECC realizes gross income with respect to its retention of the Founders Reward?
- (b) Whether distributions by ZECC of Zcash result in recognition of gain by recipient members of ZECC by reason of Zcash being a "marketable security" as defined in Section 731(c) of the Internal Revenue Code (the "Code")?

### 3. Discussion

#### (a) ZECC's Retention of the Founders Reward

As an initial matter, ZECC, as a partnership for income tax purposes, is not subject to federal income tax. Rather, its income, loss and other tax items pass through to its Members, who are required to report their proportionate share of such income, loss and other items on their respective tax returns, without regard to whether any amounts are distributed to them by ZECC. Accordingly, the treatment of ZECC's retention of the Founders Reward has a direct impact on ZECC's Members.

With respect to ZECC's retention of the Founders Reward, as with many issues relating to the treatment of virtual currency transactions for tax purposes, there is no clear authority on point.<sup>2</sup> In particular, no authorities specifically address whether a creator of virtual currency may recognize income with respect to the retention or receipt of the virtual currency as it is mined by others pursuant to an automatic protocol established by the creator (a structure that is unique to the virtual currency world). Nevertheless, general tax principles relating to realization of income, as well as authorities involving analogous circumstances, provide substantial support for the position that ZECC should not realize gross income with respect to its retention of the Founders Reward.

Under general federal tax principles, gross income is only realized to the extent the taxpayer has an accession to wealth. It is well established that the mere creation of valuable property does not result in the realization of gross income until the property has been disposed or otherwise exchanged for money or other property.<sup>3</sup> Similarly, where an owner of property disposes of only part of the owner's interest in the property, the retention of a portion of the property generally does not constitute an accession to wealth.<sup>4</sup> Under the commonly used analogy of property constituting a "bundle of sticks,"<sup>5</sup> neither the creation of the bundle nor retention of a portion of the bundle generally constitutes an accession to wealth.

The foregoing analysis is consistent with authorities arising under analogous circumstances. First, in the context of natural resource mining, a taxpayer with an economic interest in un-mined resources does not realize income until the resources are sold or exchanged for consideration that sufficiently differs from the underlying investment.<sup>6</sup> The mere extraction, production, refinement, or storage of minerals does not cause a taxpayer to realize income, because such actions do not sufficiently alter the taxpayer's interest in the underlying minerals.<sup>7</sup>

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<sup>2</sup> The only authority regarding the treatment of virtual currency for federal tax purposes is set forth in IRS Notice 2014-21, which does not address any of the issues set forth herein.

<sup>3</sup> *Eisner v. Macomber*, 252 U.S. 189 (1920).

<sup>4</sup> See, e.g., Rev. Rul. 77-413, 1977-2 C.B. 298.

<sup>5</sup> See *Frank Lyon Co. v. United States*, 536 F.2d 746 (8th Cir. 1976), [REDACTED], 435 U.S. 561 (1978).

<sup>6</sup> Rev. Rul. 76-533, 1976-2 C.B. 189; see also *Palmer v. Bender*, 287 U.S. 551 (1933); *Lynch v. Alworth-Stephens*, 267 U.S. 364 (1925).

<sup>7</sup> Priv. Ltr. Rul. 88-12-055 (December 24, 1987).

The foregoing principles continue to apply where a property owner assigns an interest in mineral property, but retains an interest in the underlying minerals.<sup>8</sup>

A second analogy may be drawn from authorities involving the sale and simultaneous retention of a leasehold or other possessory interest in real property. In such situations, the seller of real property has generally been treated as having reserved certain rights in the property it already held (resulting in no increase in the seller's amount realized upon sale), provided that the seller retains the benefits and burdens of ownership with respect to the retained interest.<sup>9</sup> Other analogous situations involve (1) a donor's retention of an interest in donated property, where the amount of the donation is reduced by the value of the retained rights, and the donor does not realize gross income with respect to the retained interest;<sup>10</sup> (2) the retention of an interest in a business in connection with its sale, where the retention of the interest itself (as distinguished from the receipt of cash payments with respect to such interest) is not included in the seller's gross income;<sup>11</sup> and (3) the partition of jointly-held property into separate assets, where the receipt by each owner of their share of the partitioned property is not included in gross income.<sup>12</sup>

The foregoing authorities support the position that ZECC's retention of the Founders Reward is a mere retention of Zcash to which ZECC was already entitled to as the creator of the Zcash units. The Operating Agreement supports this characterization by referring to the "creation" and "retention" of Zcash by ZECC. ZECC's interest in the Zcash protocol (prior to the Launch Date) is analogous to an economic interest in natural resources, and ZECC's right to retain, via the Founders Reward, a portion of the Zcash it created may be viewed as similar to an interest in minerals retained by an economic owner. In context of virtual currency, the protocol's automatic issuance of Zcash to a ZECC address does not change ZECC's retained interest in the underlying property; the mining process merely changes the form of ZECC's ownership interest in its Zcash units (from an interest in "locked" units to "unlocked" units). If anything, ZECC has a much stronger claim that it does not realize gross income than a resource owner, because ZECC created the "resource" itself and willingly subjected it to being initially locked and unlocked over time. Similarly, ZECC's situation is comparable to other dispositions of property where the owner retains an interest in the property, whether pursuant to a sale/leaseback, donation of a partial interest, retention of an interest upon the sale of a business, or partition of jointly-owned property. Characterizing ZECC's retention of Zcash as the retention of an interest in an asset (as distinguished from the disposition of the entire asset and subsequent receipt of payments of income) is more consistent with both the form and substance of the arrangement.

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<sup>8</sup> See Priv. Ltr. Rul. 90-23-017 (March 7, 1990).

<sup>9</sup> *Kruesel v. United States*, 63-2 USTC ¶ 9714 (D. Minn. 1963); Rev. Rul. 77-413, 1977-2 C.B. 298; Rev. Rul. 71-567, 1971-2 C.B. 309; Priv. Ltr. Rul. 80-25-116 (Mar. 28, 1980). In some situations, courts have held taxpayers to the form of their transactions and treated the reserved rights as additional proceeds for the property. See *Alstores Realty Corp. v. Commissioner*, 46 T.C. 363 (1966); *Steinway & Sons v. Commissioner*, 46 T.C. 375 (1966); *Eller v. Commissioner*, 77 T.C. 934 (1981); *Giberson v. Commissioner*, 44 [REDACTED] 154 (CCH) 1982.

<sup>10</sup> See, e.g., Rev. Rul. 2003-28, 2003-11 I.R.B. 194; Rev. Rul. 57-293, 1957-2 C.B. 153.

<sup>11</sup> See, e.g., *Nassau Suffolk Lumber & Supply Corp. v. Commissioner*, 53 TC 280 (1969).

<sup>12</sup> See, e.g., Rev. Rul. 56-437, 1956-2 C.B. 537.

While the foregoing authorities support the position that ZECC does not realize gross income with respect to its retention of the Founders Reward, the IRS or a court could disagree. The authorities cited above, while generally supportive of the desired position, are in contexts factually distinct from virtual currency (and, in particular, the establishment of a virtual currency protocol), and it is possible that the IRS would not apply such authorities to ZECC on the view that the nature of virtual currencies are distinguishable. To the extent the IRS successfully maintained such a position, the result could be the inclusion in gross income by ZECC of Zcash units derived (or deemed to have been derived) by ZECC. The lack of guidance with respect to the treatment of virtual currency transactions results in any position taken by ZECC with respect to its retention of Zcash units being somewhat uncertain.

#### **(b) Treatment of Distributions of Zcash**

As described in more detail above, the Members are entitled under the Operating Agreement to be distributed a portion of the Founders Reward. Generally, distributions of property by a partnership do not result in gain recognition by the partner receiving the distribution, except to the extent that the partner receives money in excess of the partner's basis in the partner's interest in the partnership.<sup>13</sup> In certain circumstances, marketable securities, as that term is defined in Section 731(c) of the Code, are treated as if they were money for this purpose.<sup>14</sup> For this purpose, the term "marketable securities" generally means financial instruments and foreign currencies which are actively traded,<sup>15</sup> and "financial instruments" include stocks and other equity interests, evidences of indebtedness, options, forward or futures contracts, notional principal contracts, and derivatives.<sup>16</sup> The issue with respect to distributions by ZECC of Zcash to its Members is whether such distributions could be treated as distributions of "marketable securities," which could result in gain recognition on the part of the recipient Members.

Zcash should not constitute a marketable security within the meaning of Section 731(c) of the Code and, even if it were a marketable security for that purpose, its distribution to the Members should not result in gain recognition by them. Virtual currency does not fit within the list of traditional securities used to define "financial instruments," insofar as it does not vest a holder with, for instance, an interest in a legal entity (equity), an unconditional right to be paid a fixed sum or the right to interest (indebtedness), or the right to buy or sell an asset in the future (forward or futures contracts). Rather, for U.S. federal tax purposes, Zcash and other virtual currencies are more likely to constitute commodities,<sup>17</sup> rather than securities.<sup>18</sup> Moreover, Zcash

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<sup>13</sup> I.R.C. § 731(a)(1).

<sup>14</sup> I.R.C. § 731(c)(1)(A).

<sup>15</sup> I.R.C. § 731(c)(2)(A). Notably, the IRS has determined that virtual currencies are not considered to be foreign currencies for purposes of the Code. Notice 2014-21, Q/A-2.

<sup>16</sup> I.R.C. § 731(c)(2)(C).

<sup>17</sup> Bitcoin constitutes a commodity for purposes of the broker reporting rules under Treasury Regulations Section 1.6045-1(a)(5) (defining commodity to include any personal property the trading of regulated futures contracts in which has been approved by the CFTC, which occurred with respect to Bitcoin in December, 2017). Additionally, the IRS has stated that the term "commodity," for federal income tax purposes, is used "in its ordinary financial

should not be treated as “actively traded” within the meaning of the foregoing rules, which requires that there be an “established financial market” for the purported security.<sup>19</sup> Applicable Treasury Regulations provide a non-exhaustive list of established financial markets, none of which should include the virtual currency exchanges on which Zcash is traded.<sup>20</sup>

In the unlikely event that Zcash constitutes a marketable security under the definition set forth above, that determination should nevertheless be of no consequence in this situation. Under an exception to the foregoing rules, the value of distributed marketable securities treated as money is reduced (but not below zero) to the extent the recipient partner receives their proportionate share of the partnership’s appreciation with respect to securities of the type distributed.<sup>21</sup> Thus, because the distributions of Zcash to the Members have been in accordance with their respective shares of the Founders Reward, as outlined in the Operating Agreement, the recipient Members should not recognize gain on these distributions even if Zcash were to be treated as a marketable security.<sup>22</sup>

#### 4. Conclusions and Limitations

While not free from doubt due to the inherently uncertain nature of applicable law as applied to virtual currency, we believe that, for U.S. federal income tax purposes, (a) substantial authority supports the position that ZECC does not realize gross income with respect to its retention of the Founders Reward, and (b) Members of ZECC should not recognize any gain upon receipt of distributions of Zcash by reason of Zcash constituting a “marketable security” within the meaning of Section 731(c) of the Code.

This memorandum is based upon current law and the facts and assumptions set forth above. Changes in the law or the facts may adversely affect the conclusions reached in this memorandum. This memorandum is limited to the specific federal income tax matters discussed herein, and does not address the potential application of any other laws. This memorandum is solely for the use of ZECC and its Members. However, this memorandum does not address the individual circumstances of any particular Member, and each Member should seek advice from

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sense and includes all products that are traded in and listed on commodity exchanges located in the United States.” Rev. Rul. 73-158, 1973-1 C.B. 337.

<sup>18</sup> For federal income tax purposes, to the extent that virtual currency is a commodity, it should not also constitute a “marketable security.” See House Report No. 103-826, PL 103-465 (“[c]ommodities (other than precious metals) are not treated as marketable securities under the provision.”).

<sup>19</sup> See Treas. Reg. § 1.731-2(c)(2) (adopting the definition of I.R.C. § 1092(d)(1) and Treas. Reg. § 1.1092(d)-1(a)).

<sup>20</sup> Treas. Reg. § 1.1092(d)-1(b)(1) (including markets such as a registered national securities exchange, interdealer markets under the Securities Exchange Act of 1934, certain boards of trade designated by the CFTC, etc.).

<sup>21</sup> I.R.C. § 731(c)(3); Treas. Reg. § 1.731-2(b)(2).

<sup>22</sup> It seems likely that Zcash also would qualify for a different exception applicable to “securities” that are held for at least six months by the partnership before becoming marketable. Treas. Reg. § 1.731-2(d)(1)(iii). Zcash and the related protocol should be analogous to a patentable invention, where the holding period for the invention begins upon the creation of a working prototype (which in this case was more than 6 months prior to the Launch Date). See *Allied Chemical Corp. v. United States*, 17 AFTR 2d 316, (1966).

their own tax advisor. We undertake no obligation to update this memorandum after the date hereof.