



BRISTOL TENNESSEE ESSENTIAL SERVICES

Special Investigation
April 13, 2016

Justin P. Wilson, Comptroller





STATE OF TENNESSEE

C O M P T R O L L E R O F T H E T R E A S U R Y

Justin P. Wilson

Comptroller

STATE CAPITOL

NASHVILLE, TENNESSEE 37243-9034

PHONE (615) 741-2501

April 13, 2016

Members of the City Council

City of Bristol

P. O. Box 1189

Bristol, TN 37621-1189

and

Members of the Board of Directors

Bristol Tennessee Essential Services

2470 Volunteer Parkway

Bristol, TN 37620

Ladies and Gentlemen:

The Office of the Comptroller of the Treasury conducted a special investigation of selected records of the Bristol Tennessee Essential Services, and the results are presented herein.

Copies of this report are being forwarded to Governor Bill Haslam, the State Attorney General, the District Attorney General, certain state legislators, and various other interested parties. A copy is available for public inspection in our office and may be viewed at <http://www.comptroller.tn.gov/ia/>.

Sincerely,

A handwritten signature in black ink, appearing to read "Justin P. Wilson".

Justin P. Wilson

Comptroller of the Treasury

JPW/RAD

SPECIAL INVESTIGATION

BRISTOL TENNESSEE ESSENTIAL SERVICES BRISTOL, TENNESSEE

The Office of the Comptroller of the Treasury conducted a special investigation of Bristol Tennessee Essential Services (BTES), a city-owned utility which provides electricity and fiber optic services. The investigation focused primarily on financial transactions between BTES and a private vendor, Carina Technology, Inc., (“Carina”) related to the development and production of an “intelligent” water heater load management switch – the Water Heater Information Solution for Energy (WISE) switch.

SUMMARY

In 2008, BTES entered into what would become a \$4.3 million contract with the Tennessee Valley Authority (TVA) for a demonstration project to develop, evaluate, and test the effectiveness of the WISE switch. BTES, in turn, entered into a contract with Carina under which Carina was obligated to fulfill all of BTES’s requirements under the TVA contract. In April 2010, Dr. Michael Browder, BTES chief executive officer (CEO), proposed that the BTES board commit to purchasing almost \$6.5 million of additional products from Carina. At the time of this proposal, Dr. Browder failed to disclose to the BTES board significant details surrounding the transaction, including:

- (1) Dr. Browder co-owned the patent for the WISE switch, which made up over \$1.7 million of that purchase commitment;
- (2) The demonstration project to prove the WISE switch’s merit was less than 5 percent complete and there had been no independent analysis of actual benefits to BTES; and
- (3) The purchase commitment and subsequent loan to Carina were accompanied by a plea for financial salvation from Carina.

Investigators were unable to determine the extent to which Dr. Browder’s conflict of interest, resulting from his personal patent ownership interest in the WISE switch being developed and produced by Carina, influenced his decision to advocate this purchase commitment or to engage BTES in other high-risk transactions with Carina which did not appear to be in the best interests of BTES as set forth in this report. In addition, it is not possible to know what impact full and public disclosure of these facts would have had on the public deliberation and decision making of the BTES board of directors.

The investigation revealed the following:

- BTES CEO Dr. Michael Browder co-owned the patent for the WISE switch, but he did not divulge this ownership interest to the BTES board of directors until after BTES expended over \$6.8 million of public funds, including over \$2.5 million of BTES ratepayer funds, toward the development and production of the

switch. In fact, Dr. Browder did not make the full board aware of his ownership interest until after the inception of this investigation.

- Over a period of five years, BTES CEO Dr. Michael Browder directed a series of high-risk, financial transactions between BTES and Carina, even though he was aware that Carina was experiencing significant financial difficulties and even though Carina had not fulfilled its contractual obligations under the demonstration project. Not only did Dr. Browder make large future purchase commitments, he poured large amounts of BTES ratepayer cash into Carina. He also failed to take advantage of significant discounts that BTES was due from the cash-strapped Carina. Finally, he authorized Carina to fill orders of other customers with parts that had been bought and paid for with BTES ratepayer funds.

Dr. Browder owed a duty of loyalty and care to BTES, which required him to act in good faith and in the best interests of BTES. These transactions did not appear to be in the best interests of BTES, or in the best interests of BTES's ratepayers. Furthermore, Dr. Browder's failure to disclose the full circumstances surrounding the transactions indicates that Dr. Browder may have been motivated by an interest other than his service to BTES and its ratepayers.

The Carina transactions in question included:

- * Dr. Browder committed BTES ratepayer funds totaling \$6,491,000 for future purchases from Carina in order to help relieve Carina's financial difficulties.
- * Without statutory authority, Dr. Browder made an unauthorized loan of BTES ratepayer funds totaling \$2.2 million to Carina. He then made a series of additional unauthorized loans to Carina totaling over \$287,000, which he did not reveal to the BTES board or the BTES auditors.
- * Dr. Browder failed to enforce discounted prices and other financial mandates set forth in the loan agreements with Carina, costing BTES ratepayers over \$1 million.
- * Dr. Browder directed questionable reductions totaling almost \$2 million to the outstanding loan to Carina, giving the company credit as having made repayments of these amounts.
- * Dr. Browder authorized Carina to use WISE switch parts inventory, paid for with BTES ratepayer funds of almost \$500,000, to fill an order for an unrelated utility. BTES has not recovered and has not requested reimbursement for the cost of the parts from Carina.

These matters were discussed with the local district attorney general and the United States Attorney's Office.

INVESTIGATIVE RESULTS

1. **BTES CEO Dr. Michael Browder failed to disclose to BTES board members his conflict of interest when he directed disbursements of public funds totaling at least \$6.8 million related to a product for which he co-owned the patent**

BTES CEO Dr. Michael Browder co-owned the patent for the WISE switch, but he did not divulge this ownership interest to the full BTES board of directors until after BTES, in conjunction with TVA, expended over \$6.8 million of public funds toward the development, production, installation, and testing of the switch. In fact, the board was not aware of Dr. Browder's conflict of interest, until he informed the board of his ownership interest in the patent after the initiation of this investigation, over six years after BTES began disbursing funds for the switch.

Investigators discovered that in July 2008, prior to the inception of the demonstration project, a provisional patent for the WISE switch had been filed. The provisional patent included the names of Dr. Browder and several Carina employees as owners of the patent. In June 2009, although the Carina employees assigned their patent rights to Carina, Dr. Browder did not assign his patent rights to BTES, even though he worked full time for BTES during this entire process. Dr. Browder told investigators that Carina put his name on the patent with his permission, that Carina discussed with him the possibility of certain future financial benefits related to the patent (a discussion which Dr. Browder told investigators he deferred to a later date), and that he consulted with a patent agent. In September 2015, Dr. Browder stated that he still held ownership rights in the patent, although he stated that he had no plans to benefit financially from it.¹

Tennessee Code Annotated, Section 12-4-101, prohibits direct and indirect conflicts of interest. The Tennessee Attorney General, in Opinion 83-278, stated the following regarding conflicts of interest:

There exists a strong public policy which opposes an official placing himself in a position in which personal interest may conflict with public duty.... A public office is a trust conferred by the public. The duties of that office must be exercised with fairness and impartiality. The good faith of the officer is not a consideration, for the policy exists to prevent an officer from being influenced by anything other than the public good.

The BTES Ethics Policy states:

This policy applies most specifically to the areas of the giving and receiving of gifts and disclosure by officials and employees of personal interest that affect or appear to affect their discretion.

¹ In September 2015, Dr. Browder's personal attorney stated that he had advised Dr. Browder to refrain from any decisions regarding the patent until after the Comptroller's investigation was completed.

The policy further states that the board and management of BTES established the policy to ensure that

... Board members, management and staff conduct themselves in a way that is appropriate and fair to our customers.... Employees are to strive to avoid appearances of impropriety.

The BTES attorney acknowledged that he was aware of Dr. Browder's patent ownership. The chairman of the BTES board at the time the project was initiated stated that he became aware of Dr. Browder's interest in the patent "about five years ago" and asked Dr. Browder about it, who assured him no compensation was involved. The remaining four board members indicated that they were not informed of Dr. Browder's patent ownership until after the Tennessee Comptroller's investigation was underway. The BTES director of accounting and finance stated that Dr. Browder disclosed his patent ownership interest to her in August 2014. Dr. Browder and other BTES management did not disclose this information to the utility's auditors, even though the auditors made relevant inquiries regarding related party transactions each year during the audit.

Investigators were unable to determine the extent to which Dr. Browder's conflict of interest, resulting from his personal patent ownership interest in the WISE switch being developed and produced by Carina, influenced his decisions to direct the high-risk transactions set forth in Item 2, and, in many instances, to withhold the circumstances of the transactions from the BTES board of directors.

2. **BTES CEO Dr. Michael Browder directed risky financial transactions with Carina that did not appear to be in the best interests of BTES or of the BTES ratepayers**

Communications addressed to Dr. Browder from Carina officials revealed that as early as 2010, Carina was suffering from severe cash flow and apparent solvency problems. As set forth below, Dr. Browder engaged BTES in several high-risk transactions with Carina, facilitating Carina's financial survival and continued development of the switch in which he had a personal patent ownership interest. These transactions did not appear to be in the best interests of BTES or in the best interests of BTES's ratepayers. These transactions included:

a. ***BTES CEO Dr. Michael Browder sought and obtained BTES board approval for two purchase orders totaling \$6,491,000 to Carina in order to accommodate the private vendor's financial difficulties***

Although April 2010 BTES board minutes indicate that Dr. Browder promised anticipated savings when he requested and obtained board approval to commit to future purchases from Carina ultimately totaling \$6,491,000, he neglected to inform the board that Phase 3, the final and most significant testing portion of the TVA-funded demonstration project, had not even been started. Dr. Browder failed to disclose to board members the true reason for the request, which stemmed from an effort to alleviate Carina's financial concerns. The future purchases included 9,000 WISE switches, the patent for which Dr. Browder had a personal ownership interest.

Investigators discovered that, in a series of meetings and emails between Carina officials and Dr. Browder in March and April 2010, Carina officials acknowledged the company's precarious financial situation and asked Dr. Browder to commit to these future purchases as well as other financial obligations in order to move forward. Two days after the purchases were approved, the senior vice president of sales at Carina, who was also a former coworker of Dr. Browder's, requested Dr. Browder to send the "commitment for the 1,100 units so that we can ship them tomorrow. This will solve our immediate issue with the bank." [Refer to Exhibit 1.]

Documents provided by BTES revealed that, at the time the future purchase commitments were approved, none of the 5,000 WISE switches Carina was required to develop and manufacture under Phase 3 of the demonstration project had been delivered, installed, or tested. In fact, no products related to these future purchases were delivered until four and a half years later. In addition, BTES officials acknowledged as late as September 2015 that they did not have an independent analysis of the savings generated by the WISE switch and stated they had not calculated a price point at which the WISE switch would be cost-beneficial.

BTES board members told investigators that they were unaware of Carina's financial difficulties when they approved the future purchases. The board members indicated that their approval was based on Dr. Browder's reports regarding the success of the demonstration project and how well the new technology was working. Board members further stated they were not aware that installation and testing had yet to begin for Phase 3 of the demonstration project and that they understood that BTES was ready to go forward immediately with the water heater switch program using the WISE switch.

Investigators were unable to determine the extent to which Dr. Browder's conflict of interest, resulting from his personal patent ownership interest in the WISE switch being developed and produced by Carina, influenced his decision to request and obtain BTES board approval for future purchases totaling over \$6.4 million from this financially distressed private company and to withhold the circumstances of these transactions from the BTES board. These transactions do not appear to be in the best interests of BTES or the BTES ratepayers and indicate that Dr. Browder may have been motivated by an interest other than his service to BTES and its ratepayers.

b. Dr. Browder made an unauthorized \$2.2 million loan of BTES ratepayer funds to Carina in an effort to remedy the private company's cash flow concerns

The special investigation revealed that in September 2010, without statutory authority, Dr. Browder directed a \$2.2 million unauthorized loan of BTES ratepayer funds to Carina. According to BTES board minutes and interviews with board members, Dr. Browder did not inform the BTES board of the loan and did not request board approval for the loan. Dr. Browder acknowledged that he was aware that Carina was experiencing financial difficulties and that he was aware that Carina intended to use a substantial portion of the loan to pay off existing debt.

Dr. Browder and the BTES counsel referred to the \$2.2 million transaction as a “prepayment.” Even after investigators raised questions, the February 2015 BTES board minutes reflect that Dr. Browder’s explanation of the loan to BTES board members was that “[i]n September 2010, BTES prepaid Carina Technology \$2,200,000 to begin production of the switches and develop the reporting firmware.” Another document provided by Dr. Browder to BTES board members in March 2015 referred to the loan payment as a “prepayment” to Carina and stated that the payment “was to be used for parts, equipment, certifications, tools for molding, and people to develop firmware and hardware.” The document also referred to the additional discount set forth in the agreement.

The BTES board members also termed the transaction a “prepayment” resulting from negotiations for discounts on approved purchases, which included the WISE switch, and echoed the BTES counsel’s contention set forth in the March 2015 BTES board minutes that

... since the initial purchase of the units had been previously approved by the Board, the subsequent negotiation of the Prepayment Agreement did not require board approval under current state law and Board rules.

The investigation revealed, however, that Carina’s request for funds to Dr. Browder referred to Carina’s severe cash situation and indicated that the payment would solve Carina’s cash flow concerns. Furthermore, the request did not state that Carina intended to use the funds for parts, equipment, certifications, tools for molding or development of firmware and hardware, as indicated by Dr. Browder. Instead, the request from Carina stated that Carina would spend the BTES funds as follows:

- \$1 million to pay down bank debt and other loans;
- \$550,000 to pay off existing debt to vendors; and
- the remainder to pay other vendors and to use for working capital.

In return, Carina would provide to BTES a substantial discount on the costs of the WISE switches and certain other products already ordered. [Refer to Exhibit 2.]

The agreement contains all of the essential elements of a loan, including, (1) the loan amount, (2) the duration of the loan, (3) the repayment terms, (4) the price paid for the use of the advanced money through the discounted pricing arrangement, and (5) the collateral securing the loan vis-à-vis the escrow deposit. It should be noted that Tennessee state statutes provide no authority for BTES to lend money to a private vendor such as Carina. In addition, as noted in Item c. below, although a 12 percent discount was set forth in the agreement, investigators discovered that BTES never received the stated discount on any of the related purchases.

Consequently, BTES received no benefit from this loan transaction with Carina, regardless of how the transaction was characterized, and the transaction did not appear to be in the best interests of BTES, or in the best interests of BTES’s ratepayers. Furthermore, Dr. Browder’s failure to disclose the full circumstances

surrounding this transaction, including Carina's precarious financial situation as well as his personal ownership interest in the product being produced, indicate that Dr. Browder may have been motivated by an interest other than his service to BTES and its ratepayers.

c. BTES CEO Dr. Michael Browder ignored financial mandates set forth in the \$2.2 million loan agreement with Carina, costing the public over \$1,000,000

Dr. Browder repeatedly accommodated Carina's severe financial difficulties by ignoring financial mandates set forth in the \$2.2 million loan agreement. He directed staff to disregard the stated discount, as well as to pay invoice percentages significantly higher than required by this loan agreement directly to Carina.

As noted previously, Dr. Browder, BTES counsel, and BTES board members insisted that the \$2.2 million loan was the result of the negotiation of a discount on approved purchases. Although the loan agreement mandated that a 12-percent discount would be applied, BTES financial records show that BTES did not receive the stated discount on ANY of the applicable invoices. These discounts would have amounted to over \$1,000,000 in savings of public funds. In addition, the loan agreement called for BTES to pay only 30 percent of each applicable invoice from Carina, with the remainder to be used to reduce the balance of the loan. BTES financial records show that BTES frequently disbursed to Carina 80 to 100 percent of invoiced amounts. In fact, from inception of the loan through June 2014, BTES disbursed over \$500,000 to Carina (based on invoiced amounts) which should never have been paid. Instead, BTES should have reduced the loan by these amounts in accordance with the written agreement.

When investigators questioned the BTES director of accounting and finance about the failure to receive the discount and about the discrepancies in the amounts paid to Carina, she admitted that her understanding of the reason behind these decisions was because Carina remained strapped for cash. She told investigators that she intended to "apply the discount at the end." She stated that any decision to deviate from stated contract terms would have been made or negotiated by Dr. Browder.

Investigators were unable to determine the extent to which Dr. Browder's conflict of interest, resulting from his personal ownership interest in the WISE switch being developed and produced by Carina, influenced his decision to ignore financial mandates set forth in the \$2.2 million agreement with the financially distressed private vendor at a cost to the public of at least \$1,000,000. These transactions did not appear to be in the best interests of BTES, or in the best interests of BTES's ratepayers, and indicate that Dr. Browder may have been motivated by an interest other than his service to BTES and its ratepayers.

d. BTES CEO Dr. Michael Browder directed questionable reductions totaling over \$1.9 million to the \$2.2 million loan to Carina

Dr. Browder directed questionable reductions totaling almost \$2 million to the outstanding loan to Carina, giving the company credit as having made repayments of these amounts.

In June 2015, BTES reduced the balance of the \$2.2 million loan to Carina by \$1,500,000. Investigators discovered that this reduction was based on invoices from Carina for products, including 5,000 WISE switches, which had not been manufactured or delivered. Investigators also questioned reductions totaling over \$411,000 made to the Carina loan in October 2014 and February 2015.

The investigation revealed that, due to Carina's severe cash shortage, in 2012 and 2013, BTES began paying vendors directly both for parts and for manufacturing of the WISE switch and another product. Even though Carina no longer purchased the parts or manufactured the products, Carina's invoice charges continued to reflect the full sales price of the products and BTES used calculated Carina "profits" to reduce the loan. BTES documentation indicates that reductions to the loan prior to June 2015 were based on invoices for finished products actually received by BTES. However, the questioned reductions in June 2015 were based on Carina invoice charges for products which had not been manufactured or delivered to BTES.

Despite the fact that Carina was no longer producing the products and that most of the products had not been manufactured or delivered to BTES, the BTES director of accounting and finance insisted that Carina earned the \$1,911,000 "profit" the company received as a result of the loan reduction because Carina officials had done all that was expected. Documentation revealed that these calculated reductions to the balance of the \$2.2 million loan amount owed to BTES by Carina failed to account for the BTES time and labor resources, lost interest, and other costs associated with paying vendors directly, maintaining accountability for the parts and manufacturing, etc., and ensuring a complete product was delivered, tasks normally performed by a "middleman."

In effect, investigators found that BTES performed all the services on behalf of the middleman (Carina), but continued to pay the middleman in full, even for products which had not yet been manufactured or delivered.

Investigators were unable to determine the extent to which Dr. Browder's conflict of interest, resulting from his personal ownership interest in the WISE switch being developed and produced by Carina, influenced his decision to direct dubious reductions totaling nearly \$2,000,000 to the amount owed to BTES ratepayers by Carina. These transactions did not appear to be in the best interests of BTES, or in the best interests of BTES's ratepayers, and indicate that Dr. Browder may have been motivated by an interest other than his service to BTES and its ratepayers.

- e. ***BTES CEO Dr. Michael Browder used ratepayer funds to make additional unauthorized loans to Carina totaling over \$287,000 and instructed staff to ignore financial mandates set forth in the related "Advance Payment Agreements"***

Investigators discovered that in 2012 and 2013, without statutory authority, Dr. Browder directed additional loans from BTES to Carina totaling over \$287,000, via direct payments to vendors on behalf of Carina.

After repeatedly telling investigators that other BTES agreements with Carina did not exist, the BTES director of accounting and finance, upon instruction from the BTES counsel, provided investigators with three additional agreements. These agreements set forth terms requiring BTES to make direct payments to other vendors “on behalf of Carina” for tooling, test fixtures, certifications, and prototypes related to WISE switches and another Carina product. The agreements stated that Carina would repay these amounts “with a dollar for dollar credit on all purchases by BTES until such amounts shall be fully satisfied.” The final agreement further stated that “the previous repayment provision for the original \$2.2M advanced shall be stayed until the combined \$287,107.86 ... shall be paid in full utilizing the credit set forth above.”

The investigation revealed that BTES did not receive the dollar-for-dollar credit on future invoices. In fact, as of December 31, 2015, none of these amounts had been “repaid” to BTES by Carina.

Investigators determined that Dr. Browder signed all three of these additional loan agreements after outside counsel hired by BTES and paid with BTES ratepayer funds verified Carina’s financial distress and set forth the inevitability of Carina’s future financial failure. [Refer to Exhibit 3.] It should also be noted that BTES was paying this money to other vendors for products and services which Carina was already contractually obligated to provide.

As noted previously, state statutes provide no authority for BTES to lend money to a private vendor. The BTES director of accounting and finance acknowledged these loan agreements were not reflected as such in BTES financial and accounting records and were not disclosed to BTES auditors. Also, BTES board members stated that they were unaware of these loans and that they were unaware that BTES was paying vendors on behalf of Carina.

Investigators were unable to determine the extent to which Dr. Browder’s personal ownership interest in the WISE switch being developed and produced by Carina influenced his decision to direct additional unauthorized loans totaling over \$287,000 to this financially distressed private company and to circumvent the financial mandates set forth in the related loan agreements. These transactions did not appear to be in the best interests of BTES, or in the best interests of BTES’s ratepayers, particularly given that Carina was contractually obligated to provide the products and services for which BTES was paying. These transactions and Dr. Browder’s decision to withhold the circumstances of these loan transactions from the BTES board, including the findings by outside counsel of the extent of Carina’s financial uncertainty, indicate that Dr. Browder may have been motivated by an interest other than his service to BTES and its ratepayers.

- f. ***BTES CEO Dr. Michael Browder failed to request from Carina reimbursement for, or replacement of, inventory parts totaling almost \$500,000 that he authorized to be used for an unrelated utility’s order***

Dr. Browder acknowledged that BTES had not been made whole for inventory parts purchased with BTES ratepayer funds totaling almost \$500,000 that he authorized Carina to use on WISE switches sent to an unrelated utility. This utility’s officials

told investigators that many of the 5,000 WISE switches ordered from Carina were incomplete and nonfunctional when delivered and that Carina was financially unable to repay the \$733,000 partial payment which had been made by the utility for these products. In fact, Carina management indicated to the utility officials that, if sued, the company would declare bankruptcy. The utility officials remitted the unexpended portion of the funds and some of the incomplete WISE switches to TVA, which had already reimbursed the utility for the total cost.

When asked how BTES was going to recover the costs of the inventory parts, both Dr. Browder and the BTES director of accounting and finance inexplicably stated that they felt TVA, not Carina, was responsible for making BTES whole. As of September 2015, BTES had not recovered the inventory and had neither requested reimbursement for the parts nor requested related payment from Carina.

Investigators were unable to determine the extent to which Dr. Browder's conflict of interest, resulting from his personal ownership interest in the WISE switch being developed and produced by Carina, influenced his decision to authorize Carina to use inventory parts purchased with BTES ratepayer funds of nearly a half million dollars on an order for another utility. This transaction did not appear to be in the best interests of BTES, or in the best interests of BTES's ratepayers, and indicates that Dr. Browder may have been motivated by an interest other than his service to BTES and its ratepayers.

EXHIBITS

THIS PAGE LEFT BLANK INTENTIONALLY.

Exhibit 1

From: Pete Harbin
Sent:
To: mbrowder@BTES.net
Cc: Michael Smalley; William L. Schrader; Dean Johnston; Elyzabeth Holford
Subject: Wise

Mike

I will try to call you in the morning.

We talked a lot about several items

These we will talk about Monday

Pricing at the \$199 for the PO for Wise is fine
Pricing at \$175 is good we will talk about the \$65 disconnect price
This is a good price - any other customer would pay

Collar	195
Zigbee	35
Disconnect	100
Total	\$330

BTES cost \$240 with the disconnect

The 900 mhz smart meter without any software and not on a broadband connection is \$260 with a disconnect
The network still has to be built out along with all the software

Replacement cost on existing units \$100 or actual cost if lower - This includes the disconnect

What I would like for you to send is the commitment for the 1100 units so that we can ship them tomorrow.
This will solve our immediate issue with the bank

This is not a commitment on the additional 900 and we will discuss on Monday

Carina will give you an answer for the 4 units - but as you and bill discussed, once we get all the units - 250 additional in phase 2 then we can finish our fine tuning of the firmware to ensure we are getting 96 interval readings on all units.
I believe we have 156 at 96 and Toby is getting the data to you. As you reset and upgrade the other 40 units, we will be getting close to providing accurate data to TVA and rolling in the 200 hours to get the true reduction over the year for the actual economic payback.

I will be sending you the two purchase orders Monday when I get back at the new pricing.

Again, Bill and Elyzabeth's goal is to support BTES and make them the premier utility in the country.

Exhibit 1 continued

I know there is some risk with the 1100 units, but all I am asking is that you send the email authorizing Bill to ship the units tomorrow on Friday. You know we are getting closer and are resolving all issues. We will talk about the payment on Monday after we review some more units.

thanks

Again I am sorry about Linda's brother.

I will be flying out at 7:30 your time and will try to call you. If I miss you, can you call Bill and send the email.

Pete

Carina Technology, Inc.

September 14, 2010

Dr. Michael Browder

BTES

RE: Carina Technology Down Payment Proposal

Dear Dr. Browder,

Thank you for meeting with us yesterday and thank you for all your support over the years. BTES has been a loyal customer and your forward-thinking utility has improved our product offerings. We look forward to continuing a long relationship with BTES.

As you know, financing for small businesses has been a very big challenge over the past 18 months, and Carina's experience is no exception. We have been proactive in every way possible, including reducing our expenses, attracting investment, seeking partners, negotiating extended terms with our suppliers and requesting down payments from our customers.

Several months back we entered into discussions with a large energy/aerospace company which would have led to a partnership on the WISE product line, providing important working capital to Carina. However, after a series of very positive negotiations and a handshake deal, they changed the terms dramatically to a purchase of the product line and no working capital. Understandably, we are reluctant to move forward with the arrangement, however, our options are limited and we may have no other choice but to accept their offer. We have

Exhibit 2 continued

developed an alternative plan in the form of a proposal to BTES that would solve our cash flow concerns and allow us to engage with a more important partner, RW Beck.

In that spirit, we are proposing a substantial discount to BTES in return for a down payment on the outstanding contract/purchase orders. While our cash situation is severe right now, we are confident that we can generate sufficient working capital within the next few months to solve our cash needs going forward.

We are requesting a down payment of from \$2.2 million to \$3.5 million on the remaining Carina/BTES/TVA \$7.77 million contract.

We propose a discount of 12% (\$.932 million) on the outstanding contract/PO's from BTES, in return for a down payment of \$2.0 - \$3.0 million. The larger the down payment presents the lesser risk to Carina in meeting its working capital needs. The lower amount would meet our urgent needs but would result in very tight operations over the next few months.

Active contract/PO's with BTES:

- TVA contract for 3900 WISE units (remaining) \$ 0.979 M
- Purchase Orders to deliver 9,000 WISE units \$ 1.791 M
- Purchase Orders to deliver 20,000 collars \$ 5.000 M

TOTAL \$7.770 M

If BTES is willing to provide such a down payment, then Carina will move aggressively forward with the BTES/RW Beck relationship.

In the discussions we had with you yesterday you asked us if a down payment would actually solve our cash concerns. The answer is yes, as you can see from the attached cash flow summary; we will achieve cash flow breakeven within 90 to 120 days.

Exhibit 2 continued

Attached with this request are:

- 1) Use of Funds
- 2) Path to Sustainable Cash Operations
- 3) Financial Pro Forma for next 28 months

Dr. Browder, we appreciate your consideration of this request. We have been tenacious and persistent since Carina's inception. We believe in our products and we believe in our business. We are hopeful that BTES will be able to benefit financially from this offer, and benefit in the long run, with a stronger company standing behind its customers and products.

As a show of our commitment to both Carina and BTES, and our confidence in Carina's future, both Mr. Jay Newkirk and I are prepared to provide a personal guaranty for the amount of the down payment.

We are honored to work with you,

Sincerely,

Carina Technology, Inc.

Jimmy Caudle,

President

cc. Mr. Jay Newkirk, Chairman

Exhibit 2 continued

USE OF FUNDS

Down Payment Amount	\$3.0 M	\$2.2 M	
Pay Down Bank Debt	\$1.10 M	\$0.60 M	These payments release security liens and reduce threat of action against Carina. We need to reduce the entire within 4 months but we are under a lot of personal guaranty pressure to reduce it all now.
Vendors & Taxes	\$0.55 M	\$0.55 M	These payments release remaining liens and free up new parts orders.
Other loan repayment	\$0.40 M	\$0.40 M	Unwinding the Current deal will include repaying short term loan.
Other Vendors	\$0.25 M	\$0.15 M	Vendors include other parts suppliers and ongoing professional services ,ie. patents.
Working Capital	\$0.70 M	\$0.50 M	Our burn rate is about \$180/month with much of the management team at reduced salaries. The larger down payment gives us twice/three times? the runway as the lower option.
TOTAL	\$3.0 M	\$2.20 M	

Exhibit 2 continued

Our Path to Sustainable, Positive Cash Flow Operations

We have a 5 point plan to sustainable operations:

	ACTION	COMMENT
1.	Secure \$2.2 - \$3.0 million in Bridge Financing	We need to accomplish this immediately to meet debt requirements, and provide working capital for the next few months. Our other alternative is to proceed with the Current deal.
2.	Negotiate investments in Flexpay product line that will bring in an additional \$2-5 million to Carina, with Carina maintaining control of both products.	We are in serious discussions with two investors. We are confident that we will close at least \$2 million by first quarter 2011. Both investors are committing to project financing as well as investment.
3.	Focus sales efforts on only those projects that are likely to sign in 2011 and on product offerings that are complete.	We project sales of \$7.2 million in 2011, with 20% already signed or committed. A strong push on sales will assure the 2011-2012 projections.
4.	Partner with RW Beck on the WISE product line.	This strategic partnership will accelerate market acceptance and provide project financing. The conceptual terms of the partnership have been agreed to. Carina would remain the majority owner.
5.	Convert debt to equity	We intend to reduce 30% of our debt through equity conversion, improving our balance sheet and our ability to proceed with traditional financing options.

Tom Davenport

From: Colin House [chouse@ehjlaw.com]
Sent: Wednesday, April 18, 2012 3:29 PM
To: TOM@CTDLEGAL.COM
Cc: 'Charles R. Johanson, III'
Subject: Bristol-Carina (21165);
Attachments: Summary of Research on Litigation and UCC Filings.doc; Carina Technology_UCC Search Results (04-06-2012).pdf; Carina Technology_UCC Search Results.v2 (04-10-2012).pdf; Complaint_Dept of Revenue v. Carina Tech_Back withholding taxes.pdf; Complaint_Reliance Bank v. Carina Tech_Breach of Lease.pdf; Complaint_Carina Partners v Carina Tech_Securities Fraud.pdf

Tom,

In our effort to be able to advise client about documenting the deal between Bristol and Carina, we performed some UCC and litigation searches as well as reviewed the documentation you forwarded to us. We have options and some issues to consider.

Bristol can simply take an assignment of Jim Caudle's security interests in the assets of Carina, which secured some ServisFirst loans. Obviously, if that is all we do, Bristol will only get the security interests currently held by Jim Caudle. These do include a security interest in the intellectual property owned by Carina.

It does not appear from the documents you sent that Jim Caudle purchased the entire ServisFirst portfolio. The bank retained loans secured by real property. Our UCC searches show several other parties with security interests in or liens on the assets of Carina. These are also summarized in the attached UCC summary.

A concern is that if Carina fails and files bankruptcy (and unfortunately the writing is on the wall!), there will likely be a period of time, perhaps weeks or months, before Bristol is granted the ability to exercise its rights to its collateral. The intellectual property is the key issue. We don't know enough about the underlying business relationship to assess the impact of such a delay.

Our research regarding pending litigation against Carina revealed several suits, including a 28 page suit by a large group of investors claiming they were defrauded (red flag!). There are two other suits include a suit for breach of lease for damages in excess of \$240,000.00 and a suit by the Alabama Dept. of Revenue to shut Carina down for nonpayment of State withholding taxes. The litigation is summarized in the attachment, with the complaints attached.

With bankruptcy looming, depending on the answer to the delay issue, we should perhaps explore other options in structuring the transaction that could provide Bristol with more immediate relief. The pending litigation may have an impact here. Once you've had a chance to review the attached summary (and skim the other documents), please give me a call so that we can discuss our options.

Yours truly,

Colin P. House
(205) 328-4600 ext 329
ENGEL, HAIRSTON & JOHANSON, P.C.
4th Floor 109 North 20th Street 35203
P.O. Box 11405
Birmingham, AL 35202
Telefax: (205) 328-4698