# **CARMANAH TECHNOLOGIES CORPORATION**



MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE THREE MONTHS PERIOD ENDED MARCH 31, 2015

#### About this MD&A

This MD&A discusses the consolidated financial condition and operating performance for our Company and should be read together with our condensed consolidated interim financial statements for the three months ended March 31, 2015, and our audited consolidated financial statements for the year ended December 31, 2014. These documents, along with additional information about our Company, including the Annual Report, Annual Information Form, and so forth, are available at <a href="https://www.carmanah.com">www.carmanah.com</a> and <a href="https://www.sedar.com">www.sedar.com</a>. This document contains forward-looking information qualified by reference to the forward-looking statements in the next section.

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"). Section 6.2 outlines any relevant recent or pending accounting policy developments that may impact our financials.

Our consolidated financial statements include our accounts and those of our wholly-owned subsidiaries, Carmanah Solar Power Corporation, Carmanah Technologies (US) Corporation (a US incorporated company), and Sol Inc. ("Sol"), a Florida based company which we acquired on July 2, 2014.

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 May 13, 2015.

Our management reports on certain non-IFRS measures which are used to evaluate financial 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"). See Section 8 for the definition, calculation and reconciliation of.

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# 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 (Light-emitting diode) lighting systems, continued government subsidies for solar grid-tie projects, and the successful development of new products to help penetrate new geographic markets. Specific examples of forward-looking information in this MD&A include, but are not limited to, statements with respect to: the future success of our recent restructuring initiative and our ability to produce positive operating income.

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 31, 2015. 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. Some of the specific forward looking statements may include estimates surrounding capital plans, future restructuring costs and anticipated amounts to be raised under the offering. 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).

# 1. FINANCIAL HIGHLIGHTS

# Financial Highlights for the Three Month Periods Ended March 31, 2015 and 2014

Three months ended March 31,

(US\$ thousands, unless noted otherwise)	2015	2014	Change
Consolidated statements of income and loss			
Revenue	11,314	9,119	24.1%
Gross margin %	35.1%	32.7%	2.4%
Operating expenditures	3,393	2,464	37.7%
Other expenses	546	445	22.7%
Net income	30	77	(61.0)%
Consolidated statement of cash flows			
Cash (used)/provided in operating activities	(16)	150	(110.7)%
Cash used in investing activities	(255)	(179)	(42.5)%
Cash provided in financing activities	-	-	-
Other measures			
Adjusted EBITDA *	781	603	29.5%

<sup>\*</sup>EBITDA is a Non-IFRS measure – see section 8 for discussion

Our first quarter 2015 revenues were \$11.3 million, up from \$9.1 million in the first quarter of 2014. This increase was driven by growth across all of our segments, Signals, Illumination and Power, up \$0.8 million, \$0.3 million, and \$1.1 million respectively. Gross margin % in the first quarter of 2015 is up 2.4% over the same period in 2014. This increase was driven by improved margins across all of our segments, with the largest improvement coming within our Signals businesses. The underlying improvements were due to a combination of factors, including increased operating discipline and efficiency, a change in sales mix towards higher margin products, and the reduction in various provisions. Operating costs in the first quarter of 2015 were \$3.4 million, up from \$2.5 million in 2014. This increase is mainly due to (1) the inclusion of operating costs associated with Sol Inc., a company we acquired in July of 2014, (2) higher development expenditures supporting new product development initiatives, and (3) the inclusion of a \$0.3 million inventory write off associated with the integration of Sol and closure of their manufacturing facility. Normally our policy is to classify inventory write downs within cost of sales. In this case a departure from this practice was deemed appropriate due to the unusual nature of the write down which we feel needs to be highlighted as a one off that doesn't reflect normal operations.

Other expenses were \$0.5 million in the first quarter of 2015, compared to \$0.4 million in 2014. These costs included \$0.4 million of foreign exchange losses and \$0.1 million in merger and acquisition related costs. Our overall net income in Q1 2015 was \$0.03 million which is down slightly from Q1 2014.

# 2. OUR BUSINESS

From our headquarters in Victoria, British Columbia, Canada, we design, develop and distribute industrial and commercial solar powered outdoor LED lighting systems, solar powered signalling systems for the marine, aviation, traffic and obstruction markets, solar powered energy systems for the mobile markets (primarily RV's and trucks), and we design and install PV rooftop and greenfield power plants. As one of the most trusted names in solar technology, we have earned a reputation for delivering strong and effective products for industrial applications worldwide. Industry-proven to perform reliably in some of the world's harshest environments, our solar LED lights and solar power systems provide a durable, dependable and cost-effective energy alternative.

We manage our business within three reportable segments, which are "Signals", "Illumination", and "Power". The Signals segment includes results from our Traffic, Marine, Aviation and Obstruction verticals. The Illumination segment refers to results from our Outdoor Lighting vertical which includes the results from the recent acquisition of Sol as outlined in section 3. The Power segment includes results from our On-Grid and Off-Grid verticals. The following provides an overview of these segments and their associated underlying verticals.

#### Signals



Carmanah's Aviation vertical specializes in solving the airfield lighting challenges encountered by clients in off-grid or weak-grid locations. Our self-contained solar airfield lights support daily flight operations at helipads and airstrips in demanding environments around the globe from South Africa to the Jordanian desert and northern Alaska. Our aviation customers include both military and civilian airports. Our main competitors in our Aviation market include Avlite Systems Pty Ltd and Metalite, a trading division of Aeronautical & General Instruments Limited.



Carmanah Obstruction vertical provides practical and cost-effective solutions for ground hazard marking, fence and barricade lighting, way-finding, railway blue flag protection, equipment marking and more. Through rugged and wire-free designs our self-contained, solar powered obstruction lights and hazard markers are ideally suited to withstand the harsh environments typically encountered in oil and gas development projects, mining operations and other industrial development sites across all regions of the globe. Our main competitors in our Obstruction sector include Orga BV and Dialight Plc.



Since initially working with the Canadian and US Coast Guards to create a new generation of aidsto-navigation lanterns, the Carmanah Marine vertical has become an established supplier to Coast Guards, marine authorities, navies and ports around the globe. In 2010, we partnered with the Sabik Group with a vision to deliver one of the most comprehensive lines of short and long-range marine navigation aids on the market. Our main competitors in our Marine vertical include Sealite Pty Ltd, Vega Industries Limited, and Tideland Signals Corporation.



Carmanah solar flashing beacons have been in use across North America for well over a decade, working as reliably in the harsh winter climates of Ohio as they do in the hot Florida sun. Departments of transport, traffic agencies, and active transportation groups continue to call on Carmanah beacons when they are looking for reliable, cost-effective products backed by a friendly and knowledgeable team of experts. Products include pedestrian crosswalk signals, school zone flashers and 24-hr roadway beacons. Our main competitors to our Traffic vertical include JS Foster Corporation and TAPCO (Traffic & Parking Control Company Inc).

The product offering across the verticals of the Signals Division are similar in nature and share common technology and components. These products can often be used in a variety of applications with little or no modifications. They are also manufactured in a similar fashion and have common distribution channels and routes to markets.

#### Illumination



Our outdoor lighting vertical, including the recent acquisition of Sol, has one of the largest solar outdoor lighting installation bases in the world. We have over 70,000 installations in more than 65 countries and 24 years of solar lighting experience and as a result have a significant amount of brand equity under both the Carmanah and Sol names.

Products are used in general illumination applications for pathways, parking lots, and pedestrian areas, as well as highway/street lighting and perimeter lighting. Our outdoor lighting department serves local and federal government facilities, government ministries, departments of defense, private utilities (power and lighting), highway concession owners, national and multi-national commercial facilities and public institutions. Our main competitors in the North American market within outdoor lighting are Solar Electric Power Company (SEPCO) and Solar One. Internationally we are up against a variety of competitors operating in different areas of the world.

#### **Power**



Our Off-Grid or Solar Engineering Procurement and Construction ("EPC") Services vertical is focused on the development and construction of roof top commercial solar grid-connected systems. It is operated through our Ontario, Canada based subsidiary, Carmanah Solar Power Corporation ("CSPC"). Over the past decade, we have installed utility connected systems with aggregate capacity of more than five megawatts across more than seventy installations, amassing the broadest range of installation type and complexity of any EPC provider in Canada. Currently this business is primarily focused on the Ontario market due to a Feed-in-Tariff ("FIT") program introduced there by the provincial government. As a leading Solar EPC Services provider, we believe we are well-positioned to support the continued rapid development of the systems the Ontario Power Authority FIT Program facilitates. We continue to monitor opportunities in other jurisdictions beyond the Ontario market.



Marketed under the Go Power! brand, our Off-Grid or Mobile vertical provides solar kits, solar panels, inverters, chargers, batteries and other power accessories for the RV, utility and fleet vehicles, and marine markets. Our sales are made through an established channel of dealers, distributors and agents throughout the US and Canadian markets, through Amazon.com and Amazon.ca, a large online retailer and on an OEM basis to major new motorhome manufacturers. Operationally we utilize several 3rd party manufacturers and logistics warehouses to stock and distribute associated inventory. Some of our Go Power! competitors are Xantrex Technologies and Samlex America Inc.

The offerings in our Power segment centers in providing power solutions. As we explore new business opportunities in this area we have begun to classify these businesses as either "On-grid" (systems that tie back into the electrical grid) or "Off-grid" (systems that are not generally tied to the electrical grid). The range and extent of product customization and services rendered for customers varies substantially in this segment.

In the future we are seeking to be a leader or top contender in each of the market segments we operate within. We will attain these leadership positions either through organic growth and/or acquisitions which will enable us to obtain appropriate economies of scale. Our medium term aspirations include:

- Extending our reach into emerging markets through solar street lighting.
- Leading the "smart" revolution in all Signals businesses through cloud-based communications development.
- Solidifying our position within the various aspects of our Signals segment through strategic acquisitions.
- Working to become Canada's leader in both on-grid and off-grid solar applications through technical excellence and strategic partnering for storage solutions.
- Leading the world in mobile solar off-grid product development for OEM and after-market.

### 3. OPERATIONAL AND BUSINESS HIGHLIGHTS

Our 2015 operational and business highlights are discussed below.

#### **Sol Integration**

Since acquiring Sol on July 2, 2014, we have been working to complete the integration of Sol into our operations. In the months following the acquisition to December 31, 2014, Sol's core business functions were maintained to provide time to execute on the integration plan. The majority of Sol's back office functions were eliminated at the end of 2014. Progress on the integration during the early part of 2015 was as follows:

- During the first quarter we worked to close down Sol's manufacturing facility and to transition production to contract
  manufacturers. These efforts were largely completed in the quarter, with final production winding up on March 31,
  2015. The facility will be completely closed by May 31, 2015, when the lease on the building expires. As a result of
  the wind down the headcount has been reduced by 50% and by the end of Q2 2015 we anticipate 9 full time employees
  who are focused on sales and sales support functions.
- From a systems perspective, Sol's ERP system was successfully converted in Q1 to the same ERP system that Carmanah implemented in 2014. The CRM system transition is expected to occur in Q2 when Carmanah's CRM platform is set to go live.

#### **Share Offering**

On April 7, 2015, we announced a plan to raise up to \$32.0 million (CAD) through a "bought deal" financing (the "Offering"). The financing was backed by a syndicate of underwriters led by Cormark Securities Inc. and including Canaccord Genuity Corp., GMP Securities LP and Salman Partners Inc. (collectively, the Underwriters") who agreed to buy and sell to the public 5,650,000 of our common shares ("Common Shares") at a price of \$5.00 (CAD) per Common Share. The Underwriters also had an option, exercisable in whole or in part at any time up to 15 days after the closing of the Offering, to purchase up to an additional 750,000 Common Shares at the same price. The main part of the Offering closed on April 28, 2015 with 5,650,000 shares issued from treasury. On May 1, 2015, the Underwriters exercised their option to acquire the additional 750,000 shares. Proceeds from this offering will largely be used for future mergers and acquisitions. See the short form prospectus, filed on April 23, 2015 for further details.

As a part of the Offering, we also issued a total of 332,750 broker warrants (the "Warrants") which allow the holder to acquire one additional Common Share at a price of \$5.00 (CAD) per share. These Warrants expire after one year. Although we have not yet valued these Warrants from an accounting perspective, it has been determined that they will give rise to a derivative which will be recorded on our Consolidated Statement of Financial Position with changes in fair value from period to period recorded as a non-cash gain or loss in the Consolidated Statement of Income and Loss. The reason for this accounting treatment is because the Warrants are denominated in Canadian dollars, while the functional currency of our financial statements is the US dollar. As a result of this difference in currencies, the proceeds that we may receive is not fixed and will vary based on foreign exchange rates. Although we may record a liability for these Warrants, there are no circumstances in which we would be required to pay any cash upon exercise or expiry.

### **Executive Changes**

During the first quarter of 2015, we moved to strengthen our leadership team and initiated a recruiting effort to fill a newly created Chief Operating Officer role and to find a more experienced Chief Financial Officer. In April 2015, we welcomed Evan Brown as our new Chief Financial Officer and Tammy Neske as our Chief Operating Officer.

# 4. FINANCIAL RESULTS

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 months ended March 31, 2015.

# 4.1. Three month periods ended March 31, 2015 and 2014

# Revenue and gross margin

Three months ended March 31,

(US\$ thousands, unless noted otherwise)	2015	2014	Change
Revenues			
Signals	4,826	4,058	18.9%
Power	4,399	3,288	33.8%
Illumination	2,089	1,773	17.8%
Total revenue	11,314	9,119	24.1%
Gross margin %			
Signals	43.4%	38.6%	4.8%
Power	28.8%	28.0%	0.8%
Illumination	29.0%	28.0%	1.0%
Total Gross margin %	35.1%	32.7%	2.4%

Consolidated revenues for the three months ended March 31, 2015 were \$11.3 million, up \$2.2 million over the same period in 2014. Overall, our gross margin for the three months ended 2015 was 35.1%, up from 32.7% in the same period in 2014. The following section summarizes the changes by segment.

#### Signals Segment

Revenues for the first quarter of 2015 were \$4.8 million, up from \$4.1 million in the same period in 2014. This increase is primarily due to higher revenues from our Marine, Traffic and Obstruction verticals which have benefited from renewed products and a refreshed sales effort. Our Aviation revenues were relatively flat year over year. Gross margin % within Signals in the first quarter of 2015 are up 4.8% over the same period in 2014. Overall gross margins are up in our Signals segment due to a more efficient operating structure and improved discipline on sales initiatives as well as the reversal of provisions as described in section 6.1.

#### Power Segment

Revenues for the first quarter of 2015 were \$4.4 million, up from \$3.3 million in the same period in 2014. This increase is due to higher sales in both On-Grid and Off-Grid segments. On-Grid project sales benefited from a large backlog of projects carried over from December 31, 2014. Overall we expected higher revenue from our On-Grid vertical in the quarter, but due to the heavy winter in Ontario a lot of project work was delayed which means we carried over a strong backlog into the second quarter of 2015. Within our Off-Grid vertical, sales have continued to grow as a result of increased sales efforts, the introduction of new products and the development of new markets. Gross margin % within Power for the first quarter of 2015 was 28.8%, up 0.8% from the same period in 2014. This increase is largely due to better pricing obtained on underlying components for both verticals within this segment.

#### Illumination Segment

Revenues for the first quarter of 2015 were \$2.1 million, up from \$1.8 million in the same period in 2014. This segment benefited from the acquisition of Sol in 2014 as well as renewed sales efforts. Gross margin % within Illumination in the first quarter of 2015 was up 1.0% over the same period in 2014. We expect margins to improve in the coming quarters once all of Sol's historic manufacturing costs are eliminated.

#### Sales by Geographic Region

Approximately 11.6% of our revenues for the first quarter of 2015 were from outside North America. This is down significantly over the same period in 2014 which was 28%. The decrease is due to a less Signals sales into Europe in addition to increased sales in the On-Grid segment which sells only into the Canadian market.

# Operating expenses

	Three mon	ths ended March	31
(US\$ thousands, unless noted otherwise)	2015	2014	Change
Sales and marketing	1,282	993	29.1%
Research and development	450	304	48.0%
General and administration	1,277	1,167	9.4%
Other operating expenditures	384	-	N/A
Total operating expenditures	3,393	2,464	37.7%
Operating expenses (excluding "other" expenditures) as % of sales*	26.6%	27.0%	(0.4)%
Non-cash items:			
Amortization	148	89	66.3%
Stock-based payments	136	17	700.0%

<sup>\*</sup> A Non-IFRS measure

Our total operating expenses for the three months ended March 31, 2015 were \$3.4 million, up from \$2.5 million in the same period in 2014. This increase is mainly due to (1) the inclusion of operating costs associated with Sol Inc., a company we acquired in July 2014, (2) higher development expenditures supporting new product development initiatives, and (3) the inclusion of a \$0.3 million inventory write off associated with the integration of Sol and closure of their manufacturing facility. Normally our policy is to classify inventory write downs within cost of sales. In this case a departure from this practice was deemed appropriate due to the unusual nature of the write down which we feel needs to be highlighted as a one off that doesn't reflect normal operations.

#### Sales and Marketing

Our sales and marketing expenses for the three months ended March 31, 2015 were \$1.3 million, up \$0.3 million from the same period in 2014. This increase is primarily due to (1) increased salaries with the addition of Sol sales staff, and (2) higher marketing costs incurred to support future growth.

#### Research, Engineering and Development

Our research, engineering and development expenses for the three months ended March 31, 2015 were \$0.5 million, which is up from \$0.3 million from the same period in 2014. The increase is due to renewed efforts in development activities across multiple product lines.

#### **General and Administration**

Our general and administration ("G&A") expenses for the three months ended March 31, 2015 were \$1.3 million, which is up from \$1.2 million in the same period in 2014. The following significant changes have occurred year over year:

- Legal costs decreased by \$0.2 million which is related to the lawsuit described in note 5.5.
- Stock compensation increased \$0.1 million as a result of a new grants to employees and executives.
- Salaries and related costs increased \$0.1 million due to recruiting costs associated with hiring 2 new executives in addition to the remaining Sol administration staff which were terminated in Q1.

### Other income (expense)

Other expenses were \$0.5 million for the three months ended March 31, 2015, which is up from \$0.4 million in the same period of 2014. The 2014 amount is primarily relates to foreign exchange losses and merger and due diligence costs associated with the acquisition of Sol. The 2015 amounts relates to foreign exchange losses and merger and acquisition related expenditures.

#### Income taxes

There was no tax expense for the three months ended March 31, 2015

# 4.2. Quarterly trends

(US\$ thousands, except	0045						0040	
EPS amounts)	2015	0.4	20		0.4	0.4	2013	00
	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2
Revenue	11,314	13,451	12,168	8,994	9,119	7,755	4,863	6,319
Gross margin	3,969	4,614	4,302	3,261	2,985	2,583	1,152	1,542
Gross margin %	35.1%	34.3%	35.4%	36.3%	32.7%	33.3%	23.7%	24.4%
Normal operating costs	(3,009)	(3,869)	(3,613)	(2,846)	(2,464)	(2,364)	(2,599)	(3,039)
Other operating expenditures (recovery)	(384)	(312)	-	122	-	(1,062)	-	(965)
Other income (expense)	(546)	(183)	(494)	(99)	(445)	(90)	8	(15)
Income tax (expense)	-	34	-	-	1	-	(3)	-
Net (loss)/income	30	284	195	438	77	(933)	(1,442)	(2,477)
EPS – Basic	0.00	0.02	0.01	0.04	0.01	(0.13)	(0.29)	(0.49)
EPS- Diluted	0.00	0.02	0.01	0.04	0.01	(0.13)	(0.29)	(0.49)
EBITDA <sup>(1)</sup>	314	535	400	604	182	(676)	(1,297)	(2,174)
Adjusted EBITDA <sup>(1)</sup>	781	1,011	786	1,071	603	1	(1,131)	(1,209)

<sup>(1)</sup> EBITDA and Adjusted EBTIDA are non-IFRS measures 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 often have longer tender processes and fluctuating timelines. This is most pronounced within our On-Grid, Aviation and Illumination market segments and to a lesser extent within our Marine and Traffic markets. Off-Grid revenues 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. The reasons for the larger quarterly swings in revenue are explained below:

- Beyond the upswing in revenues experienced over the past year, the only other anomaly to note is the Q3 2013 revenues which at \$4.9 million were substantially lower than normal. This was primarily due to lower sales in our Aviation, Illumination and On-Grid verticals. A good portion of this was due to timing of project sales. The quarter also suffered from production problems caused by our transition between contract manufacturing facilities
- Q1 2015 revenue trended downward due to the timing of project deliveries within Aviation and On-Grid verticals which
  has pushed revenues into the second quarter of 2015.

Our gross margin on a quarterly basis is 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.

Our operating costs have fluctuated in recent quarters. Operating costs from Q3 2014 through to Q2 2014 were lower than trend due to restructuring initiatives which resulted in lower salaries expense, development expenditures, travel and marketing and advertising costs. Q3 and Q4 2014 are higher due to the inclusion of employees and G&A costs associated with the acquisition of Sol. Operating costs in Q1 of 2015 dropped off with the elimination of a large portion of Sol's overhead and back office functions.

Other operating expenditures are operating costs that are non-recurring in nature and have been separated to better highlight their effects. The charge in the fourth quarter of 2013 relates to (1) restructuring expenses of \$0.5 million, primarily related to severance costs associated with a reduction in our staffing levels, and (2) asset impairment charges of \$0.5 million. The charge in the second quarter of 2013 relates to asset impairment associated with a license asset and the impairment of assets acquired in the acquisition of Spot Devices Inc. Other operating expenditures in 2014 include restructuring charges of \$0.3 million in Q4 2014 and a recovery of restructuring expenses in Q2 of 2014 due to a change in plans for elimination of positions in the company. Other operating expenditures in the first quarter of 2015 primarily relate to a \$0.3 million write off of inventory associated with the integration of Sol and closure of their manufacturing facility.

Our other income (expense) has fluctuated significantly over the quarters. Other income (expense) includes various nonoperating items such as foreign exchange gains and losses, acquisition costs, and other items. The first two quarters of 2014 included a large amount of costs associated with the acquisition of Sol, although the second quarter of 2014 was partially offset by foreign exchange gains. The fluctuations in the third quarter of 2014 and the first quarter of 2015 was largely driven by foreign exchange losses.

# 5. LIQUIDITY, CAPITAL RESOURCES AND OTHER DISCLOSURES

# 5.1. Summary of consolidated statement of cash flows

Three months ended March 31	

(US\$ thousands, unless noted otherwise)	2015	2014	Change
Cash (used)/provided from operating activities	(16)	150	(110.7)%
Cash used in investing activities	(255)	(179)	42.5%
Cash provided from investing activities	-	-	N/A
Effects of exchange rate changes on cash	(279)	(67)	(316.4)%
Total decrease in cash	(550)	(96)	(472.9)%

## Cash used in operating activities

During the three months ended March 31, 2015, cash provided by our operating activities, excluding changes in working capital, was \$0.6 million which is up from \$0.1 million in the same period in 2014. The increase is due to higher non-cash expenditures (amortization, share-based payments and unrealized foreign exchange loss). Changes in non-cash working capital were negative \$0.6 million, down from negative \$0.1 million in the same period in 2014. 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 three months ended March 31, 2015, cash used for investing activities was \$0.3 million, up from \$0.2 million in the same period in 2014. The 2015 first quarter intangible additions relate to costs associated with our ERP and CRM systems. The costs incurred related to software license and some consulting services. The majority of the ERP project is complete although we are now implementing further customizations. The CRM costs are expected to continue into Q2 2015. The capital additions mostly relate to leasehold improvements and office equipment for the new Stuart, FL office for Sol as well as new production equipment associated with the addition of a contract manufacturing facility.

# Cash provided from financing activities

There were no financing cash flows during the three months ended March 31, 2015 or March 31, 2014. As previously noted, we did initiate an equity financing during the first quarter. However the funds raised and costs incurred were not realized until early April 2015.

#### 5.2. Liquidity and capital resource measures

On March 31, 2015, our overall working capital was \$16.2 million, which is comparable to the balance at December 31, 2014.

Our major capital expenditures in 2015 will relate to our CRM replacement and other system enhancements. The new CRM was anticipated to go live along with the ERP in 2014 however it was delayed and rolled into a larger project that will include changes to our go forward sales strategies and is expected to go live in early Q2 2015.

We are continuing to evaluate our operations in an effort to improve our ability to meet our customer's needs in a profitable manner.

Our primary source of liquidity has been from equity issuances. As described in section 3, we completed an equity offering subsequent to the end of the guarter which raised gross proceeds of approximately \$32 million (CAD) on April 28, 2015.

#### 5.3. Credit facilities

In early 2015, we signed a new credit facility (the "Facility") with the Canadian Imperial Bank of Commerce ("CIBC"). The multifaceted Facility provides credit up to \$24.5 million through (i) a \$10 million 364-Day Revolving Credit, (ii) a \$10 million term acquisition credit, (iii) \$3.75 million credit of Letters of Credit, and (iv) \$0.75 million for trading room and other liabilities. Our ability to draw on the 364-Day revolving credit, the credit for the letters of credit, and credit for trading room contingent liabilities is subject to certain covenants. Access to the term acquisition credit facility will require CIBCs review and approval of the specific acquisition transaction. We anticipate using the credit facility to pursue strategic mergers and acquisitions.

### 5.4. Contractual obligations and commitments

We have a number of contract manufacturers who build and supply our manufactured products. Our agreements with these contract manufacturers generally require us to be liable for inventory and outstanding committed purchase orders they have outstanding to support our business. If one of these agreements is terminated, we would be required to purchase the associated underlying inventory or arrange for a new contract manufacturer to acquire and hold it in a similar capacity. At present, we are dealing with two significant contract manufacturers, Flextronics and Creation Technologies Corporation. Under the terms of the contract manufacturing agreements, we are required to purchase excess raw inventory which arises in situations where our demand forecasts for particular product is less than actual use or sales in a given period. At March 31, 2015, Flextronics held approximately \$1.9 million (December 31, 2014 - \$1.8 million) in inventory and \$1.0 million (December 31, 2014 - \$1.2 million) in outstanding committed purchase orders. Inventory owned and held at other contract manufacturers, which we may be liable for, is approximately \$0.2 million in aggregate.

Future commitments and contractual obligations that were outlined in our annual MD&A remain largely unchanged.

### 5.5. Claims and lawsuits

On July 18, 2013, the Company was 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 – collectively the "Plaintiffs") alleging patent infringement with respect to a specific flash pattern used with respect to Carmanah's solar powered flashing beacons for the traffic safety market and other claims relating to advertising and business practices. Various actions have been taken in regards to this matter, including an unsuccessful application by the Plaintiff for a temporary restraining order and a motion for a preliminary injunction and a countersuit against the Plaintiffs with respects to a similar patent held by the Company. In early 2014, the Company's application to re-examine a number of aspects of the Plaintiffs patent was accepted by the U.S. patent office. The U.S patent office review of the Plaintiffs patent resulted in many of the aspects of the patents being rejected. The Plaintiff has appealed this judgment. Pending that review the court proceedings have been stayed. The outcome of this case is not certain and the Company intends to continue to defend itself and file additional responses to the Court as required to do so. As the outcome of these matters is not currently determinable, no provision has been made at March 31, 2015. The Company has been pursuing its insurance company for coverage of associated defense costs.

In early March 2015, the Company filed a civil lawsuit in the Supreme Court of British Columbia against Royal & Sun Alliance Insurance Company of Canada ("RSA") and Integro (Canada) Ltd. ("Integro") operating as Integro Insurance Brokers. The lawsuit has been filed in an effort to obtain coverage under one or more of the Company's insurance policies with respects to the above lawsuit. The decision to file a lawsuit against RSA and Integro was made after negotiations with RSA failed to produce an acceptable settlement for repayment of the costs incurred by the Company. The lawsuit seeks to recover legal expenses and damages.

#### 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 and vendor managed inventory as noted under section 5.4, Contractual obligations and commitments.

#### 5.8. Financial instruments and other instruments

The fair value of our accounts receivable, accounts payable and accrued liabilities approximates their carrying value due to the immediate or short-term maturity of these financial instruments.

We are exposed to foreign exchange risks as we transact business and have working capital denominated in multiple currencies. We attempt to minimize our exposure through managing our working capital and entering into foreign exchange products or contracts when are where appropriate.

#### 5.9. Related party transactions

None.

#### 5.10. Proposed transaction

None.

### 5.11. Subsequent events

- On April 16, 2015, we granted 200,000 Stock Options to our newly appointed COO and CFO
- On April 28, 2015, we closed a bought financing deal of \$28.3 million (CAD)
- On May 1, 2015, we closed the underwriter overallotment option of \$3.7 million (CAD)

# Outstanding share data

Our common shares trade on the Toronto Stock Exchange ("TSX") (TSX: CMH), and as at March 31, 2015 we had 16,977,000 fully issued and outstanding common shares. The following table summarizes the outstanding shares, options and other outstanding stock units stated in CAD.

	AS at				
	May 13, 2015	March 31, 2015	December 31, 2014	September 30, 2014	June 30, 2014
Share price – closing (CAD\$)	6.13	5.90	2.91	2.56	2.00
Market capitalization (CAD \$ in					
thousands)	143,304	100,164	49,403	43,461	23,982
Outstanding					
Shares	23,377,501	16,977,000	16,977,000	16,977,000	11,991,201
Options	1,514,096	1,325,948	1,335,697	1,109,600	1,036,950
Warrants	332,750	-	-	-	-
Restricted share units	-	-	-	-	-
Performance share units	-	-	-	-	-

# CRITICAL ACCOUNTING ESTIMATES AND ACCOUNTING POLICY DEVELOPMENTS

# 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. Unless otherwise noted the estimates are inclusive all of our reportable market segments described in section 2.

The significant accounting policies and estimates are discussed below:

Accounting policy	Estimates
Warranty provision	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 March 31, 2015 was \$0.9 million, down from \$1.1 million at December 31, 2014. The decrease in the warranty provision during the quarter was due to a reduction in general warranty claims as return rates continue to decline. A provision related to historical Sol sales was also reduced after staff visited a project site in Q1 to determine the actual products were not faulty however simply not installed correctly.
	The \$0.1 million provision to cover costs associated with monitoring services provided by Cirrus for SIMA enabled products which we sold has been reduced due to likelihood of incurrence. We were never able to secure an economically viable license agreement for SIMA monitoring services which are provided by Cirrus, a related company to Spot. During 2013, we sold approximately 220 SIMA-enabled units with service terms ranging from 1 to 10 years. This provision covers current and future costs associated with this service. It is based upon our understanding of Cirrus's cost structure and preliminary monthly fee ranges discussed during negotiations with Cirrus.
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

Other Provisions	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-down 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 March 31, 2015 our inventory provision was approximately \$1.5 million, which is unchanged from December 31, 2014.  In the acquisition of Sol, it was determined that there could be additional liabilities on historical sales. A provision of \$0.1 million was recorded at December 31, 2014 and has been reduced to approximately half as at March 31, 2015 we have obtained resolutions for some of these liabilities.
Allowance for doubtful	We record an allowance for doubtful accounts related to trade accounts receivable. This
accounts	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 March 31, 2015, our allowance for doubtful accounts was \$0.1 million, unchanged from December 31, 2014.
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 26% and vary depending upon the employee make-up of the associated grants.
Impairment of assets	Each year we make significant judgments in assessing if goodwill, tangible or intangible assets have suffered an impairment loss. Our impairment analysis involves the use of an income approach that relies on estimating the future net cash flows and applying the appropriate discount rate to those future cash flows. Significant management judgment is necessary to evaluate the impact of operating and economic changes on each CGU or underlying asset. Critical assumptions include projected sales growth and market opportunities, future profitability of system sales, operating and administrative expense, capital expenditures, an appropriate discount rate, and in some situations the cost of disposal. In 2014, there were no impairment losses.
	Our impairment analysis at December 31, 2014 involved the use of an income approach that relied on estimating the future net cash flows and applying an appropriate discount rate to those future cash flows. This approach employed the following key assumptions: anticipated sales growth in key markets, changes in gross margins due to pricing changes for materials and the cost of manufacturing, changes in operating and administrative expenses, anticipated capital expenditures, and an appropriate discount rate. The forecast period utilized in the analysis covered 2015 through 2019. Key drivers in this assessment include anticipated overall sales growth, estimated to be 10% a year, a terminal growth rate of 5% and a weighted average cost of capital of 20%. The analysis indicated an excess over carrying value of \$7.2 million. We consider the future sales growth rate a key factor in this analysis. Using a sensitivity analysis, a 1% decline in sales growth reduces the overall excess value by \$0.9 million.
Revenue recognition	Our On-Grid vertical includes revenues from projects which includes both good and services. Revenue is recognized on a percent completed basis at the measurement of hours completed. At the start of each project the hours to complete are estimated and revised periodically as the project progresses. Hours completed at the end of each reporting period determine the amount of revenue to recognize in accordance with the contracts in place.
	As a result of the above revenue recognition approach, the Company will at times have unbilled receivables which arise when project revenues are earned prior to the Company's ability to invoice in accordance with the contract terms. These amounts are included in trade and other receivables on the Consolidated Statement of Financial Position.
Recoverability of deferred income tax and investment tax credits	The Company has significant unrecognized deferred tax assets and investment tax credits of approximately \$7.6 million and \$4.2 million, respectively. At the end of each reporting period, we are completing an assessment regarding the probability that we will be able to utilize these assets. A variety of criteria for recognition are outlined in IFRS 12 - Income Taxes. We anticipate that if our profitability trend continues, we will be able to recognize these tax assets, or a substantial portion of them.

# 6.2. Future changes in accounting policies

Certain pronouncements have been issued by the International Accounting Standards Board ("IASB") or the International Financial Reporting Interpretations Committee ("IFRIC") that will become effective in future accounting periods. The following is a summary of significant standards that may have an impact on our future financial statements.

- IFRS 9, Financial Instruments ("IFRS 9") replaces IAS 39, Financial Instruments: Recognition and Measurement ("IAS 39").
   IFRS 9 simplifies the classification and measurement requirements for financial instruments, which replaces the multiple classification and measurement models in IAS 39. It is anticipated that these changes would be effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted.
- IFRS 15, Revenue from Contracts with Customers ("IFRS15"). IFRS 15 clarifies the principles for recognizing revenue and cash flows arising from contracts with customers. It is anticipated this changes will be effective for annual periods beginning on or after January 1, 2017, although this was tentatively pushed back to January 1, 2018 at the IASB's meeting on April 28, 2015.

We are assessing the impact that these standards will have on our consolidated financial statements.

### 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.

#### **Disclosure controls**

Our officers and management have evaluated the effectiveness of our DC&P as at March 31, 2015 as required by Canadian securities laws. The evaluation approach involved looking at the size, nature and state of development of the business and thus used a top down risk-based approach to focus evaluation on areas that were deemed to provide the greatest risk to a material misstatement. Our evaluation also took into account our corporate disclosure procedures and the functioning of our Officers, other executive officers, management, Board of Directors, and Audit Committee. Based on this evaluation, our Officers concluded that the Company's disclosure controls and procedures were effective, at a reasonable assurance level, to ensure that material information relating to the Company and its consolidated subsidiaries would be made known to them by others within those entities, particularly during the period in which the MD&A and the Consolidated financial statements contained in this report were being prepared.

#### Internal control over financial reporting

Due to recent changes to the organization structure and our IT systems, there have been significant changes to our internal accounting and finance processes relating to reporting. These changes and their impacts to our internal controls over financial reporting indicated that there have been some segregation of duties issues and a lack of documented review in certain areas. Although management relies upon mitigating procedures that included detailed financial analysis that occurs at various stages of reporting, it was and is felt there isn't insufficient evidence to certify that our internal controls over financial reporting are effective. The underlying issues are being addressed in 2015. More specifically, we have engaged an independent contractor to assist and provide oversight with regard to our internal control certification program. As of the date of this MD&A, a detailed work plan has been developed and remediation efforts are underway which we believe will lead to an effective system of internal controls over financial reporting and effective disclosure controls and procedures.

#### Limitation on scope of design

Scope of DC&P and ICFR has been limited to exclude controls, policies and procedures of Sol which was acquired not more than 365 days before the last day of the period covered by the annual filing. The Company elected to exclude them from the scope of certification as allowed by NI 52-109. We intend to perform such testing within one year of acquisition.

# 7. RISKS AND RISK MANAGEMENT

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 in our annual MD&A and Annual information form.

# 8. Definitions and reconciliations

#### **EBITDA**

For the three months ended March 31, 2015, we are disclosing EBITDA and adjusted EBITDA, both of which are non-IFRS financial measures, as supplementary indicators of operating performance. We define EBITDA as net income or loss before interest, income taxes, amortization, and non-cash stock based compensation. Adjusted EBITDA removes unusual or non-operating items from EBITDA, such as merger and acquisition costs, restructuring charges, and asset write offs. We are presenting the non-IFRS financial measures in our filings because we use them internally to make strategic decisions, forecast future results and to evaluate our performance. We are also presenting these measures 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. EBITDA and Adjusted EBITDA are not intended as a substitute for IFRS measures.

EBITDA reconciliations  (US\$ in thousands)  Three months of the second o		Three months ended March 31,	
		2014	
Net income	30	77	
Add/(deduct):			
Income taxes	-	(1)	
Amortization	148	89	
Non-cash stock based compensation	136	17	
EBITDA*	314	182	
Merger and acquisition costs	62	275	
Extraordinary legal costs	1	146	
Restructuring and asset write offs	404	-	
Adjusted EBITDA*	781	603	

<sup>\*</sup> A Non-IFRS measure