UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2020
or

☐ **TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from __________ to __________

Commission File Number 0-29185

QS ENERGY, INC.
(Exact name of registrant as specified in its charter)

Nevada	**52-2088326**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

23902 FM 2978
Tomball, TX 77375
(Address, including zip code, of principal executive offices)

(281)-738-1893
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
None	N/A

Check whether the Registrant (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company", and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller reporting company ☒
Emerging growth company ☐	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The number of shares of the Registrant's Common Stock outstanding as of August 12, 2020 was 319,421,243.

QS ENERGY, INC.
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PART I – FINANCIAL INFORMATION

Item 1. Unaudited Condensed Consolidated Financial Statements

QS ENERGY, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS

	June 30, 2020 (unaudited)		December 31, 2019	
ASSETS				
Current assets:				
Cash	$	116,000	$	479,000
Prepaid expenses and other current assets		148,000		96,000
Total current assets		264,000		575,000
Property and equipment, net of accumulated depreciation of $84,000 and $80,000 at June 30, 2020 and December 31, 2019, respectively		20,000		23,000
Other assets		2,000		2,000
Total assets	$	286,000	$	600,000
LIABILITIES AND STOCKHOLDERS' DEFICIT				
Current liabilities:				
Accounts payable-license agreements	$	1,373,000	$	1,255,000
Accounts payable and accrued expenses		685,000		557,000
Accrued expenses and accounts payable-related parties		6,000		7,000
Convertible debentures, net of discounts of $68,000 and $153,000 at June 30, 2020 and December 31, 2019, respectively		1,086,000		1,050,000
Other notes payable		151,000		–
Total current liabilities		3,301,000		2,869,000
Commitments and contingencies				
Stockholders' deficit				
Common stock, $.001 par value: 500,000,000 shares authorized, 319,421,243 and 310,111,536 shares issued and outstanding at June 30, 2020 and December 31, 2019, respectively		319,422		310,111
Additional paid-in capital		117,061,578		116,209,889
Accumulated deficit		(120,396,000)		(118,789,000)
Total stockholders' deficit		(3,015,000)		(2,269,000)
Total liabilities and stockholders' deficit	$	286,000	$	600,000

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS, UNAUDITED

	Three months ended June 30,		Six months ended June 30,	
	2020	**2019**	**2020**	**2019**
Revenues	$ –	$ –	$ –	$ –
Costs and Expenses				
Operating expenses	413,000	655,000	945,000	1,133,000
Research and development expenses	157,000	432,000	227,000	583,000
Loss before other expense	(570,000)	(1,087,000)	(1,172,000)	(1,716,000)
Other expense				
Interest and financing expense	(271,000)	(371,000)	(435,000)	(2,024,000)
Net Loss	$ (841,000)	$ (1,458,000)	$ (1,607,000)	$ (3,740,000)
Net loss per common share, basic and diluted	$ (0.00)	$ (0.00)	$ (0.01)	$ (0.01)
Weighted average common shares outstanding, basic and diluted	314,950,397	293,284,367	313,007,039	279,658,273

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIT, UNAUDITED
FOR THE SIX MONTHS ENDED JUNE 30, 2020 AND JUNE 30, 2019

	Common Stock		Additional Paid-in	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Deficit	Deficit
Balance, January 1, 2019	256,123,515	$ 256,123	$ 111,429,877	$ (113,168,000)	$ (1,482,000)
Common stock issued on exercise of warrants and options	3,677,190	3,677	269,323	–	273,000
Common stock issued on conversion of notes payable	38,406,486	38,406	2,006,594	–	2,045,000
Fair value of warrants and beneficial conversion feature of issued convertible notes	–	–	1,118,000	–	1,118,000
Fair value of options and warrants issued as compensation	–	–	194,000	–	194,000
Common stock issued for services	250,000	250	67,750	–	68,000
Net loss		–	–	(3,740,000)	(3,740,000)
Balance, June 30, 2019	298,457,191	$ 298,456	$ 115,085,544	$ (116,908,000)	$ (1,524,000)

	Common Stock		Additional Paid-in	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Deficit	Deficit
Balance, January 1, 2020	310,111,536	$ 310,111	$ 116,209,889	$ (118,789,000)	$ (2,269,000)
Common stock issued on exercise of warrants and options	1,215,000	1,215	59,785	–	61,000
Fair value of common stock issued on conversion of notes payable	8,094,707	8,096	366,904	–	375,000
Fair value of warrants and beneficial conversion feature of issued convertible notes	–	–	212,000	–	212,000
Fair value of options and warrants issued as compensation	–	–	213,000	–	213,000
Net loss	–	–		(1,607,000)	(1,607,000)
Balance, June 30, 2020	319,421,243	$ 319,422	$ 117,061,578	$ (120,396,000)	$ (3,015,000)

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIT, UNAUDITED
FOR THE THREE MONTHS ENDED JUNE 30, 2020 AND JUNE 30, 2019

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount			
Balance, April 1, 2019	294,805,488	$ 294,805	$ 114,166,195	$ (115,450,000)	$ (989,000)
Common stock issued on exercise of warrants and options	1,715,037	1,715	99,285	–	101,000
Common stock issued on conversion of notes payable	1,686,666	1,686	207,314	–	209,000
Fair value of warrants and beneficial conversion feature of issued convertible notes	–	–	450,000	–	450,000
Fair value of options and warrants issued as compensation	–	–	95,000	–	95,000
Common stock issued for services	250,000	250	67,750	–	68,000
Net loss	–	–		(1,458,000)	(1,458,000)
Balance, June 30, 2019	298,457,191	$ 298,456	$ 115,085,544	$ (116,908,000)	$ (1,524,000)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount			
Balance, April 1, 2020	314,972,209	$ 314,972	$ 116,641,028	$ (119,555,000)	$ (2,599,000)
Common stock issued on exercise of warrants and options	–	–	–	–	–
Common stock issued on conversion of notes payable	4,449,034	4,450	151,550	–	156,000
Fair value of warrants and beneficial conversion feature of issued convertible notes	–	–	177,000	–	177,000
Fair value of options and warrants issued as compensation	–	–	92,000	–	92,000
Common stock issued for services	–	–	–	–	–
Net loss	–	–	–	(841,000)	(841,000)
Balance, June 30, 2020	319,421,243	$ 319,422	$ 117,061,578	$ (120,396,000)	$ (3,015,000)

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, UNAUDITED

	Six months ended June 30	
	2020	**2019**
Cash flows from Operating Activities		
Net loss	$ (1,607,000)	$ (3,740,000)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock based compensation expense	213,000	194,000
Issuance of common stock for services	–	68,000
Amortization of debt discount	318,000	1,961,000
Accrued interest expense	93,000	30,000
Depreciation and amortization	3,000	3,000
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	(52,000)	(205,000)
Accounts payable and accrued expenses	128,000	(153,000)
Accounts payable – license agreements	118,000	64,000
Accounts payable and accrued expenses – related parties	(1,000)	(55,000)
Deposits and other current liabilities	–	–
Net cash used in operating activities	(787,000)	(1,833,000)
Cash flows from financing activities		
Net proceeds from issuance of convertible notes and warrants	212,000	1,118,000
Net proceeds from exercise of warrants	61,000	273,000
Net proceeds from other notes	151,000	–
Net cash provided by financing activities	424,000	1,391,000
Net decrease in cash	(363,000)	(442,000)
Cash, beginning of period	479,000	1,153,000
Cash, end of period	$ 116,000	$ 711,000
Supplemental disclosures of cash flow information		
Cash paid during the year for:		
Interest	$ –	$ –
Income Taxes	$ –	$ 1,600
Non-cash investing and financing activities		
Conversion of convertible debentures and accrued interest to common stock	$ 375,000	$ 2,045,000
Fair value of warrants and beneficial conversion feature associated with issued convertible notes	$ 212,000	$ 1,118,000

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, UNAUDITED
SIX MONTHS ENDED JUNE 30, 2019 AND 2018

1. Description of Business

QS Energy, Inc. (“QS Energy”, “Company”) was incorporated on February 18, 1998, as a Nevada Corporation under the name Mandalay Capital Corporation. The Company changed its name to Save the World Air, Inc. on February 11, 1999. Effective August 11, 2015, the Company changed its name to QS Energy, Inc. The Company’s common stock is quoted under the symbol “QSEP” on the Over-the-Counter Bulletin Board. More information including the Company’s fact sheet, logos and media articles are available at our corporate website, www.qsenergy.com.

QS Energy is developing and seeking to commercialize energy efficiency technologies that assist in meeting increasing global energy demands, improving the economics of oil extraction and transport, and reducing greenhouse gas emissions. The Company's intellectual properties include a portfolio of domestic and international patents and patents pending, a substantial portion of which have been developed in conjunction with and exclusively licensed from Temple University of Philadelphia, PA (“Temple”). QS Energy's primary technology is called Applied Oil Technology (AOT), a commercial-grade crude oil pipeline transportation flow-assurance product. Engineered specifically to reduce pipeline pressure loss, increase pipeline flow rate and capacity, and reduce shippers’ reliance on diluents and drag reducing agents to meet pipeline maximum viscosity requirements, AOT is a 100% solid-state system that reduces crude oil viscosity by applying a high intensity electrical field to crude oil feedstock while in transit. We are seeking to transition our AOT product from the research and development stage to initial production for continued testing in advance of our goal of seeking acceptance and adoption by the midstream pipeline marketplace.

Basis of Presentation

The accompanying condensed consolidated financial statements are unaudited. These unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and applicable rules and regulations of the Securities and Exchange Commission (“SEC”) regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. Accordingly, these interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2019 filed with the SEC. The condensed consolidated balance sheet as of December 31, 2019 included herein was derived from the audited consolidated financial statements as of that date, but does not include all disclosures, including notes, required by GAAP.

In the opinion of management, the accompanying unaudited condensed consolidated financial statements contain all adjustments necessary to fairly present the Company's financial position and results of operations for the interim periods reflected. Except as noted, all adjustments contained herein are of a normal recurring nature. Results of operations for the fiscal periods presented herein are not necessarily indicative of fiscal year-end results.

2. Summary of Significant Accounting Policies

Consolidation Policy

The accompanying consolidated financial statements of QS Energy Inc. include the accounts of QS Energy Inc. (the Parent) and its wholly owned subsidiaries, QS Energy Pool, Inc. and STWA Asia Pte. Limited. Intercompany transactions and balances have been eliminated in consolidation.

Going Concern

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the accompanying consolidated financial statements, during the six-months ended June 30, 2020, the Company incurred a net loss of $1,607,000, used cash in operations of $787,000 and had a stockholders’ deficit of $3,015,000 as of that date. These factors raise substantial doubt about the Company’s ability to continue as a going concern. The ability of the Company to continue as a going concern is dependent upon the Company’s ability to raise additional funds and implement its business plan. The financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

In addition, the Company's independent registered public accounting firm, in its report on the Company's December 31, 2019 financial statements, has raised substantial doubt about the Company's ability to continue as a going concern.

At June 30, 2020, the Company had cash on hand in the amount of $116,000. Management estimates that the current funds on hand will be sufficient to continue operations through July 2020. Management is currently seeking additional funds, primarily through the issuance of debt and equity securities for cash to operate our business, including without limitation the expenses it will incur in connection with the license agreements with Temple; costs associated with product development and commercialization of the AOT technologies; costs to manufacture and ship the products; costs to design and implement an effective system of internal controls and disclosure controls and procedures; costs of maintaining our status as a public company by filing periodic reports with the SEC and costs required to protect our intellectual property. In addition, as discussed below, the Company has substantial contractual commitments, including without limitation salaries to our executive officers pursuant to employment agreements, certain payments to a former officer and consulting fees, during the remainder of 2020 and beyond.

No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing or cause substantial dilution for our stockholders in case of equity financing.

Basic and Diluted Income (loss) per share

Our computation of earnings per share ("EPS") includes basic and diluted EPS. Basic EPS is measured as the income (loss) available to common stockholders divided by the weighted average common shares outstanding for the period. Diluted income (loss) per share reflects the potential dilution, using the treasury stock method, that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that then shared in the income (loss) of the Company as if they had been converted at the beginning of the periods presented, or issuance date, if later. In computing diluted income (loss) per share, the treasury stock method assumes that outstanding options and warrants are exercised and the proceeds are used to purchase common stock at the average market price during the period. Options and warrants may have a dilutive effect under the treasury stock method only when the average market price of the common stock during the period exceeds the exercise price of the options and warrants. Potential common shares that have an antidilutive effect (i.e., those that increase income per share or decrease loss per share) are excluded from the calculation of diluted EPS.

Income (loss) per common share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding during the respective periods. Basic and diluted (loss) per common share is the same for periods in which the Company reported an operating loss because all warrants and stock options outstanding are anti-dilutive. At June 30, 2020 and 2019, we excluded the outstanding securities summarized below, which entitle the holders thereof to acquire shares of common stock as their effect would have been anti-dilutive.

	June 30, 2020	June 30, 2019
Options	42,440,601	39,450,603
Warrants	8,004,395	25,713,204
Common stock issuable upon conversion of notes payable	12,249,090	12,784,543
Total	62,694,086	77,948,350

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates include those related to accruals for potential liabilities, assumptions used in valuing equity instruments issued for financing and services and realization of deferred tax assets, among others. Actual results could differ from those estimates.

Research and Development Costs

Research and development costs are expensed as incurred and consist primarily of fees paid to consultants and outside service providers, and other expenses relating to the acquisition, design, development and testing of the Company's products. Certain research and development activities are incurred under contract. In those instances, research and development costs are charged to operations ratably over the life of the underlying contracts, unless the achievement of milestones, the completion of contracted work, or other information indicates that a different expensing schedule is more appropriate. Payments made pursuant to research and development contracts are initially recorded as advances on research and development contract services in the Company's consolidated balance sheet and then charged to research and development costs in the Company's consolidated statement of operations as those contract services are performed.

For the six-month periods ended June 30, 2020 and 2019 research and development costs were $227,000 and $583,000, respectively. For the three-month periods ended June 30, 2020 and 2019 research and development costs were $157,000 and $432,000, respectively.

Patent Costs

Patent costs consist of patent-related legal and filing fees. Due to the uncertainty associated with the successful development of our AOT and Joule Heat products, all patent costs are expensed as incurred. During the six-month periods ended June 30, 2020 and 2019, patent costs were $13,000 and $9,000, respectively, which is included as part of operating expenses in the accompanying consolidated statements of operations.

Recent Accounting Pronouncements

Recent accounting pronouncements issued by the FASB, including its Emerging Issues Task Force, the American Institute of Certified Public Accountants, and the Securities and Exchange Commission did not or are not believed by management to have a material impact on the Company's present or future consolidated financial statement presentation or disclosures.

3. Accrued Expenses and Accounts Payable

Accrued Expenses

As of June 30, 2020 and December 31, 2019, the Company owed $197,000 and $207,000, respectively, pursuant to a separation agreement with a former executive officer effective April 1, 2017 as amended by letter agreements dated effective August 16, 2018 and March 31, 2019 which included as part of Accrued expenses and accounts payable on the accompanying balance sheet. The amount is to be repaid at an amount of $10,000 per month. During the six months ended June 30, 2020 the Company made $10,000 in payments reducing the outstanding balance to $197,000.

Accrued Expenses and Accounts Payable – Related Parties

Accrued expense – related parties consists of accrued fees due to members of the Board of Directors. As of June 30, 2020 and December 31, 2019, accrued expenses and accounts payable to related parties amounted to $6,000 and $7,000, respectively.

4. Property and Equipment

At June 30, 2020 and December 31, 2019, property and equipment consists of the following:

	June 30, 2020	December 31, 2019
Office equipment	$ 36,000	$ 36,000
Furniture and fixtures	5,000	5,000
Testing Equipment	37,000	37,000
Leasehold Improvements	26,000	25,000
Subtotal	104,000	103,000
Less accumulated depreciation	(84,000)	(80,000)
Total	$ 20,000	$ 23,000

Depreciation expense for the six-month periods ended June 30, 2020 and 2019 was $3,000 and $3,000, respectively. Depreciation expense for the three-month periods ended June 30, 2020 and 2019 was $2,000 and $1,000, respectively.

5. Convertible Notes

	June 30, 2020 (unaudited)	December 31, 2019
Balance due on convertible notes	$ 893,000	$ 1,019,000
Accrued interest	261,000	184,000
Subtotal	1,154,000	1,203,000
Convertible note discount	(68,000)	(153,000)
Balance on convertible notes, net of note discounts	$ 1,086,000	$ 1,050,000

The Company issues convertible notes in exchange for cash. The notes typically do not bear any interest; however, there is an implied interest rate of 10% since the notes are typically issued at a 10% discount. The notes are unsecured, and usually mature twelve months from issuance.

The notes are convertible at the option of the note holder into the Company's common stock at a conversion price stipulated in the conversion agreement. In addition, the note holders receive warrants to purchase shares of common stock that are fully vested and will expire in one year from the date of issuance. As a result, the Company records a note discount to account for the relative fair value of the warrants, the notes' beneficial conversion feature or BCF, and original issue discount of 10% (OID). The note discounts are amortized over the term of the notes or amortized in full upon its conversion to common stock.

As of December 31, 2019, total outstanding notes payable amounted to $1,019,000 which are due through December 2019 and unamortized note discount of $153,000.

During the six-month period ended June 30, 2020, the Company issued similar convertible promissory notes in the aggregate of $233,000 for cash of $212,000 or a discount of $21,000. The notes do not bear any interest; however, the implied interest rate used was 10% since the notes were issued 10% less than its face value. The notes are unsecured, mature in twelve months from issuance and convertible at $0.035 per share. In addition, the Company also granted these note holders warrants to purchase 3,324,517 shares of the Company's common stock. The warrants are fully vested, exercisable at $0.035 per share and will expire in one year. As a result, the Company recorded a note discount of $212,000 to account for the relative fair value of the warrants, the notes' beneficial conversion feature (BCF), and original issue discount (OID). The note discounts are being amortized over the term of the note or amortized in full upon the conversion to common stock. During the six-month period ended June 30, 2020 notes payable and accrued interest of $375,000 were converted into 8,094,707 shares of common stock.

As of June 30, 2020, total outstanding notes payable amounted to $893,000, accrued interest of $261,000 and unamortized note discount of $68,000 for a net balance of $1,086,000. A total of twenty-one notes in the aggregate of $1,070,000 including accrued interest have reached maturity and are past due.

6. Research and Development

The Company constructs, develops and tests the AOT technologies with internal resources and through the assistance of various third-party entities. Costs incurred and expensed include fees such as license fees, prototype equipment fabrication and installation, purchase of test equipment, pipeline pumping equipment, crude oil tank batteries, viscometers, SCADA systems, computer equipment, payroll and other related equipment and various logistical expenses for the purposes of evaluating and testing the Company's AOT prototypes.

Costs incurred for research and development are expensed as incurred. Purchased materials that do not have an alternative future use are also expensed. Furthermore, costs incurred in the construction of prototypes with no certainty of any alternative future use and established commercial uses are also expensed.

For the six-month periods ended June 30, 2020 and 2019, our research and development expenses were $227,000 and $583,000 respectively. For the three-month periods ended June 30, 2020 and 2019, our research and development expenses were $157,000 and $432,000 respectively.

AOT Product Development and Testing

The Company constructs, develops and tests the AOT technologies with internal resources and through the assistance of various third-party entities. Costs incurred and expensed include fees such as testing fees, purchase of test equipment, pipeline pumping equipment, crude oil tank batteries, viscometers, SCADA systems, computer equipment, payroll and other related equipment and various logistical expenses for the purposes of evaluating and testing the Company's AOT prototypes.

During the year ended December 31, 2019, the Company incurred costs related to a work order for work to be performed by a pipeline operator under which the Company paid a $500,000 deposit in advance of work to be performed. During the period ended December 31, 2019, the Company amortized $483,000 of such amount as a research and development cost based on the progress of work performed as required by the contract, and reflected the $17,000 remaining amount on deposit as Prepaid expenses and other current assets in the accompanying consolidated balance sheet as of December 31, 2019.

During the period ended June 30, 2020, the work order was increased by $85,000 and the Company paid an additional $85,000 deposit in advance of work to be performed.

During the period ended June 30, 2020, and the Company amortized $72,000 of amounts paid on deposit under the work order as a research and development cost based on the progress of work performed as required by the contract, and reflected the $30,000 remaining amount on deposit as Prepaid expenses and other current assets in the accompanying consolidated balance sheet as of June 30, 2020.

Temple University Licensing Agreements

On August 1, 2011, the Company and Temple University ("Temple") entered into two (2) Exclusive License Agreements (collectively, the "License Agreements") relating to Temple's patent applications, patents and technical information pertaining to technology associated with an electric and/or magnetic field assisted fuel injector system (the "First Temple License"), and to technology to reduce crude oil viscosity (the "Second Temple License"). The License Agreements are exclusive, and the territory licensed to the Company is worldwide and replace previously issued License Agreements.

Pursuant to the two licensing agreements, the Company agreed to pay (i) annual maintenance fees of $187,500; (ii) royalty fee ranging from 4% up to 7% from revenues generated from the licensing agreements; and (iii) 25% of all revenues generated from sub-licensees to secure or maintain the sub-license or option thereon. The term of the licenses commenced in August 2011 and will expire upon expiration of the patents. The agreements can also be terminated by either party upon notification under terms of the licensing agreements or if the Company ceases the development of the patent or fails to commercialize the patent rights.

Total expenses recognized pursuant to these two License Agreements amounted to $94,000 during each six-month periods ended June 30, 2020 and 2019. Total expenses recognized during each three-month periods ended June 30, 2020 and 2019 pursuant to these two License Agreements amounted to $47,000 and $47,000, respectively. Total expenses have been reflected in Research and Development expenses on the accompanying consolidated statements of operations. In the six-month periods ended June 30, 2020 and 2019, the Company also recognized penalty interest on past-due balances of $24,000 and $33,000, respectively, which is included as part of interest and financing expense in the accompanying statements of operations.

As of June 30, 2020 and December 31, 2019, total unpaid fees due to Temple pursuant to these agreements are $1,373,000 and $1,255,000, respectively, which are included as part of Accounts Payable – license agreements in the accompanying consolidated balance sheets. With regards to the unpaid fees to Temple, a total of $135,000 are deferred until such time the Company achieves a revenue milestone of $835,000 or upon termination of the licensing agreements and the remaining $1,238,000 is deemed past due. The Company is currently in discussions with Temple to settle or cure the past due balance.

No revenues were earned from the two License Agreements during the three-month periods ended June 30, 2020 and June 30,2019.

7. Common Stock

During the six months ended June 30, 2020, the Company issued 9,309,707 shares of its common stock as follows:

- The Company issued 8,094,707 shares of its common stock upon the conversion of $375,000 in convertible notes pursuant to the convertible notes conversion prices of $0.05 to $0.15 per share.
- The Company issued 1,155,000 shares of its common stock upon the exercise of warrants for proceeds of $58,000 at an exercise price of $0.05 per share.
- The Company issued 60,000 shares of its common stock upon the exercise of options for proceeds of $3,000 at an exercise price of $0.05 per share.

8. Stock Options and Warrants

The Company periodically issues stock options and warrants to employees and non-employees in capital raising transactions, for services and for financing costs. Options vest and expire according to terms established at the grant date.

Options

Options vest according to the terms of the specific grant and expire from 2 to 10 years from date of grant. The weighted-average, remaining contractual life of employee and non-employee options outstanding at June 30, 2020 was 4.6 years. Stock option activity for the period January 1, 2020 up to June 30, 2020, was as follows:

	Options		Weighted Avg. Exercise Price
January 1, 2020	39,750,603	$	0.20
Granted	2,999,998		0.14
Exercised	(60,000)		0.05
Forfeited	(250,000)		0.15
June 30, 2020	42,440,601	$	0.20

The weighted average exercise prices, remaining contractual lives for options granted, exercisable, and expected to vest as of June 30, 2020 were as follows:

	Outstanding Options				Exercisable Options		
Option Exercise Price Per Share	Shares	Life (Years)		Weighted Average Exercise Price	Shares		Weighted Average Exercise Price
$0.05 - $0.24	20,905,551	7.4	$	0.10	19,722,219	$	0.10
$0.25 - $0.49	20,913,552	1.8		0.27	20,913,552		0.27
$0.50 - $0.99	471,052	3.8		0.85	471,052		0.85
$1.00 - $2.00	150,446	3.1		1.18	150,446		1.18
	42,440,601	4.6	$	0.20	41,257,269	$	0.20

During the six-month period ending June 30, 2020, and pursuant to the Company's Board Compensation policy approved by the Board June 19, 2015, the Company granted options to purchase 2,999,998 shares of common stock to members of the Company's Board of Directors and an executive officer under terms of an employment agreement. The options are exercisable at $0.02 to $0.15 per share, vest monthly over a twelve-month period, and expire ten years from the date granted. Total fair value of these options at grant date was $324,000 using the Black-Scholes Option Pricing model with the following assumptions: life of 5.5 years; risk free interest rate of 0.6% to 1.7%; volatility of 128% to 138% and dividend yield of 0%.

During the six-month periods ended June 30, 2020 and 2019, the Company recognized compensation costs based on the fair value of options that vested of $202,000 and $183,000 respectively. During the three-month periods ended June 30, 2020 and 2019, the Company recognized compensation costs based on the fair value of options that vested of $87,000 and $85,000 respectively.

At June 30, 2020, the Company's closing stock price was $0.05 per share. The aggregate intrinsic value of the options outstanding at June 30, 2020 was $2,000. Future unamortized compensation expense on the unvested outstanding options at June 30, 2020 is approximately $144,000 to be recognized through December 2020.

Warrants

The following table summarizes certain information about the Company's stock purchase warrants activity for the period starting January 1, 2020 up to June 30, 2020.

	Warrants	Weighted Avg. Exercise Price
January 1, 2020	13,065,084	$ 0.11
Granted	3,524,515	0.04
Exercised	(1,155,000)	0.05
Cancelled	(7,430,204)	0.07
June 30, 2020	8,004,395	$ 0.13

The weighted average exercise prices, remaining contractual lives for warrants granted, exercisable, and expected to vest as of June 30, 2020 were as follows:

	Outstanding Warrants			Exercisable Warrants	
Warrant Exercise Price Per Share	Shares	Life (Years)	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
$0.05 - $0.24	5,934,395	0.9	$ 0.06	5,901,062	$ 0.06
$0.25 - $0.49	2,000,000	1.3	0.30	2,000,000	0.30
$0.50 - $1.00	70,000	3.8	0.80	70,000	0.80
	8,004,395	1.0	$ 0.13	7,971,062	$ 0.13

In the six-month period ending June 30, 2020, pursuant to terms of convertible notes issued, the Company granted warrants to purchase 3,324,517 shares of common stock with an exercise price of $.04 to $0.18 per share, vesting immediately upon grant and expiring one year from the date of grant (see Note 5, above).

In the six-month period ending June 30, 2020, the Company issued warrants to purchase 199,998 shares of common stock in exchange for services. The warrants are exercisable at a price of $0.04 to $0.14, vesting one month from the date of grant and expiring two years from the date of grant. Total fair value of these options at grant date was $11,000 using the Black-Scholes Option Pricing model with the following assumptions: life of 2 years; risk free interest rate of 0.4% to 1.5%; volatility of 163% to 173% and dividend yield of 0%. During the six-month period ended June 30, 2020, the Company recognized compensation costs based on the fair value of warrants that vested of $11,000.

At June 30, 2020, the aggregate intrinsic value of the warrants outstanding was $51,000.

9. Other Notes Payable

In June 2020, the Company ("Borrower") entered into an unsecured promissory note with Cadence Bank ("Lender") in the amount of $151,000 ("Note"). The Note is payable in 53 monthly consecutive principal and interest payments of $2,584.57 each, beginning January 2, 2021, with interest calculated on the unpaid principal balances using an interest rate of 1.000% per annum based on a year of 360 days. This estimated final payment is based on the assumption that all payments will be made exactly as scheduled; the actual final payment will be for all principal and accrued interest not yet paid, together with any other unpaid amounts under this Note.

The Lender made this loan pursuant to the Paycheck Protection Program (the "PPP") created by Section 1102 of the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") and governed by the CARES Act, section 7(a)(36) of the Small Business Act, any rules or guidance that has been issued by the Small Business Administration implementing the PPP, or any other applicable Loan Program Requirements, as defined in 13 CFR 120.10, as amended from time to time (collectively "PPP Loan Program Requirements"). Notwithstanding anything to the contrary herein, Borrower (a) agrees that this Promissory Note shall be interpreted and construed to be consistent with the PPP Loan Program Requirements and (b) authorizes the Lender to unilaterally amend any provision to the Promissory Note to the extent required to comply with the PPP Loan Program Requirements.

Borrower may apply to Lender for forgiveness of the amount due under terms of the Note.

No interest has accrued on this Note during the period ended June 30, 2020 as the Note closed and was funded at the end of June 2020. The balance due under the Note of $151,000 is reflected in Other notes payable on the accompanying consolidated balance sheet.

Under the terms of the PPP, certain amounts of the loan may be forgiven if they are used for qualifying expenses. The Company intends to apply for forgiveness of the PPP loan with respect to these qualifying expenses, however, we cannot assure that such forgiveness of any portion of the PPP loan will occur. As for the potential loan forgiveness, once the PPP loan is, in part or wholly, forgiven and a legal release is received, the liability would be reduced by the amount forgiven and a gain on extinguishment would be recorded. The terms of the PPP loan provide for customary events of default including, among other things, payment defaults, breach of representations and warranties, and insolvency events. The Company was in compliance with the terms of the PPP loan as of June 30, 2020.

10. Commitments and Contingencies

There is no current or pending litigation of any significance with the exception of the matters that have arisen under, and are being handled in, the normal course of business.

QS Energy is working to maintain normal operations during the current COVID-19 pandemic under social distancing and shelter-in-place guidelines as recommended or required by the CDC, federal, state and county government agencies. The Company has moved many operational functions to the cloud. Our employees can perform most vital functions remotely. Most day-to-day operations have been minimally impacted by COVID-19. It is unclear what impact COVID-19 may have on our supply chain, or on our ability to operate on-site at the demonstration project. The Company has experienced delays and cost overruns due to COVID-19 impacts on our supply chain. No assurances can be made that COVID-19 will not materially affect operations or negatively impact our ability to fund continued operations.

11. Subsequent Events

AOT Demonstration Project

As previously reported in our Form 8-K filed with the SEC on July 13, 2020, our AOT equipment was removed from the demonstration site on July 8, 2020. Due to a lack of capital available to the Company, our AOT testing activities have ceased and our AOT equipment is now in storage. Subject to an infusion of capital into the company, we plan to assess the AOT equipment and seek to restart development and testing activities. See item 2, below, under the Overview section thereunder for a discussion of the status of our AOT testing efforts and the removal of our equipment from the demonstration site.

Issuance of Unregistered Securities

In August 2020, the Company issued 666,667 shares of restricted common stock for proceeds of $10,000 at a price of $0.015, along with other considerations.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the Consolidated Financial Statements and supplementary data referred to in this Form 10-Q.

This discussion contains forward-looking statements that involve risks and uncertainties. Such statements, which include statements concerning future revenue sources and concentration, selling, general and administrative expenses, research and development expenses, capital resources, additional financings and additional losses, are subject to risks and uncertainties, including, but not limited to, those discussed elsewhere in this Form 10-Q, and in the "Risk Factors" that could cause actual results to differ materially from those projected. Unless otherwise expressly indicated, the information set forth in this Form 10-Q is as of June 30, 2020, and we undertake no duty to update this information.

Overview

QS Energy, Inc. ("QS Energy" or "Company" or "we" or "us" or "our") develops and seeks to commercialize energy efficiency technologies that assist in meeting increasing global energy demands, improving the economics of oil transport, and reducing greenhouse gas emissions. The Company's intellectual properties include a portfolio of domestic and international patents and patents pending, a substantial portion of which have been developed in conjunction with and exclusively licensed from Temple University of Philadelphia, PA ("Temple"). QS Energy's primary technology under development is called Applied Oil Technology (AOT), a commercial-grade crude oil pipeline transportation flow-assurance product. Engineered specifically to reduce pipeline pressure loss, increase pipeline flow rate and capacity, and reduce shippers' reliance on diluents and drag reducing agents to meet pipeline maximum viscosity requirements, AOT is a 100% solid-state system that reduces crude oil viscosity by applying a high intensity electrical field to crude oil while in transit.

Our Company was incorporated on February 18, 1998, as a Nevada Corporation under the name Mandalay Capital Corporation. The Company changed its name to Save the World Air, Inc. on February 11, 1999. Effective August 11, 2015, the Company changed its name to QS Energy, Inc. The name change was affected through a short-form merger pursuant to Section 92A.180 of the Nevada Revised Statutes. Additionally, QS Energy Pool, Inc., a California corporation, was formed as a wholly owned subsidiary of the Company on July 6, 2015 to serve as a vehicle for the Company to explore, review and consider acquisition opportunities. To date, QS Energy Pool has not entered into any acquisition transaction. However, the Company may still consider entering into potential beneficial acquisitions. The Company is considering dissolving QS Energy Pool to reduce costs associated with operating this subsidiary. The Company's common stock is quoted under the symbol "QSEP" on the Over-the-Counter Bulletin Board. More information including the Company's updates, fact sheet, logos and media articles are available at our corporate website, www.qsenergy.com.

As previously reported in our Form 10-K filed with the SEC on March 30, 2020, QS Energy's AOT technology has been tested in a variety of configurations at small-scale in the laboratory and at full-scale in the field under commercial operating conditions, including tests performed U.S. Department of Energy, the PetroChina Pipeline R&D Center, and ATS RheoSystems, a division of CANNON™. The Company's first two full-scale midstream pipeline installations were on TransCanada's Keystone pipeline in 2014 and a pipeline operated by Kinder Morgan Crude & Condensate, LLC in 2015. Tests performed at these two facilities were limited due primarily to technical issues with the AOT equipment. Although tests at these facilities provided limited sets of data, the equipment did not operate properly, and no conclusions could be reached regarding the efficacy or commercial viability of the AOT technology. Also, in 2014, the Company began development of a product based on an electrical heat system which reduces oil viscosity through a process known as joule heat ("Joule Heat"). In December 2015, we suspended Joule Heat development activities to focus Company resources on finalizing commercial development of the AOT. For more information regarding prior history, development and testing of the AOT technology, and specifics regarding these earlier tests and technical issues experience, please refer to our Form 10-K filed with the SEC on March 30, 2020.

In July 2017, the Company filed for trademark protection for the word "eDiluent" in advance of rolling out a marketing and revenue strategy based on the concept of using AOT to reduce pipeline dependence upon diluent to reduce viscosity of crude oils. A primary function of AOT is to reduce viscosity by means of its solid-state electronics technology, in essence providing an electronic form of diluent, or "eDiluent". Subject to successful testing of our AOT technology and the availability of sufficient operating capital, the Company plans to market and sell a value-added service under the name eDiluent, designed to be upsold by the Company's midstream pipeline customers in an effort to provide the Company with long-term recurring revenues.

Throughout 2018 our primary strategic goal was focused on installing and operating a demonstration AOT project on a commercial crude oil pipeline. Much of our time was spent meeting with industry executives and engineers in North and South America and working with local representatives in the Asian and the Middle Eastern markets. In December 2018, we reached mutual agreement with a major U.S.-based pipeline operator on a demonstration project under which we would install and operate our AOT equipment on a crude oil pipeline located in the Southern United States.

While management focused on finding a partner and finalizing terms of the demonstration project, and in our continuing efforts to commercialize our AOT technology, our engineering team worked throughout 2018 to prepare one of our inventoried AOT units for deployment. All system upgrades, inspections and testing protocols were completed in December 2018. The pipeline operator finalized site selection and began site design and engineering in January 2019, completing site preparation and equipment installation in June 2019. The project was installed within budget, quality compliant, and without safety incidents. The system passed the pre-start safety review, data acquisition signal verifications, and mechanical inspections. Under full crude oil flow, the system was confirmed to have no leaks and no environmental issues were noted. Data collected during the full-flow startup phase confirmed internal differential pressures to be negligible and consistent with design specifications. However, when the system was energized, and the unit was run-up to high-voltage operations, the primary power supply began to operate erratically and had to be taken offline. Subsequent inspection determined the primary power supply had failed.

After removing the primary power supply, our engineers reconfigured the system to run off a smaller secondary power supply. Although this unit was not capable of achieving target treatment voltage, we performed limited testing and troubleshooting measures, after which the damaged power supply was shipped to the manufacturer for expedited repair and reconditioning. Inspections performed during the repair process indicated internal power supply components had been physically damaged. Though not definitive, it appears that damage may have occurred during transit prior to initial installation at the demonstration site. While the demonstration project was offline for power supply repairs, our engineering team worked with oil samples pulled from the operating pipeline for testing at our Tomball laboratory facility. These tests were designed to confirm our target power requirements as accurately as possible and help us fine-tune enhancements planned for a new optimized AOT internal grid pack design we had planned to test at the demonstration site as part of our continuing reliability engineering effort.

During initial testing with the small power supply, current draw was greater than prior field deployments. While it was expected that the small power supply would not achieve treatment voltage, as voltage was increased, actual current draw experienced under test conditions exceeded the operating limit of the power supply. Subsequent laboratory and in-field testing performed at our Tomball facility showed the electrical conductivity of the oil to be quite high and in line with field observations. Although these tests indicated the unit was generally functioning properly, results further indicated the damaged power supply, once repaired, would not be capable of providing sufficient power to fully treat the crude oil due to the oil's high electrical conductivity. In anticipation of this result, the Company had initiated parallel tasks in advance of testing of: i) installation of the repaired power supply and performance of limited testing to confirm laboratory and in-field test results; and ii) procurement of a new power supply capable of providing significantly more power and a modified AOT grid pack assembly reconfigured and generally optimized based on the latest laboratory and in-field test results.

When the repaired power supply was installed in August 2019, the system operated as expected, and limited testing was performed. Results of this limited testing were consistent with laboratory tests performed to date. As expected, the repaired power supply was not capable of providing sufficient power to fully treat the crude oil under commercial operating conditions. Based on results of this limited testing, Company engineers completed designs and began implementation of modifications to the AOT internal grid pack assembly.

The new high capacity power supply and modified grid pack were installed in December 2019. However, prior to flooding the system with crude oil, early-phase startup testing indicated an electrical short circuit. Subsequent inspection revealed damage to the internal grid pack which likely occurred during installation or during the startup testing cycle. The grid pack was shipped offsite for repairs with reinstallation scheduled for January 2020.

The AOT demonstration project continued to experience setbacks. After repairing and re-installing the modified grid pack, the system shut down again during commissioning presenting with error conditions similar to the December 2019 failure. At that time, based on external inspections and on-site testing, our engineers suspected the grid pack had again been damaged during re-installation and that such suspected damage was the most likely cause of the electrical short circuit. It was determined at that time the best course of action would be to remove the modified grid pack and re-install the original grid pack which had previously been installed multiple times without sustaining damage, and perform a detailed inspection of the modified grid pack in an effort to determine the cause of the electrical short circuit.

Executing this plan, our team removed the modified grid pack and re-installed the original grid pack assembly in January 2020. After removal, our engineers performed a detailed inspection of the modified grid pack. Inconsistent with expectations, no damage to the modified grid pack was found during this inspection, leaving the cause of the electrical short circuit undiagnosed.

In January and February 2020, our engineers tested and attempted to operate the AOT under a variety of conditions. In these tests, the system could be run at high voltage under static “shut-in” conditions; however, the system continued to shut down due to an electrical short circuit when operated under pressure. In simple terms, this means the system could be flooded with crude oil and powered up in excess of 10,000 volts when the system was shut-in by closing the intake and outtake valves which isolates the system from the pipeline’s operating pressure. However, once the valves were opened and the system was subjected to the pipeline’s operating pressure, the system developed an electrical short circuit and shut down.

As the presence of high pressure appeared to trigger the short circuit, our engineers believe it is unlikely the fault was in the grid pack assembly as this component was fully submerged in crude oil and would generally subjected to equal pressure on all components. The electrical short was more likely developing in the electrical connection assembly built into the blind flange at the top of the pressure vessel, which would be subjected to high pressure under normal operating conditions. Unfortunately, this electrical connection assembly could not be inspected without destroying the assembly itself. Instead, our engineers developed a plan to rebuild the blind flange and electrical connection assembly and modify the design to better isolate and insulate all electrical pathways, connections, and components.

While the blind flange assembly was being remanufactured, we took the opportunity to implement a number of relatively minor modifications to other system configurations which had been planned for future units based on results of our engineering team’s reliability engineering work over the past two years. These modifications were designed to improve the reliability of internal electrical connections, increase the structural support of the internal grid pack, and maintain higher quality control over internal component positioning and alignment during vertical installation.

Reinstallation of the modified equipment was completed in late June 2020. Commissioning and equipment testing resumed shortly thereafter.

As reported the Company’s Form 8-K filed with the SEC on July 13, 2020, the system experienced a new failure mode during startup testing in which the system could be operated at a baseline high voltage (well below operational voltage required to treat heavy crude), but after a period of time, the system would drop to very low voltage indicating a reduction in electrical resistance in the AOT. This voltage drop was both dynamic, developing over time as electrical current was applied; and transient, in that the power supply could be shut-down and re-started with this voltage drop characteristic repeating. After reviewing these results and running subsequent in-field tests at the direction of the power supply manufacturer, they recommended a configuration modification to the control module of the system’s high-voltage power supply which, in their experience, could resolve the system’s ability to maintain constant voltage under our unique operating conditions in which the AOT essentially acts as a very large capacitor. During the first week of July, we modified the power supply control module at the direction of the power supply manufacturer. Though this modification did appear to solve the voltage drop issue, the AOT could not achieve operational voltage as the system control module indicated arc-faults when high voltage was applied above the baseline voltage levels. After many attempts to bring the system up to operating voltage, arc-faults continued until the AOT demonstrated symptoms of what appeared to be a dead short (electrical short-to-ground; voltage dropped to zero) and the system could no longer be re-started.

Our engineers have working concepts as to what may be causing this most recent failure but will not be able to fully diagnose these issues at the demonstration site. After discussions with our demonstration pipeline partner, it has been mutually agreed that the best course of action would be to move the equipment from the demonstration site to another location where our engineers could disassemble and inspect the equipment. Our demonstration partner has indicated their continued interest in our AOT technology and may consider installation and operation of a new AOT demonstration project if our operational issues can be resolved.

In late July, our equipment was removed from the demonstration site and was been relocated to a facility where we may have access to heavy equipment and other resources necessary to disassemble and inspect the equipment.

Though our engineers do have working concepts as to what may be causing the most recent voltage drop and arc-fault issues, it is unknown whether these issues can be solved with minor modifications to the current design. To fully diagnose and resolve these issues, new testing would likely need to be performed in a laboratory setting. The time and cost of implementing such a plan would likely be significant. The Company does not currently have sufficient capital to take on this endeavor.

QS Energy operations have been minimally impacted by COVID-19; however, COVID-19 has had a significant negative financial impact across a wide spectrum of industries, both in terms of operations and access to operating capital. The Company's ability to continue operations is, in part, dependent on our access to funding. A published by the National Association of Manufacturers in March 2020 reports that due to COVID-19, 35% of manufacturers surveyed anticipate supply chain disruptions, 53% anticipate changes to operations, and 78% anticipate a negative financial impact. With these facts in mind, no assurances can be made that COVID-19 will not materially affect operations or negatively impact our ability to fund continued operations.

Our expenses to date have been funded through the sale of shares of common stock and convertible debt, as well as proceeds from the exercise of stock purchase warrants and options. We will need to raise substantial additional capital through 2020, and beyond, to fund work continued testing and development of our AOT technology, our sales and marketing efforts, continuing research and development, and certain other expenses, until we are able to achieve a revenue base. We can provide no assurances that additional capital will be available to us, or if it is, that such additional capital will be offered at acceptable terms.

There are significant risks associated with our business, our Company and our stock. See Part II Item 1A, "Risk Factors," below.

I. Six months ended June 30, 2020 and 2019

Results of Operations for six months ended June 30, 2020 and 2019

	Six months ended June 30, 2020	2019	Change
Revenues	$ –	$ –	$ –
Costs and Expenses			
Operating expenses	945,000	1,133,000	(188,000)
Research and development expenses	227,000	583,000	(356,000)
Loss before other income (expense)	(1,172,000)	(1,716,000)	(544,000)
Other income (expense)			
Interest and financing expense	(435,000)	(2,024,000)	(1,589,000)
Net Loss	$ (1,607,000)	$ (3,740,000)	$ (2,133,000)

Operating expenses were $945,000 for the six-month period ended June 30, 2020, compared to $1,133,000 for the six-month period ended June 30, 2019, a decrease of $188,000. This is due to decreases in non-cash expenses of $48,000 and in cash expenses of $140,000. Specifically, the decrease in non-cash expenses is attributable to an increase stock compensation expense attributable to options granted to employees and directors of $19,000, offset by a decrease in common stock and warrants issued as compensation for services of $67,000. The decrease in cash expense is attributable increases in consulting fees of $49,000, insurance of $27,000, legal and accounting of $8,000, and rent and utilities of $10,000, offset by a decrease in mail and freight of $9,000, office expenses of $40,000, public and investor relations of $39,000, salaries and benefits of $101,000, travel expenses of $29,000, property taxes of $9,000, and other expenses of $7,000.

Research and development expenses were $227,000 for the six-month period ended June 30, 2020, compared to $583,000 for the six-month period ended June 30, 2019, a decrease of $356,000. This decrease is attributable a decrease in prototype product development costs of $356,000.

Other income and expense were $435,000 expense for the six-month period ended June 30, 2020, compared to $2,024,000 expense for the six-month period ended June 30, 2019, a net decrease in other expenses of $1,589,000. This decrease is attributable to a decrease in non-cash other expenses of $1,589,000. The decrease in non-cash other expense is due to decreases in expense attributable to interest, beneficial conversion factors and warrants associated with convertible notes issued in the amount of $1,580,000, and other non-cash interest of $9,000.

The Company had a net loss of $1,607,000 or $0.01 per share, for the six-month period ended June 30, 2020, compared to a net loss of $3,740,000, or $0.01 per share, for the six-month period ended June 30, 2019.

II. Three months ended June 30, 2020 and 2019

	Three months ended June 30 2020	2019	Change
Revenues	$ –	$ –	$ –
Costs and expenses			
Operating expenses	413,000	655,000	(242,000)
Research and development expenses	157,000	432,000	(275,000)
Loss before other income (expense)	(570,000)	(1,087,000)	(517,000)
Other income (expense)			
Interest and financing expense	(271,000)	(371,000)	(100,000)
Net Loss	$ (841,000)	$ (1,458,000)	$ (617,000)

The Company had no revenues in the three month-periods ended June 30, 2020 and 2019.

Operating expenses were $413,000 for the three-month period ended June 30, 2020, compared to $655,000 for the three-month period ended June 30, 2020, a decrease of $242,000. This is due to decreases in non-cash expenses of $71,000 and cash expenses of $170,000. Specifically, the decrease in non-cash expenses is attributable to an increase in in stock compensation expenses attributable to the fair value of options granted to directors and employees of $3,000, offset by a decrease in common stock and warrants issued as compensation for services of $74,000. The decrease in cash expense is attributable increases in consulting fees of $8,000 and insurance of $17,000, offset by a decrease in mail and freight of $3,000, office expenses of $30,000, legal and accounting of $17,000, public and investor relations of $48,000, rent and utilities of $1,000, salaries and benefits of $41,000, travel of $40,000, property tax of $9,000, and other expenses of $7,000.

Research and development expenses were $157,000 for the three-month period ended June 30, 2020, compared to $432,000 for the three-month period ended June 30, 2019, a decrease of $275,000. This decrease is attributable to decreases in prototype product development costs of $275,000.

Other income and expense were $271,000 expense for the three-month period ended June 30, 2020, compared to $371,000 expense for the three-month period ended June 30, 2019, a net decrease in other expenses of $100,000. This decrease is attributable to a decrease in non-cash other expenses of $100,000. The decrease in non-cash other expense is due to a decrease in expense attributable to interest, beneficial conversion factors and warrants associated with convertible notes issued in the amount of $100,000.

The Company had a net loss of $841,000, or $0.00 per share, for the three-month period ended June 30, 2020, compared to a net loss of $1,458,000, or $0.00 per share, for the three-month period ended June 30, 2019.

Liquidity and Capital Resources

General

As reflected in the accompanying condensed consolidated financial statements, the Company has not yet generated significant revenues and has incurred recurring net losses. We have incurred negative cash flow from operations since our inception in 1998 and a stockholders' deficit of $3,015,000 as of June 30, 2020. Our negative operating cash flow for the periods ended June 30, 2020 was funded primarily through issuance of convertible notes and execution of options and warrants to purchase common stock.

The accompanying condensed consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the accompanying condensed consolidated financial statements, the Company had a net loss of $1,607,000 and a negative cash flow from operations of $787,000 for the six-month period ended June 30, 2020. These factors raise substantial doubt about our ability to continue as a going concern.

In addition, the Company's independent registered public accounting firm, in its report on the Company's December 31, 2020 financial statements, has raised substantial doubt about the Company's ability to continue as a going concern. Our ability to continue as a going concern is dependent upon our ability to raise additional funds and implement our business plan. The consolidated financial statements do not include any adjustments that might be necessary if we are unable to continue as a going concern.

Summary

During the period ended June 30, 2020, we received cash totaling $424,000 from issuance of our convertible notes payable, exercise of options and warrants to purchase common stock, and CARES Act funding and used cash in operations of $787,000. At June 30, 2020, we had cash on hand in the amount of $116,000. We will need additional funds to operate our business, including without limitation the expenses we will incur in connection with the license agreements with Temple University; costs associated with product development and commercialization of the AOT and related technologies; costs to manufacture and ship our products; costs to design and implement an effective system of internal controls and disclosure controls and procedures; costs of maintaining our status as a public company by filing periodic reports with the SEC and costs required to protect our intellectual property. In addition, as discussed above, we have substantial contractual commitments, including without limitation salaries to our executive officers pursuant to employment agreements, certain severance payments to a former officer and consulting fees, during the remainder of 2020 and beyond.

No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company.

Licensing Fees to Temple University

For details of the licensing agreements with Temple University, see Financial Statements attached hereto, Note 6 (Research and Development).

Critical Accounting Policies and Estimates

Our discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements and related disclosures requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, expenses, and related disclosure of contingent assets and liabilities. We evaluate, on an on-going basis, our estimates and judgments, including those related to the useful life of the assets. We base our estimates on historical experience and assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The methods, estimates and judgments we use in applying our most critical accounting policies have a significant impact on the results that we report in our consolidated financial statements. The SEC considers an entity's most critical accounting policies to be those policies that are both most important to the portrayal of a company's financial condition and results of operations and those that require management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about matters that are inherently uncertain at the time of estimation. For a more detailed discussion of the accounting policies of the Company, see Note 2 of the Notes to the Consolidated Financial Statements, "Summary of Significant Accounting Policies".

We believe the following critical accounting policies, among others, require significant judgments and estimates used in the preparation of our consolidated financial statements.

Estimates

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Certain significant estimates were made in connection with preparing our consolidated financial statements as described in Note 1 to Notes to the Condensed Consolidated Financial Statements. Actual results could differ from those estimates.

Stock-Based Compensation

The Company periodically issues stock options and warrants to employees and non-employees in non-capital raising transactions for services and for financing costs. The Company accounts for stock option and warrant grants issued and vesting to employees based on the authoritative guidance provided by the Financial Accounting Standards Board whereas the value of the award is measured on the date of grant and recognized over the vesting period. The Company accounts for stock option and warrant grants issued and vesting to non-employees in accordance with the authoritative guidance of the Financial Accounting Standards Board whereas the value of the stock compensation is based upon the measurement date as determined at either a) the date at which a performance commitment is reached, or b) at the date at which the necessary performance to earn the equity instruments is complete. Non-employee stock-based compensation charges generally are amortized over the vesting period on a straight-line basis. In certain circumstances where there are no future performance requirements by the non-employee, option grants are immediately vested and the total stock-based compensation charge is recorded in the period of the measurement date.

The fair value of the Company's common stock option grants is estimated using the Black-Scholes Option Pricing model, which uses certain assumptions related to risk-free interest rates, expected volatility, expected life of the common stock options, and future dividends. Compensation expense is recorded based upon the value derived from the Black-Scholes Option Pricing model, and based on actual experience. The assumptions used in the Black-Scholes Option Pricing model could materially affect compensation expense recorded in future periods.

Going Concern

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the accompanying consolidated financial statements, during the six-months ended June 30, 2020, the Company incurred a net loss of $1,607,000, used cash in operations of $787,000 and had a stockholders' deficit of $3,015,000 as of that date. These factors raise substantial doubt about the Company's ability to continue as a going concern. The ability of the Company to continue as a going concern is dependent upon the Company's ability to raise additional funds and implement its business plan. The financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

At June 30, 2020, the Company had cash on hand in the amount of $116,000. Management estimates that the current funds on hand will be sufficient to continue operations through July 2020. Management is currently seeking additional funds, primarily through the issuance of debt and equity securities for cash to operate our business, including without limitation the expenses it will incur in connection with the license agreements with Temple; costs associated with product development and commercialization of the AOT technologies; costs to manufacture and ship the products; costs to design and implement an effective system of internal controls and disclosure controls and procedures; costs of maintaining our status as a public company by filing periodic reports with the SEC and costs required to protect our intellectual property. In addition, as discussed below, the Company has substantial contractual commitments, including without limitation salaries to our executive officers pursuant to employment agreements, certain payments to a former officer and consulting fees, during the remainder of 2020 and beyond.

No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing or cause substantial dilution for our stockholders in case of equity financing.

Recent Accounting Polices

See Footnote 2 in the accompanying financial statements for a discussion of recent accounting policies.

Item 3. Quantitative and Qualitative Disclosure about Market Risk

We issue from time to time fixed rate discounted convertible notes. Our convertible notes and our equity securities are exposed to risk as set forth below, in Part II Item 1A, "Risk Factors." Please also see Item 2, above, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Item 4. Controls and Procedures

1. Disclosure Controls and Procedures

The Company's management, with the participation of the Company's chief executive officer and chief financial officer, evaluated, as of June 30, 2020, the effectiveness of the Company's disclosure controls and procedures, which were designed to be effective at the reasonable assurance level. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of the Company's disclosure controls and procedures as of June 30, 2020, management, the chief executive officer and the chief financial officer concluded that the Company's disclosure controls and procedures were effective at the reasonable assurance level at that date.

(a) Changes in Internal Control over Financial Reporting

No change in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the six-month period ended June 30, 2020 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

There is no litigation of any significance with the exception of the matters that have arisen under, and are being handled in, the normal course of business.

Item 1A. Risk Factors

There have been no material changes in the risk factors previously disclosed in Form 10-K for the period ended December 31, 2019, which we filed with the SEC on March 30, 2020, in Form 10-Q for the period ended March 31, 2020, which we filed with the SEC on June 26, 2020, and in Forms 8-K filed with the SEC on May 15, 2020 and July 13 ,2020.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuances

In private offerings exempt from registration, during the six months ended June 30, 2020, the Company issued 8,094,707 shares of its common stock upon the conversion of $375,000 in convertible notes at $0.04 to $0.15 per share. In connection with the issuances of the foregoing securities, the Company relied on the exemption, among other exemptions, from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended, for transactions not involving a public offering.

The proceeds received by the Company in connection with the above issuances of shares were used and continue to be used for general corporate purposes including without limitation the demonstration project described in Part I, Item 2.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

None

Item 5. Other Information

The Company provides regular updates on its website in a section thereunder labeled "Recent Updates" at https://qsenergy.com/updates.

Item 6. Exhibits

Exhibit No.	Description
31.1	Certification of Chief Executive Officer of Quarterly Report Pursuant to Rule 13(a)-15(e) or Rule 15(d)-15(e)
31.2	Certification of Chief Financial Officer of Quarterly Report pursuant to Rule 13(a)-15(e) or Rule 15(d)-15(e)
32	Certification of Chief Executive Officer and Chief Financial Officer of Quarterly Report Pursuant to 18 U.S.C. Section 1350
101.INS	XBRL Instance Document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.LAB	XBRL Label Linkbase Document
101.PRE	XBRL Presentation Linkbase Document
101.DEF	XBRL Definition Linkbase Document

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has caused this Report to be signed on its behalf by the undersigned, hereunto duly authorized.

QS ENERGY, INC.

Date: August 19, 2020	By:	/s/ Michael McMullen Michael McMullen Chief Financial Officer

EXHIBITS

Exhibit No.	Description
31.1	Certification of Chief Executive Officer of Quarterly Report Pursuant to Rule 13(a)-15(e) or Rule 15(d)-15(e)
31.2	Certification of Chief Financial Officer of Quarterly Report Pursuant to Rule 13(a)-15(e) or Rule 15(d)-15(e)
32	Certification of Chief Executive Officer and Chief Financial Officer of Quarterly Report Pursuant to 18 U.S.C. Section 1350
101.INS	XBRL Instance Document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.LAB	XBRL Label Linkbase Document
101.PRE	XBRL Presentation Linkbase Document
101.DEF	XBRL Definition Linkbase Document

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002
AND RULES 13A-14 AND 15D-14 UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Don Dickson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of QS Energy, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) or 15d-15(e) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(d)-15(f) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its condensed consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 19, 2020

/s/ Don Dickson
Don Dickson
Interim Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002
AND RULES 13A-14 AND 15D-14 UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Michael McMullen, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of QS Energy, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) or 15d-15(e) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(d)-15(f) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its condensed consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 19, 2020

/s/ Michael McMullen
Michael McMullen
Chief Financial Officer

EXHIBIT 32

CERTIFICATION OF PERIODIC FINANCIAL REPORT BY THE CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Solely for the purposes of complying with 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, we, the undersigned Acting Chief Executive Officer and the Chief Financial Officer of QS Energy, Inc. (the "Company"), hereby certify, based on our knowledge, that the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2020 (the "Report") fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 19, 2020

/s/ Don Dickson
Don Dickson
Interim Chief Executive Officer

Date: August 19, 2020

/s/ Michael McMullen
Michael McMullen
Chief Financial Officer