

GSE SYSTEMS INC  
Form 10-Q  
August 14, 2013

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

FORM 10-Q

Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Quarterly Period Ended June 30, 2013.

or

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Transition Period from      to      .

Commission File Number: 001-14785

GSE SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware  
(State of incorporation)

52-1868008  
(I.R.S. Employer Identification No.)

1332 Londontown Blvd., Suite 200, Sykesville, MD 21784  
(Address of principal executive office and zip code)

Registrant's telephone number, including area code: (410) 970-7800

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Sections 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such period that the registrant was required to submit and post such files). Yes  No

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

Accelerated filer  Non-accelerated filer  Smaller reporting company

Large accelerated  
filer

(Do not check if a smaller  
reporting company)

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

There were 18,058,023 shares of common stock, with a par value of \$.01 per share outstanding as of August 13, 2013.

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GSE SYSTEMS, INC.

QUARTERLY REPORT ON FORM 10-Q

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## PART I - FINANCIAL INFORMATION

## Item 1. Financial Statements

GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED BALANCE SHEETS

(in thousands, except share data)

|   | Unaudited<br>June 30, 2013 | December 31, 2012 |
|---|----------------------------|-------------------|
| <b>ASSETS</b>   |                            |                   |
| Current assets:   |                            |                   |
| Cash and cash equivalents   | \$ 21,091                  | \$ 22,386         |
| Restricted cash   | 979                        | 743               |
| Contract receivables, net   | 20,778                     | 23,716            |
| Prepaid expenses and other current assets   | 2,888                      | 3,212             |
| Total current assets  | 45,736                     | 50,057            |
| Equipment, software and leasehold improvements  | 6,773                      | 6,733             |
| Accumulated depreciation  | (4,862 )                   | (4,653 )          |
| Equipment, software and leasehold improvements, net   | 1,911                      | 2,080             |
| Software development costs, net   | 769                        | 2,426             |
| Goodwill  | -                          | 4,502             |
| Intangible assets, net  | 786                        | 911               |
| Long-term restricted cash   | 1,177                      | 1,192             |
| Other assets  | 1,286                      | 1,396             |
| Total assets  | \$ 51,665                  | \$ 62,564         |
| <b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>   |                            |                   |
| Current liabilities:  |                            |                   |
| Accounts payable  | \$ 5,198                   | \$ 4,980          |
| Accrued expenses  | 1,731                      | 2,287             |
| Accrued compensation and payroll taxes  | 2,409                      | 2,715             |
| Billings in excess of revenue earned  | 6,693                      | 5,993             |
| Accrued warranty  | 1,778                      | 2,107             |
| Other current liabilities   | 1,650                      | 2,193             |
| Total current liabilities   | 19,459                     | 20,275            |
| Other liabilities   | 776                        | 1,459             |
| Total liabilities   | 20,235                     | 21,734            |
| Commitments and contingencies   | -                          | -                 |
| Stockholders' equity:   |                            |                   |
| Preferred stock \$.01 par value, 2,000,000 shares authorized, shares issued and outstanding none in 2013 and 2012   | -                          | -                 |
| Common stock \$.01 par value, 30,000,000 shares authorized, shares issued 19,486,770 in 2013 and 19,435,324 in 2012 | 195                        | 194               |
| Additional paid-in capital  | 71,833                     | 71,352            |
| Accumulated deficit   | (37,243 )                  | (27,889 )         |
| Accumulated other comprehensive loss  | (807 )                     | (647 )            |

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|  |           |           |
|--|-----------|-----------|
| Treasury stock at cost, 1,321,986 shares in<br>2013, 1,104,487 in 2012 | (2,548 )  | (2,180 )  |
| Total stockholders' equity   | 31,430    | 40,830    |
| Total liabilities and stockholders' equity                             | \$ 51,665 | \$ 62,564 |

The accompanying notes are an integral part of these consolidated financial statements.

GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS  
(in thousands, except per share data)  
(Unaudited)

|  | Three Months ended<br>June 30, |          | Six Months ended<br>June 30, |          |
|--|--------------------------------|----------|------------------------------|----------|
|  | 2013                           | 2012     | 2013                         | 2012     |
| Contract revenue                                     | \$11,034                       | \$13,183 | \$23,417                     | \$26,572 |
| Cost of revenue                                      | 8,219                          | 8,713    | 17,521                       | 18,183   |
| Write-down of capitalized software development costs | 2,174                          | -        | 2,174                        | -        |
| Gross profit   | 641                            | 4,470    | 3,722                        | 8,389    |
| Operating expenses:                                  |                                |          |                              |          |
| Selling, general and administrative                  | 3,946                          | 3,694    | 8,111                        | 7,180    |
| Goodwill impairment loss                             | 4,462                          | -        | 4,462                        | -        |
| Depreciation   | 146                            | 138      | 299                          | 275      |
| Amortization of definite-lived intangible assets     | 52                             | 78       | 104                          | 156      |
| Total operating expenses                             | 8,606                          | 3,910    | 12,976                       | 7,611    |
| Operating income (loss)                              | (7,965 )                       | 560      | (9,254 )                     | 778      |
| Interest income, net                                 | 24                             | 34       | 63                           | 85       |
| Gain (loss) on derivative instruments, net           | (410 )                         | (384 )   | (143 )                       | 16       |
| Other income (expense), net                          | 94                             | 93       | (11 )                        | 179      |
| Income (loss) before income taxes                    | (8,257 )                       | 303      | (9,345 )                     | 1,058    |
| Provision (benefit) for income taxes                 | (58 )                          | 145      | 9                            | 370      |
| Net income (loss)                                    | \$(8,199 )                     | \$158    | \$(9,354 )                   | \$688    |
| Basic income (loss) per common share                 | \$(0.45 )                      | \$0.01   | \$(0.51 )                    | \$0.04   |
| Diluted income (loss) per common share               | \$(0.45 )                      | \$0.01   | \$(0.51 )                    | \$0.04   |

The accompanying notes are an integral part of these consolidated financial statements.

GSE SYSTEMS, INC. AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)  
 (in thousands)  
 (Unaudited)

|   | Three Months ended<br>June 30, |          | Six Months ended<br>June 30, |         |
|---|--------------------------------|----------|------------------------------|---------|
|   | 2013                           | 2012     | 2013                         | 2012    |
| Net income (loss)                       | \$(8,199                       | ) \$158  | \$(9,354                     | ) \$688 |
| Foreign currency translation adjustment | (158                           | ) (367   | ) (160                       | ) (151  |
| Comprehensive income (loss)             | \$(8,357                       | ) \$(209 | ) \$(9,514                   | ) \$537 |

The accompanying notes are an integral part of these consolidated financial statements.

GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY  
(in thousands)  
(Unaudited)

|   | Common Stock |        | Additional<br>Paid-in<br>Capital | Accumulated<br>Deficit | Accumulated<br>Other<br>Comprehensive<br>Loss | Treasury<br>Stock |            |    |
|---|--------------|--------|----------------------------------|------------------------|---|-------------------|------------|----|
|   | Shares       | Amount |                                  |                        |   | Shares            | Amount     |    |
| Balance,<br>December<br>31, 2012                      | 19,435       | \$ 194 | \$ 71,352                        | \$ (27,889)            | \$ (647)                                      | (1,104)           | \$ (2,180) | \$ |
| Stock-based<br>compensation<br>expense                | -            | -      | 438                              | -                      | -   | -                 | -          | -  |
| Common<br>stock<br>issued for<br>options<br>exercised | 52           | 1      | 43                               | -                      | -   | -                 | -          | -  |
| Foreign currency<br>translation<br>adjustment         | -            | -      | -                                | -                      | (160)   | -                 | -          | -  |
| Treasury<br>stock at<br>cost                          | -            | -      | -                                | -                      | -   | (218)             | (368)      | -  |
| Net loss  | -            | -      | -                                | (9,354)                | -   | -                 | -          | -  |
| Balance,<br>June 30,<br>2013                          | 19,487       | \$ 195 | \$ 71,833                        | \$ (37,243)            | \$ (807)                                      | (1,322)           | \$ (2,548) | \$ |

The accompanying notes are an integral part of these consolidated financial statements.



GSE SYSTEMS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(in thousands)  
(Unaudited)

|  | Six Months ended<br>June 30, |          |
|--|------------------------------|----------|
|  | 2013                         | 2012     |
| Cash flows from operating activities:  |                              |          |
| Net income (loss)  | \$(9,354                     | ) \$688  |
| Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities: |                              |          |
| Goodwill impairment loss   | 4,462                        | -        |
| Write-down of capitalized software development costs   | 2,174                        | -        |
| Depreciation   | 299                          | 275      |
| Amortization of definite-lived intangible assets   | 104                          | 156      |
| Capitalized software amortization  | 478                          | 368      |
| Amortization of deferred financing costs   | 6                            | 6        |
| Change in fair value of contingent consideration   | 173                          | 143      |
| Stock-based compensation expense   | 438                          | 447      |
| Equity (gain) loss on investment in GSE-UNIS Simulation Technology Co. Ltd.                        | 96                           | (134 )   |
| (Gain) loss on derivative instruments  | 143                          | (16 )    |
| Changes in assets and liabilities:   |                              |          |
| Contract receivables   | 2,786                        | (5,865 ) |
| Prepaid expenses and other assets  | 215                          | 1,323    |
| Accounts payable, accrued compensation and accrued expenses  | (562 )                       | (204 )   |
| Billings in excess of revenue earned   | 716                          | (838 )   |
| Accrued warranty reserves  | (329 )                       | 163      |
| Other liabilities  | (86 )                        | (303 )   |
| Net cash provided by (used in) operating activities  | 1,759                        | (3,791 ) |
| Cash flows from investing activities:  |                              |          |
| Capital expenditures   | (142 )                       | (779 )   |
| Capitalized software development costs   | (995 )                       | (608 )   |
| Investment in GSE-UNIS Simulation Technology Co. Ltd.  | -                            | (469 )   |
| Restrictions of cash as collateral under letters of credit   | (228 )                       | (1,734 ) |
| Releases of cash as collateral under letters of credit   | -                            | 315      |
| Net cash used in investing activities  | (1,365 )                     | (3,275 ) |
| Cash flows from financing activities:  |                              |          |
| Proceeds from issuance of common stock   | 44                           | 221      |
| Payments of the liability-classified contingent consideration arrangements                         | (1,188 )                     | (806 )   |
| Treasury stock purchases   | (368 )                       | (303 )   |
| Net cash used in financing activities  | (1,512 )                     | (888 )   |
| Effect of exchange rate changes on cash  | (177 )                       | (106 )   |
| Net decrease in cash and cash equivalents  | (1,295 )                     | (8,060 ) |
| Cash and cash equivalents at beginning of year   | 22,386                       | 20,326   |
| Cash and cash equivalents at end of period   | \$21,091                     | \$12,266 |

The accompanying notes are an integral part of these consolidated financial statements.

GSE SYSTEMS, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
For the Three and Six Months ended June 30, 2013 and 2012  
(Unaudited)

1. Basis of Presentation and Revenue Recognition

Basis of Presentation

The consolidated interim financial statements included herein have been prepared by GSE Systems, Inc. (the “Company” or “GSE”) without independent audit. In the opinion of the Company's management, all adjustments and reclassifications of a normal and recurring nature necessary to present fairly the financial position, results of operations and cash flows for the periods presented have been made. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) have been condensed or omitted. The results of operations for interim periods are not necessarily an indication of the results for the full year. These consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2012 filed with the Securities and Exchange Commission on March 11, 2013.

The Company has only one reportable segment. The Company has a wide range of knowledge of simulation systems and the processes those systems are intended to control and model. The Company's knowledge is concentrated heavily in simulation technology and model development. The Company is primarily engaged in simulation for the power generation industry and the process industries. Contracts typically range from one to three years.

The preparation of financial statements in conformity with GAAP 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 as well as reported amounts of revenues and expenses during the reporting period. The Company's most significant estimates relate to revenue recognition, capitalization of software development costs, valuation of intangible assets acquired including goodwill, contingent consideration issued in business acquisitions, and the recoverability of deferred tax assets. Actual results could differ from these estimates and those differences could be material.

Revenue Recognition

The majority of the Company's revenue is derived through the sale of uniquely designed systems containing hardware, software and other materials under fixed-price contracts. Revenue under these fixed-price contracts is accounted for on the percentage-of-completion method. This methodology recognizes revenue and earnings as work progresses on the contract and is based on an estimate of the revenue and earnings earned to date, less amounts recognized in prior periods. The Company bases its estimate of the degree of completion of the contract by reviewing the relationship of costs incurred to date to the expected total costs that will be incurred on the project. Estimated contract earnings are reviewed and revised periodically as the work progresses, and the cumulative effect of any change in estimate is recognized in the period in which the change is identified. Estimated losses are charged against earnings in the period such losses are identified. The Company recognizes revenue arising from contract claims either as income or as an offset against a potential loss only when the amount of the claim can be estimated reliably and realization is probable and there is a legal basis for the claim.

Uncertainties inherent in the performance of contracts include labor availability and productivity, material costs, change order scope and pricing, software modification and customer acceptance issues. The reliability of these cost estimates is critical to the Company's revenue recognition as a significant change in the estimates can cause the Company's revenue and related margins to change significantly from the amounts estimated in the early stages of the

project.

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As the Company recognizes revenue under the percentage-of-completion method, it provides an accrual for estimated future warranty costs based on historical experience and projected claims. The Company's long-term contracts generally provide for a one-year warranty on parts, labor and any bug fixes as it relates to software embedded in the systems.

The Company's system design contracts do not normally provide for "post customer support service" ("PCS") in terms of software upgrades, software enhancements or telephone support. In order to obtain PCS, the customers must normally purchase a separate contract. Such PCS arrangements are generally for a one-year period renewable annually and include customer support, unspecified software upgrades, and maintenance releases. The Company recognizes revenue from these contracts ratably over the life of the agreements.

Revenue from the sale of software licenses which do not require significant modifications or customization for the Company's modeling tools are recognized when the license agreement is signed, the license fee is fixed and determinable, delivery has occurred, and collection is considered probable.

Revenue from certain consulting or training contracts is recognized on a time-and-material basis. For time-and-material type contracts, revenue is recognized based on hours incurred at a contracted labor rate plus expenses.

For the three and six months ended June 30, 2013 and 2012, the following customer has provided more than 10% of the Company's consolidated revenue:

|                            | Three Months ended |      | Six Months ended |      |
|----------------------------|--------------------|------|------------------|------|
|                            | June 30,           |      | June 30,         |      |
|                            | 2013               | 2012 | 2013             | 2012 |
| Slovenské elektrárne, a.s. | 22.4%              | 4.2% | 22.9%            | 6.1% |

## 2. Basic and Diluted Income (Loss) Per Common Share

Basic income (loss) per share is based on the weighted average number of outstanding common shares for the period. Diluted income (loss) per share adjusts the weighted average shares outstanding for the potential dilution that could occur if stock options were exercised into common stock. The number of common shares and common share equivalents used in the determination of basic and diluted income (loss) per share were as follows:

| (in thousands, except for share amounts)  | Three Months ended<br>June 30, |            | Six Months ended<br>June 30, |            |
|---|--------------------------------|------------|------------------------------|------------|
|   | 2013                           | 2012       | 2013                         | 2012       |
| Numerator:  |                                |            |                              |            |
| Net income (loss)   | \$(8,199                       | ) \$158    | \$(9,354                     | ) \$688    |
| Denominator:  |                                |            |                              |            |
| Weighted-average shares outstanding for basic earnings per share                                    | 18,299,108                     | 18,391,988 | 18,320,653                   | 18,398,790 |
| Effect of dilutive securities:  |                                |            |                              |            |
| Employee stock options  | -                              | 97,702     | -                            | 96,903     |
| Adjusted weighted-average shares outstanding and assumed conversions for diluted earnings per share | 18,299,108                     | 18,489,690 | 18,320,653                   | 18,495,693 |
| Shares related to dilutive securities excluded because inclusion would be anti-dilutive             | 2,916,427                      | 2,816,873  | 2,918,692                    | 2,756,624  |

## 3. Contract Receivables

Contract receivables represent balances due from a broad base of both domestic and international customers. All contract receivables are considered to be collectible within twelve months. Recoverable costs and accrued profit not billed represent costs incurred and associated profit accrued on contracts that will become billable upon future milestones or completion of contracts. The components of contract receivables are as follows:

| (in thousands)                                  |    | June 30,<br>2013 | December 31,<br>2012 |
|---|----|------------------|----------------------|
| Billed receivables                              | \$ | 10,003           | \$ 12,403            |
| Recoverable costs and accrued profit not billed |    | 10,815           | 11,315               |
| Allowance for doubtful accounts                 |    | (40)             | (2)                  |
| Total contract receivables, net                 | \$ | 20,778           | \$ 23,716            |

Recoverable costs and accrued profit not billed totaled \$10.8 million and \$11.3 million as of June 30, 2013 and December 31, 2012, respectively. During July 2013, the Company invoiced \$1.6 million of the unbilled amounts.

The following customers account for more than 10% of the Company's consolidated contract receivables for the indicated periods:

|                                    | June<br>30,<br>2013 | December<br>31,<br>2012 |
|------------------------------------|---------------------|-------------------------|
| Slovenské<br>elektrárne, a.s.      | 15.8%               | 17.4%                   |
| Shandong Nuclear<br>Power Co. Ltd. | 15.6%               | 13.8%                   |

#### 4. Software Development Costs

Certain computer software development costs are capitalized in the accompanying consolidated balance sheets. Capitalization of computer software development costs begins upon the establishment of technological feasibility. Capitalization ceases and amortization of capitalized costs begins when the software product is commercially available for general release to customers. Amortization of capitalized computer software development costs is included in cost of revenue and is determined using the straight-line method over the remaining estimated economic life of the product, typically three years. On an annual basis, and more frequently as conditions indicate, the Company assesses the recovery of the unamortized software development costs by estimating the net undiscounted cash flows expected to be generated by the sale of the product. If the undiscounted cash flows are not sufficient to recover the unamortized software costs the Company will write-down the investment to its estimated fair value based on future undiscounted cash flows. The excess of any unamortized software development costs over the related net realizable value is written down and charged to operations.

Software development costs capitalized were \$498,000 and \$995,000 for the three and six months ended June 30, 2013, respectively, and \$339,000 and \$608,000 for the three and six months ended June 30, 2012, respectively. Total amortization expense was \$302,000 and \$478,000 for the three and six months ended June 30, 2013, respectively, and \$168,000 and \$368,000 for the three and six months ended June 30, 2012, respectively.

During the second quarter of 2013, the Company incurred a charge of \$2.2 million related to the write-down of certain capitalized software development costs based on the net realizable value analysis.

#### 5. Goodwill and Intangible Assets

##### Goodwill

Changes in the carrying amount of goodwill for the six months ended June 30, 2013, were as follows (in thousands):

|                                     |    |          |
|-------------------------------------|----|----------|
| Net book value at December 31, 2012 | \$ | 4,502    |
| 2013 Activity                       |    |          |
| Goodwill impairment loss            |    | (4,462 ) |
| Foreign currency translation        |    | (40 )    |
| Net book value at June 30, 2013     | \$ | -        |





We review goodwill for impairment annually as of November 30 and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable in accordance with Accounting Standards Codification 350, Intangibles — Goodwill and Other (Topic 350). The provisions of Topic 350 require that we perform a two-step impairment test on goodwill. In the first step, we compare the fair value of our reporting unit to its carrying value. The Company has only one reporting unit. If the fair value of the reporting unit exceeds the carrying value of the net assets assigned to that unit, goodwill is not impaired and we are not required to perform further testing. If the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, then we must perform the second step of the impairment test in order to determine the implied fair value of the reporting unit's goodwill. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit's assets and liabilities in a manner similar to a purchase price allocation, with any residual fair value allocated to goodwill. If the carrying value of the reporting unit's goodwill exceeds its implied fair value, then we record an impairment loss equal to the difference.

Based upon indicators of impairment in the second quarter of 2013, which included a substantial decrease in the Company's market capitalization following the announcement of the Company's first quarter 2013 earnings, and significantly lower than projected revenue and profits as a result of a change in market conditions, the Company performed an interim impairment test as of June 30, 2013.

The fair value of our reporting unit was estimated using a combination of appropriately weighted income and market approaches. The cash flows employed in the income approach are based on our most recent forecasts and business plans developed in the second quarter of 2013, as well as various growth rate assumptions for the years beyond the current business plan period, discounted using an estimated weighted average cost of capital ("WACC"). The WACC is comprised of (1) a risk free rate of return, (2) an equity and size risk premium that is based on the rate of return on equity of publicly traded companies with business characteristics comparable to our reporting unit, (3) the current after-tax market rate of return on debt of companies with business characteristics similar to our reporting unit, each weighted by the relative market value percentages of our equity and debt, and (4) an industry and specific company risk factor.

The results of the Topic 350 Step 1 goodwill impairment analysis indicated that the estimated fair value of our reporting unit was less than the carrying value. The reporting unit was unfavorably impacted by a combination of lower current and projected cash flows. Because our reporting unit's fair value estimate was lower than its carrying value, we applied the second step of the goodwill test, in accordance with ASC 350.

The second step of the goodwill impairment analysis indicated that the carrying values of the goodwill associated with the reporting unit exceeded its implied fair value resulting in a \$4.5 million non-deductible goodwill impairment charge. As a result of the goodwill impairment loss, no goodwill remained on the Consolidated Balance Sheets as of June 30, 2013. The impairment was non-cash in nature and did not affect the Company's current liquidity, and did not impact the debt covenants under the Company's existing credit facility.

#### Intangible Assets Subject to Amortization

The Company's intangible assets include amounts recognized in connection with business acquisitions, including customer relationships, contract backlog and technology. Intangible assets are initially valued at fair market value using generally accepted valuation methods appropriate for the type of intangible asset. Amortization is recognized on a straight-line basis over the estimated useful life of the intangible assets, except for contract backlog and contractual customer relationships which are recognized in proportion to the related projected revenue streams. Intangible assets with definite lives are reviewed for impairment if indicators of impairment arise. The failure of step 1 of the goodwill impairment analysis was an impairment indicator in the second quarter of 2013, but the undiscounted cash flows associated with the other intangible assets were greater than the carrying value, and therefore, no impairment was present.



## 6. Fair Value of Financial Instruments

Accounting Standards Codification (“ASC”) 820, Fair Value Measurements and Disclosures, defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The levels of the fair value hierarchy established by ASC 820 are:

Level 1: inputs are quoted prices, unadjusted, in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.

Level 2: inputs are other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. A Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: inputs are unobservable and reflect the reporting entity’s own assumptions about the assumptions that market participants would use in pricing the asset or liability.

The Company considers the recorded value of certain of its financial assets and liabilities, which consist primarily of accounts receivable and accounts payable, to approximate the fair value of the respective assets and liabilities at June 30, 2013 and December 31, 2012 based upon the short-term nature of the assets and liabilities.

The following table presents assets and liabilities measured at fair value at June 30, 2013:

| (in thousands)             | Quoted Prices<br>in Active<br>Markets for<br>Identical Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) | Total     |
|----------------------------|--|---|--|-----------|
| Money market fund          | \$ 17,081  | \$ -  | \$ -   | \$ 17,081 |
| Certificates of deposit    | -  | -   | -  | -         |
| Foreign exchange contracts | -  | 247   | -  | 247       |
| Total assets               | \$ 17,081  | \$ 247  | \$ -   | \$ 17,328 |
| Foreign exchange contracts | \$ -   | \$ (270 )   | \$ -   | \$ (270 ) |
| Total liabilities          | \$ -   | \$ (270 )   | \$ -   | \$ (270 ) |

The following table presents assets and liabilities measured at fair value at December 31, 2012:

| (in thousands)             | Quoted Prices<br>in Active<br>Markets for<br>Identical Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) | Total     |
|----------------------------|--|---|--|-----------|
| Money market fund          | \$ 18,082  | \$ -  | \$ -   | \$ 18,082 |
| Certificates of deposit    | 890  | -   | -  | 890       |
| Foreign exchange contracts | -  | 316   | -  | 316       |
| Total assets               | \$ 18,972  | \$ 316  | \$ -   | \$ 19,288 |
| Foreign exchange contracts | \$ -   | \$ (339 )   | \$ -   | \$ (339 ) |
| Total liabilities          | \$ -   | \$ (339 )   | \$ -   | \$ (339 ) |

## 7. Derivative Instruments

The Company utilizes forward foreign currency exchange contracts to manage market risks associated with the fluctuations in foreign currency exchange rates. It is the Company's policy to use such derivative financial instruments to protect against market risk arising in the normal course of business in order to reduce the impact of these exposures. The Company minimizes credit exposure by limiting counterparties to nationally recognized financial institutions.

As of June 30, 2013, the Company had foreign exchange contracts outstanding of approximately 0.4 million Pounds Sterling, 14.0 million Euro, and 60.4 million Japanese Yen at fixed rates. The contracts expire on various dates through May 2016. At December 31, 2012, the Company had contracts outstanding of approximately 0.8 million Pounds Sterling, 9.9 million Euro, and 61.8 million Japanese Yen at fixed rates. The Company has not designated any of the foreign exchange contracts outstanding as hedges and has recorded the estimated fair value of the contracts in the consolidated balance sheets as follows:

| (in thousands)                            | June 30,<br>2013 | December 31,<br>2012 |
|---|------------------|----------------------|
| Asset derivatives                         |                  |                      |
| Prepaid expenses and other current assets | \$ 231           | \$ 296               |
| Other assets                              | 16               | 20                   |
|   | 247              | 316                  |
| Liability derivatives                     |                  |                      |
| Other current liabilities                 | (270 )           | (190 )               |
| Other liabilities                         | -                | (149 )               |
|   | (270 )           | (339 )               |
| Net fair value                            | \$ (23 )         | \$ (23 )             |

The changes in the fair value of the foreign exchange contracts are included in net gain (loss) on derivative instruments in the consolidated statements of operations.

The foreign currency denominated contract receivables, billings in excess of revenue earned and subcontractor accruals that are related to the outstanding foreign exchange contracts are remeasured at the end of each period into the functional currency using the current exchange rate at the end of the period. The gain or loss resulting from such remeasurement is also included in net gain on derivative instruments in the consolidated statements of operations.

For the three and six months ended June 30, 2013 and 2012, the Company recognized a net gain (loss) on its derivative instruments as outlined below:

| (in thousands)  | Three Months ended<br>June 30, |          | Six Months ended<br>June 30, |        |
|---|--------------------------------|----------|------------------------------|--------|
|   | 2013                           | 2012     | 2013                         | 2012   |
| Foreign exchange contracts- change in fair value  | \$(548                         | ) \$(93  | ) \$1                        | \$93   |
| Remeasurement of related contract receivables, billings in excess of revenue earned, and subcontractor accruals | 138                            | (291     | ) (144                       | ) (77  |
| Gain (loss) on derivative instruments, net  | \$(410                         | ) \$(384 | ) \$(143                     | ) \$16 |

#### 8. Stock-Based Compensation

The Company recognizes compensation expense for all equity-based compensation awards issued to employees, directors and non-employees that are expected to vest. Compensation cost is based on the fair value of awards as of the grant date. The Company recognized \$214,000 and \$227,000 of stock-based compensation expense for the three months ended June 30, 2013 and 2012, respectively, under the fair value method and recognized \$438,000 and \$447,000 of stock-based compensation expense for the six months ended June 30, 2013 and 2012, respectively. The Company granted 0 and 64,500 stock options for the three and six months ended June 30, 2013, respectively. The fair value of the options granted for the six months ended June 30, 2013 was \$78,000. The Company granted 60,000 and 152,870 stock options for the three and six months ended June 30, 2012, respectively. The fair values of these options at the grant date were \$81,000 and \$145,000, respectively.

#### 9. Long-Term Debt

At June 30, 2013 and December 31, 2012, the Company had no long-term debt outstanding.

#### Line of Credit

The Company has a Master Loan and Security Agreement and Revolving Credit Note with Susquehanna Bank (“Susquehanna”). The Company and its subsidiaries, GSE Power Systems, Inc., and GSE EnVision LLC, are jointly and severally liable as co-borrowers. The Loan Agreement provides a \$7.5 million revolving line of credit for the purpose of (i) issuing stand-by letters of credit and (ii) providing working capital. Working capital advances bear interest at a rate equal to the Wall Street Journal Prime Rate of Interest, floating with a floor of 4 ½%. In July 2013, Susquehanna extended the Revolving Credit Expiration Date to June 30, 2014.

As collateral for the Company’s obligations, the Company granted a first lien and security interest in all of the assets of the Company, including but not limited to, accounts receivable, inventory, proceeds and products, intangibles, trademarks, intellectual property, and machinery and equipment.



Issuances of stand-by letters of credit and advances of working capital (collectively referred to as the “Advances”) require that the Company maintain a minimum cash balance of \$3.0 million at all times (the “Cash Balance Requirement”). The Cash Balance Requirement will remain at the minimum amount as long as the Company’s quarterly net income (exclusive of gains and losses on derivative instruments and stock option expense) as defined (“Net Income”) remains positive and the Company is in compliance with the covenants. If the Company’s quarterly consolidated Net Income is negative or the Company is not in compliance with the covenants, the Cash Balance Requirement will revert to the amount of the Advances, until the Company attains positive Net Income for two consecutive quarters. The credit agreements contain certain restrictive covenants regarding future acquisitions and incurrence of debt. In addition, the credit agreements contain financial covenants with respect to the Company’s cash flow coverage ratio, minimum tangible capital base, quick ratio, and tangible capital base ratio. At June 30, 2013, the Company had not paid any interest or principal payments related to any borrowings for over one year. As such, the cash flow coverage ratio is not applicable at June 30, 2013.

|                               | Covenant                   | As of<br>June 30,<br>2013 |
|-------------------------------|----------------------------|---------------------------|
| Minimum tangible capital base | Must Exceed \$26.0 million | \$29.9 million            |
| Quick ratio                   | Must Exceed 2.00 : 1.00    | 2.35 : 1.00               |
| Tangible capital base ratio   | Not to Exceed .75 : 1.00   | .68 : 1.00                |

As the Company’s Net Income for the three months ended June 30, 2013 as defined above was negative, the Company will currently be required to maintain a cash balance of \$3.8 million at Susquehanna which is equivalent to the amount of Advances at June 30, 2013. All of the Company’s outstanding Advances as of June 30, 2013 consisted of stand-by letters of credit.

As of June 30, 2013, the Company was contingently liable for sixteen standby letters of credit and five surety bonds totaling \$6.8 million which represent performance and bid bonds on sixteen contracts. The Company has deposited the full value of seven standby letters of credit in escrow accounts, amounting to \$2.0 million, which have been restricted in that the Company does not have access to these funds until the related letters of credit have expired. The cash has been recorded on the Company’s balance sheet at June 30, 2013 as restricted cash.

#### 10. Product Warranty

As the Company recognizes revenue under the percentage-of-completion method, it provides an accrual for estimated future warranty costs based on historical experience and projected claims. The activity in the warranty account is as follows:

| (in thousands)               |          |
|------------------------------|----------|
| Balance at December 31, 2012 | \$ 2,107 |
| Warranty provision           | 225      |
| Warranty claims              | (544 )   |
| Currency adjustment          | (10 )    |
| Balance at June 30, 2013     | \$ 1,778 |





## 11. Contingent Consideration

ASC Topic 805 requires that contingent consideration be recognized at fair value on the acquisition date and be re-measured each reporting period with subsequent adjustments recognized in the consolidated statement of operations.

As of June 30, 2013 and December 31, 2012, contingent consideration included in the other current liabilities on the consolidated balance sheet totaled \$1.2 million and \$1.6 million, respectively. As of June 30, 2013 and December 31, 2012, the Company also had accrued contingent consideration totaling \$380,000 and \$902,000, respectively, which is included in other long-term liabilities on the consolidated balance sheet and represents the portion of contingent consideration estimated to be payable greater than twelve months from the balance sheet date. During the three and six months ended June 30, 2013 the Company made payments of \$200,000 and \$1.2 million, respectively, related to the liability classified contingent consideration arrangements.

## 12. Income Taxes

The Company files in the United States federal jurisdiction and in several state and foreign jurisdictions. Because of the net operating loss carryforwards, the Company is subject to U.S. federal and state income tax examinations from years 1997 forward and is subject to foreign tax examinations by tax authorities for years 2006 and forward. Open tax years related to state and foreign jurisdictions remain subject to examination but are not considered material to our financial position, results of operations or cash flows.

An uncertain tax position taken or expected to be taken in a tax return is recognized in the financial statements when it is more likely than not (i.e., a likelihood of more than fifty percent) that the position would be sustained upon examination by tax authorities that have full knowledge of all relevant information. A recognized tax position is then measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Interest and penalties related to income taxes are accounted for as income tax expense.

The Company expects to pay income taxes in the United Kingdom, India, and China in 2013. In 2012, the Company paid income taxes in Sweden, India, and China. The Company has a full valuation allowance on its U.S. net deferred tax assets at June 30, 2013.

### 13. Preferred Stock Rights

On March 21, 2011, the Board of Directors of the Company declared a dividend, payable to holders of record as of the close of business on April 1, 2011, of one preferred stock purchase right (a Right) for each outstanding share of common stock, par value \$0.01 per share, of the Company (the Common Stock). In addition, the Company will issue one Right with each new share of Common Stock issued. In connection therewith, on March 21, 2011, the Company entered into a Stockholder Protection Rights Agreement (as amended from time to time, the Rights Agreement) with Continental Stock Transfer & Trust Company, as Rights Agent, which has a term of three years, unless amended by the Board of Directors in accordance with the terms of the Rights Agreement. Upon approval of both an independent committee of the Board of Directors and the Board of Directors, the Rights Plan can be extended for up to three years. The Rights will initially trade with and be inseparable from the Common Stock and will not be evidenced by separate certificates unless they become exercisable. Each Right entitles its holder to purchase from the Company one-hundredth of a share of participating preferred stock having economic and voting terms similar to the Common Stock at an exercise price of \$8.00 per Right, subject to adjustment in accordance with the terms of the Rights Agreement, once the Rights become exercisable. Under the Rights Agreement, the Rights become exercisable if any person or group acquires 20% or more of the Common Stock or, in the case of any person or group that owned 20% or more of the Common Stock as of March 21, 2011, upon the acquisition of any additional shares by such person or group. The Company, its subsidiaries, employee benefit plans of the Company or any of its subsidiaries and any entity holding Common Stock for or pursuant to the terms of any such plan are accepted. Upon exercise of the Right in accordance with the Rights Agreement, the holder would be able to purchase a number of shares of Common Stock from the Company having an aggregate market price (as defined in the Rights Agreement) equal to twice the then-current exercise price for an amount in cash equal to the then-current exercise price. In addition, the Company may, in certain circumstances and pursuant to the terms of the Rights Agreement, exchange the Rights for one share of Common Stock or an equivalent security for each Right or, alternatively, redeem the Rights for \$0.001 per Right. The Rights will not prevent a takeover of our Company, but may cause substantial dilution to a person that acquires 20% or more of the Company's Common Stock.

### 14. Share Repurchase Plan

On March 21, 2011, the Board of Directors authorized the purchase of up to \$3.0 million of the Company's common stock in accordance with the safe harbor provisions of Rule 10b-18 of the Securities Exchange Act of 1934. During the three and six months ended June 30, 2013, the Company repurchased 216,399 and 217,499 shares, respectively, at an aggregate cost of \$366,000 and \$368,000, respectively. During the three and six months ended June 30, 2012 the Company repurchased 0 and 162,387 shares at an aggregate cost of \$0 and \$303,000, respectively.

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

GSE Systems, Inc. ("GSE Systems", "GSE" or the "Company") is a world leader in real-time high fidelity simulation. The Company provides simulation and educational solutions and services to the nuclear and fossil electric utility industry, and the chemical and petrochemical industries.

GSE is the parent company of:

- ◆ GSE Power Systems, Inc., a Delaware corporation;
- ◆ GSE Power Systems, AB, a Swedish corporation;
- ◆ GSE Engineering Systems (Beijing) Co. Ltd., a Chinese limited liability company;
  - ◆ GSE Systems, Ltd., a Scottish limited liability company;
  - ◆ GSE EnVision, LLC, a New Jersey limited-liability company; and
  - ◆ EnVision Systems (India) Pvt. Ltd., an Indian limited liability company.

The Company has a 49% minority interest in GSE-UNIS Simulation Technology Co., Ltd., a Chinese limited liability company. The Company has only one reportable segment.

### Cautionary Statement Regarding Forward-Looking Statements

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for forward looking statements. Forward-looking statements are not statements of historical facts, but rather reflect our current expectations concerning future events and results. We use words such as "expects", "intends", "believes", "may", "will" and "anticipates" to indicate forward-looking statements. Because these forward-looking statements involve risks and uncertainties, there are important factors that could cause actual results to differ materially from those expressed or implied by these forward-looking statements, including, but not limited to, those factors set forth under Item 1A - Risk Factors of the Company's 2012 Annual Report on Form 10-K and those other risks and uncertainties detailed in the Company's periodic reports and registration statements filed with the Securities and Exchange Commission. We caution that these risk factors may not be exhaustive. We operate in a continually changing business environment, and new risk factors emerge from time to time. We cannot predict these new risk factors, nor can we assess the effect, if any, of the new risk factors on our business or the extent to which any factor or combination of factors may cause actual results to differ from those expressed or implied by these forward-looking statements.

If any one or more of these expectations and assumptions proves incorrect, actual results will likely differ materially from those contemplated by the forward-looking statements. Even if all of the foregoing assumptions and expectations prove correct, actual results may still differ materially from those expressed in the forward-looking statements as a result of factors we may not anticipate or that may be beyond our control. While we cannot assess the future impact that any of these differences could have on our business, financial condition, results of operations and cash flows or the market price of shares of our common stock, the differences could be significant. We do not undertake to update any forward-looking statements made by us, whether as a result of new information, future events or otherwise. You are cautioned not to unduly rely on such forward-looking statements when evaluating the information presented in this report.

## General Business Environment

It has been over two years since a 9.0 magnitude earthquake and subsequent tsunami occurred along the northeast coast of Japan which damaged the Fukushima Daiichi I Nuclear Power Plant maintained by the Tokyo Electric Power Company (TEPCO). This natural disaster has had a significant impact on the nuclear power industry overall as well as on the Company's nuclear operating training simulator business.

- ◆ In Japan, all but two of the country's 50 nuclear reactors remain shut down. Nuclear power provided about 30% of the country's electricity prior to the Fukushima disaster and was expected to increase to at least 40% by 2017. In October 2012, the new Nuclear Regulatory Authority ("NRA") in Japan announced that nuclear power plant restart reviews would comprise both a safety assessment by the NRA and the briefing of affected local governments by the operators. In July 2013, four utilities applied for restart of 12 PWR reactors at six sites, two of which are already running on an interim basis. Although the Liberal Democratic Party, which currently controls both houses of the Diet, has indicated a pro-nuclear stance in restoring power supplies, it appears that it will be several more years before most of the Japanese reactors may be restarted. For the three and six months ended June 30, 2013, the Company's revenue from nuclear simulation customers in Japan decreased \$1.8 million and \$3.2 million, respectively, as compared to the same periods in 2012. At March 31, 2011, just after the Fukushima disaster, the Company had backlog of \$8.1 million from Japanese customers. At June 30, 2013, we have backlog from Japanese customers of \$1,500. There are no significant orders from Japanese customers in our sales pipeline.
- ◆ Pre-Fukushima, Germany obtained about one quarter of its electricity from nuclear energy, using 17 reactors, per the World Nuclear Association. Following the Fukushima disaster, all of the country's nuclear power reactors which began operation in 1980 or earlier were shut down. The remaining nine reactors will be closed by the end of 2022. For the three and six months ended June 30, 2013, the Company's revenue from German nuclear simulation customers decreased by \$200,000 and \$900,000, respectively, as compared to the same periods in the prior year. At March 31, 2011, just after the Fukushima disaster, the Company had backlog of \$4.6 million from German customers. At June 30, 2013, we have backlog from German customers of \$170,000. We anticipate some future orders from our German customers.
- ◆ China's response to the Fukushima disaster was to postpone the approval of new nuclear power plants, but those new plants that were already under construction were allowed to continue. Thus, the Company's simulator projects that were already under way (new simulators for the Westinghouse AP1000 plants being built at Sanmen and Haiyang) have not been impacted. On May 31, 2012, the State Council, China's Cabinet, approved a nuclear safety plan for 2012 through 2015 following a nine month safety inspection of China's 41 nuclear power plants, which were either operating or under construction. In October 2012, the Chinese government lifted the ban on new nuclear power stations but only for those plants to be built along the coast, in-land power plants continue to be banned. GSE's business in China remains strong. At June 30, 2013, we have backlog from Chinese end customers of \$11.9 million as compared to \$13.1 million at March 31, 2011.

- ◆ In the US, prior to the Fukushima disaster, there was anticipation of a nuclear “renaissance”. GSE received contracts in 2010 from Westinghouse Electric Company LLC to provide operator training simulators for the first nuclear reactors to be built in the U.S. in over 30 years at the Vogtle and VC Summer nuclear power plants. The U.S. Nuclear Regulatory Commission was reviewing 13 combined construction and operating license (“CCOL”) applications from 12 companies and consortia for 22 nuclear power reactors. In February 2012, the NRC voted to issue the first three new rules to deal with safety issues based on eight changes identified by the NRC’s Fukushima task force, with implementation expected by the end of 2016. The three orders require safety enhancements of operating reactors, construction permit holders, and combined license holders. These orders require nuclear power plants to implement safety enhancements related to (1) mitigation strategies to respond to extreme natural events resulting in the loss of power at plants, (2) ensuring reliable hardened containment vents, and (3) enhancing spent fuel pool instrumentation. In addition, the NRC requested each reactor reevaluate the seismic and flooding hazards at their site using present-day methods and information. Of the 13 combined construction and operating license applications under review by the NRC at the time of the Fukushima disaster, two licenses have been issued (for the Vogtle and VC Summer plants), two have been suspended and nine are still under review. No new CCOL’s have been filed with the NRC since the Fukushima disaster and the nuclear “renaissance” has not materialized.

In addition to the impact of the Fukushima disaster, (i) the U.S. economy continues to be sluggish, (ii) the current low natural gas prices are causing utilities considering nuclear power to reevaluate the economics of those decisions at this time and (iii) most of Europe remains in recession which has negatively impacted capital spending by electric utilities doing business in Europe.

In response to these changes in the nuclear simulation market, the Company’s strategy revolves around the following initiatives:

- ◆ The Company is repositioning itself to actively pursue business and develop strategic partnerships in those areas of the world where the construction of additional nuclear power plants is expected to grow.
- With 17 nuclear reactors that provide about 13.8 gigawatts (GW) of generating capacity and another 28 reactors under construction that add another 30.6 GW, China plans to build nuclear power plants as a key part of curbing demand on fossil fuels. By 2015, China’s government hopes to generate 30% of China’s power from solar, renewable energy sources such as wind, and nuclear energy. As reported by Businessweek.com, Chinese engineers have adapted the Westinghouse Electric Company’s AP1000 reactor technology into a larger design, called the CAP1400, which increases the power the reactor can produce from 1,000 megawatts to 1,400 megawatts. Construction on China’s first CAP1400 is expected to begin this year and Gu Jun, President of State Nuclear Power said at a February 1, 2013 press conference that the “exploration of the global market for the CAP1400 will start in 2013”. GSE is working to strengthen its relationships with the Chinese nuclear utilities and is developing plans to grow its Chinese subsidiary.
- South Korea is seeking to export its nuclear technology with a goal of exporting 80 nuclear reactors by 2030. The Company has hired an agent in Korea and is working to strengthen its relationships with the Korean nuclear utilities.

- o Russia is moving forward with plans to expand the role of nuclear energy, with an expected 50% increase in output by 2020. In June 2010, the Russian government approved plans for 173 GWe of new generating capacity by 2030, 43.4 GWe of this being nuclear. Currently there are 10 reactors under construction and another 24 planned. The Company had done extensive upgrade work for the Leningrad Nuclear Power Plant prior to the consolidation of Russian nuclear power plants under Rosenergoatom in 2001 and received some additional work thereafter, but has received no additional work since 2008 due to the government decree that all operator training simulators for Russian nuclear power plants must be performed by a Russian owned company. GSE is exploring options on how to partner with Russian entities in order to reenter the Russian nuclear simulation market as well as cooperate in the international markets where Russia is selling its commercial nuclear technology. The Russian nuclear power industry is aggressively marketing its new plant designs throughout the world including places such as Turkey, Vietnam and India.
- ◆ Certain products continue to do well in the nuclear power upgrade market. GSE is selling its RELAP5-HD advanced thermohydraulic model for plants in Europe, Asia and the U.S. GSE has successfully sold its first two domestic upgrade programs using RELAP5-HD, and believes the success of these projects will help convince domestic customers of the value of this advanced model. To date, GSE has sold 23 RELAP5-HD projects around the world.
- ◆ As evidenced by the new safety rules that the NRC has recently issued, the Chinese State Council's Safety Plan, and the creation in Japan of the Nuclear Regulatory Authority, there will be additional governmental regulations requiring plant modifications and new testing scenarios that will result in the need for higher fidelity simulation. According to Platts.com, U.S. nuclear plant operators estimate they will spend \$3.6 billion in post-Fukushima upgrades. GSE has developed PSA-HD™ and DesignEPTM, which are engineering-grade nuclear simulation solutions for both full scope simulator and desktop simulator applications. PSA-HD allows operating personnel to train for and develop responses to severe accident scenarios based on the operations of their specific facility. DesignEP provides a desktop solution that allows engineers, safety analysis specialists, emergency planners and plant operating personnel all to experiment with new designs and procedures to address severe accident conditions. Both solutions utilize MAAP 5.0 as the calculation engine, with GSE's real-time executive and graphical interface to provide a dynamic, real-time solution for severe accident analysis. MAAP 5.0 is an Electric Power Research Institute (EPRI) software program that performs severe accident analysis for nuclear power plants including assessments of core damage and radiological transport. A valid license to MAAP 5.0 from EPRI is required to use MAAP 5.0 with PSA-HD and DesignEP. PSA-HD's real-time code can be integrated with a nuclear plant's existing full-scope training simulator and is applicable to all current nuclear plant designs. GSE's solutions can be used to validate the utility's severe accident management guidelines (SAMGs), demonstrate the safety of current plant designs to regulators and stakeholders, and identify potential issues with existing plant design that may require modification. The solutions include high-fidelity models of the plant's reactor core, containment structures and spent fuel pool. The models simulate severe accident conditions which mirror those that occurred at the Fukushima facility, such as the release of radioactive materials due to overheating of the core, exposure of the fuel rods in the spent fuel pool, and hydrogen build up in the containment building.

- ◆ As the energy industries continue to build power generation capacity and extend the useful life of current assets, GSE is using its sophisticated simulation technology to mitigate risk in new development projects. GSE's technology and experienced staff enable clients to view design scenarios virtually, identify and correct problems before construction, avoid delays and more effectively design human machine interaction. Simulators used during the planning and design phase of these new development projects provide customers their first view at testing the interface between systems manufactured by different suppliers as well as allowing them to see their plants operating with the design data. Finding issues pre-construction or early in construction can save valuable time and money, ensuring on-time start-up of capital assets. GSE products such as ControlSim™ and ISIS™ are used to help customers rapidly design and test plant instrumentation and control (I&C) and human machine interface (HMI) designs. GSE has integrated its proven simulation tools with its new centralized data repository and revision management system into a platform for I&C and HMI design engineers. ControlSim is designed for rapid development and testing of plant control and logic strategies and HMI design. GSE has added the ability to publish the resulting model as engineering drawings in PDF or AutoCAD formats with relevant data such as the I/O list, set points and other constants in electronic or document formats. GSE's ISIS central database is a distributed, powerful system used to support the management of data on complex multi-year projects, automate tedious processes to reduce engineering hours, and provide a central point for integration of all GSE or 3rd party engineering design applications into a cohesive simulator development system.
- ◆ GSE is working with Small Modular Reactor (SMR) designers to assist with the early design phase of these reactors. Two of the primary SMR designers are using the Company's simulation technology and engineering expertise to help with design submissions, control strategy development, human factors engineering of the control room and other high value applications. Per a 2011 report by the University of Chicago Energy Policy Institute, SMR's could significantly mitigate the financial risk associated with full-scale plants, potentially allowing small reactors to compete effectively with other energy sources, such as coal-fired plants. The anticipated benefits of these designs are lower capital costs, faster construction, scalable power production and enhanced safety. The U.S Department of Energy's Office of Nuclear Energy is trying to help accelerate the timelines for the commercialization and deployment of SMR technologies by providing funding through their SMR Licensing Technical Support Program.



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Results of Operations

The following table sets forth the results of operations for the periods presented expressed in thousands of dollars and as a percentage of revenue:

| (in thousands)                                       | Three Months ended June 30, |          |           |         | Six Months ended June 30, |          |           |         |
|--|-----------------------------|----------|-----------|---------|---------------------------|----------|-----------|---------|
|  | 2013                        | %        | 2012      | %       | 2013                      | %        | 2012      | %       |
| Contract revenue                                     | \$ 11,034                   | 100.0 %  | \$ 13,183 | 100.0 % | \$ 23,417                 | 100.0 %  | \$ 26,572 | 100.0 % |
| Cost of revenue                                      | 8,219                       | 74.5 %   | 8,713     | 66.1 %  | 17,521                    | 74.8 %   | 18,183    | 68.4 %  |
| Write-down of capitalized software development costs | 2,174                       | 19.7 %   | -         | 0.0 %   | 2,174                     | 9.3 %    | -         | 0.0 %   |
| Gross profit   | 641                         | 5.8 %    | 4,470     | 33.9 %  | 3,722                     | 15.9 %   | 8,389     | 31.6 %  |
| Operating expenses:                                  |                             |          |           |         |                           |          |           |         |
| Selling, general and administrative                  | 3,946                       | 35.8 %   | 3,694     | 28.1 %  | 8,111                     | 34.6 %   | 7,180     | 27.1 %  |
| Goodwill impairment loss                             | 4,462                       | 40.4 %   | -         | 0.0 %   | 4,462                     | 19.1 %   | -         | 0.0 %   |
| Depreciation   | 146                         | 1.3 %    | 138       | 1.0 %   | 299                       | 1.3 %    | 275       | 1.0 %   |
| Amortization of definite-lived intangible assets     | 52                          | 0.5 %    | 78        | 0.6 %   | 104                       | 0.4 %    | 156       | 0.6 %   |
| Total operating expenses                             | 8,606                       | 78.0 %   | 3,910     | 29.7 %  | 12,976                    | 55.4 %   | 7,611     | 28.7 %  |
| Operating income (loss)                              | (7,965 )                    | (72.2 )% | 560       | 4.2 %   | (9,254 )                  | (39.5 )% | 778       | 2.9 %   |
| Interest income, net                                 | 24                          | 0.2 %    | 34        | 0.3 %   | 63                        | 0.3 %    | 85        | 0.3 %   |
| Gain (loss) on derivative instruments, net           | (410 )                      | (3.7 )%  | (384 )    | (2.9 )% | (143 )                    | (0.6 )%  | 16        | 0.1 %   |
| Other income (expense), net                          | 94                          | 0.9 %    | 93        | 0.7 %   | (11 )                     | (0.1 )%  | 179       | 0.7 %   |
| Income (loss) before income taxes                    | (8,257 )                    | (74.8 )% | 303       | 2.3 %   | (9,345 )                  | (39.9 )% | 1,058     | 4.0 %   |
| Provision (benefit) for income taxes                 | (58 )                       | (0.5 )%  | 145       | 1.1 %   | 9                         | 0.0 %    | 370       | 1.4 %   |
| Net income (loss)                                    | \$ (8,199 )                 | (74.3 )% | \$ 158    | 1.2 %   | \$ (9,354 )               | (39.9 )% | \$ 688    | 2.6 %   |

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Our

estimates, judgments and assumptions are continually evaluated based on available information and experience. Because of the use of estimates inherent in the financial reporting process, actual results could differ from those estimates.

A summary of the Company's significant accounting policies as of December 31, 2012 is included in Note 2 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012. Certain of our accounting policies require higher degrees of judgment than others in their application. These include revenue recognition on long-term contracts, capitalization of computer software development costs, valuation of intangible assets acquired, including goodwill, contingent consideration issued in business acquisitions, and the recoverability of deferred tax assets. These critical accounting policies and estimates are discussed in the Management's Discussion and Analysis of Financial Condition and Results of Operations section in the 2012 Annual Report on Form 10-K for the fiscal year ended December 31, 2012.

## Results of Operations - Three and Six Months ended June 30, 2013 versus Three and Six Months ended June 30, 2012

**Contract Revenue.** Total contract revenue for the three months ended June 30, 2013 totaled \$11.0 million, which was 16.3% less than the \$13.2 million total revenue for the three months ended June 30, 2012. For the six months ended June 30, 2013, contract revenue totaled \$23.4 million, a \$3.2 million decrease from the \$26.6 million for the six months ended June 30, 2012. The Company recorded total orders of \$9.6 million in the six months ended June 30, 2013 compared to \$26.4 million for the three months ended June 30, 2012. Revenue related to the \$36.0 million full scope simulator and digital control system order from Slovenské elektrárne, a.s. ("SE") was \$2.5 million (22.4% of revenue) and \$548,000 (4.2% of revenue) for the three months ended June 30, 2013 and 2012, respectively. For the six months ended June 30, 2013 and 2012, revenue from SE was \$5.4 million (22.9% of revenue) and \$1.6 million (6.1% of revenue), respectively. Offsetting this increase in revenue from the SE order are reductions in revenue from both Japanese and German customers, two traditionally strong sources of revenue for the Company. As an aftermath to the Fukushima earthquake and tsunami which occurred over 2 years ago, the Japanese have shut down all but two of their nuclear reactors and the Germans have announced plans to shut down all of their nuclear reactors by 2022. For the three and six months ended June 30, 2013, revenue decreased \$1.8 million and \$3.2 million, respectively, from nuclear simulation customers in Japan and decreased by \$200,000 and \$900,000, respectively, from nuclear simulation customers in Germany, as compared to the same periods in the prior year. The Company also completed two significant nuclear simulation projects for customers during the second quarter of 2012. These projects included a full scope AGR replacement simulator for a British utility and a substantial upgrade project for a full scope simulator in the Ukraine. Revenue related to these projects for the three and six months ended June 30, 2013 totaled \$1.4 million and \$2.7 million, respectively. Furthermore, fossil fuel simulation revenue remained flat for the three months ended June 30, 2013, and has decreased \$800,000 for the six months ended June 30, 2013 as compared to the same periods in the prior year. At June 30, 2013, the Company's backlog was \$39.0 million, of which \$6.4 million is related to the SE contract. At December 31, 2012, the Company's backlog totaled \$51.9 million.

**Gross Profit.** Excluding the \$2.2 million non-cash write down of capitalized software development costs, which is discussed below, gross profit totaled \$2.8 million for the three months ended June 30, 2013 compared to \$4.5 million for the same period in 2012. As a percentage of revenue, gross profit decreased from 33.9% for the three months ended June 30, 2012 to 25.5% for the three months ended June 30, 2013. For the six months ended June 30, 2013, gross profit was \$5.9 million which was a 29.8% decrease from the \$8.4 million recognized during the same period in 2012. As a percentage of revenue, gross profit decreased from 31.6% to 25.2% for the six months ended June 30, 2012 and 2013, respectively. The increase in revenue on the Slovakia contract, which has an overall gross profit lower than the Company's normal gross profits, along with a decrease in revenue from our core business has contributed to the decrease in gross profit for the three and six months ended June 30, 2013.

**Write-down of capitalized software development costs.** The Company makes ongoing evaluations of the recoverability of its capitalized software projects by comparing the unamortized amount for each product to the estimated net realizable value of the product. If such evaluations indicate that the unamortized software development costs exceed the net realizable value, we write off the amount by which the unamortized software development costs exceed net realizable value. For the quarter ended June 30, 2013, we incurred a charge of \$2.2 million related to the write-off of certain capitalized software development costs.

Selling, General and Administrative Expenses. Selling, general and administrative (“SG&A”) expenses totaled \$3.9 million in the three months ended June 30, 2013, a 6.8% increase from the \$3.7 million for the same period in 2012. For the six months ended June 30, 2013 and 2012, SG&A expenses totaled \$8.1 million and \$7.2 million, respectively. The increases reflect the following spending variances:

- ◆ Business development and marketing costs decreased slightly from \$1.2 million to \$1.1 million for the three months ended June 30, 2012 and 2013, respectively, and remained flat at \$2.4 million for the six months ended June 30, 2013 and 2012, respectively. Bidding and proposal costs, which are the costs of operations personnel assisting with the preparation of contract proposals, increased by \$65,000 and \$28,000 during the three and six months ended June 30, 2013 to \$533,000 and \$970,000, respectively, as compared to the three and six months ended June 30, 2012.
- ◆ The Company’s general and administrative expenses (“G&A”) increased from \$1.8 million to \$2.0 million for the three months ended June 30, 2012 and 2013, respectively, and increased from \$3.2 million to \$4.2 million for the six months ended June 30, 2012 and 2013, respectively. The fluctuations were primarily attributable to the following:
  - The Company incurred foreign currency translation losses of (\$73,000) for the three months ended June 30, 2013 and (\$137,000) for the six months ended June 30, 2013. For the three and six months ended June 30, 2012, the Company incurred a foreign currency translation loss of (\$36,000) and a gain of \$57,000, respectively.
  - The Company implemented a global Enterprise Resource Planning system during the third quarter 2012. Costs related to support and maintenance of this implementation totaled \$104,000 and \$289,000 for the three and six months ending June 30, 2013 as compared to \$36,000 for both the three and six months ended June 30, 2012.
  - The Company’s subsidiary in the United Kingdom moved offices and reorganized its reporting structure during the first quarter 2013. The subsidiary’s general and administrative expenses remained flat at \$300,000 during the three months ended June 30, 2013, and 2012 but increased \$200,000 during the six months ended June 30, 2013 due to the related facility charges and reclassification of personnel during the first quarter 2013, as compared to the same period in the prior year.
- ◆ Gross spending on software product development (“development”) expenses for the three and six months ended June 30, 2013 totaled \$765,000 and \$1.5 million, respectively, as compared to \$608,000 and \$1.3 million for the three and six months ended June 30, 2012, respectively. The Company capitalized \$498,000 and \$995,000 of product development expenses for the three and six months ended June 30, 2013, respectively, and \$339,000 and \$608,000 for the same periods in 2012. Net development spending decreased from \$269,000 for the three months ended June, 30, 2012 to \$267,000 for the three months ended June 30, 2013 and from \$669,000 for the six months ended June 30, 2012 to \$492,000 for the six months ended June 30, 2013.
  - The Company’s 3D visualization team, which develops 3D technology to add to our training programs, incurred \$13,000 and \$69,000 of costs related to this effort during the three and six months ended June 30, 2013, respectively, as compared to \$123,000 and \$236,000 for the same periods in 2012.
  - Our EnVision product line is working on several new products mainly related to a gas-oil separation process and an upstream amine treatment unit. Development expense related to the EnVision product line totaled \$108,000 and \$59,000 for the three months ended June 30, 2013 and 2012, respectively. For the six months ended June 30, 2013 and 2012, EnVision incurred \$241,000 and \$99,000 of development expense, respectively.
  - Spending on other software product development totaled \$644,000 and \$1.2 million for the three and six months ended June 30, 2013, respectively. Spending on other software product development totaled \$485,000 and \$1.0 million for the three and six months ended June 30, 2012, respectively. The Company’s development expenses were mainly related to ISIS™, our configuration management system, maintenance to our JADE™ application, and advance modeling software such as GPWRTM, RELAP5-HD®, and PSA-HDTM.



Goodwill impairment loss. The Company incurred a goodwill impairment loss of \$4.5 million during the second quarter of 2013. Refer to the Liquidity and Capital Resources section below for further discussion regarding the factors leading to the impairment loss and the valuation methodologies and assumptions used in the goodwill impairment test.

Depreciation. Depreciation expense totaled \$146,000 and \$138,000 during the quarters ended June 30, 2013 and 2012, respectively. For the six months ended June 30, 2013 and 2012, depreciation expense totaled \$299,000 and \$275,000, respectively.

Amortization of definite-lived intangible assets. Amortization expense related to definite-lived intangible assets totaled \$52,000 and \$78,000 for the three months ended June 30, 2013 and 2012, respectively. For the six months ended June 30, 2013 and 2012, amortization expense related to definite-lived intangible assets totaled \$104,000 and \$156,000, respectively.

Operating Income (Loss). The Company had an operating loss of (\$8.0 million) (72.2% of revenue) during the three months ended June 30, 2013, as compared with operating income of \$560,000 (4.2% of revenue) for the same period in 2012. For the six months ended June 30, 2013 and 2012, the Company had an operating loss of (\$9.3 million) (39.5% of revenue) and operating income of \$778,000 (2.9% of revenue), respectively. The variances were due to the factors outlined above. Excluding the impact of the \$2.2 million capitalized software write down and the \$4.5 million goodwill impairment, the Company generated an operating loss of (\$1.3 million) (11.9% of revenue) during the three months ended June 30, 2013, and an operating loss of (\$2.6 million) (11.1% of revenue) during the six months ended June 30, 2013.

Interest Income, Net. Net interest income totaled \$24,000 and \$34,000 for the three months ended June 30, 2013 and 2012, respectively. For the six months ended June 30, 2013 and 2012, net interest income totaled \$63,000 and \$85,000, respectively.

Gain (Loss) on Derivative Instruments, Net. The Company periodically enters into forward foreign exchange contracts to manage market risks associated with the fluctuations in foreign currency exchange rates on foreign-denominated trade receivables. As of June 30, 2013, the Company had foreign exchange contracts outstanding of approximately 0.4 million Pounds Sterling, 14.0 million Euro, and 60.4 million Japanese Yen at fixed rates. The contracts expire on various dates through May 2016. The Company has not designated the contracts as hedges and has recognized a loss on the change in the estimated fair value of the contracts of (\$548,000) and a gain of \$1,000 for the three and six months ended June 30, 2013, respectively.

As of June 30, 2012, the Company had foreign exchange contracts outstanding of approximately 1.1 million Pounds Sterling, 16.3 million Euro, and 359.1 million Japanese Yen at fixed rates. The contracts expire on various dates through May 2016. The Company had not designated the contracts as hedges and had recognized a loss on the change in the estimated fair value of the contracts of (\$93,000) and a gain of \$93,000 for the three and six months ended June 30, 2012, respectively.

The foreign currency denominated contract receivables, billings in excess of revenue earned, and subcontractor accruals that are related to the outstanding foreign exchange contracts were remeasured into the functional currency using the current exchange rate at the end of the period. For the three and six months ended June 30, 2013, the Company recognized a gain of \$138,000 and a loss of (\$144,000), respectively, from the remeasurement of such contract receivables, billings in excess of revenue earned and subcontractor accruals. For the same periods in 2012, the Company recognized losses of \$291,000 and \$77,000, respectively.



Other Income (Expense), net. For the three and six months ended June 30, 2013, the Company recognized other income, net of \$94,000 and other expense, net of (\$11,000), respectively. For the three and six months ended June 30, 2012, other income, net was \$93,000 and \$179,000, respectively. The major components of other income (expense), net included the following items:

- ◆ For the three and six months ended June 30, 2013, the Company recognized a gain of \$18,000 and a loss of (\$96,000), respectively, relating to its pro rata share of operating results from GSE-UNIS Simulation Technology Co., Ltd. For the three and six months ended June 30, 2012, the Company recognized equity investment gains of \$72,000 and \$134,000, respectively, relating to its pro rata share of operating results from GSE-UNIS Simulation Technology Co., Ltd.
- ◆ As a 10% owner of the Emirates Simulation Academy (“ESA”) in the UAE, the Company was required to provide a guarantee of 10% of ESA’s credit facility. We provided the guarantee by depositing cash into an interest bearing, restricted account with the Union National Bank (“UNB”). In 2009, we wrote off the entire balance in this account. In the second quarter of 2013, we were notified by UNB that the ESA line of credit had been paid off by utilizing the guarantees from the three owners. The balance remaining in our account after the settlement of the guarantee, \$82,000, was transferred to us and the UNB account was closed.
- ◆ The Company had other miscellaneous expense of (\$6,000) and other miscellaneous income of \$3,000 for the three and six months ended June 30, 2013, respectively. For the three and six months ended June 30, 2012, other miscellaneous income amounted to \$21,000 and \$45,000, respectively.

#### Provision (benefit) for Income Taxes

The Company files in the United States federal jurisdiction and in several state and foreign jurisdictions. Because of the net operating loss carryforwards, the Company is subject to U.S. federal and state income tax examinations from years 1997 and forward and is subject to foreign tax examinations by tax authorities for years 2006 and forward. Open tax years related to state and foreign jurisdictions remain subject to examination but are not considered material to our financial position, results of operations or cash flows.

An uncertain tax position taken or expected to be taken in a tax return is recognized in the financial statements when it is more likely than not (i.e., a likelihood of more than fifty percent) that the position would be sustained upon examination by tax authorities that have full knowledge of all relevant information. A recognized tax position is then measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Interest and penalties related to income taxes are accounted for as income tax expense.

The Company expects to pay income taxes in the United Kingdom, India, and China in 2013. In 2012, the Company paid income taxes to Sweden, India, and China. The Company has a full valuation allowance on its U.S. net deferred tax assets at June 30, 2013.



## Liquidity and Capital Resources

As of June 30, 2013, the Company's cash and cash equivalents totaled \$21.1 million compared to \$22.4 million at December 31, 2012.

Cash provided by (used in) operating activities. For the six months ended June 30, 2013, net cash provided by operations totaled \$1.8 million. Significant changes in the Company's assets and liabilities in the six months ended June 30, 2013 included:

- ◆ A \$2.8 million decrease in the Company's contract receivables. The Company's trade receivables, net of the allowance for doubtful accounts, decreased from \$12.4 million at December 31, 2012 to \$10.0 million at June 30, 2013. At June 30, 2013, trade receivables outstanding for more than 90 days, net of the bad debt reserve, totaled approximately \$3.3 million versus \$2.5 million at December 31, 2012. Included in the over 90 day balance at June 30, 2013 and December 31, 2012 was \$2.3 million due from Shandong Nuclear Power Co. Ltd. Although this trade receivable is significantly overdue, the Company believes the entire balance will be received and has not increased its bad debt reserve. However, if the Company should determine that some or all of the receivable will not be paid, the Company may incur a loss of up to \$2.3 million. The Company's unbilled receivables decreased by approximately \$500,000 to \$10.8 million at June 30, 2013. The decrease in the unbilled receivables is due to the timing of contracted billing milestones of the Company's current projects. In July 2013, the Company invoiced \$1.6 million of the unbilled amounts; the balance is expected to be invoiced and collected within one year.
- ◆ A \$716,000 increase in billings in excess of revenue earned. The increase was due to the timing of contracted billing milestones of the Company's projects.

For the six months ended June 30, 2012, net cash used in operations totaled \$3.8 million. Significant changes in the Company's assets and liabilities in the six months ended June 30, 2012 included:

- ◆ A \$5.9 million increase in the Company's contract receivables. The Company's trade receivables, net of the allowance for doubtful accounts, increased from \$8.1 million at December 31, 2011 to \$14.7 million at June 30, 2012. At June 30, 2012, trade receivables outstanding for more than 90 days, net of the bad debt reserve, totaled approximately \$6.8 million versus \$278,000 at December 31, 2011. A total of \$5.6 million of the over 90 day balance related to a contract with Slovenské elektrárne, a.s. to provide a full scope simulator for a two unit reactor plant in Slovakia. In September 2012, the Company received a \$3.7 million payment from SE with respect to the outstanding \$5.6 million receivable and SE agreed to pay the remaining \$1.9 million upon completion of the Site Acceptance Test, which is currently expected to take place in November 2013. The Company's unbilled receivables decreased by approximately \$800,000 to \$11.4 million at June 30, 2012. The decrease in the unbilled receivables is due to the timing of contracted billing milestones of the Company's current projects.
- ◆ A \$1.3 million decrease in prepaid expenses and other assets. The decrease is primarily attributable to the maturity of short-term investments and Certificates of Deposit.

Cash used in investing activities. Net cash used in investing activities totaled \$1.4 million for the six months ended June 30, 2013.

Capital expenditures totaled \$142,000 and capitalized software development costs totaled \$995,000 for the six months ended June 30, 2013. Restrictions of cash as collateral under letters of credit totaled \$228,000 for the six months ended June 30, 2013.

Net cash used in investing activities totaled \$3.3 million for the six months ended June 30, 2012.

During the six months ended June 30, 2012, the Company made its final equity contribution of \$469,000 to GSE-UNIS Simulation Technology Co., Ltd. ("GSE-UNIS"). GSE-UNIS is 51% owned by Beijing UNIS Investment

Co., Ltd. and 49% owned by GSE. Capital expenditures totaled \$779,000. The majority of the capital expenditures were related to the Company's new Enterprise Resource Planning (ERP) software that was being implemented across our global operations. The Company spent approximately \$580,000 on the new ERP software during the six months ended June 30, 2012. Capitalized software development costs totaled \$608,000, and cash provided by the release of cash as collateral under letters of credit totaled \$315,000 for the six months ended June 30, 2012.

Cash used in financing activities. Net cash used in financing activities totaled \$1.5 million for the six months ended June 30, 2013. During the six months ended June 30, 2013, the Company made payments of \$1.2 million in relation to the liability classified contingent-consideration associated with the acquisition of EnVision Systems, Inc. The Company repurchased 217,499 shares of the Company's common stock at an aggregate cost of \$368,000 for the six months ended June 30, 2013. Proceeds from the issuance of common stock for the six months ended June 30, 2013 totaled \$44,000.

Net cash used in financing activities totaled \$888,000 for the six months ended June 30, 2012. In April and May 2012, the Company made payments of \$73,000 and \$733,000 in relation to the liability classified contingent-consideration associated with the acquisitions of TAS Holdings, Ltd. and EnVision Systems, Inc., respectively. The Company repurchased 162,387 shares of the Company's common stock at an aggregate cost of \$303,000 for the six months ended June 30, 2012. Proceeds from the issuance of common stock for the six months ended June 30, 2012 totaled \$221,000.

At June 30, 2013, the Company had cash and cash equivalents of \$21.1 million. The Company believes that its (i) cash and cash equivalents and (ii) cash generated from normal operations will be sufficient to fund its working capital and other requirements for at least the next twelve months.

#### Credit Facilities

The Company has a Master Loan and Security Agreement and Revolving Credit Note with Susquehanna. The Company and its subsidiaries, GSE Power Systems, Inc., and GSE EnVision LLC, are jointly and severally liable as co-borrowers. The Loan Agreement provides a \$7.5 million revolving line of credit for the purpose of (i) issuing stand-by letters of credit and (ii) providing working capital. Working capital advances bear interest at a rate equal to the Wall Street Journal Prime Rate of Interest, floating with a floor of 4 ½%. In July 2013, Susquehanna extended the Revolving Credit Expiration Date until June 30, 2014.

As collateral for the Company's obligations, the Company granted a first lien and security interest in all of the assets of the Company, including but not limited to, accounts receivable, inventory, proceeds and products, intangibles, trademarks, intellectual property, and machinery and equipment.

Issuances of stand-by letters of credit and advances of working capital (collectively referred to as the "Advances") require that the Company maintain a minimum cash balance of \$3.0 million at all times (the "Cash Balance Requirement"). The Cash Balance Requirement will remain at the minimum amount as long as the Company's quarterly consolidated net income (exclusive of gains and losses on derivative instruments and stock option expense) as defined ("Net Income"), remains positive and the Company is in compliance with the covenants. If the Company's quarterly Net Income is negative or the Company is not in compliance with the covenants, the Cash Balance Requirement will revert to the amount of the Advances, until the Company attains positive Net Income for two consecutive quarters. The credit agreements contain certain restrictive covenants regarding future acquisitions, and incurrence of debt. In addition, the credit agreements contain financial covenants with respect to the Company's cash flow coverage ratio, minimum tangible capital base, quick ratio, and tangible capital base ratio. At June 30, 2013, the Company had not paid any interest or principal payments related to any borrowings for over one year. As such the cash flow coverage ratio is not applicable at June 30, 2013.

|          |               |
|----------|---------------|
|          | As of         |
| Covenant | June 30, 2013 |

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|                               |                            |                |
|-------------------------------|----------------------------|----------------|
| Minimum tangible capital base | Must Exceed \$26.0 million | \$29.9 million |
| Quick ratio                   | Must Exceed 2.00 : 1.00    | 2.35 : 1.00    |
| Tangible capital base ratio   | Not to Exceed .75 : 1.00   | .68 : 1.00     |

As the Company's Net Income for the three months ended June 30, 2013 as defined above was negative, the Company will currently be required to maintain a cash balance of \$3.8 million at Susquehanna which is equivalent to the amount of Advances at June 30, 2013. All of the Company's outstanding Advances as of June 30, 2013 consisted of stand-by letters of credit.

As of June 30, 2013, the Company was contingently liable for sixteen standby letters of credit and five surety bonds totaling \$6.8 million which represent performance and bid bonds on sixteen contracts. The Company has deposited the full value of seven standby letters of credit in escrow accounts, amounting to \$2.0 million, which have been restricted in that the Company does not have access to these funds until the related letters of credit have expired. The cash has been recorded on the Company's balance sheet at June 30, 2013 as restricted cash.

#### Goodwill impairment

We review goodwill for impairment annually as of November 30 and whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable in accordance with Accounting Standards Codification 350, Intangibles — Goodwill and Other (Topic 350). The provisions of Topic 350 require that we perform a two-step impairment test on goodwill. In the first step, we compare the fair value of our reporting unit to its carrying value. The Company has only one reporting unit. If the fair value of the reporting unit exceeds the carrying value of the net assets assigned to that unit, goodwill is not impaired and we are not required to perform further testing. If the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, then we must perform the second step of the impairment test in order to determine the implied fair value of the reporting unit's goodwill. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit's assets and liabilities in a manner similar to a purchase price allocation, with any residual fair value allocated to goodwill. If the carrying value of the reporting unit's goodwill exceeds its implied fair value, then we record an impairment loss equal to the difference.

Based upon indicators of impairment in the second quarter of 2013, which included a substantial decrease in the Company's market capitalization following the announcement of the Company's first quarter 2013 earnings, and significantly lower than projected revenues and profits as a result of a change in market conditions, the Company performed an interim impairment test as of June 30, 2013.

The fair value of our reporting unit was estimated using a combination of appropriately weighted income and market approaches. The cash flows employed in the income approach are based on our most recent budgets, forecasts and business plans developed in the second quarter of 2013, as well as various growth rate assumptions for the years beyond the current business plan period, discounted using an estimated weighted average cost of capital ("WACC"). The WACC is comprised of (1) a risk free rate of return, (2) an equity and size risk premium that is based on the rate of return on equity of publicly traded companies with business characteristics comparable to our reporting unit, (3) the current after-tax market rate of return on debt of companies with business characteristics similar to our reporting unit, each weighted by the relative market value percentages of our equity and debt, and (4) an industry and specific company risk factor.

The results of the Topic 350 Step 1 goodwill impairment analysis indicated that the estimated fair value of our reporting unit was less than the carrying value. The reporting unit was unfavorably impacted by a combination of lower current and projected cash flows. Because our reporting unit's fair value estimate was lower than its carrying value, we applied the second step of the goodwill test, in accordance with ASC 350.

The second step of the goodwill impairment analysis indicated that the carrying values of the goodwill associated with the reporting unit exceeded its implied fair value resulting in a \$4.5 million non-deductible goodwill impairment charge. As a result of the goodwill impairment loss, no goodwill remained on the Consolidated Balance Sheets as of

June 30, 2013. The impairment was non-cash in nature and did not affect the Company's current liquidity, and did not impact the debt covenants under the Company's existing credit facility.

#### Write-down of capitalized software development costs

Certain computer software development costs are capitalized in the accompanying consolidated balance sheets. Capitalization of computer software development costs begins upon the establishment of technological feasibility. Capitalization ceases and amortization of capitalized costs begins when the software product is commercially available for general release to customers. Amortization of capitalized computer software development costs is included in cost of revenue and is determined using the straight-line method over the remaining estimated economic life of the product, typically three years. On an annual basis, and more frequently as conditions indicate, the Company assesses the recovery of the unamortized software development costs by estimating the net undiscounted cash flows expected to be generated by the sale of the product. If the undiscounted cash flows are not sufficient to recover the unamortized software costs the Company will write-down the investment to its estimated fair value based on the future undiscounted cash flows. The excess of any unamortized computer software costs over the related net realizable value is written down and charged to operations.

During the second quarter of 2013, the Company incurred a charge of \$2.2 million related to the write-down of certain capitalized software development costs based on the net realizable value analysis performed in conjunction with our goodwill impairment test.

#### Item 3. Quantitative and Qualitative Disclosure about Market Risk

The Company's market risk is principally confined to changes in foreign currency exchange rates. The Company's exposure to foreign exchange rate fluctuations arises in part from customer contracts that are denominated in currencies other than the Company's functional currency as well as from inter-company accounts in which costs incurred in one entity are charged to other entities in different foreign jurisdictions. The Company is also exposed to foreign exchange rate fluctuations as the financial results of all foreign subsidiaries are translated into U.S. dollars in consolidation. As exchange rates vary, those results when translated may vary from expectations and adversely impact overall expected profitability.

The Company utilizes forward foreign currency exchange contracts to manage market risks associated with the fluctuations in foreign currency exchange rates. The principal currencies for which such forward exchange contracts are entered into are the Pound Sterling, the Euro and the Japanese Yen. It is the Company's policy to use such derivative financial instruments to protect against market risk arising in the normal course of business in order to reduce the impact of these exposures. The Company minimizes credit exposure by limiting counterparties to nationally recognized financial institutions.

As of June 30, 2013, the Company had foreign exchange contracts outstanding of approximately 0.4 million Pounds Sterling, 14.0 million Euro, and 60.4 million Japanese Yen at fixed rates. The contracts expire on various dates through May 2016. The Company had not designated the contracts as hedges and has recognized a gain on the change in the estimated fair value of the contracts of \$1,000 for the six months ended June 30, 2013. A 10% fluctuation in the foreign currency exchange rates up or down as of June 30, 2013 would have increased/decreased the change in the estimated fair value of the contracts by \$2,300.

As of June 30, 2012, the Company had foreign exchange contracts outstanding of approximately 1.1 million Pounds Sterling, 16.3 million Euro, and 359.1 million Japanese Yen at fixed rates. The contracts expire on various dates through May 2016. The Company had not designated the contracts as hedges and had recognized a gain (loss) on the change in the estimated fair value of the contracts of (\$93,000) and \$93,000 for the three and six months ended June 30, 2012, respectively. A 10% fluctuation in the foreign currency exchange rates up or down as of June 30, 2012 would have increased/decreased the change in the estimated fair value of the contracts by \$25,000.





#### Item 4. Controls and Procedures

##### (a) Evaluation of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by it in its reports filed or submitted pursuant to the Securities Exchange Act of 1934, as amended (the “Exchange Act”), is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms and that information required to be disclosed by the Company in its Exchange Act reports is accumulated and communicated to management, including the Company’s Chief Executive Officer (“CEO”), who is its principal executive officer, and Chief Financial Officer (“CFO”), who is its principal financial officer, to allow timely decisions regarding required disclosure. At the end of the period covered by this report, an evaluation was performed under the supervision and with the participation of our management including our CEO and our CFO, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13-15(e) of the Exchange Act. Based on the evaluation of our disclosure controls and procedures as of June 30, 2013, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were not effective because of the material weakness identified below.

##### (b) Changes in internal control

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S GAAP. The effectiveness of any system of internal control over financial reporting is subject to inherent limitations, including the exercise of judgment in designing, implementing, operating and evaluating the controls and procedures. Because of these inherent limitations, internal control over financial reporting cannot provide absolute assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with U.S. GAAP and may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that internal controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A “material weakness” as defined by Public Company Accounting Oversight Board (“PCAOB”) Auditing Standard No. 5, “An Audit of Internal Control over Financial Reporting That is Integrated with an Audit of Financial Statements” (“Auditing Standard No. 5”) is “a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.” A “deficiency” in internal control over financial reporting as defined by Auditing Standard No. 5 “exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis.” We believe that the following is a material weakness in our internal control over financial reporting.

In 2012, the Company implemented a new system for financial reporting and accumulation of financial data. The new financial system is a significant component of the Company’s internal control over financial reporting, but was not adopted in response to any deficiency in our internal controls. As of June 30, 2013, we had not completed the evaluation of the completeness, design and operating effectiveness of the internal controls over the new financial system. As a result of this material weakness in our internal control over financial reporting, we performed additional

review and analysis over our consolidated financial statements for the six months ended June 30, 2013. As a result of these procedures, we believe that our consolidated financial statements are presented in accordance with U.S GAAP. We anticipate that we will complete an evaluation of the completeness, design and operating effectiveness of the internal controls over our financial system in the third quarter 2013.

Because of the material weakness described above, management has concluded that we did not maintain effective internal control over financial reporting during the six months ended June 30, 2013, based on the “Internal Control – Integrated Framework” issued by COSO. However, we believe these additional procedures were sufficient to provide a basis for management’s certifying that the financial statements presented in this Report are presented fairly, in all material respects, in accordance with GAAP.

(c) Changes in Internal Control over Financial Reporting

There were no changes in the Company’s internal control over financial reporting that occurred during the most recent fiscal quarter that have materially affected or are reasonably likely to materially affect the Company’s internal control over financial reporting.

(d) Limitation of Effectiveness of Controls

Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements will not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate this risk.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

The Company has no material changes to the disclosure on this matter made in its Annual Report on Form 10-K for the fiscal year ended December 31, 2012.

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

Issuer Purchases of Equity Securities

The following table provides information about the Company's share repurchase activity for the six months ended June 30, 2013:

| Month                    | Total number of shares purchased | Average price paid per share | Total number of shares purchased as part of publicly announced program | Approximate dollar value of shares that may yet be purchased under the program |
|--------------------------|----------------------------------|------------------------------|--|--|
| January 1 - January 31   | -                                | \$ -                         | 1,104,487  | \$ 819,773   |
| February 1 - February 28 | -                                | \$ -                         | 1,104,487  | \$ 819,773   |
| March 1 - March 31       | 1,100                            | \$ 2.00                      | 1,105,587  | \$ 817,574   |
| April 1 - April 30       | 17,589                           | \$ 1.95                      | 1,123,176  | \$ 783,257   |
| May 1 - May 31           | 109,156                          | \$ 1.71                      | 1,232,332  | \$ 597,000   |
| June 1 - June 30         | 89,654                           | \$ 1.62                      | 1,321,986  | \$ 451,853   |

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None

Item 6. Exhibits

31.1 Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.

31.2 Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.

32.1 Certification of the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.

101.INS\* XBRL Instance Document

101.SCH\* XBRL Taxonomy Extension Schema

101.CAL\* XBRL Taxonomy Extension Calculation Linkbase

101.DEF\* XBRL Taxonomy Extension Definition Linkbase

101.LAB\* XBRL Taxonomy Extension Label Linkbase

101.PRE\* XBRL Taxonomy Extension Presentation Linkbase

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: August 14, 2013  
GSE SYSTEMS, INC.

/S/ JAMES A. EBERLE  
James A. Eberle  
Chief Executive Officer  
(Principal Executive Officer)

/S/ JEFFERY G. HOUGH  
Jeffery G. Hough  
Senior Vice President and Chief Financial Officer  
(Principal Financial and Accounting Officer)