

CARMANAH TECHNOLOGIES CORPORATION



**MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE AND SIX MONTH PERIODS ENDED JUNE 30, 2013**

August 12, 2013

Caution regarding forward-looking statements

Certain statements in this Management Discussion & Analysis (“MD&A”) are forward-looking statements that involve risks and uncertainties. Forward statements are often, but not always, identified by words such as “may”, “would”, “could”, “will”, “intend”, “should”, “expect”, “plan”, “anticipate”, “believe”, “estimate”, “predict”, “potential”, “continue” and similar expressions. Forward-looking statements in this MD&A include, but are not limited to, statements relating to the expected growth opportunities and commercial acceptance and demand for on-grid and off-grid LED lighting systems, continued government subsidies for solar grid-tie projects, and the successful development of new products to help penetrate new geographic markets.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and a number of factors could cause actual results or events to differ materially from those anticipated in such forward looking statements. Although the forward-looking statements contained in this MD&A are based upon what we believe to be reasonable assumptions, prospective investors cannot be assured that actual results will be consistent with these forward-looking statements. In evaluating these statements, readers should specifically consider various factors, including the risks discussed under the heading “Risk Factors” in our annual information form dated March 14, 2013. Additionally, factors that could cause or contribute to such differences include, but are not limited to, the following:

- actions of competitors, including competitors with greater name recognition and financial resources;
- our ability to keep pace with rapid changes in lighting technology and evolving industry standards;
- competition with other energy sources;
- slower than anticipated adoption of off-grid LED lighting technology;
- our ability to manage expansion effectively;
- fluctuation in foreign currency exchange rates;
- our reliance on third party manufacturers;
- our reliance on sales agents and third parties with whom we have developed strategic relationships to sell our products, particularly in niche markets and developing and emerging economies;
- our reliance on key employees;
- intellectual property risks;
- environmental and regulatory compliance;
- our reliance on government contracts and subsidies, such as the Ontario, Canada Feed-in Tariff (“FIT”) program;
- problems with product quality or reliability;
- downturns in general economic and market conditions;
- our ability to maintain adequate liquidity or raise additional capital when needed; and
- geopolitical or other global or local events.

Readers should not place undue reliance on forward-looking statements. The forward-looking statements in this MD&A are made as of the date hereof. We do not assume any obligation to update the forward-looking information contained in this MD&A other than as required by applicable laws (including without limitation Section 5.8(2) of National Instrument 51-102 Continuous Disclosure Obligations).

Management’s discussion and analysis

This MD&A discusses the consolidated financial condition and operating performance for our Company and should be read together with our audited consolidated financial statements for the three and six months ended June 30, 2013. These documents, along with additional information about our Company, including the Annual Report and Annual Information Form, are available at www.carmanah.com and www.sedar.com. This document contains forward-looking information qualified by reference to and should be read together with, the forward-looking statements above.

Unless otherwise indicated, all financial information presented in this MD&A is in our functional and presentation currency, United States of America (“US”) dollars, and has been prepared in accordance with International Financial Reporting Standards (“IFRS”). See Section 6.2 Accounting policy developments, for additional information.

Our consolidated financial statements include our accounts and those of our wholly-owned subsidiaries, Carmanah Solar Power Corporation (formerly AVVA Technologies Corporation), and Carmanah Technologies (US) Corporation (a US incorporated company).

Preparation of the MD&A

Our disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is gathered and reported to our senior management on a timely basis so that appropriate decisions can be made regarding public disclosure. Our management determines whether or not information is material based on whether they believe a reasonable investor’s decision to buy, sell or hold securities in our Company would likely be influenced or changed if the information were omitted or misstated. The MD&A and the consolidated financial statements were reviewed by our Audit Committee and approved by our Board of Directors. This MD&A is prepared as of August 12, 2013.

Our management has issued guidance on and reports on certain non-IFRS measures to evaluate performance. As non-IFRS measures generally do not have a standardized meaning, securities regulations require non-IFRS measures to be clearly defined, qualified and reconciled with their nearest IFRS measure. Earnings before Interest, Taxes, Depreciation and Amortization (“EBITDA”) used in this document means standardized EBITDA as defined by the Canadian Performance Reporting Board of the Canadian Institute of Chartered Accountants (“CICA”). The term Adjusted EBITDA used in this document deducts from standardized EBITDA, items of an unusual nature that we do not believe reflect our ongoing operations. See Section 8 for the definition, calculation and reconciliation of Adjusted EBITDA.

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1. FINANCIAL HIGHLIGHTS

The discussion in this section is qualified in its entirety by the *Caution regarding forward-looking statements* at the beginning of the MD&A.

Financial Highlights for the Three and Six Month Periods Ended June 30, 2013 and 2012

(US\$ thousands, unless noted otherwise)	Three months ended June 30			Six months ended June 30		
	2013	2012	Change	2013	2012	Change
Consolidated statements of loss						
Revenue	6,319	6,063	4.2%	13,284	11,420	16.3%
Gross margin %	24.4%	29.1%	(4.7)%	27.5%	32.9%	(5.4)%
Operating expenditures	(3,039)	(3,190)	(4.7)%	(5,840)	(6,129)	(4.7)%
Other income (expenses)	(980)	(26)	3669%	(996)	9	(11166)%
Net income (loss)	(2,477)	(1,451)	70.7%	(3,189)	(2,362)	35.0%
Consolidated statement of cash flows						
Cash provided/(used) in operating activities	129	(1,065)	112.1%	(454)	(1,564)	71.0%
Cash used in investing activities	(72)	(144)	50.0%	(170)	(215)	20.9%
Cash provided in financing activities	-	-	-	-	-	-
Other measures						
Adjusted EBITDA *	(1,209)	(1,073)	(12.7)%	(1,639)	(1,646)	0.4%

*Adjusted EBITDA is a Non-IFRS measure – see section 8 for discussion

Our first half of 2013 revenues were up 16% over the same period in the prior year, with all our segments, with the exception of Marine and Outdoor Lighting, showing strong revenue growth year over year. Our Marine segment sales have experienced increased competitive pressures and suffered from an aging product line. We expect this trend to reverse with the launch of several key new products in the third quarter of 2013. Our Outdoor Lighting segment revenues continue to be unpredictable with long sales cycles and the dependency on government funding. Overall, we posted a year to date loss of \$3.2 million and adjusted EBITDA loss of \$(1.6) million. The loss is primarily due to a decline in margins from our Aviation and Marine segments and the onetime non-cash impairment write-off of certain intangible assets. Further details are discussed below.

The following is an overview of our results comparing the first half of 2013 to the same period in 2012.

- Consolidated revenues increased by \$1.9 million for the six months ended June 30, 2013 compared to the same period in 2012 primarily due to higher revenues from our engineering, procurement & construction services (“Solar EPC Services”) market, our GoPower! Systems (“GoPower!”) market as we continue to expand our distribution channels and product offering and our Traffic signalling market which saw a substantial amount of growth driven as a result the Spot Devices Inc. (“Spot”) acquisition. See further discussion about this acquisition in section 3.
- Gross Margin % decreased by approximately 5% for the six months ended June 30, 2013 compared to the same period in 2012 primarily driven by sales mix with higher revenues from our lower margin Solar EPC Service market as well as lower margins from our Aviation and Marine segments due to efforts to clear older generation products out of inventory as we prepare for the launch of several new products in the third quarter of 2013.
- Operating expenditures decreased by \$0.3 million in the six months ended June 30, 2013 compared to the same period in 2012, primarily due to lower salaries with the reduction of four and a half full time staff equivalents, two of which were at an executive level.
- Other expenses were \$1.0 million for the first six months of 2013, compared to almost nil in the same period in 2012. The 2013 amount is primarily comprised of two separate non-cash intangible asset impairments. The first is a \$0.3 million write off of a license asset that covered a portfolio of specialized Aviation mobile precision laser guidance approach systems. This asset was written off after associated sales opportunities did not include such products. The second intangible asset impairment is a \$0.6 million write off associated with our Spot acquisition, which was required after we were unable to secure an economically viable license agreement for a service that underpinned a number of products which Spot (see 3. Operational & Business Highlights) previously sold.
- Net loss for the first half of 2013 was \$3.2 million, compared to a net loss of \$2.4 million in the same period in 2012. This 2013 net loss was primarily driven by lower sales, margins and one-time non-cash write offs noted above.
- Adjusted EBITDA for the first half of 2013 was negative \$1.6 million, which is essentially unchanged from the same period in 2012.

Liquidity and capital resources highlights are as follows:

- Our cash balance declined by \$0.6 million between June 30, 2013 and December 31, 2012, largely due to our operating loss and the cash payment of previously accrued restructuring costs.
- During the six months ended June 30, 2013, compared to the same period in 2012:
 - Cash used in operating activities was \$0.5 million, compared to cash provided of \$1.6 million.
 - Cash used in investing activities was \$0.2 million, compared to cash used of \$0.2 million.
 - There were no financing activities in the period

2. OUR BUSINESS

The discussion in this section is qualified in its entirety by the *Caution regarding forward-looking statements* at the beginning of the MD&A.

From our headquarters in Victoria, British Columbia, Canada, we design, develop and distribute renewable and energy-efficient technologies. Prior to 2013, our business was divided into two operating segments, (1) the “Lighting” division and the (2) “Solar Power Systems” division. Our Lighting division included two product segments: (A) solar-powered beacons for marine, aviation and traffic applications (referred to as the “Signals” or “Signalling” market sector), and (B) solar-powered outdoor area lighting (referred to as the “Outdoor Lighting” market sector). Our Solar Power Systems division included grid-tie solar power systems for industrial applications (referred to as Solar EPC Services sector) and mobile power systems (referred to as the Go Power! sector). Beginning in 2013, we have started managing each of our six markets equally and thus have ceased referring to two operating segments as per above and have refined our definition of operating segments to include each market: Traffic Signals (“Traffic”), Marine Signals (“Marine”), Aviation Signals (“Aviation”), Outdoor Lighting, Go Power! and Solar EPC Services.

3. OPERATIONAL AND BUSINESS HIGHLIGHTS

The discussion in this section is qualified in its entirety by the *Caution regarding forward-looking statements* at the beginning of the MD&A.

Our 2013 year-to-date operational and business highlights include the following items:

- At this year’s annual general meeting on April 30, 2013, a group of shareholders dissatisfied with results voted for change. As a result Rob Cruickshank and Daniel Nocente resigned from the board on June 19, 2013. Thereafter, Bruce Cousins also resigned from the board on June 26, 2013 and on the same day, Michael Sonnenfeldt and John Simmons were appointed to the board. Michael Sonnenfeldt was elected as Chairman on July 15, 2013. As well, Bruce Cousins resigned as CEO, and John Simmons was appointed CEO effective August 1, 2013. Our Board of Directors would like to express their appreciation to Mssrs. Cruickshank, Nocente and Cousins for their contributions to the Company.
- On January 4, 2013, we closed the transaction to acquire certain assets of Spot Devices, Inc. (“Spot”), a Nevada, USA-based manufacturer of traffic, pedestrian and school zone safety systems. Included in the transaction was the right to a license agreement for the exclusive use of System Infrastructure Management Application (“SIMA”) technology for public roadway applications. SIMA was developed by Cirrus Systems, LLC, a related company to Spot for traffic. Terms of the transaction include the issuance of 2.2 million of our shares to Spot (valued approximately \$0.6 million on close) plus conditional cash payments pursuant to a two-year cash earn-out where Spot is paid 12.5% of the portion of cumulative 2013 and 2014 Gross Traffic revenues exceeding \$17.5 million. At present, our two year revenue forecasts for Traffic products fall short of this earn out target. This transaction was accounted for as a business combination. One of the outstanding items relating to this transaction was the negotiation and signing of the SIMA software license agreement (“SLA”) with Cirrus. In early July 2013, we concluded that we would not be able to sign a SLA as we were unable to secure economically viable license terms for a service that underpinned a number of Spot’s acquired traffic products. We are currently in the process of determining our go forward strategy, which will likely include a modified product offering without SIMA services. As a result of this we have written off \$0.6 million of intangible assets associated with the acquisition.

“The financial results of recent years are not only disappointing but unacceptable” stated John Simmons, our CEO, “The new Board of Directors is now aligned with the shareholders and has provided me with a mandate to make our Company profitable and in doing so increase shareholder value. This will take a little time and I anticipate will involve both performance improvements and changes in strategic direction.”

The following sections provide key operational highlights within our various market segments.

3.1. Marine Signals market segment

In the first half of 2013, our Marine segment’s business plan saw the achievement of some significant milestones, which should provide results in the near term. These included:

- Launching the new M800 series, our new Marine flagship product, towards the end of the second quarter. We received over \$0.8 million of pre-orders for the new lantern series within days of the launch. These signals will be delivered in the third quarter. We also launched the new M550 offering improved performance, to replace the foundational M502 signal product.
- Building of a stronger and more efficient sale and support team including the addition of an experienced marketing specialist and the relocation of a key sales manager from our head office in Victoria, B.C. to Florida USA. As well, we hired a new Regional Manager for Latin America, who brings Latin American business practices experience and is fluent in local languages.
- Hosting of a meeting of the “Americas” Marine distributor channel. Over 25 Marine distributors attended a two day conference in Victoria, BC which included strategy discussions unveiling of new products and training.

3.2. Traffic Signals market segment

The first half of 2013 was very busy for our Traffic segment, as we closed the asset acquisition of Spot, hired two new sales managers based in the United States and continued development work on new iterations of our products. We also hired a contractor to support and expand our marketing efforts, which included the development of various sales tools and the rollout of a social media plan.

In regards to the Spot acquisition, a significant amount of work was completed to transition and integrate sales, manufacturing and other functions into our business. With no Spot staff members being transferred as a part of the purchase, this transition period was critical. During the first half of 2013, Spot products continued to be manufactured within their current facilities under a contract manufacturing arrangement. We are in the process of transferring production to our contract manufacturer, Flextronics Industrial Ltd. (“Flextronics”). This transfer is expected to be completed in the third quarter of 2013. During this time, we spent a significant amount of time and effort to build our technical knowledge of Spot’s products and services to be able to properly support their acquired customer and installation base. From a sales perspective, we worked to build relationships with Spot’s customers, and hired two additional US sales managers to support this effort. Going forward, our plan is to rationalize the product lines as needed to ensure we maximize our profitability.

In the near term, we are continuing to aggressively pursuing sales opportunities that are supported by US government funding to help maintain our growth.

3.3. Aviation & Obstruction Signals market segment

Within our Aviation & Obstruction segment, the first half of 2013 saw substantial progress towards growing our sales opportunities. From this, a number of projects closed and shipped during the period which provided positive year over year sales growth. Sales of particular note are outlined below

- Two sales through our ADB-Carmanah partnership, one of which provided five deployable, solar-powered airfield and helipad lighting systems to the Brazilian Air Force and the other was the sale of 46 Solar Powered Airfield Directional signs into Costa Rica;
- The sale to Canadian Forces Base (CFB) Wainwright, Alberta, which selected our company’s A704-H high-power runway edge lights in a transaction; and
- The sale to the US department of defense for an African airfield.

We have also continued focusing our efforts to grow our Obstruction market with the introduction of Obstruction specific lanterns (the “OL” series) and fundamental changes to our distribution network.

3.4. Outdoor Lighting market segment

During the first half of 2013, the focus within our Outdoor Lighting segment was on building partnerships, expanding our OEM strategy and on closing sales. In the early part of the year, we signed a supply agreement with Acuity Brands, Inc. (“Acuity”), a leading provider of LED lighting and lighting controls, which provides for the supply and integration of our solar outdoor light engines into certain of their luminaires. We are actively working with other similar partners to sign additional supply agreements. In April 2013, at Lightfair, a significant architectural and commercial lighting tradeshow and conference, we announced an OEM partnership with Lighting Science Group Corp. We also launched our “powered by Carmanah” standalone solar engine product line at the same tradeshow. This new solar engine product line allows for the supply of our commercial-grade solar outdoor light engines for integration with virtually any luminaire manufacturer’s product.

Our near term sales continue to be lumpy as Outdoor Lighting opportunities are typically tied to long lead time non-residential infrastructure construction starts rather than retrofit or modification of existing infrastructure opportunities.

3.5. Go! Power market segment

Revenues in our Go Power! segment in the first half of 2013 increased by about 32% over the same period in the prior year. This growth primarily stemmed from our Recreational Vehicle (“RV”) market where we had a 23% performance increase over the same period in 2012 as a result of our annual Canadian booking program. Success in our RV market is attributed to a continuing reduction in solar material costs, resulting in greater value proposition to the dealer network and an increase demand for solar products. We continued to build the Go Power! brand with the introduction of the Portable Solar Kit series and the release of our largest single panel solar kit to date. Also, we announced a large sale with a national American US Utility to outfit an additional 1500 service vehicles with our pure sine wave power inverters. This sale represents continued traction into a strategic market and further solidifies our company’s position as a major supplier of mobile power products to the fleet industry. Continued investments in our social media presence and website development have also contributed to an increase in sales.

3.6. Solar EPC Services market segment

During the first half of 2013, our Solar EPC Services segment focused on the construction and completion of three 300 kilowatt (“kW”) projects. During the second quarter of 2013, we also designed and were engaged in completing regulatory requirements relating to a newly awarded 300kW project.

Significant industry announcements have recently been made. On July 3, 2013, the Ontario Power Authority (“OPA”) announced the offer of 146.5 megawatt (“MW”) of the expected 200MW of the new Feed in Tariff (“FIT”) 2.0 contracts. All offered contracts have completed the electrical infrastructure capacity testing for connection to the utility grid and will begin initial phases of construction development in the third and fourth quarters of 2013. Several of our preferred partners have been awarded contracts in this initial contract offering and we anticipate commencing the design-build on their contracts in the third and fourth quarters of 2013.

During a recent industry conference, “Solar Ontario”, in Niagara Falls on May 30, 2013, the Ontario Minister of Energy announced plans for the additional procurement of 900MW of micro FIT and small FIT capacity over the next four years. The first 100MW of this new procurement plan, plus the remaining 53.5MW unallocated from the initial 200MW will be awarded through a new applications window beginning in the fall of 2013. The remaining 800MW is scheduled to be procured at 200MW per year over 4 years starting in 2014.

Of note is that one of the significant rule changes under the FIT 2.0 program is the requirement for rooftop portfolios under 10MW to be connected within 18 months of contract execution, thus requiring a significant portion of the expected 200MW worth of contract awards to be constructed prior to the end of 2014.

4. FINANCIAL RESULTS

The discussion in this section is qualified in its entirety by the *Caution regarding forward-looking statements* at the beginning of the MD&A.

As previously noted, the information presented in the sections below have been derived from, and should be read in conjunction with our condensed consolidated interim financial statements for the three and six months ended June 30, 2013.

4.1. Quarterly trends

<i>(US\$ thousands, except EPS amounts)</i>	2013			2012			2011	
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3
Revenue	6,319	6,965	8,361	6,661	6,063	5,357	7,124	8,503
Gross margin	1,542	2,107	2,411	2,070	1,765	1,993	1,961	2,924
Gross margin %	24.4%	30.3%	28.8%	31.1%	29.1%	37.2%	27.5%	34.4%
Operating costs	(3,039)	(2,801)	(2,984)	(2,953)	(3,190)	(2,939)	(2,904)	(2,670)
Other income (expense)	(980)	(16)	(146)	45	(26)	35	(3,958)	165
Income tax (expense)	-	(2)	(2)	-	-	-	(3,987)	(68)
Net (loss)/income	(2,477)	(712)	(721)	(838)	(1,451)	(911)	(8,888)	351
EPS – Basic	(0.05)	(0.01)	(0.02)	(0.02)	(0.03)	(0.02)	(0.21)	0.01
EPS– Diluted	(0.05)	(0.01)	(0.02)	(0.02)	(0.03)	(0.02)	(0.21)	0.01
Adjusted EBITDA ⁽¹⁾	(1,209)	(430)	8	(489)	(1,073)	(573)	(423)	426

⁽¹⁾ Adjusted EBITDA is a non-IFRS measure defined in section 8

Our quarterly revenues have fluctuated over the past several years, primarily due to product mix and the nature of our sales within our market segments. A large portion of our revenues are derived from infrastructure projects that typically often have longer tender processes and fluctuating timelines. This is most pronounced within our Solar EPC Services, Aviation/Obstruction and Outdoor Lighting market segments and to a lesser extent within our Marine and Traffic markets. GoPower! revenues on the other hand are more seasonal in nature with higher sales in the first two quarters of the year as our distributors gear up for the busier spring and summer periods. Solar EPC Services revenues are also typically lower in the fourth quarter due to limited construction in the winter months. From a quantitative perspective, the lower revenues in the fourth quarter of 2011 through the third quarter of 2012 were primarily the result of lower Solar EPC Services revenue due to governmental uncertainties in the approval of new projects as the subsidy rates available under the FIT program were under review. Solar EPC revenues recovered in the fourth quarter of 2012 with the FIT program uncertainties resolved during the middle part of 2012.

Our gross margin on a quarterly basis is quite variable and reflects the mix of products and any inventory adjustments/write-offs that are tied to changes in component pricing, technology, and product offering/design. Historically, we see lower margins in the fourth quarters of each year as revisions are made to operational and product plans that often impact the recoverability of inventory.

Our operating costs and in particular compensation costs have been relatively stable over the past two years. We have undertaken a number of restructuring initiatives over the past few years, although any savings obtained were directed into other areas of our company.

Our other income (expense) has fluctuated significantly over the quarters. Other income (expense) includes various non-operating items such as foreign exchange gains and losses, major asset write offs, acquisition costs, and other items. The major spike in other expenses in fourth quarter of 2011 was due to the write-off of our Investment Tax Credits, and in the second quarter of 2013 to intangible asset impairments. Other fluctuations have mainly related to foreign exchange gains and losses, and other costs.

4.2. Three and six month periods ended June 30, 2013 and 2012

Revenue and gross margin

<i>(US\$ thousands, unless noted otherwise)</i>	Three months ended June 30,			Six months ended June 30,		
	2013	2012	Change	2013	2012	Change
Revenues						
Traffic	1,111	725	53.2%	2,409	1,265	90.4%
Marine	844	1,350	(37.5)%	1,669	2,799	(40.4)%
Aviation/Obstruction	1,103	760	45.1%	2,116	1,705	24.1%
Outdoor Lighting	460	916	(49.8)%	908	1,692	(46.3)%
GoPower!	2,179	1,712	27.3%	4,370	3,305	32.2%
Solar EPC Services	622	600	3.7%	1,812	654	177.1%
Total revenue	6,319	6,063	4.2%	13,284	11,420	16.3%
Gross margin %						
Traffic	36.7%	39.6%	(2.9)%	41.7%	38.7%	3.0%
Marine	28.1%	30.7%	(2.6)%	26.5%	34.6%	(8.1)%
Aviation/Obstruction	15.4%	43.3%	(27.9)%	23.5%	45.3%	(21.8)%
Outdoor Lighting	15.9%	18.0%	(2.1)%	17.5%	22.8%	(5.3)%
GoPower!	26.8%	29.3%	(2.5)%	28.9%	32.6%	(3.7)%
Solar EPC Services	11.4%	11.5%	(0.1)%	15.6%	9.9%	5.7%
Total Gross margin %	24.4%	29.1%	(4.7)%	27.5%	32.9%	(5.4)%

Consolidated revenue for the first half of 2013 increased by \$1.9 million over the same period in 2012. Revenues for the second quarter of 2013 were \$6.3 million, up from \$6.1 million in the same period in 2012, primarily due to higher sales from our Solar EPC Services, GoPower! and Traffic markets. Offsetting this were lower revenues in our Marine and Outdoor Lighting markets. Our overall gross margin for the first half of 2013 was 27.5%, down from 32.9% in 2012. This change is due to higher revenues in the relatively lower margin Solar EPC services market and lower margins in our Marine and Aviation/Obstruction markets which saw a mix towards lower margin products, market conditions and efforts to clear older generation products out of inventory as we prepare for the launch of several new products in the near term. The following section summarizes the changes by segment.

- **Traffic** – Revenues within our Traffic segment for the second quarter of 2013 were \$1.1 million, up \$0.7 million from the same period in 2012. Year to date our Traffic revenues were \$2.4 million, up from \$1.3 million in the same period in 2012. A good portion of these increases were the result of the acquisition of Spot, with year to date sales of approximately \$1.0 million of products previously sold by Spot. Excluding these revenues, our organic sales growth was still \$0.2 million. A large part of this is due to our re-investment in this market with the hiring of new sales managers and the introduction of innovative new products, such as the Rapid Rectangular Flashing Beacon (“RRFP”). Year to date our gross margins in this segment have increased to 41.7%, up from 38.7%, largely due to the introduction of new products and sales of higher margin Spot products.
- **Marine** – Revenues within our Marine segment for the second quarter of 2013 were \$0.8 million, down from \$1.4 million in the same period in 2012. Year to date revenues were \$1.7 million, down from \$2.8 million in the same period in 2012. These decreases are largely due to lower sales in some of our aging product lines and increased competitive pressures. We anticipate this trend will reverse starting in the third quarter of 2013 with the launch of several new products and an increased sales presence in core markets. From a gross margin perspective, our year to date margin % was 26.5%, down from 34.6% largely due to competitive pressures and write-offs associated with discontinued products.
- **Aviation/Obstruction** – Revenues within our Aviation/Obstruction segment for the second quarter of 2013 were \$1.1 million, up \$0.3 million from 2012. Year to date our revenues were \$2.1 million, up from \$1.7 million in the same period in 2012. These increases are mainly due to increased run rate business and the successful closing of a number of larger project based sales. Year to date, our gross margins were 23.5%, down from 45.3% in 2012, primarily the result of our efforts to clear out older generation inventory and an increase in sales of Obstruction products which generally carry a lower margin than Aviation products.
- **Outdoor Lighting** – Revenues from our Outdoor Lighting segment for the second quarter of 2013 were \$0.5 million, down \$0.4 million from the same period in 2012. Year to date our revenues were \$0.9 million, down from \$1.7 million in the same period in 2012. These declines are largely due to delayed closing of sales opportunities. Year to date, our gross margin was 17.5%, down from 22.8% in the prior year largely due to higher sales of lower margin products, combined with

higher freight charges required on key orders.

- **GoPower!** – Revenues from our GoPower! segment in the second quarter of 2013 were \$2.2 million, up from \$1.7 million in the same period in 2012. Year to date our revenues were \$4.4 million, up from \$3.3 million in 2012. This significant growth year over year is due to a number of factors, including an expansion of our distribution channels, the introduction of innovative products, such as our folding portable solar kits, and an underlying uptake in the industry with declining prices for solar technologies providing a greater value proposition for our products to our underlying customers. Year to date our gross margin % in this segment was 28.9%, down from 32.6% from the same period in 2012, largely due to higher inbound freight charges as we worked to maintain our inventory levels given higher sales levels, and increased warehousing charges due to higher transaction fees as a result of price increases and also higher storage costs due to higher inventory levels year over year.
- **Solar EPC Services** – Revenues from our Solar EPC services segment for the second quarter of 2013 were \$0.6 million, essentially unchanged from the same period in 2012. Year to date, revenues were \$1.8 million which is up from \$0.7 million in the same period in 2012. These increases are primarily due to the recovery in the market after the 2012 delays caused by the FIT program review. Year to date, our gross margin was 15.6%, up from 9.9% from 2012, largely due to better material pricing on projects that were under way in late 2012 and early 2013.

Sales by geographic region

All of our international revenues have been generated by our Aviation/Obstruction, Marine and Outdoor Lighting segments. Our Solar EPC Services business is currently solely focused on the Canadian market and our GoPower! and Traffic segments sell into both the Canadian and US markets.

Approximately 10.5% of our revenues for the first half of 2013 were from outside North America. This is down from 19.9% in the same period of 2012, largely due to the timing of significant project sales outside the North America market.

We are focused on increasing our international sales by modifying and developing products to serve the rapidly growing markets outside North America, and fostering new and existing partnerships within strategic markets.

Operating expenses

<i>(US\$ thousands, unless noted otherwise)</i>	Three months ended June 30			Six months ended June 30		
	2013	2012	Change	2013	2012	Change
Sales and marketing	961	1,138	(15.6)%	1,915	2,137	(10.4)%
Research and development	468	582	(19.6)%	1,061	1,088	(2.5)%
General and administration	1,610	1,470	9.5%	2,864	2,904	(1.4)%
Total operating expenditures	3,039	3,190	(4.7)%	5,840	6,129	(4.7)%
Operating expenses (excluding restructuring) as % of sales*	48.1%	52.6%	(4.5)%	44.0%	53.7%	(9.7)%
Non-cash items:						
<i>Amortization</i>	240	288	(16.7)%	475	565	(15.9)%
<i>Stock-based payments</i>	63	90	(30.0)%	108	151	(28.5)%

* A Non-IFRS measure

Our total operating expenses for the first half of 2013 were \$5.8 million, down from \$6.1 million in 2012. For the three months ended June 30, 2013, our total operating expenses were \$3.0 million, down \$0.2 million from the prior year. These decreases are largely due to lower salaries with a net reduction of four and a half full time staff equivalents (“FTEs”), two of which were at an executive level.

Sales and marketing

Our sales and marketing expenses for the first half of 2013 were \$1.9 million, down from \$2.1 million in the same period in 2012. Sales and marketing expenses in the second quarter of 2013 were \$1.0 million, down from \$1.1 million in the same period of 2012. These decreases were largely the result of lower travel costs and lower agent commissions paid to outside companies due to changes in our sales strategies.

Research, engineering and development

Our research, engineering and development expenses for the first half of 2013 were \$1.1 million, which is comparable with the amount from the same period in 2012. For the second quarter of 2013, these expenses were \$0.5 million, down from \$0.6 million in the same period in 2012. In 2013 we have incurred higher salary costs with an increase in the number of development staff, although we have fewer systems engineers that support our Solar EPC services segment. This is offset by lower amortization expense attributed to our development activities.

General and administration

Our general and administration (“G&A”) expenses for the first half of 2013 were \$2.9 million, which is comparable to the same period in 2012. For the second quarter of 2013, these expenses were \$1.6 million, up from \$1.5 million in the same period in 2012. The increase in second quarter expenditures was mainly due to higher legal and bad debts, which were up about \$0.2 million over prior year. G&A salaries for the first half of 2013 as compared to the same period in 2012 decreased with a reduction of six FTEs. A number of these positions were eliminated, while others transitioned into other areas of the organization.

Other income (expense)

Other expenses were \$1.0 million for the first six months of 2013, compared to almost nil in the same period in 2012. The 2013 amount is primarily comprised of two separate non-cash intangible asset impairments. The first is a \$0.3 million write off of a license asset that covered a portfolio of specialized Aviation mobile precision laser guidance approach systems. This asset was written off after associated sales opportunities did not include such products. The second intangible asset impairment is a \$0.6 million write off associated with our Spot acquisition, which was required after we were unable to secure an economically viable license agreement for a service that underpinned a number of products which Spot (see 3. Operational & Business Highlights) previously sold.

Income taxes

Our income tax expense for the six months ended June 2013 relates to US state taxes.

5. LIQUIDITY, CAPITAL RESOURCES AND OTHER DISCLOSURES

The discussion in this section is qualified by the *Caution regarding forward-looking statements* at the beginning of the MD&A.

5.1. Summary of consolidated statement of cash flows

Six months ended June 30 (US\$ thousands, unless noted otherwise)	2013	2012	Change
Cash provided/(used) in operating activities	(454)	(1,564)	71.0%
Cash used in investing activities	(170)	(215)	20.9%
Effects of exchange rate changes on cash	45	(12)	475.0%
Total change in cash	(579)	(1,791)	67.7%

Cash used in operating activities

During the first half of 2013, cash used by our operating activities, excluding changes in working capital, was \$1.8 million which is up from \$1.6 million in the same period in 2012. Changes in non-cash working capital were positive \$1.3 million, up from \$0.1 million from the same period in 2012. We actively manage our working capital by monitoring inventory turnover data, collection of accounts receivable, and taking advantage of trade discounts and/or extended payment terms granted by suppliers.

Cash used by investing activities

During the first half of 2013, cash used for investing activities was \$0.2 million comparable to the same period in 2012. The additions in 2013 mainly related to production equipment, while 2012 additions mainly included minor additions relating to investments in IT hardware and software.

Cash provided from financing activities

During the first half of 2013 and 2012, there were no financing activities.

5.2. Liquidity and capital resource measures

We continue to have no debt.

On June 30, 2013, our overall working capital was \$4.5 million, a decrease of \$1.8 million compared to \$6.3 million at December 31, 2012.

The overall decrease \$0.6 million in cash for the first half of 2013 was primarily due to our operating loss and the payout of previously accrued restructuring costs. We anticipate that our cash and cash equivalents and cash flow from operations will be sufficient to fund near term operations. Our near term strategy is to manage our business on a neutral EBITDA basis and our longer term strategy is to continue to finance our planned organic growth through internally generated funds. We continually evaluate our cash position and the necessity of maintaining sufficient liquidity. Should we decide that additional

future financing be undertaken, the proceeds from any such transaction would be utilized to fund strategic transactions or for general corporate purposes. We expect, from time to time, to consider select strategic transactions to create value and improve performance, which may include acquisitions, dispositions, restructurings, joint ventures and partnerships, and we may undertake a financing transaction in connection with any such potential strategic transaction.

5.3. Credit facilities

In 2012, we secured a new CDN \$5.0 million revolving demand and a CDN \$0.5 million term credit facility (“Facility”) with Royal Bank of Canada (“RBC”) which included certain covenants such as earnings and liquidity thresholds. As we have not been in compliance with these covenants, on July 16, 2013 the Facility was cancelled by RBC. In the foreseeable future, any borrowing (i.e. foreign exchange hedging; letters of credit etc.) with RBC will continue to be on a cash secured basis.

5.4. Contractual obligations and commitments

We have a contract manufacturing services agreement with Flextronics to build and supply a large portion of our manufactured products. Under this agreement, we are required to provide demand forecasts to Flextronics for our expected sales. Flextronics utilizes these forecasts to acquire raw materials and inventory to support that demand. If our sales are below the demand forecasts, we are then required to purchase the excess inventory. The value of the Flextronics inventory held at June 30, 2013 was \$1.3 million (December 31, 2012 - \$1.1 million), and the value of planned purchase orders to support our expected future demand was \$1.9 million (December 31, 2012 - \$2.2 million).

There have been no other substantial changes in contractual obligations since those reported in the 2012 annual MD&A.

5.5. Claims and lawsuits

On July 18, 2013, we were named in a United States District Court lawsuit filed by R.D. Jones, Stop Experts, Inc., and RRFB Global, Inc. (all of which are related parties) alleging patent infringement with respect to a specific flash pattern used with respect to our solar powered flashing beacons for the traffic safety market. The plaintiff has also sought a temporary restraining order and a motion for preliminary injunction to which we, through its US based attorneys, Dorsey & Whitney LLP, have filed an opposition. We intend to defend ourselves and will file appropriate responses to the Court as required to do so. The outcome of these matters are not currently determinable.

5.6. Contingent liability

None

5.7. Off balance sheet arrangements

We have not entered into any off balance sheet arrangements other than standard office/facility lease agreements.

5.8. Related party transactions

None

Outstanding share data

Our common shares trade on the Toronto Stock Exchange (“TSX”) (TSX: CMH), and as at June 30, 2013 we had 50,186,854 fully issued and outstanding common shares. The following table summarizes the outstanding shares, options and other outstanding stock units stated in Cdn\$.

	August 12, 2013	June 30, 2013	As at March 31, 2013	December 31, 2012	September 30, 2012
Share price – closing (Cdn \$)	0.27	0.29	0.30	0.27	0.35
Market capitalization (Cdn \$ in thousands)	13,567	14,554	15,040	12,925	16,693
Outstanding					
Shares	50,249,062	50,186,854	50,134,071	47,870,313	47,693,789
Options	2,992,000	2,998,000	2,810,000	1,445,800	1,588,756
Restricted share units	36,428	88,420	153,418	54,340	143,037
Performance share units	10,216	20,432	20,432	24,932	86,336

6. CRITICAL ACCOUNTING ESTIMATES AND ACCOUNTING POLICY DEVELOPMENTS

The discussion in this section is qualified in its entirety by the *Caution regarding forward-looking statements* at the beginning of the MD&A.

6.1. Critical accounting estimates

Our financial statements are prepared in accordance with IFRS. The application of IFRS requires that we make estimates that affect our reported amounts of assets and liabilities and the disclosure of contingencies at the date of the financial statements and the reported amounts of revenues and expenses during the period. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ significantly from these estimates.

The significant accounting policies and estimates are discussed below:

Warranty reserve – A provision for future potential product warranty costs is included in cost of goods sold based primarily on prior warranty experience regarding cost of claims and expected product returns. These future product warranty costs include costs associated with repair or replacement of products returned under warranty. Actual future costs in support of these claims may differ from those estimates. We review the provision quarterly and adjust it prospectively. The total provision as at June 30, 2013 was \$0.7 million, up from \$0.6 million at December 31, 2012. The increase in the warranty provision during the quarter was mainly due to the acquisition of Spot, with the agreement requiring us to pick up their historical warranty claims, up to a maximum of \$0.25 million.

- **Valuation of inventory** - We evaluate inventory balances at each balance sheet date and record a provision as necessary for slow moving or obsolete inventory. In performing this review we consider such factors as forecasted sales, demand requirements, product lifecycle and product development plans, quality issues, and current inventory levels. If future demand or market conditions for our products are less favorable than forecasted or if unforeseen technological changes occur, we may be required to record write-downs which would negatively affect gross margins in the period when the write-downs are recorded and our operating results and financial position could be adversely affected. At June 30, 2013 our inventory provision was approximately \$0.9 million, up from \$0.7 million at December 31, 2012, mainly due to the addition of inventory from Spot, some of which we may not use going forward in our business.
- **Allowance for doubtful accounts** - We record an allowance for doubtful accounts related to trade accounts receivable. This allowance is based on our knowledge of the financial condition of our customers, the aging of the receivables, the current business environment and historical experience. A change in one or more of these factors could impact the estimated allowance and provision for bad debts recorded. At June 30, 2013, our allowance for doubtful accounts was \$0.1 million, which is comparable to the amount as at December 31, 2012.
- **Forfeiture rates associated with share-based payments** – In determining share-based payments expense, we make estimates related to forfeiture rates for each specific grant. Forfeiture rates are used to estimate the number of awards that are expected to vest considering employee turnover rates. The changes in estimates are recognized in the statement of income (loss) and total comprehensive income (loss) in the year that they occur. Current forfeiture rates applied to grants range from 5% to 16% and vary depending upon the employee make-up of the associated grants.

6.2. Future changes in accounting policies

Unless stated otherwise, the following standards are required to be applied for periods beginning on or after January 1, 2014 and based upon our current facts and circumstances; we do not expect to be materially affected by the application of the following standards:

- IFRS 9, Financial Instruments, is required to be applied for periods on or after January 1, 2015

6.3. Disclosure controls and internal controls over financial reporting

Disclosure controls and procedures (“DC&P”) have been designed to provide reasonable assurance that information required to be disclosed is accumulated and communicated to management as appropriate to allow timely decisions regarding required disclosure. ICFR have been designed to provide reasonable assurance regarding the reliability of financial reporting. Pursuant to Multilateral Instrument 52-109, the Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”), collectively referred to as Officers, are responsible for overseeing the establishment and maintenance of disclosure controls and procedures as well as internal controls over financial reporting.

There were no significant changes in internal control over financial reporting that occurred during our most recent interim period that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

7. RISKS AND RISK MANAGEMENT

The discussion in this section is qualified in its entirety by the *Caution regarding forward-looking statements* at the beginning of the MD&A.

In the course of our operations, we are exposed to various business risks and uncertainties that can affect our financial condition. While some financial exposures are reduced through insurance, hedging and other risk management measures we have in place, there are certain cases where the market and operating risks are driven by external factors beyond our influence and control. A discussion of certain risks that may affect us is included below.

Competitive Environment

The off-grid LED lighting industry is highly competitive. Our competition includes companies who manufacture, sell and install off-grid lighting devices. We compete on the basis of product performance, product features, price, quality and post-installation product support. Our ability to compete successfully depends on factors within and beyond our control, including successful and timely development of new products, product performance and quality, product availability, intellectual property protection obtained by us and our competitors, customer service, pricing, industry trends and general economic trends. In particular, we anticipate that certain competitors may transition to off-grid lighting in the future. If and when this transition occurs, the greater name recognition and financial resources of these competitors may make it difficult for us to compete.

To be successful, we will need to keep pace with rapid changes in lighting technology, changing customer requirements, new product introductions by competitors and evolving industry standards, any of which could render the our existing products obsolete if it fails to respond in a timely manner. Development of new products incorporating advanced technology is a complex process subject to numerous uncertainties. We have in the past experienced, and could in the future experience, delays in introduction of new products. If effective new sources of light are discovered, our current products and technologies could become less competitive or obsolete. If others develop superior innovative proprietary lighting technology, or if we fail to accurately anticipate technology and market trends, respond on a timely basis with our own development of new products and enhancements to existing products, and achieve broad market acceptance of these products and enhancements, our competitive position may be harmed and it may not achieve sufficient growth in revenue to attain, or sustain, profitability.

Competition with Other Energy Sources

Off-grid LED lighting products compete with products powered by conventional energy and other sources of renewable energy. There is a risk that similar products with alternative power sources will enjoy greater policy support or provide a more cost-effective alternative to conventional lighting than our products.

Technological Changes

Our products rely on us keeping pace with technological changes. Failure to keep pace with state-of-the-art technologies and methodologies may have a materially adverse effect on our results. Evolving industry standards and/or customer needs may have an effect on demand for our products. Our products may be rendered obsolete or less marketable due to technological advances made by competitors. In order to maintain our current market share, we may have to make substantial investments in product innovation and development.

Anticipated Adoption Rates for Off-Grid LED Lighting

While we have invested heavily in the development of off-grid LED lighting products, off-grid LED lighting is still in its early stages. If the rate of off-grid LED lighting adoption is slower than the anticipated commercial trends and we are unable to

meet the forecasted sales volumes, we may not generate sufficient revenues to sustain profitability. In addition, demand for off-grid LED lighting products in our targeted markets may not develop or may develop to a lesser extent than anticipated.

Ability to Manage Expansion Effectively

We expect to expand our business in the future to meet the anticipated growth in demand for off-grid LED lighting products. If we are unable to manage growth effectively, we may not be able to take advantage of market opportunities, execute our business strategy or respond to competitive pressures. To manage the potential growth of our operations, we may be required to improve operational systems and procedures and expand our relationships with suppliers, manufacturers, distributors and customers. There can be no assurance that the current and planned operations, personnel, systems and internal procedures will be adequate to support future growth.

Foreign Exchange

Although we utilize the US Dollar as our functional currency, we are still exposed to fluctuations in the exchange rates between the US and Canadian dollar as a portion of our sales are denominated in currencies other than US dollars. Our exposure to Canadian dollar/US dollar fluctuations is reduced as we purchase a portion of inventory and other cost of sales items in Canadian dollars. If the US dollar rises relative to the Canadian dollar, our operating results may be negatively impacted.

Additionally, we enter into foreign exchange contracts to manage foreign exchange risk as required. We do not use contracts or any other financial instruments, for speculative purposes. As at December 31, 2012, we had no forward exchange contracts outstanding.

Reliance on Third Party Manufacturers

We rely on third party manufacturers and suppliers to provide certain products used in our components. While we maintain good relationships with suppliers, increased product demand can lead to increased demand on these providers, which they may not be able to meet. The failure of a supplier to meet product demands and/or specifications could result in significant production delays, which could harm our operations. Should a manufacturer or supplier suffer financial difficulties or any other disruption in manufacturing capacity, we may not be able to secure adequate substitute manufacturing sources for our products in a timely manner. While we believe we have sufficient access to manufacturing capacity to meet current and expected future requirements, it is possible that future capacity needs will not be available. Additionally, as we rely on third party manufacturers, we are subject to risks associated with limited control over delivery schedules, reductions in capacity, the possibility of defects, the possibility of increased products costs and variable product quality.

Reliance on Outside Agents and Distributors

We utilize a mixture of a direct sales force, strategic relationships and distribution agency arrangements to access our target markets. As a consequence, we rely to a significant extent upon our ability to develop strategic alliances with distributors, particularly in niche markets and in developing and emerging economies. Furthermore, market penetration of our products heavily depends on the success levels of our distributors and sales agents. There can be no assurances that we will successfully develop and maintain such alliances or that the sales efforts of our distributors and sales agents will be successful.

Reliance on Key Employees

Our success depends on our continued ability to identify, attract, hire, train, retain and motivate highly skilled technical, managerial, manufacturing, administrative and sales and marketing personnel. To a significant extent, our success will depend on our senior management team. Competition for these individuals is intense and we may not be able to successfully recruit, assimilate or retain sufficiently qualified personnel. In particular, we may encounter difficulties in recruiting and retaining a sufficient number of qualified technical personnel, which could harm our ability to develop new products and adversely impact our relationships with existing and future customers. The inability to attract and retain necessary technical, managerial, manufacturing, administrative and sales and marketing personnel could harm our ability to obtain new customers and develop new products and could adversely affect our business and operating results.

Intellectual Property Risks

We consider our technology and processes proprietary. If we are not able to adequately protect or enforce the proprietary aspects of our technology, competitors may utilize our proprietary technology and our operations could be harmed. We currently attempt to protect our technology through a combination of patent, copyright, trademark and trade secret laws, employee and third party nondisclosure agreements and similar means. Despite our efforts, other parties may attempt to disclose, obtain or use our technologies. Competitors may also be able to independently develop products that are substantially equivalent or superior to our products or design around our patents. In addition, the laws of some foreign countries do not protect proprietary rights as fully as do the laws of Canada. As a result, we may not be able to protect our proprietary rights adequately in Canada or abroad.

Because our patent position involves complex legal, scientific, and factual questions, the issuance, scope, validity and enforceability of our patents cannot be predicted with certainty. Our issued patents may be invalidated or their enforceability challenged, they may be designed around, and they may not provide us with competitive advantages against others with similar products and technology. Furthermore, others may independently develop similar products or technology or duplicate or design around any technologies that we have developed.

We may receive notices that claim we have infringed upon the intellectual property of others. Even if these claims are not valid, they could subject us to significant costs. Litigation may be necessary in the future to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. Litigation may also be necessary to defend against claims of infringement or invalidity by others. An adverse outcome in litigation or any similar proceedings could subject us to significant liabilities to third parties, require us to license disputed rights from others or require us to cease marketing or using certain products or technologies. We may not be able to obtain any licenses on acceptable terms, if at all. We also may have to indemnify certain customers if it is determined that we have infringed upon or misappropriated another party’s intellectual property. Any of these results could adversely affect our business, financial condition and results of operations. In addition, the cost of addressing any intellectual property litigation claim, both in legal fees and expenses, and the diversion of management resources, regardless of whether the claim is valid, could be significant and could materially harm our business, financial condition and results of operations.

Environmental and Regulatory Compliance

We are subject to a variety of environmental laws, rules and regulations, with which we believe we are in compliance. In certain cases, the cost of compliance with regulations can be substantial. Failure to comply with present or future regulations could result in legal claims, fines, operation suspensions or cessation of operations. Compliance often requires incurring costs and capital expenditures. We face few, if any, of these issues directly as we rely on third party manufacturers.

Government Contracts and Subsidies

A significant portion of our revenues are derived from government and military agencies. Consequently, any disruption in government funding or in the relationship with those agencies could adversely affect our business.

Additionally, there are many government subsidies and economic incentives for solar energy related businesses, including the FIT Program established by the Government of Ontario. There is no guarantee that these incentives and subsidies will remain in place or that other countries, states, provinces or municipalities will adopt similar programs. The elimination of such subsidies and incentives, or the failure of additional countries, states, provinces or municipalities to adopt similar programs, may have an adverse impact on the solar market, and may result in rapid changes in demand and pricing. Such changes may have an adverse impact on our business and financial condition.

Product Quality and Reliability and Warranty Liability Risk

Problems with product quality and/or performance, including defects in products could damage our reputation, or result in a decrease in customers and revenue, unexpected expenses and loss of market share. We cannot test for all defects, and occasionally defects may be detected after products have been shipped or installed. These defects could cause us to incur significant costs, including product replacement, and may adversely affect our customer relations and business reputation. Additionally, because we source many of our components from third party manufacturers, our ability to control product quality is limited.

Our grid tie business strategy is to focus on securing EPC contracts. By their nature, these contracts include construction industry agreement terms including, amongst others, liquidated damages and indemnification obligations. We try to use our commercial best efforts to minimize our liability on such exposure. If negative factors occur that are beyond our control or if disputes arise and are not settled favorably, they may have an adverse impact on our business, financial condition and results of operations.

Downturn in Economic and Market Conditions

The lighting industry is susceptible to downturns related to declines in general economic conditions. 2012 continues to be challenging for the solar lighting industry, as demand for solar lighting products and components are adversely impacted by the global financial crisis and corresponding decreases in or postponement of infrastructure spending budgets.

We may continue to be adversely impacted by downturns in general economic and market conditions, both nationally and internationally. Economic downturns generally, or in our markets specifically, would have a material adverse effect on our, cash flows, financial condition and results of operations. Our future results of operations may experience substantial fluctuations from period to period as a consequence of these factors, and such conditions and other factors affecting capital spending may affect the timing of orders. As we sell to governments who continue to suffer from deficit spending and may need to cut spending further, we may experience a softening demand for our products.

Continued economic adversity coupled with a decline in our revenue could adversely affect our ability to meet capital requirements, support working capital requirements and growth objectives, or otherwise adversely affect our business, financial condition and results of operations.

Liquidity and Capital Requirements

We face significant challenges in order to achieve profitability. There can be no assurance that we will be able to maintain adequate liquidity or achieve long-term viability. Our ability to meet our obligations in the ordinary course of business is dependent upon our ability to establish profitable operations or raise capital, as needed, through public or private debt or equity financing, or other sources of financing to fund operations. We don’t currently have access to a credit facility.

The disruption of the capital markets and the continued decline in economic conditions, amongst other factors, could negatively impact our ability to achieve profitability or raise additional capital when needed. In order to optimize the growth of the business, we may need to seek to raise additional debt or equity financing. There can be no assurance that we will be able to identify a source of such financing, or that such financing will be available on terms acceptable to it, if at all. Moreover, should the opportunity to raise additional capital arise, any additional debt or equity financing could result in significant dilution of the existing holders of our common shares.

Litigation Risk

We may in the future become involved in disputes, litigation or arbitration proceedings. The results of these proceedings cannot be predicted with certainty. If we are unable to resolve these disputes favorably, it may have an adverse impact on our business, financial condition and results of operations.

Acquisitions or other Business Transactions

We may, when and if the opportunity arises, acquire other products, technologies or businesses involved in activities, or having product lines, that are complementary to our business. Acquisitions involve numerous risks, including difficulties in the assimilation of the operations, technologies and products of the acquired companies, the diversion of management’s attention from other business concerns, risks associated with entering new markets or conducting operations in industry segments in which we have no or limited experience and the potential loss of key employees of the acquired company. Moreover, there can be no assurances that any anticipated benefits of an acquisition will be realized. Future acquisitions by us could result in potentially dilutive issuances of equity securities, the use of cash, the incurrence of debt and contingent liabilities, and write-off of acquired research and development costs, all of which could materially adversely affect our financial condition, results of operations and cash flows.

Potential Reorganization of Operations or Product Offerings

We routinely review our operations for additional efficiency opportunities or to reduce costs. That analysis may lead to the determination to close, eliminate, rationalize or reduce operations and divisions and/or alter the sales, manufacturing or distribution structure. Should we decide to pursue any such changes, it may incur additional charges and losses in connections with such changes in the future, and such charges and losses may be material. In addition, we could experience difficulties, disruptions or delays in the implementation of any such changes and there can be no assurance that we will be able to implement these programs successfully or on a timely basis.

Geopolitical and other Global or Local Events

We currently distribute our products in a number of markets. Accordingly, geopolitical and other global or local events may have a significant effect on our operations. Various events, including natural disasters, extreme weather conditions, labour disputes, civil unrest, war, political instability, terrorism, and contagious illness outbreaks, or the perceived threat of these events, may cause a disruption of our normal operations and may disrupt the domestic and international travel of our distributors and sales agents.

8. Definitions and reconciliations

The discussion in this section is qualified in its entirety by the *Caution regarding forward-looking statements* at the beginning of the MD&A.

Adjusted EBITDA

For the three and six month periods ended June 30, 2013 as well as the respective periods in 2012, we are disclosing adjusted EBITDA, a non-IFRS financial measure, as a supplementary indicator of operating performance. We define adjusted EBITDA as net loss before interest, income taxes, amortization, non-cash stock-based compensation, impairment adjustments, restructuring/retirement provisions, and acquisition costs. We are presenting the non-IFRS financial measure in our filings because we use it internally to make strategic decisions, forecast future results and to evaluate our performance. We are also presenting this measure because we believe that our current and potential investors and many analysts use it to assess our current and future operating results and to make investment decisions. Adjusted EBITDA is not intended as a substitute for IFRS measures.

Adjusted EBITDA reconciliation (US\$ in thousands)	Three months ended June 30		Six months ended June 30	
	2013	2012	2013	2012
Net loss	(2,477)	(1,451)	(3,189)	(2,362)
Add/(deduct):				
Income tax expense	-	-	2	-
Amortization	240	288	475	565
EBITDA*	(2,237)	(1,163)	(2,712)	(1,797)
Intangible asset impairment	965		965	
Non-cash stock based compensation	63	90	108	151
Adjusted EBITDA*	(1,209)	(1,073)	(1,639)	(1,646)

* A Non-IFRS measure