CARMANAH TECHNOLOGIES CORPORATION

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

March 29, 2016

About this MD&A

This Management Discussion and Analysis ("MD&A") discusses the consolidated financial condition and operating performance for Carmanah Technologies Corporation (the "Company") and should be read together with our audited consolidated financial statements for the year ended December 31, 2015. References to the "Company", "Carmanah", "we", "us" or "our" are to be taken as references to Carmanah Technologies Corporation These documents, along with additional information about our Company, including the Annual Report, Annual Information Form, and so forth, are available at www.carmanah.com and www.sedar.com. 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, and Sol, Inc. ("Sol"). The statements also include the results from the Sabik Group of Companies ("Sabik", "Sabik Group", or the "Group") acquired on July 2, 2015. The Sabik Group includes Sabik Oy, Sabik Offshore GmbH, Sabik Pte Ltd, Sabik Limited and Sabik Offshore Limited.

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. This 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 March 29, 2016.

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 and therefore may not be comparable to similar measures presented by other issuers, securities regulations require non-IFRS measures to be clearly defined, qualified and reconciled with their nearest IFRS measure. See Section 8 for the definition, calculation and reconciliation of these figures.

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;
- the successful development of new and innovative products to help penetrate new geographic markets;
- the future success of our recent restructuring initiative and our ability to produce positive operating income;
- the outcome of claims and lawsuits;
- our belief that we are well-positioned to support the continued rapid development of the systems the Ontario Power Authority FIT Program facilitates and our continued monitoring of opportunities in other jurisdictions;
- our intention to be a leader or top contender in each of the market segments we operate within and our specific plan to achieve that goal;
- our belief that the signals industry is ready for consolidation;
- our plan to explore synergy opportunities that may exist in overlapping product lines, commercial efficiencies, R&D projects and potentially manufacturing competencies;
- our belief that the signals industry is ready for consolidation and that "connected" devices are likely to be data gateways that provide a variety of sensor data that will increase safety and further reduce operating costs;
- our expectation that the current installed base of signaling products will become obsolete and result in increases in growth rates for the signals industry;
- our expectation of growth in solar LED illumination;
- our expectation that manufacturing costs will continue to improve as solar becomes increasingly competitive with other forms of power generation and the our positive outlook for solar power businesses
- our plan to continue to pursue several significant portfolios of FIT (defined below) 4.0 projects which we hope to secure in and begin build out in the latter half of 2016; and
- our expectation that a majority of the On-Grid receivables will be collected in 2016.

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, but not limited to, the risks discussed under the heading "Risk Factors" in our annual information form dated March 29, 2016. 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;
- risk that we may become involved in disputes, litigation or arbitration proceedings; and
- geopolitical or other global or local events.

Except as otherwise indicated, forward-looking statements do not reflect the potential impact of any non-recurring or other unusual items or of any dispositions, mergers, acquisitions, other business combinations or other transactions that may be announced or that may occur after the date hereof. The financial impact of these transactions and non-recurring and other unusual items can be complex and depends on the facts particular to each of them. Carmanah therefore cannot describe the expected impact in a meaningful way or in the same way the Company presents known risks affecting its business.

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).

1. FINANCIAL HIGHLIGHTS

Financial Highlights for the Three and Twelve Month Periods Ended December 31, 2015 and 2014

	Three months ended December 31			Year ended December 31		
(US$ thousands, unless noted otherwise)	2015	2014	Change	2015	2014	Change
Consolidated statements of Income/(loss)						
Revenue	21,327	13,451	58.6%	68,206	43,732	56.0%
Gross margin %	32.3%	34.3%	(2.0)%	33.6%	34.7%	(1.1)%
Operating expenditures	(5,884)	(3,869)	52.1%	(18,158)	(12,792)	41.9%
Other Operating income/(expense)	182	(312)	NA	3,986	(190)	NA
Other expenses	(669)	(183)	265.6%	(3,740)	(1,221)	206.3%
Net (loss)/income	601	284	111.6%	10,680	994	974.4%
Consolidated statement of cash flows						
Net Cash used in operating activities	(1,914)	(1,590)	20.4%	(9,865)	(2,443)	303.8%
Net Cash used in investing activities	(200)	(202)	(1.0)%	(17,407)	(226)	7602%
Net Cash (used in)/provided by financing activities	(640)	-	NA	33,566	6,571	410.8%
Other measures						
Adjusted EBITDA *	2,505	1,234	103.0%	8,569	3,971	115.8%

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

Q4 2015 vs Q4 2014

Revenues for Q4 2015 were $21.3 million, up 58.6% from $13.5 million in the same period in 2014. The majority of this increase is attributable to our Signals segment, which saw an increase in revenues of $7.1 million in the quarter. This increase was the result of $8.4 million of revenues picked up in Q4 2015 from Sabik, the group of companies we acquired on July 2, 2015. Overall revenues from Carmanah's historic Signals verticals were down $1.3 million in Q4 2015 compared to Q4 2014. This decline was primarily due to lower Marine revenues caused by (1) the elimination of intercompany sales to Sabik and (2) a large spike in Marine revenues in Q4 2014 due to the introduction of our new 800 series lantern to the US Coast Guard and a new contract secured with this customer in September 2014. Our Power segment also had higher sales, up $1.4 million to $5.5 million in Q4 2015. This increase was driven by higher revenues in both our On-Grid and Off-Grid verticals. In our Illumination segment, we had sales of $3.3 million, up substantially from Q3 2015, but down from record sales of $4.0 million in Q4 2014.

Gross margin % for Q4 2015 was down 2.0%, compared to Q4 2014. This decrease is due to revenue mix favouring the lower margin Power segment. Operating costs in Q4 2015 were $5.7 million, up from $4.2 million in the same period in 2014. This increase is largely due to the acquisition of Sabik on July 2, 2015, with the Company picking up $2.2 million in associated operating costs in the Q4 2015. Of the $2.2 million, approximately $0.3 million relates to non-recurring amortization associated with intangibles recognized on the acquisition.

The other expenses in Q4 2015 include foreign exchange losses of $0.5 million that resulted on the revaluation of our foreign denominated (mainly Canadian) working capital, and $0.2 million related to other expenditures.

Overall we had net income of $0.6 million in Q4 2015, compared to net income of $0.3 million over the same period in 2014. The overall increase is mainly attributable to the acquisition of Sabik. Adjusted EBITDA for Q4 2015 was $2.5 million, up from $1.2 million over the same period in 2014.

Fiscal 2015 vs fiscal 2014

Full year 2015 revenues were $68.2 million, up 56.2% from $43.7 million in the same period in 2014. We saw increases in both our Power and Signals segments, which were up $8.7 million and $17.4 million, respectively. Offsetting this growth was a decline in our Illumination segment, where revenues were down $1.6 million over 2014. The increase in our Power segment was due to higher sales in both our Off-grid and On-grid verticals. The increase in the Signals segment was largely driven by the pick-up of approximately $14.4 million of revenues associated with Sabik, which we acquired on July 2, 2015. Excluding Sabik, our Signals segment revenues were up $3.0 million over 2014. This increase was driven by higher sales in our Airfield Ground

Lighting, Aviation Obstruction and Traffic verticals, all of which benefited from continued efforts to expand our markets through the introduction of new products and expanded distribution. Our Marine vertical was relatively flat year-over-year mainly due to the elimination of intercompany sales with Sabik. The decline in the Illumination segment was due to a soft Q3 2015. Quarterly fluctuations in this segment are not unusual due to longer sales cycles and lead times tied to large infrastructure projects.

Year to date gross margin % was 33.6%, down from 34.7% from 2014. The decrease is largely due to product mix across segments in 2015 as well as some unusually high margins in 2014 due to a beta development project, a warranty reversal and a one-time supplier adjustment. As disclosed in our Q4 2014 MD&A, the normalized gross margin % would have been approximately 32.5%.

Operating expenses for 2015 were $18.2 million, up from $12.8 million in the same period of 2014. This increase is largely due to the acquisition of Sabik on July 2, 2015, which added $4.8 million to our operating costs during the second half of 2015. Excluding Sabik, our 2015 operating costs would have been up approximately $0.6 million over the prior year. This increase is mainly due to (1) an increase in stock based compensation due to additional grants to employees and directors and (2) higher research and development spending as we continue to renew our product development efforts, offset by lower salary costs, which are down primarily due to the decline in the Canadian dollar.

Other operating expenses for 2015 reflected a recovery of $4.0 million, up from an expense of $0.2 million in the same period of 2014. The 2015 amount includes a $4.5 million recovery associated with the recognition of our Investment Tax Credits as described in section 3, and $0.4 million of expenses related to the final integration and inventory write-offs associated with Sol. The 2014 amounts relate to restructuring charges surrounding Sol.

Other expenditures for 2015 were $3.7 million, up from $1.2 million in the same period in 2014. This increase is largely due to M&A costs of $1.2 million incurred to complete the Sabik acquisition, foreign exchange losses of $2.2 million recognized on working capital, and other expenses of $0.3 million.

Overall we had net income of $10.7 million for the year ending December 31, 2015, compared to net income of $1.0 million for the same period in 2014. Adjusted EBITDA for the year ending December 31, 2015 was $8.6 million, up from $4.0 million in the same period in 2014. The increase was primarily due to the inclusion of a half year of Sabik results and organic growth within other Carmanah's business segments.

2. OUR BUSINESS

Headquartered in Victoria, British Columbia, Carmanah produces a portfolio of products focused on energy optimized LED and solar technologies. We design, develop and distribute energy efficient LED solutions for infrastructure including: signaling systems for the marine aids to navigation, airfield ground lighting, offshore wind marking, aviation obstruction and traffic markets. Carmanah's product portfolio also includes industrial and commercial solar powered outdoor LED lighting systems, and solar on and off-grid power generation systems. Since 1996, we have earned a global reputation for delivering strong and effective products for industrial applications that perform reliably in some of the world's harshest environments. Our LED and solar power systems provide durable, dependable, efficient and cost-effective solutions which have been deployed in over 400,000 installations in 110 countries. The Carmanah brand portfolio includes Go Power! and recently acquired companies, Sol and Sabik. In the second half of 2015, Carmanah's Marine vertical was consolidated under the direction of Sabik Oy's management team.

We manage our business within three reportable segments: "Signals", "Illumination", and "Power". The Signals segment includes results from our Airfield Ground Lighting, Aviation Obstruction, Offshore Wind Marine and Traffic verticals, including the results of our recent acquisition of Sabik as outlined in section 3. The Illumination segment refers to results from our Outdoor Lighting business and includes the results from the recent acquisition of Sol. 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

	Our Airfield Ground Lighting 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 airfield market include Avlite Systems Pty Ltd and Metalite Aviation Lighting, a trading division of Aeronautical & General Instruments Limited.
	Our Aviation 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, Dialight PLC and Flash Technology LLC.
	Our Offshore Wind vertical, operating through our 100% owned Germany subsidiary, Sabik Offshore GmbH, specializes in providing marine aids to navigation solutions for offshore wind farms, providing both temporary (construction phase) and permanent marking. We provide high-quality systems and services that meet demanding safety and efficiency requirements which can stand up to the rigor of harsh environments, having been tested extensively in the Baltic and North Seas since 2008. Our NAi (Navigational Aids Interface) offers a unique and innovative marking and monitoring solution for all wind project types. Our main offshore wind competitors include Pintsch Aben BV, Sealite Pty Ltd, MSM Spain SLL, Mobilis SAS and Vega Industries Inc.
	Since initially working with the Canadian and US Coast Guards to create a new generation of aids-to navigation lanterns, the Carmanah Marine division has become an established supplier to Coast Guards, marine authorities, navies and ports around the globe. The purchase of the Sabik Group in 2015 cemented our vision to deliver one of the most comprehensive lines of short and long-range marine navigation aids on the market. Carmanah's main competitors in the Marine market include Sealite Pty Ltd, Vega Industries Inc, 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).

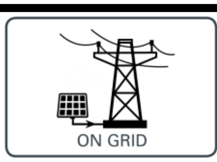
The product offering across the Signals segment verticals are similar in nature and share common technology, form factor and components. These products are often used in a variety of applications with little or no modifications. They are also manufactured in a similar fashion and have common distribution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

Illumination

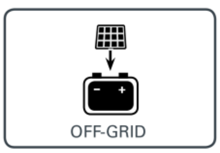
Our Outdoor Lighting vertical, including the recent acquisition of Sol, has one of the largest solar outdoor lighting installation bases in the world. We have over 70,000 installations in more than 65 countries and 24 years of solar lighting experience and as a result have a significant amount of brand 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 Solutions Inc. Internationally we have variety of competitors operating in different areas of the world.

Power



Our On-Grid vertical is focused on the development and construction of 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 70 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. Our main competitors include Panasonic Eco Solutions Canada Inc., RESCo Energy Inc. and Deltro Electric Ltd.



Marketed under the Go Power! brand, our Off-Grid 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 Off-Grid competitors are Xantrex Technologies a division of Schneider Electric SE and Samlex America Inc.

As we explore new opportunities in the Power segment, we have begun to classify these businesses as either "On-grid" (systems that tie 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.

Our long term growth plan is to become the global leader in solar LED signaling and lighting for infrastructure through the provision of lower cost and environmentally sensitive solutions. We will attain these leadership positions either through organic growth and/or acquisitions which will enable us to obtain appropriate economies of scale. In the near term we intend to:

- sustain organic growth by adding to our global distribution network leading the "Internet of Things" revolution in our signals and lighting product portfolio through connectivity and cloud-based data management and control; and
- solidifying our market position through strategic acquisitions that serve to broaden our product offering and extend distribution.

Industry trends

There are a number of industry trends that we expect to impact our businesses. By segment these include the following:

Signals – Historically our Signals businesses were primarily lighting products that were placed on or near hazards to provide warning to vehicles, ships and aircraft. These lighting products began to be converted to lower power consumption LED technology a number of years ago and this transition is all but complete. Lower power consumption has had a by-product effect in that many of these devices can now be powered by solar, which has had the impact of lowering capital and operating costs for our customers. Now a new trend is starting to emerge. Signal lighting products are beginning to be connected to data networks and to be monitored and controlled remotely. In addition to providing warning lights, these "connected" devices are likely to be data gateways that provide a variety of sensor data that will increase safety and further reduce operating costs. As these technologies come to fruition we expect that the current installed base of signaling products will become obsolete. As this happens, we expect to see increases in growth rates for the signals industry as a new replacement cycle begins.

Illumination – Similar to signals, LED efficiencies in outdoor lighting are having an impact on power consumption. To produce expected light levels for streets, parking and pathways, the power requirements are much lower than in the past and are likely to be lower in the future. This trend makes the use of solar powered lighting economically more feasible than in the past. Accordingly, we expect growth rates for solar LED illumination to rise.

Solar Power – Solar photovoltaic ("PV") module costs have decreased rapidly over the past 10 years. While it is hard to predict whether manufacturing costs will continue to decline, it is clear that PV efficiencies are beginning to improve and are likely to continue to improve as solar becomes increasingly competitive with other forms of power generation. Combining this trend with a growing social/environmental bias towards renewable energy sources suggests a positive outlook for solar power businesses.

Vision

We are at the frontier of technology changes that will enable new business models in both our Signals and Illumination segments. It is our vision to harness these technology changes and lead the way with new business models that bring new value to customers.

In our world, adding "internet of things" capability allows our products to be much more than safety and light producing devices. In addition to the traditional purpose of providing light, our devices will house multiple sensors and be capable of transmitting data and receiving remote controls. At a base level, this new capability, once ubiquitous, will help our customers maintain safety levels at significantly lower cost.

And while improved safety and lower operating costs will be important for our customers, of even greater importance will be our ability to pursue new business models enabled by our technology leadership. It is our vision that customers will find value in our future ability to be a service provider – to provide "light" instead of "light fixtures" and in our signalling spaces, to provide "safety" instead of "safety hardware". Within the scope of this vision, we expect to be able to provide long-term service to customers who will enjoy low operating costs while avoiding capital investment.

Underlying this vision, our pledge is to develop or acquire technologies that enable Carmanah to lead the way.

3. OPERATIONAL AND BUSINESS HIGHLIGHTS

Our 2015 operational and business highlights are discussed below.

Sabik Acquisition

On July 2, 2015, we completed the acquisition of the Sabik Group of Companies ("Sabik" or the "Group"). The acquired Group consists of the following companies: Sabik Oy, based in Finland, Sabik Offshore GmbH (formerly Sabik GmbH), based in Germany, Sabik PTE Ltd, based in Singapore, and Sabik Ltd and Sabik Offshore Ltd, both based in the United Kingdom. Sabik is a leading manufacturer in the worldwide marine aids to navigation market, with whom we have a collaborative sales, marketing and development partnership with since 2010. Sabik also provides sophisticated lighting and monitoring solutions to the offshore wind industry. The offshore wind industry will be a new business endeavor for us, a market we believe has strong global growth potential.

The acquisition was announced on June 10, 2015 with the signing of a Share Purchase Agreement (the "Agreement"). Under the Agreement, we have acquired 100% of the shares of each of the companies within the group, with the exception of Sabik Ltd and Sabik Offshore Ltd, where we acquired 81% and 80% respectively. Of the entities acquired, approximately 90% of the revenues are generated by Sabik Oy and Sabik Offshore GmbH. No non-controlling interest has been recognized for Sabik Ltd or Sabik Offshore Ltd, as the amounts have been determined to be immaterial. These minority interests were acquired for a nominal amount late in late Q4 2015 and early 2016.

For tax planning purposes, Sabik GmbH was acquired through the use of a second German company Carmanah Sabik Holdings GmbH. During the Q4 2015, we completed the merger of Sabik GmbH and Carmanah Sabik Holdings GmbH with the combined entities now called Sabik Offshore GmbH.

The purchase price consisted of €17.0 million (USD $18.8 million) in cash and the issuance of 1,180,414 shares of our Common share. The actual value of the consideration issued amounted to $23.3 million, $18.8 million attributable to the cash outlay of €17.0 million (utilizing a Euro to US dollar exchange rate of 1.1072) and $4.5 million to the shares issued. The actual value of the shares on issuance on July 2, 2015 would have been $6.4 million based on the closing share price of $6.79 CAD and a US/CAD exchange rate of 0.7958. However, all of the shares issued were subject to an escrow or hold period, with approximately 147,550 shares being released from the hold period every three months over a two-year period. As a result, the fair value of these shares was discounted utilizing a Black Scholes option pricing model calculation.

The acquisition was accounted for using the acquisition method in accordance with IFRS 3 – Business Combinations, with the results of operations consolidated with ours effective July 2, 2015 and has contributed incremental revenue of $14.4 million and net income of $0.2 million. The low net income is attributable to the amortization of intangibles recognized upon the acquisition of approximately $1.3 million. If the acquisition had occurred on January 1, 2015, Sabik would have contributed revenue of about $23.3 million and a net income of $1.0 million. The total acquisition related costs incurred by Carmanah were approximately $1.1 million.

Sabik's results have been reported within our Signals segment, with some of the business classified as a part of our new Offshore Wind vertical and the remainder reported under our Marine vertical. The acquisition of Sabik is on strategy and in keeping with our belief that the signals industry is ready for consolidation. Sabik's management team has deep industry experience, market knowledge and technical competence. Therefore, Sabik management now lead the combined Carmanah and Sabik Marine businesses as well as our efforts in the Offshore Wind market. In 2016, we expect synergy opportunities in overlapping product lines, commercial efficiencies, R&D projects and potentially manufacturing competencies. A likely outcome of this will be the transfer and sale of some intellectual property to and from Sabik to ensure technology and other property resides where it will be best utilized.

Share Offering

On April 28, 2015, we completed a "bought deal" financing (the "Financing") which raised gross proceeds of $32.0 million CAD. 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 of our 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. The majority of the proceeds from this offering were to be used for future mergers and acquisitions, and a substantial portion of these funds were used for that purpose when we completed the Sabik acquisition on July 2, 2015.

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 from issuance and 13,310 of these warrants were exercised during the second quarter of 2015.

Recognition of Tax Assets

During 2015, we made the decision to recognize our substantial tax assets which were previously written off at the end of 2011. These assets were originally written off due to the uncertainty of their usage at that time. The decision to reinstate these assets was based on our financial performance over the past eight quarters and our outlook for future periods. These assets, presented on the Statement of Financial Position, include investment tax credits totalling $3.5 million and deferred income tax assets totaling $7.5 million. On the Statement of Income, the investment tax credits of $4.5 million reduced our 2015 operating expenses. Disclosed separately is a net income tax recovery of $5.7 million. Both amounts will allow us to reduce taxes on current and future earnings realized within Canada.

Sol Integration

We have been working to complete the integration of Sol into our operations since the acquisition on July 2, 2014. 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. The integration of Sol was completed during the first six months of 2015. Some of the major steps completed are noted below:

- During Q1 2015, 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 was completely closed on May 31, 2015, which coincided with the expiry of the building lease. A sales office in Florida is now fully up and running and all production and inventory has been transferred to the Company's main production and distribution facilities. Current residual headcount from Sol is seven full-time employees, all of which are focused on sales or sales support.
- From a systems perspective, Sol's ERP system was successfully converted in Q1 2015 to the same ERP system that Carmanah implemented in 2014 and their CRM system was transitioned during Q2 2015.

With the integration complete, we will continue to focus on building this business over the coming years.

Executive and board of director changes

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

On October 22, 2015, we announced that we and Tammy Neske, our Chief Operating Officer, agreed to part ways with immediate effect. Pursuant to the terms of her employment contract, Ms. Neske will received a severance payment that we recognized in Q4 2015.

On September 30, 2015, we announced that Sara Elford was joining our board of directors. Ms. Elford graduated from Bishop's University in 1994 with a Bachelor of Business Administration and became a CFA Charterholder in 1997. During her almost 20-year career as a Sell-Side Analyst, Ms. Elford focused on Sustainability and Special Situations. From 1998 until her resignation in 2015, Ms. Elford was employed by Canaccord Genuity where she was consistently ranked by Brendan Wood International and also named in the top two for stock picking by Starmine six times since 2003. In her capacity as a Sell-Side analyst, Ms. Elford provided research coverage of Carmanah for over a decade, and brings a perspective that could not be easily matched.

On January 13, 2016, we announced that Peter Berrang resigned from the board of directors with immediate effect.

Business Highlights

Below are some of the business highlights within each of our market verticals:

- **Signals**
    - Our Marine vertical saw strong growth across its business. A majority of this came from the acquisition of Sabik and part of this growth came from increased sales to the US Coast Guard where we were awarded us a new multi-year contract in 2014 to supply our M800 series lanterns. While there is no guaranteed financial value of purchases under the contract, the award has purchase targets of $3.4 million over the life of the contract, which may be up to five years if all option years are exercised.

    - Within our Traffic vertical, we continued to focus on the rectangular rapid flashing beacon ("RRFB") as well as the School Zone Flasher ("R829"), including a recent win to supply a major US city several hundreds of each product combined. The shipping of these units began in Q1 2016. We have also supplied several Departments of Transportation with the two new products for evaluation. These products are expected to officially launch in 2016.

    - Our Aviation Obstruction vertical continued to see growth in 2015 through expanded distribution and increased market share. The OL800 that launched in 2014 has gained momentum in several sectors within the Aviation Obstruction vertical. One of the many successful installations was in Portugal on 150 power towers where our OL800 increased safety by making these structures visible to air traffic.

    - In 2015, our Airfield Ground Lighting vertical launched the A704-VL Solar Heli-pad light. The A704-VL optically complies with the latest International Civil Aviation Organization ("ICAO") and the Federal Aviation Administration ("FAA") regulations and military specifications for all helipad applications: Final Approach and Take Off ("FATO"), Touchdown and Lift Off ("TLOF"), taxiway, approach, landing, flight path, and aiming point. This group also saw success with large orders for solar airfield ground lights outside North America. In addition, this vertical continues to expand distribution channels worldwide.

- **Illumination**
    - Final production was completed at the Sol production facility in Palm City, Florida in Q1 2015 and the facility was subsequently closed. Sol now maintains a sales office in Stuart, Florida and all Illumination products are produced using Carmanah's strategy of toll manufacturing, resulting in margin improvement during the year. This transition included the launching of an arrangement with Cree Inc. to adopt their line of leading luminaires. During the year, a comprehensive market research project was completed to provide guidance for the future domestic go-to-market strategy and product development roadmap. Progress towards the international strategy to add last mile partners included the addition of several partners in the Middle East, sub-Saharan Africa and Latin America.

- **Power**
    - Our Off-Grid vertical saw strong year-over-year growth in 2015. This was largely driven by operational improvements and innovation on a number of established products, also reducing material costs in many of these instances. This was in spite of large tariffs implemented in Q1 2015 by both the Canadian and US governments on Chinese sourced solar panels and solar cells. We took steps and implemented changes to our vendors, thus allowing us to eliminate most of these tariffs. All of these factors contributed to maintaining our margins within the business. We plan to continue to invest in product development in 2016 and as a result should have a number of new innovative products to introduce to this market.

    - Our On-Grid vertical saw a slowdown in the development and activity surrounding the Ontario Feed-In-Tariff ("FIT") program in 2015. There were no new contract offers released in 2015; however, the Large Renewable Procurement ("LRP") and FIT 4 contract application windows were opened. As expected, the applications for contracts in both areas far exceeded the procurement targets set out by the Independent Electricity System Operator ("IESO") indicating there is still strong market demand for solar installations in the Province of Ontario. Additionally, there were positive indications from other Canadian Provinces for programs that will promote and support the development, installation, and connection of Solar PV Projects in the near term. During 2015, our team focused on completing construction of FIT 2.0 and FIT 3.0 projects and pursuing additional contract opportunities offered as part of the FIT procurement, and executing on business development strategies for securing design-build agreements for FIT 3.0, extended FIT 3.0, and FIT 4.0 projects. In the first half of 2016, the team will continue constructing and connecting the remaining backlog of projects and continue to pursue several significant portfolios of FIT 4.0 projects which it hopes to secure in and begin build out in the latter half of 2016.

Outlook for 2016

The Company continued to progress well in 2015 and built on the turnaround that started to take hold in 2014. In 2016, the Company will begin to make strategic investments in the Signals and Illumination segments with a view to driving profitable growth. The Company's will concentrate first on organic growth achieved through the addition of distribution on a global scale. In addition, the Company sees opportunities to make strategic acquisitions to add to its product portfolio and to make further distribution gains. Finally, in 2016, the Company will begin to ramp up its product development spending with a focus on integrating advanced telematics into all of our product offerings with the aim of leading the market in "internet of things" capability. Overall the Company is optimistic that it can continue its progress in 2016 and achieve reasonable levels of growth.

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 and twelve months ended December 31, 2015.

4.1. Three and Twelve Month Periods Ended December 31, 2015 and 2014

Revenue and gross margin

	Three months ended December 31,			Year ended December 31,		
(US$ thousands, unless noted otherwise)	2015	2014	Change	2015	2014	Change
Revenues						
Signals	12,503	5,360	133.3%	34,176	16,798	103.5%
Illumination	3,322	4,038	(17.7)%	8,915	10,489	(15.0)%
Power	5,502	4,053	35.8%	25,115	16,445	52.7%
Total revenue	**21,327**	**13,451**	**58.6%**	**68,206**	**43,732**	**56.0%**
Gross margin %						
Signals	41.0%	44.8%	(3.8)%	42.1%	45.6%	(3.5)%
Illumination	43.0%	26.6%	16.4%	37.8%	27.8%	10.0%
Power	6.0%	28.2%	(22.2)%	20.5%	27.9%	(7.4)%
Total Gross margin %	**32.3%**	**34.3%**	**(2.0)%**	**33.6%**	**34.7%**	**(1.1)%**

Consolidated revenues for the twelve months ended December 31, 2015 were $68.2 million, up $24.5 million over the same period in 2014. Overall, our gross margin for the twelve months ended 2015 was 33.6%, down from 34.7% in the same period in 2014. Overall our backlog was $15.7 million carried into 2016 vs $9.1 million in the prior year. The following section summarizes the changes by segment.

- **Signals Segment**

  Revenues for Q4 2015 were $12.5 million, up from $5.4 million in the same period in 2014. Full year 2015 revenues were $34.2 million, up from $16.8 million in the same period in 2014. On a year-to-date basis, the majority of this increase is due to the acquisition of Sabik, which contributed revenues of $6.0 million in Q3 2015 and $8.4 million in Q4 2015. Excluding Sabik, our Signals segment revenues were up $3.0 million over 2014. This increase was driven by higher sales in our Airfield Ground Lighting, Aviation Obstruction and Traffic verticals. Airfield Ground Lighting, which is primarily a project-based business, benefited from a number of larger projects completed and shipped in the first two quarters of 2015. Obstruction's growth continued due to an increase in sales, development and marketing efforts that began in early 2014 when this vertical was spun off from our Aviation or Airfield Ground Lighting vertical. Traffic's growth has largely been fueled by additional markets and customers embracing the Rapid Rectangular Flashing Beacon (the "RRFB") system, a product we have worked to have certified by a number of US state departments of transportation. Sales in our Marine vertical were flat year-over-year mainly due to the elimination of intercompany sales previously being recognized to Sabik. In addition, our Marine vertical experienced a spike in Q4 2014 due to US Coast Guard procurement of the new M800 lanterns. The signals segment carried a backlog of $8.3 million into 2016, of which $5.3 million relates to the Sabik Offshore vertical.

  Gross margin % in Q4 2015 was 41.0%, down from 44.8% in the same period in 2014. Full year 2015 gross margin % was 42.1%, down from 45.6% for the same period in 2014. These decreases are mainly due to some anomalies in 2014. During the Q2 and Q3 2014, we had a conversion of a beta development project into a commercial sales resulting in extraordinarily high margins in Q2 2014. Further, in Q3 2014, our margins were positively impacted by the release of warranty provisions associated with the acquisition of a Traffic business in early 2013. Excluding these anomalies, our 2014 gross margin % would have been approximately 41.5%. Our 2015 margin was also negatively impacted by the inclusion of a $0.5 million charge related to a one-time fair value adjustment associated with inventory acquired in the Sabik acquisition. Normalized gross margin % for those periods would have been 45.0% in Q4 2015 and 43.5% for the year.

- **Illumination Segment**
  Revenues for Q4 2015 were $3.3 million, down from $4.0 million in the same period in 2014. Full year 2015 revenues were $8.9 million, down from $10.5 million in the same period in 2014. The decline year-over-year is due to a very soft Q3 2015, which was due to a lack of projects that could be closed and shipped in the period, rather than a general slowdown in sales or a trend in losing projects to competitors. Although we had a strong rebound in revenues in Q4 2015, revenue was lower than the same quarter in 2014. Q4 2014 was a record breaking quarter for us as we worked to reduce the backlog of orders acquired in the acquisition of Sol, which closed July 2, 2014. Illumination carried a backlog of $0.9 million into 2016.

  Gross margin % for Q4 2015 was 43.0%, up from 26.6% in the same period in 2014. Full year 2015 gross margin % was 37.8%, up from 27.8% in the same period in 2014. Although part of these increases are due operational improvements and cost reductions in the bill of materials of the product lines sold, a reduction in current and future expected warranty costs resulted in recovery of about $0.2 million recognized in Q4 2015. The impact increased margins by approximately 6.6% in the fourth quarter and 2.4% for the year. Normalized margin % for those periods would have been 36.4% in the fourth quarter and 35.4% for the year.

- **Power Segment**
  Revenues for Q4 2015 were $5.5 million, up from $4.1 million in the same period in 2014. Full year 2015 revenues were $25.1 million, up from $16.4 million in the same period in 2014. These increase are due to higher sales in both our On-Grid and Off-Grid verticals. Our On-Grid vertical saw a substantial increase in activity in 2015, with 37 contracts secured in the year compared to 14 in the prior year. On-Grid carried over a backlog of $5.1 million into 2016. Our Off-Grid vertical revenues were up approximately 33% in 2015 compared to 2014. This increase is largely due to continued growth efforts, which include expanding our distribution channels and the introduction of new products. Off-Grid carried a backlog of $1.4 million into 2016.

  Gross margin % for Q4 2015 was 6.0%, down from 28.2% from the same period in 2014. Full year 2015 gross margin % was 20.5% down from 27.9% in the same period in 2014. Part of these decreases was due to the sales mix, with higher revenues coming from the relatively lower margin On-Grid vertical. The gross margins for On-Grid was lower than prior year and was negative in the fourth quarter of 2015. This was primarily due to cost overruns on a large portfolio of projects requiring additional labour to complete on schedule. Gross margin % in Off-Grid was also slightly lower in 2015. This was partly due to the impact of solar panel tariffs levied by the Canadian and US governments on panels manufactured in China, which had an impact in the early part of 2015 until we found alternative supply of products that were not subject to the tariffs and we were able to adjust prices. We estimate the tariff negatively impacted margins by approximately 1.5% in the year.

Sales by Geographic Region
Approximately 30.8% of our 2015 revenues were from outside North America. This is up from 21.4% in the same period in 2014. This increase is mainly due to the inclusion of Sabik since the majority of their sales are in Europe. This percentage increase would have been higher if it weren't for a number of large overseas projects recognized in the first half of 2014.

Operating expenses

	Three months ended December 31			Year ended December 31		
(US$ thousands, unless noted otherwise)	2015	2014	Change	2015	2014	Change
Sales and marketing	1,716	1,699	1.0%	5,743	5,292	8.5%
Research, engineering and development	1,044	469	122.6%	2,903	1,533	89.4%
General and administration	3,124	1,701	83.7%	9,512	5,967	59.4%
Other operating expenditures/(recovery)	(182)	312	NA	(3,986)	190	NA
Total operating expenditures/(recovery)	**5,702**	**4,181**	**36.4%**	**14,172**	**12,982**	**9.2%**
Operating expenses as % of sales*	26.7%	31.1%	(4.4)%	20.8%	29.7%	(8.9)%
Non-cash items:						
Amortization	*554*	*172*	222.1%	*2,073*	*436*	375.5%
Stock-based payments	*267*	*113*	136.3%	*901*	*326*	176.4%

** A Non-IFRS measure*

Our total operating expenses for the twelve months ended December 31, 2015 were $14.2 million, up from $13.0 million in the same period in 2014. For Q4 2015, total operating costs were $5.7 million, up from $4.2 million in the same period in 2014. A significant portion of the increase for the year and in the fourth quarter was the acquisition of Sabik on July 2, 2015. This resulted in the pick-up of associated operating costs for the first time; specifically $4.8 million for the year and $2.3 million in the fourth quarter. Included in the Sabik operating costs was amortization related to acquired intangibles, which amounted to approximately $1.3 million for the year and $0.3 million in Q4 2015.

If we exclude Sabik operating costs, our operating costs, excluding the one-time income tax recovery of $4.5 million during the year and $0.2 million in the fourth quarter, would have been up $1.0 million for the year, but down $0.6 million in the fourth quarter. Some of the notable changes year-over-year are described below:

- Higher stock-based compensation expense of approximately $0.6 million, which rose in the year due to an increase in the number of options granted to both employees and directors of the board. The expense associated each option granted is also higher due the rise in our share price relative to last year, which impacts the option pricing model we utilize.
- Higher development costs, which were up approximately $0.6 million over prior year. This increase is due to a rise in the number of development projects underway as we invest in new products and technologies.
- The above increases were offset by the following:
    1. Lower salaries, which is due to a combination of (1) a reduction in staff as we eliminated a number of positions when we rationalized the operations of Sol, and (2) a lower Canadian dollar which decreased the relative cost of our Canadian staff who are paid in Canadian dollars.
    2. Lower legal costs which have dropped off substantially due to the decreased spending on the lawsuits described in section 5.5.

2015 operating expenses also include a $4.0 million recovery, which we have separately disclosed within operating costs. Included in this amount is a $4.5 million recovery associated with the recognition of our Investment Tax Credits, which were previously not recorded. Offsetting this were some expenditures associated with Sol, including inventory write-downs of $0.4 million and some final restructuring costs incurred in 2015 related to Sol's integration. As with other one-time or unusual transactions, this amount has been recorded within Other operating expenses/ (recovery). 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 does not reflect normal operations.

Sales and Marketing

Our sales and marketing expenses for 2015 were $5.7 million, up from $5.3 million in the same period of 2014. In Q4 2015, sales and marketing expenses were $1.7 million, which is comparable to the same period in 2014. The increase for the year was largely driven by Sabik, which resulted in the inclusion of $1.1 million of costs since acquisition and $0.6 million in the fourth quarter. This was offset by lower sales costs in Carmanah's historical businesses primarily due to lower compensation due to (1) the lower Canadian dollar resulting in Canadian staffing costs to fall in US dollar terms, and (2) lower variable compensation as the performance within some of the underlying market verticals was below our internal targets. In the fourth quarter, we picked up $0.6 million in costs associated with Sabik. This was offset by lower staff compensation within Carmanah's historical businesses as noted above.

Research, Engineering and Development

Our research, engineering and development expenses for 2015 were $2.9 million, up from $1.5 million in the same period of 2014. In Q4 2015, operating costs were $1.0 million, up from $0.5 million in the same period of 2014. These increases are partly due to the inclusion of Sabik, which added $0.7 million in costs since acquisition and $0.4 million in the fourth quarter. Development costs within Carmanah's historical businesses increased by $0.7 million for the year and $0.1 million in the fourth quarter. These increases were primarily due to higher development activity as we invest in new products and technology.

General and Administration

Our general and administration ("G&A") expenses for 2015 was $9.5 million, up from $6.0 million in the same period of 2014. In Q4 2015, G&A expenses were $3.1 million, up from $1.7 million in the same period of 2014. These increases are partly due to the inclusion of Sabik, which added $3.0 million year-to-date and $1.3 million in the fourth quarter. The amortization of acquired intangibles made up $1.3 million of this expense for the year. If we look at non-Sabik G&A expenses, these expenses were up $0.5 million for the full year 2015 and up $0.1 million in Q4 2015, compared to the same periods in 2014. The overall increase is largely due to:

- Higher stock based compensation as previously noted
- Higher salaries and wages associated with G&A, which is primarily due to an expansion of the executive team and related severance costs
- Higher amortization expense due to the new ERP and CRM systems which were recently implemented and are now being amortized
- Lower legal and professional fees which are down substantially over prior year, mainly as 2014 costs were high as we were defending the lawsuit described in section 5.5
- Lower Canadian dollar which decreased the relative cost of our Canadian staff who are paid in Canadian dollars

Other income (expense)

Other expenses were $3.7 million for the year ended December 31, 2015, which is up from $1.2 million in the same period of 2014. The 2014 amount primarily relates to merger and due diligence costs associated with the acquisition of Sol. The 2015 amounts primarily relate to foreign exchange losses of $2.2 million and merger and acquisition related expenditures that are mainly associated with the acquisition of Sabik in the amount of $1.2 million.

Income taxes

Income tax recovery for the twelve months ended December 31, 2015 amounted to $5.7 million, compared to essentially nil in the same period in 2014. As noted in section 3, the majority of this balance relates to the recovery realized upon recognition of previously unrecognized tax assets. These assets relate to both investment tax credits and deferred income taxes, both of which will allow us to reduce taxes on current and future earnings realized within Canada. The decision to reinstate these assets was based on our financial performance over the past eight quarters and our outlook for future periods, which makes it probable these assets will be utilized. Also included within the $5.7 million is approximately $1.4 million related to current income tax expense.

4.2. Quarterly trends

(US$ thousands, except EPS amounts)	2015				2014			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	21,327	19,850	15,715	11,314	13,451	12,168	8,994	9,119
Gross margin	6,889	6,637	5,412	3,969	4,614	4,302	3,261	2,985
Gross margin %	32.3%	33.4%	34.4%	35.1%	34.3%	35.4%	36.3%	32.7%
Normal operating costs	(5,884)	(6,009)	(3,256)	(3,009)	(3,869)	(3,613)	(2,846)	(2,464)
Other operating (expenditures)/recovery	182	-	4,188	(384)	(312)	-	122	-
Other income (expense)	(669)	(1,008)	(1,517)	(546)	(183)	(494)	(99)	(445)
Income tax recovery (expense)	83	97	5,505	-	34	-	-	1
Net (loss)/income	601	(283)	10,332	30	284	195	438	77
EPS – Basic	0.02	(0.01)	0.48	0.00	0.02	0.01	0.04	0.01
EPS– Diluted	0.02	(0.01)	0.47	0.00	0.02	0.01	0.04	0.01
EBITDA[(1)]	1,527	1,181	5,135	314	535	400	604	182
Adjusted EBITDA[(1)]	2,505	2,084	2,499	1,481	1,234	1,121	843	773

[(1)] *EBITDA and Adjusted EBTIDA are non-IFRS measures see section 8 for discussion. Foreign exchange gain/ loss is now included in the Adjusted EBITDA calculation, as such historical amounts have been updated.*

Our quarterly revenues do naturally fluctuate within our business segments 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, Airfield Ground Lighting and Illumination businesses and to a lesser extent within our Marine and Traffic verticals. 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:

- Q1 2015 revenue trended downward due to the timing of project deliveries within our Aviation Obstruction and On-Grid verticals, pushing revenues into Q2 2015.
- Q2 2015 revenues were substantially over trend. This is partly due to the carry-over of projects noted in the previously bullet. It is also due to a general upwards swing in business across most of our business lines as a result of continued investment and expanded sales and marketing efforts.
- Q3 and Q4 2015 revenues trended upward due to the acquisition of the Sabik on July 2, 2105. During the third and fourth quarters, the Sabik entities contributed $6.0 million and $8.4 million, respectively, to our total revenue.

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.

Operating costs were relatively stable between Q3 2013 through to Q2 2014. In Q3 and Q4 2014 operating costs spiked mainly due to the pickup of Sol expenses with their results being consolidated starting July 2, 2014. Operating costs in Q1 2015 dropped off with the elimination of a large portion of Sol's overhead and back office functions. Operating costs increased slightly in Q2 2015, partly due to the expansion of our executive and management teams to position ourselves for future growth. The large increase during Q3 2015 was due to the acquisition of Sabik, which added a number of new office locations and approximately 70 employees, with approximately 50 of those expensed within operating costs. Also included in this is $0.9 million of amortization associated with the backlog acquired from Sabik which was fully shipped by the end of Q4 2015.

Other operating expenditures are operating costs that are non-recurring in nature and have been separated to better highlight their impact and magnitude. The charge in Q4 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. Other operating expenditures in 2014 include restructuring charges of $0.3 million in Q4 2014 and a recovery of restructuring expenses in Q2 2014 due to a change in plans for elimination of positions in the company. Other operating expenditures in Q1 2015 primarily relate to a $0.3 million write off of inventory associated with the integration of Sol and closure of their manufacturing facility. A further $0.1 million was incurred in Q2 2015 relating to Sol as final integration occurred during the quarter. In Q2 2015, we recognized a $4.3 million recovery associated with the recognition of our Investment Tax Credits which were previously not recorded.

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, acquisition costs, and other items. The first two quarters of 2014 included a large amount of costs associated with the acquisition of Sol, although this was partially offset by foreign exchange gains in Q2 2014. The fluctuations in Q3 2014 and Q1 2015 were largely driven by foreign exchange losses. Other expenses in Q2 2015 relate to foreign exchange losses on foreign denominated working capital and also merger, acquisition and due diligence costs associated with the acquisition of Sabik which closed on July 2, 2015. Other expenses in Q3 2015 primarily relate to foreign exchange losses of $0.5 million and additional M&A costs of $0.5 million which mainly relate to the Sabik acquisition.

4.3. Select Annual Information

The following table provides selected financial information for the last three fiscal years.

Year ended December 31 *(in thousands US$, unless noted otherwise)*	2015	2014	2013
Sales	68,206	43,732	25,902
Gross margin	22,907	15,162	7,384
Income/(loss) from continuing operations	10,680	994	(5,564)
Income/(loss) per Share – Basic	0.48	0.07	(0.10)
Income/(loss) per Share – Diluted	0.47	0.07	(0.10)
Net income/(loss)	10,680	994	(5,564)
Income/(loss) per Share – Basic	0.48	0.07	(0.10)
Income/(loss) per Share – Diluted	0.47	0.07	(0.10)
Total assets	89,976	33,367	14,957
Total long-term financial liabilities	-	-	-
Cash dividend	-	-	-
Adjusted EBITDA*	8,569	3,971	(2,677)

* *Adjusted EBTIDA are non-IFRS measures see section 8 for discussion.*

Revenue and earnings have been trending upwards significantly over the past three years. Both the revenue and earnings growth are attributable to a combination of organic growth in our underlying businesses and acquisition. On July 2, 2014, we acquired Sol, a competitor in our Illumination segment which resulted in incremental revenues of $5.5 million in 2014. On July 2, 2015, we acquired Sabik, as described in section 3 above. The inclusion of Sabik contributed approximately $14.4 million to our 2015 revenue.

The swing from a loss to positive earnings between 2013 and 2014 was primarily due to the successful restructuring activities initiated in late 2013 that resulted in lower overall operating costs and increased sales efficiencies. The increase in earnings between 2014 and 2015 is largely attributable to the recognition of various tax assets which were previously unrecognized. As the company grows it's expected to significantly benefit from continued sales synergies and operating leverage. See section 4.1 for further details.

The increase in assets between 2013 and 2015 is largely due to a combination of acquisitions described above and/or a number of equity raises used to fund our expansion efforts.

5. LIQUIDITY, CAPITAL RESOURCES AND OTHER DISCLOSURES

5.1. Summary of consolidated statement of cash flows

Year ended December 31 *(US$ thousands, unless noted otherwise)*	2015	2014	Change
Net Cash used in operating activities	(9,865)	(2,443)	303.8%
Net Cash used in investing activities	(17,407)	(226)	7602%
Net Cash provided from financing activities	33,566	6,571	410.8%
Net Effect of exchange rate changes on cash	(121)	(392)	(69.1)%
Total increase in cash	**6,173**	**3,510**	**75.9%**

Cash used in operating activities

During the twelve months ended December 31, 2015, cash provided by our operating activities, excluding changes in working capital, was $2.6 million which is up from $2.4 million in the same period in 2014. Changes in non-cash working capital were negative $12.5 million, up from negative $4.8 million in the same period in 2014. This increase is due to (1) a rise in the number of major projects that have required an upfront working capital investment (2) a general increase in inventory levels as our business grows and (3) the acquisition of Sabik. From a project perspective we have seen a number of larger contracts within our On-Grid vertical that have longer payment terms which has resulted in a large increase in our receivables balance. We expect a majority of the On-Grid receivables to be collected in 2016. 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 twelve months ended December 31, 2015, cash used for investing activities was $17.4 million, up from $0.2 million in the same period in 2014. The 2015 increase primarily relates to the acquisition of Sabik which we disbursed $18.8 million to purchase. The actual value presented in the cash flow statement for the Sabik acquisition is net of $2.1 million of cash within Sabik which was acquired. The remaining amount was from the investment in our new CRM, which we continue to improve, and various tangible additions, including leasehold improvements for a new sales office in Florida and an engineering office in Toronto. The amounts in 2014 primarily relate to expenditures made on our ERP system which went live in late 2014. This was offset by the cash received from the acquisition of Sol, Inc. in Q3 2014.

Cash provided from financing activities

During the twelve months ended December 31, 2015, cash provided from financing activities was $33.6 million, up from $6.6 million in the same period in 2014. In 2015, the amount relates to bought deal equity raise backed by a syndicate of underwriters led by Cormark Securities Inc. Gross proceeds were $32 million CAD from the issuance of 6,400,000 common shares. A total of 332,750 warrants were also issued to the underwriters as a part of the financing. These warrants entitled the underwriters to purchase one additional share for each warrant at a price of $5.00 CAD per share. We also drew $10 million USD from the acquisition line from the CIBC credit facility. These funds were advanced to us on June 30, 2015 in anticipation of the close of the Sabik acquisition. The 2014, we raised $6.6 million from two different private placements which occurred in Q2 and Q3 of 2014.

5.2. Liquidity and capital resource measures

On December 31, 2015, our overall working capital was $28.3 million, up from $16.1 million at December 31, 2014. This increase is largely due to the bought deal described in the section above. On July 2, 2015 we used $19.1 million for the purchase of Sabik. Other than regular purchases of production and office equipment, we have no further major capital plans in the near term.

In the past, our primary source of liquidity has been from equity issuances and, to a lesser extent, our credit facility, which is discussed in the section below. We believe we have sufficient capital resources and liquidity to run our current business for the foreseeable future. Future acquisitions could require that we raise additional equity or debt.

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 $25.75 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) $2.0 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 required CIBCs review and approval of the specific acquisition transaction.

On June 25, 2015, we obtained approval from CIBC to draw on the term acquisition credit for the Sabik acquisition as outlined in section 3. On June 30, 2015, a total of $10 million was drawn on the facility in anticipation of closure of the acquisition. The associated debt is repayable on a monthly basis over a five-year term and is broken into two $5 million tranches, both of which are repayable on demand. The first tranche is supported by a 100% guarantee from Export Development Canada and carries an interest rate of US LIBOR plus 1.5%. The EDC fees associated with their guarantee is approximately 4.5% per annum on the outstanding balance. The second tranche carries and interest rate of US LIBOR plus 3.5%.

The Facility is secured by a General Security Agreement and share pledges of the Company's subsidiaries. The Company is also subject to financial covenants and reporting requirements typical of a facility of this nature.

The Sabik Group of Companies has access to an operating line and loan with a Finnish financial institution. This debt is secured by Carmanah through a letter of credit drawn from the CIBC credit facility noted above.

At December 31, 2015, the principal amount outstanding on the $10 million term acquisition loan was $9.0 million.

5.4. Contractual obligations and commitments

We work with a number of operating leases that cover facilities and equipment as well as committed contracts covering various IT services. The following table outlines the minimum amounts due under these agreements in future years as at December 31, 2015:

	Facility leases	Equipment leases	IT and other contracts	Total
Not later than 1 year	667	61	55	783
2 years to 3 years	948	113	43	1,104
Greater than 3 years	858	72	34	964
Total	2,473	246	132	2,851

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, Creation Technologies LP and Star Precision Fabricating Ltd. We previously had Flextronics as our main contract manufacturer; however, we have now fully moved manufacturing away from that facility. 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 products is less than actual use or sales in a given period. At December 31, 2015, our contract manufacturers held approximately $1.5 million (December 31, 2014 - $1.8 million) in inventory and $0.7 million (December 31, 2014 - $1.2 million) in outstanding committed purchase orders.

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 – collectively the "Plaintiffs") alleging patent infringement with respect to a specific flash pattern used with respect to our 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 Plaintiffs for a temporary restraining order and a motion for a preliminary injunction and a countersuit against the Plaintiffs with respect to a similar patent we hold. In early 2014, our application to re-examine a number of aspects of the Plaintiffs patent was accepted by the U.S. patent office. The U.S patent offices' review of the Plaintiffs patent resulted in many of the aspects of the patents being rejected. The Plaintiff have appealed this judgment. Pending that review the court proceedings have been stayed. The outcome of this case is not certain and we intend to continue to defend ourselves and file additional responses to the Court as required. As the outcome of these matters is not currently determinable, no provision has been made at December 31, 2015.

In early March 2015, we 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 against RSA in an effort to obtain coverage of the claims brought in the US and indemnity of defence costs incurred in the US litigation. The lawsuit against Integro is in negligence for failing to notify RSA of the above-noted US claims in a timely manner. The lawsuit seeks a declaration of coverage and to recover legal defence costs with respect to the US litigation. To date, we have been unsuccessful in negotiating a settlement and we expect the matter to go to trial in early 2017.

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

None.

Outstanding share data

Our common shares trade on the Toronto Stock Exchange ("TSX") (TSX: CMH), and as at December 31, 2015 we had 24,616,600 fully issued and outstanding common shares. The following table summarizes the outstanding shares, options and other outstanding stock units stated in CAD.

	As at				
	March 29, 2016	December 31, 2015	September 30, 2015	June 30, 2015	March 31, 2015
Share price – closing (CAD$)	5.30	5.68	5.57	6.70	5.90
Market capitalization (CAD $ in thousands)	130,610	139,822	136,913	156,718	100,164
Outstanding					
Shares	24,643,324	24,616,600	24,580,406	23,390,811	16,977,000
Options	1,999,868	2,052,620	2,164,183	2,006,608	1,325,948
Warrants	319,440	319,440	319,440	319,440	-

6. 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 December 31, 2015 was $1.2 million, up from $1.1 million at December 31, 2014. There was a decrease in the warranty provision of historical Carmanah and Sol, Inc. sales during the year due to a reduction in general warranty claims as return rates continue to decline. An increase of $0.3 million was related to the acquisition of Sabik based on their historical sales.
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 a write-down that 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 December 31, 2015 our inventory provision was approximately $0.3 million, down from $1.4 million from December 31, 2014. This decrease is primarily due to the reversal of provisions to offset and write-offs of inventory parts with the closure of the Sol manufacturing facility and the transition between contract manufacturers. The write off of Sol related inventory resulted in an income statement impact in 2015 of $0.4 million due to some non-provisioned items remaining at closure. Sabik evaluates their inventory periodically and writes down inventory immediately when they determine it to be obsolete.
Other Provisions	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 $0.04 million as at December 31, 2015 as we have obtained resolutions for some of these liabilities. In 2015, we reversed the $0.05 million of 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.
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 December 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 14% 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, 2015 involved the use of 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 2016 through 2020. Key drivers in this assessment include anticipated overall sales growth, estimated to be between 3% - 10% a year, a terminal growth rate of between 2% - 4% and a weighted average cost of capital of 14.5%. The analysis indicated an excess over carrying value of $6.4 million for Sol and $19.1 million for Sabik. Management considers the future sales growth rate a key factor in this analysis. In 2015, there were no impairment losses.
Revenue recognition	Our On-Grid vertical includes revenues from projects which includes both good and services. Revenue is recognized on a percentage of completion basis at the measurement of total costs which included internal labour hours completed and external costs. At the start of each project the hours to complete and total external costs are estimated and revised periodically as the project progresses. An external labour rate is then applied to hours completed at the end of each reporting period to determine internal costs and added to external costs to determine the amount of revenue to recognize in accordance with the contracts in place. As a result of the above revenue recognition approach, we will at times have unbilled receivables which arise when project revenues are earned prior to our ability to invoice in accordance with the contract terms. These amounts are disclosed on the Consolidated Statement of Financial Position.
Recoverability of deferred income tax and investment tax credits	During Q2 2015, we made the decision to recognize our tax assets which were previously written off at the end of 2011. These assets were originally written off due to the uncertainty of their usage at that time. The decision to reinstate these assets was based on our management's judgement given our financial performance over the past eight quarters and our outlook for future periods which makes it probable these assets will be utilized. These assets included both investment tax credits and deferred income taxes, both of which will allow us to reduce taxes on current and future earnings realized within Canada.
Fair values of assets and liabilities acquired in business combinations	In a business combination, we acquire various assets and assume certain liabilities of an acquired entity. The estimate of fair values for these transactions involves judgment in determining the fair values assigned to the tangible and intangible assets (e.g. technology, brand, order backlog, etc.) acquired and the liabilities assumed on the acquisition. The determination of these fair values involves a variety of assumptions, including estimates surrounding costs to acquire or reproduce a similar asset, expected cash flows, discount rates, etc. Contingent consideration resulting from business combinations is recorded at fair value at the acquisition date as part of the business combination based on expected discounted cash flows, and is subsequently remeasured to fair value at each reporting date with any subsequent change in fair value recognized in the Consolidated Statement of Earnings and Comprehensive Income. During 2015, significant judgment was required to determine the fair value associated with the acquisition of Sabik, which was acquired on July 2, 2015. The transaction was described in section 3 above. The determination of the purchase price and the associated allocation within our December 31, 2015 financial statements are preliminary and are subject to change. The following are the major areas of judgement within the accounting for the acquisition: • The value of the 1,180,414 shares issued on July 2, 2015 was determined to be $4.5 million. If these shares were valued as per the closing price on July 2, 2015, it would have been $6.4 million, based on the closing share price of $6.79 CAD and a US/CAD exchange rate of 0.7958. However, 948,842 of the shares issued were subject to an escrow or hold period, with approximately 118,605 shares being released from the hold period every three months over a two-year period. As a result, the fair value of these shares have been adjusted downward utilizing a Black Scholes model calculation. The major assumptions for this calculation mainly related to an estimate of our share price volatility, which ranged from 59.5% to 85.8% in the calculations utilized. • We have made a number of estimates and judgements with respects to intangible assets that have been recognized as a result of the acquisition. The major items recognized, include Sabik's sales order backlog, product development assets, customer lists and other similar intangibles.

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.
- IFRS 16, Leases ("IFRS 16"). IFRS 16 replaces IAS 17. Under IFRS 16, a lease will exist when a customer controls the right to use an identified asset as demonstrated by the customer having exclusive use of the asset for a period of time. IFRS 16 introduces a single accounting model for lessees and all leases will require an asset and liability to be recognized on the Statement of Financial Position at inception. The accounting treatment for lessors will remain largely the same as under IAS 17. The standard is effective for annual periods beginning on or after January 1, 2019 with early adoption permitted, but only if the entity is also applying IFRS 15.

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 December 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

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Management has assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2015 using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013). Based on this assessment, management has determined that the Company's internal control over financial reporting was effective as of December 31, 2015.

Limitation on scope of design

Prior to the third quarter of 2015, the scope of DC&P and ICFR has been limited to exclude controls, policies and procedures of Sol which was acquired on July 2, 2014. During the second quarter of 2015, we completed the integration of all of Sol's significant processes and as a result we are no longer relying on the associated scope limitation. However, we are relying on the same scope limitation for both DC&P and ICFR surrounding the Sabik acquisition, which closed on July 2, 2015. We are currently assessing Sabik's processes, procedures and associated controls with the aim of removing the scope limitation as soon as possible.

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 below.

Area of Risk	Description
Competitive Environment	The competitive environment varies between our different business segments and thus includes companies who (1) manufacture, sell and install off-grid lighting devices and signal, (2) engineer, procure and install roof top grid connected solar systems, and (3) provide off-grid power solutions. 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 our existing products obsolete if we fail 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 others develop superior innovative proprietary lighting technology 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	We have exposures to foreign currency fluctuations, most significantly between the US and Canadian dollar and the US dollar and the Euro. At present our functional and reporting currency is the US dollar, as a significant portion of our sales and cost of sales is denominated in US dollar. However a significant portion of our operating costs are denominated in Canadian dollars and we generally finance in Canadian dollars as well. As a result, we are exposed to US/Canadian dollar fluctuations which may negatively impact our results. At present level, a lower Canadian dollar positively impacts our results. We are also exposed to fluctuations in the Euro relative to the US dollar as a large portion of Sabik's business is conducted in the Euro. In the past we have entered into foreign exchange contracts to manage exchange rate risks, although none in the past two years. On a regular basis we evaluate our foreign exchange exposures and determine if any action is required. We have not, and do not intend to use foreign exchange contracts, or any other financial instruments, for speculative purposes.
Reliance on Third Party Manufacturers	We rely upon third party manufacturers and suppliers to provide certain underlying components and finished goods. While we try to maintain good relationships with suppliers and contractors, economic, political or other outside factors or changes in our demand may lead to an inability for the providers to fulfill our needs. This may include products not meeting specifications, a failure to meet demand could harm our operations and profitability. 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. Additional risks in this area also occur when we transition between manufacturers or when we close any manufacturing facility we may acquire through an acquisition.
Reliance on Outside Agents and Distributors	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. In an effort to increase sales and margins, we are in the process of developing additional and more direct routes to market. These plans may result in channel conflict which could negatively impact our sales.
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 and affect our future growth and profitability.
Intellectual Property Risks	A number of our products employ new and innovative technologies. Although we are careful to ensure we have the right to the technology utilized in our products we face the risk of infringing on the patents of others. We pursue a strategy of protecting the technology we develop 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 and could materially harm our business. 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.
Environmental and Regulatory Compliance	We are subject to a variety of environmental laws, rules and regulations in each of the jurisdictions in which we conduct our business, 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. We operate in a market where product reliability is essential as our products are often used as safety devices. A significant product failure could expose us to liability claims. While we maintain insurance to cover these risks, the adequacy of this coverage may be insufficient and litigation may extend beyond coverage held by the Company. 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. 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, could 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	Although we have had some recent success in growing our sales in a profitable manner, we face a variety of challenges to maintain this in the coming periods. To do so, we must be prudent in adding operating costs and ensure we have sufficient liquidity as our working capital needs grow. There can be no assurance that we will be able to maintain adequate liquidity without additional capital. Our future growth may also come from mergers and acquisitions, which may require us to raise additional capital. There is no guarantee we will be able to raise the necessary capital, and we may be forced to do so on terms that significantly dilute 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 with activities or 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. There can be no assurances that any anticipated benefits of an acquisition will be realized. Future acquisitions 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 which 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	Geopolitical and other global or local events may have a significant effect on our operations as we operate in numerous foreign countries. 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

EBITDA and Adjusted EBITDA

For the three and twelve months ended December 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, asset write offs, and foreign exchange gains and losses. 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	Three months ended December 31,		Year ended December 31,	
(US$ in thousands)	2015	2014	2015	2014
Net (loss)/income	601	284	10,680	994
Add/(deduct):				
Interest expense	188	-	188	-
Income taxes	(83)	(34)	(5,685)	(35)
Amortization	554	172	2,073	436
Non-cash stock based compensation	267	113	901	326
EBITDA*	**1,527**	**535**	**8,157**	**1,721**
Merger and acquisition costs	3	25	1,218	756
Fair value of acquired inventory	492	-	492	-
Extraordinary legal costs	2	139	34	804
Investment tax credits	(182)	-	(4,502)	-
Restructuring and asset write offs/(recovery)	143	312	539	190
Other inventory write downs/(recoveries)	15	-	383	-
Foreign exchange loss	505	223	2,248	500
Adjusted EBITDA*	**2,505**	**1,234**	**8,569**	**3,971**

* A Non-IFRS measure. *Foreign exchange gain/ loss is now included in the adjusted EBITDA calculation, as such historical amounts have been updated.*