



# **XEBEC ADSORPTION INC.**

## **ANNUAL INFORMATION FORM**

**For the Year Ended December 31, 2010**

**March 31, 2011**

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## 1. FORWARD LOOKING STATEMENTS

This Annual Information Form (“AIF”) contains forward-looking statements, including statements regarding the future success of the Company’s (as defined hereinafter) business, technology, and market opportunities. Forward-looking statements typically contain words such as “believes”, “expects”, “anticipates”, “continue”, “could”, “indicates”, “plans”, “will”, “intends”, “may”, “projects”, “schedule”, “would” or similar expressions suggesting future outcomes or events, although not all forward-looking statements contain these identifying words. Examples of such statements include, but are not limited to, statements concerning: (i) actions expected to be undertaken to achieve the Company’s strategic goals; (ii) the key market drivers impacting the Company’s success; (iii) intentions with respect to future biogas development work; (iv) expectations regarding business activities and orders that may be received in fiscal 2011 and beyond; (v) trends in, and the development of, the Company’s target markets; (vi) the Company’s market opportunities; (vii) the benefits of the Company’s products, (viii) the intention to enter into agreements with partners; (ix) future outsourcing; (x) the intention not to sell integrated biogas plants in Europe; (xi) expectations regarding competitors; (xii) the expected impact of the described risks and uncertainties; and (xiii) intentions with respect to the payment of dividends; (xiv) the management of the Company’s liquidity risks in light of the prevailing economic conditions; (xv) the Company’s cost reduction plan; and (xvi) the search for additional financing over the next months. These statements are neither promises nor guarantees, but involve known and unknown risks and uncertainties that may cause the Company’s actual results, level of activity or performance to be materially different from any future results, levels of activity or performance expressed in or implied by these forward-looking statements. These risks include, generally, risks related to revenue growth, operating results, industry and products, technology, competition, the economy and other factors described in detail herein under the heading “Risk Factors”.

Although the forward-looking statements contained herein are based upon what management believes to be current and reasonable assumptions, the Company cannot assure readers that actual results will be consistent with these forward-looking statements. Examples of such assumptions include, but are not limited to: (i) trends in certain market segments and the economic climate generally; (ii) the pace and outcome of technological development; (iii) the identity and expected actions of competitors and customers; and (iv) the value of the Canadian dollar. The forward-looking statements contained herein are made as of the date of this AIF and are expressly qualified in their entirety by this cautionary statement. Except to the extent required by law, the Company undertakes no obligation to publicly update or revise any forward-looking statements contained herein.

Unless specifically stated otherwise, all dollar amounts set forth in this AIF are in Canadian dollars.

## 2. CORPORATE STRUCTURE

Pursuant to a certificate of arrangement effective June 12, 2009, Xebec Adsorption Inc. and QuestAir Technologies Inc. (“**QuestAir**”) amalgamated (the “**Arrangement**”) under the provisions of the CBCA (the “**Company**” or “**Xebec**”). The head and registered office of the Company is located at 730 Boulevard Industriel, Blainville (Québec) J7C 3V4.

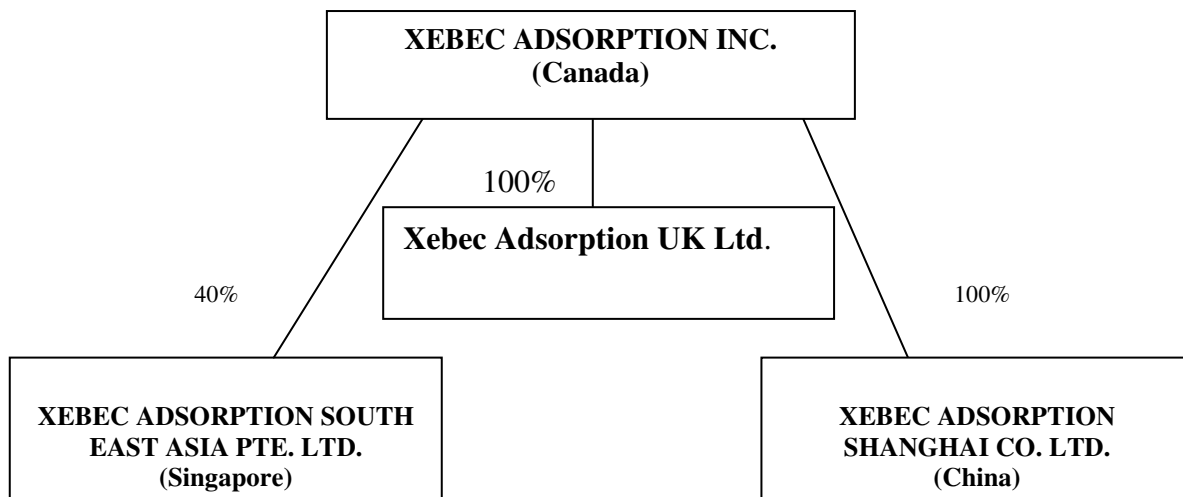
This AIF specifically incorporates by reference the Management Information Circular of QuestAir dated April 20, 2009 filed with the securities authorities in each of the provinces of Canada and available on SEDAR at [www.sedar.com](http://www.sedar.com).

### ***Intercorporate Relationships***

Xebec has one wholly owned subsidiary, Xebec Adsorption Shanghai Co. Ltd. (“**Xebec China**”) incorporated under the laws of the People’s Republic of China on May 20, 2008.

In addition, Xebec has a minority interest in Xebec Adsorption South East Asia PTE. Ltd. (“**Xebec Singapore**”) incorporated under the laws of Singapore on January 16, 2009. The majority interest in Xebec Singapore is held by Angstrom Porous PTE. Ltd. (“**Angstrom**”). The relationship between Xebec and Angstrom is governed by a unanimous shareholders’ agreement effective January 16, 2009, as amended from time to time.

The following chart sets forth the names of the subsidiaries or affiliates of Xebec, their respective jurisdictions of incorporation, and the current voting and equity interest therein as at March 31, 2011.



## **3. GENERAL DEVELOPMENT OF THE BUSINESS**

### ***Xebec’s Vision***

Xebec’s mission is to provide its customers with innovative biogas, hydrogen purification and natural gas treatment solutions that transform raw gases into marketable sources of clean energy.

## *Overview of Xebec's Business*

Xebec is a Canadian provider of clean energy solutions to corporations and governments looking to reduce their carbon footprints. Xebec designs, engineers and manufactures innovative products that transform raw gases into marketable sources of clean energy mainly used as transportation fuel. Xebec is focused on establishing leadership positions in 4 key markets where demand for biogas upgrading, natural gas treatment, liquefaction and hydrogen purification is growing.

Headquartered in a suburb of Montreal, Xebec is a global company with two state-of-the-art manufacturing facilities in Blainville (Quebec) and Shanghai (China), research and development facilities in British Columbia, as well as a sales and distribution network in North America and Asia.

### *Blainville, Quebec (Head Office and Manufacturing Facility)*

Xebec's head offices operate out of a 41,753 square foot manufacturing facility located in Blainville in which 47 people are currently employed. The Blainville operation houses corporate finance, sales for natural gas and biogas purification products, aftermarket support, global supply chain, operational engineering, manufacturing of gas separation and purification equipment and service and maintenance support.

### *Burnaby, British Columbia (Research Facility) and Surrey, British Columbia (Test Laboratory)*

Xebec's state of the art 21,868 square foot research facility located in Burnaby, British Columbia was integrated into Xebec's operations following the Arrangement. This facility's primary focus is research and development in adsorption technology and currently employs 15 people comprised of scientists, engineers, technicians and administrative staff. In addition this location houses sales support, project management and service support center for Canadian and customers on the West Coast of the United States of America.

Xebec also maintains a world leading test laboratory and facility out of a 4,137 square foot facility located in Surrey, British Columbia which currently employs 2 people.

### *Shanghai, China (Manufacturing Facility)*

In light of the growing demand for natural gas as a transportation fuel in China and the Asian region at large, Xebec opened, in 2008, a 20,451 square foot leased manufacturing facility in the Songjiang district of Shanghai, China. This new facility, leased and operated by Xebec China, currently employs 29 people and is responsible for product assembly using components manufactured in the greater Shanghai industrial area. The facility also provides shared services including supply chain and engineering support to Xebec's head office. Xebec China is also responsible for sales of Xebec's products, marketing, technical and after sales support for the Chinese and Middle Eastern markets.

## *Singapore*

In the first quarter of 2009, Xebec along with Angstrom, opened a regional sales office in Singapore. The new office which is leased and operated by Xebec Singapore is currently responsible for the following markets: Thailand, Indonesia, the Philippines, Vietnam, Brunei, Sri Lanka, Bangladesh, and Pakistan. Xebec Singapore is responsible for sales of Xebec's products, marketing, technical, and after-sales support for primarily the South East Asian markets. Xebec Singapore currently employs 4 people.

## *Newcastle, United Kingdom*

In the third quarter of 2009 Xebec opened a sales office in Newcastle on Tyne, to focus on sales of biogas upgrading systems in the United Kingdom. As a result of the implementation of a cost reduction program the 4 sales positions were eliminated in October 2010.

## Xebec's Objectives and Strategies

Xebec seeks to become a leader in the development, manufacture and supply of integrated biogas upgrading plants to either pipeline or vehicle-fuel grade renewable natural gas. Biogas is a methane-containing renewable energy source created primarily by the decomposition of organic waste.

Xebec's immediate intention is to manage its working capital and to increase revenue with the expectation of becoming profitable. To be sustainable and at least cash flow neutral or positive while positioning itself as the recognized partner in the field for low carbon and alternative fuels from biogas sources, Xebec intends to actively pursue and implement the following measures:

1. Standardize product offering with strong focus on smaller to medium gas flows, where Xebec's solutions offer inherent size and cost benefits;
2. Xebec is working on monetizing some of its intellectual properties and thereby creating additional liquidity;
3. Enforce and implement tight cost control measures on all general and administrative costs;
4. Maintain regional sales, service and support infrastructure for Xebec's key markets to strengthen Xebec's sales abilities and support products and systems in the market place;
5. Execution and operational excellence, allowing Xebec to deliver products and solutions at the best price, on time and on budget while meeting or exceeding targeted gross margins;
6. Leverage key relationships with leading channel partners and project developers to penetrate target markets;
7. Continue to proactively address and manage its liquidity and working capital requirements. Xebec's delivery cycle for biogas plants can be 8 to 12 months. The management and funding of working capital is key to success for the Company.

## *History*

### *Overview of Xebec's Business Prior to the Arrangement*

Prior to the Arrangement, Xebec was a private corporation. The following section presents an overview of Xebec's business history and complements the historical information already disclosed in the present AIF.

In 1967, Xebec's predecessor, Xebec Inc., was founded and began producing compressed air products in Sainte-Rose, a suburb north of Montreal. In 1998, Xebec Inc. was purchased by a major corporation operating in the air and gas compression industry and continued operating as a wholly owned subsidiary thereof. In 2001, Xebec Inc. relocated its entire operations to the Company's manufacturing facility and head office in Blainville, Québec.

In 2002, Xebec Inc. was awarded its first International Organization for Standardization certification which consisted in the ISO9001: 2000 certification for quality management. In 2005, Xebec Inc. was awarded the ISO14001: 2004 certification for environmental management as well as the Occupational Health and Safety Assessment Series certification consisting in the OHSAS 18001: 1999 certification for health and safety. In 2005, Xebec Inc.'s parent was purchased by a major corporation operating in the air and gas compression industry.

By 2007, Xebec Inc. had, in terms of the number of units sold, become the largest compressed air and gas adsorption company in North America, providing adsorption solutions to a number of original equipment manufacturers and selling approximately 1000 adsorption units annually.

In 2007, Xebec Inc.'s management comprised of, at the time, Kurt Sorschak, Daniel Gagnon, and Graham Robson purchased essentially all of the assets and business of Xebec Inc. in the compressed air and gas industries through Xebec and continued to provide engineered adsorption solutions to its customers in these industries.

In March 2009, Xebec and QuestAir announced that they had entered into a definitive agreement to proceed with the Arrangement, whereby the parties had agreed to combine their businesses to create a North American leader in the renewable natural gas and gas purification sectors.

### *Overview of QuestAir's Business Prior to the Arrangement*

QuestAir was founded in 1996 to develop and commercialize proprietary innovations in pressure swing adsorption technology. QuestAir was financed by venture capital investors and strategic investors before it went public in December 2004, concurrently listing its common shares on the AIM Market of the London Stock Exchange Plc and the TSX.

Prior to 2003, QuestAir was focused on developing hydrogen purifiers for use with hydrogen fuel cell vehicles. In 2003, the Board of Directors endorsed a change of strategy in order to focus more energies and resources on nearer-term market opportunities for its products. This strategy was designed to decrease QuestAir's dependence on the mass adoption of vehicular fuel cells in order to achieve profitability. As a result, QuestAir focused on selling hydrogen

Pressure Swing Adsorption (“PSA”) systems into industrial markets, and increased the capacity of its products to address new markets. As part of this process, QuestAir entered into a joint development agreement with ExxonMobil Research and Engineering (“EMRE”) to develop a large scale hydrogen purifier for the refinery market. In addition, QuestAir developed methane purification systems that can be used to upgrade biogas to renewable natural gas.

### *Overview of 2008-2011*

This section contains historical information regarding material events and commitments of Xebec and QuestAir for 2008, 2009, 2010 and 2011.

### 2011

In this section, material events and commitments for the period between January 1, 2011 and March 31, 2011 are presented.

On March 17, 2011, Xebec announced that it had signed a license and engineering agreement for a total value of USD 3.25 million with Nuvera Fuel Cells to allow for the development of two rapid cycle hydrogen purification units for use in hydrogen refueling and merchant hydrogen applications.

On the same day, Xebec also announced the departure of the Company's Chief Financial Officer, Ginette Gagné, effective March 14 and appointed Ms Lyne Routhier, C.A. to assume the responsibility of Chief Financial Officer on an interim basis.

On February 8, 2011, Xebec announced the launch of the first renewable energy project in California to purify biogas from a wastewater treatment facility as a joint project between the City of Escondido, Southern California Gas Co. and Xebec.

On January 24, 2011, Xebec announced the extension of engineering services valued at USD 2.0 million to ExxonMobil Research and Engineering Company ("EMRE") for ongoing development work related to new applications for Xebec's proprietary Rapid Cycle PSA technology.

On January 19, 2011, Xebec announced the signature of a contract valued at RMB 6 million to provide a complete biogas upgrading plant to Heilongjiang Loonggas Investment Co., Ltd. in China.

On January 14, 2011, Xebec announced the signature of a Memorandum of Understanding (MOU) with Anyang Yinshang Ltd. ("Yinshang") for the development of biogas upgrading projects in China.

### 2010

In this section, material events and commitments for the period between January 1, 2010 and December 31, 2010 are presented.

On November 2, 2010, Xebec announced the completion of a private placement of units

previously announced on October 25, 2010. Pursuant to the terms of the Offering, Xebec issued a total of 9,491,886 units (the "Units") at a price of \$0.40 per Unit for gross proceeds of \$3,796,754. Each Unit consisted of one common share of Xebec and one common share purchase warrant.

On October 19, 2010, Xebec announced the temporary layoff of 35 employees representing approximately 22% of its global workforce. The temporary layoff of 31 employees in its Canadian operation and the closure of the UK sales office with the elimination of four sales positions were implemented to reduce expenses and preserve liquidity.

On July 28, 2010, Xebec announced the signature of a significant contract to build a complete biogas upgrading plant for Terasen Gas, a major energy utility in western Canada.

On July 22, 2010, Xebec announced that it had received a first order for a landfill gas upgrading system from Huiming EP&CE Co., Ltd, a leading developer of landfill gas to energy projects in China

On July 7, 2010, Xebec announced an agreement to supply a biogas upgrading plant to WELtec BioPower GmbH ("WELtec") for a novel biogas project located in Wuxi, China

On June 15, 2010, Xebec announced the signature of a multi-year supply agreement for the purchase of Xebec's proprietary H-3300 pressure swing adsorption ("PSA") systems with Nuvera Fuel Cells, a leading supplier of fuel cell and hydrogen re-fueling systems in the U.S. and Europe.

On June 9, 2010, Xebec announced an order for a M-3200 Pressure Swing Adsorption system to upgrade natural gas at a chemical plant located in Cikampek, Indonesia.

On June 2, 2010, Xebec announced the signature of a cooperation agreement with Qingdao Tianren Environment Co. Ltd. for the development of anaerobic digestion systems that produce renewable compressed natural gas vehicle fuel from waste materials.

On May 26, 2010, Xebec announced the signature of new European contracts for four biogas upgrading systems – one located at a project in Southern France and three other systems in Austria.

On April 8, 2010, Xebec announced the appointment of Ginette Gagné to the position of Vice President and Chief Financial Officer.

On February 17, 2010, Xebec announced that it had been recognized for its key technology contribution to a US Environmental Protection Agency (EPA) award-winning renewable energy project at the University of New Hampshire.

On February 1, 2010, Xebec announced it had been awarded a contract from Halla Energy and Environment for a biogas upgrading plant to be used in a biogas project currently being developed by the Sudokwon Landfill Corporation in Seoul, Korea. Terms of the agreement were not disclosed.

On January 25, 2010, Xebec announced that Guy Ouimet, Chairman of the Board of Directors and Claude Létourneau had resigned from the Board of Directors for personal reasons and that Kurt Sorschak, Chief Executive Officer had been named Chairman of the Board.

On January 20, 2010, Xebec announced it had been awarded a project for a biogas upgrading plant in California. The project includes the supply and installation of a biogas upgrading plant to upgrade approximately 400 normal cubic meters per hour of raw biogas to pipeline grade biomethane. Terms of the agreement were not disclosed.

## 2009

In this section, material events and commitments for the period between January 1, 2009 and December 31, 2009 are presented. In light of the Arrangement, this section contains historical information for both Xebec and QuestAir.

On November 25, 2009, Xebec announced the completion of a private placement of units. Xebec issued a total of 8,585,400 units at a price of \$0.75 per unit for gross proceeds of \$6,439,050 for working capital and general corporate purposes. Each unit consisted of one common share of Xebec and one half of one common share purchase warrant.

On November 12, 2009, Xebec announced the resignation of Mr. Michael Rosenberg from his position as a non-executive director of Xebec for personal reasons effective as of November 9, 2009.

On October 29, 2009, Xebec announced the appointment of Mr. John Fyfe as Vice President, Global Sales and Marketing effective January 4, 2010. Mr. Fyfe will be responsible for building and executing a global sales strategy to support Xebec's growth objectives in 2010 and beyond.

On September 14, 2009, Xebec announced that it had achieved significant business development opportunities in China by becoming a certified vendor of natural gas dehydration equipment to Sinopec and CNPC - both leading Chinese energy companies and developers of compressed natural gas ("CNG") fueling stations in China. Xebec announced that it received orders for a total of four natural gas dryers from these companies for CNG stations to be constructed in late 2009. Additionally, Xebec also announced that it had sold its first hydrogen purifier (H-3200) to Shanghai Huaxi Chemical Industry Science & Technology Co., Ltd., a leading manufacturer of hydrogen generation plants in China. Xebec's H-3200 will be installed at an on-site hydrogen plant being constructed by Shanghai Huaxi at a chemical plant located in Chengdu, Sichuan Province. Revenues from these sales, which total approximately \$475,000, will be recognized in fiscal 2010.

On June 12, 2009, Xebec announced the completion of the Arrangement previously announced on March 17, 2009. Following the transaction, the Company began the process of executing an integration plan to realize potential synergies. It was decided that the facility in Burnaby would remain focused on research and development, as well as engineering service contracts, while all manufacturing, together with most sales and administration, would be centralized in Blainville, resulting in a reduction in the Burnaby workforce. Andrew Hall, the former chief executive officer of QuestAir, relocated to Shanghai in order to take over full

responsibility for the further successful development of Xebec's business in the Asia/Pacific region.

## 2008

In this section, material events and commitments for the period between January 1, 2008 and December 31, 2008 are presented.

On December 18, 2008, Xebec (previously QuestAir) announced that it would supply M-3200 PSA systems to Spezialgas und Kryotechniksystems Limited and Salzburg AG (an Austrian utility) and Daesung Industrial Gases Co. Ltd. (a Korean company) for two unique projects to create renewable CNG from biogas.

On December 5, 2008, Xebec (previously QuestAir) announced that it had decided to cancel the admission of its common shares from trading on AIM effective January 8, 2009, given Xebec's (previously QuestAir) North American focused shareholder base, as well as the relatively low number of the Company's shareholders holding shares on the CREST Depository Interest register and the low volume of trading in shares on AIM.

On October 27, 2008, Xebec (previously QuestAir) announced that it would refocus its business strategy based on then recent sales successes, emerging market opportunities and then current business condition by focusing on the growing biogas market, offering integrated biogas purification plants, marketing and supporting its hydrogen products in defined markets and supporting EMRE's marketing of the H-6200 hydrogen purifier in the refinery sector.

On September 30, 2008, Xebec (previously QuestAir) announced it had signed a non-binding Memorandum of Understanding with FortisBC Inc (formerly Terasen Gas Inc.) whereby the companies would work jointly on the development of potential projects to produce supplies of bio-methane from organic waste. Also, on September 30 Xebec (previously QuestAir) announced that it had signed an agreement to supply its methane purification products to Phase 3 Developments and Investments, LLC, a leading US supplier of integrated plants that produce renewable pipeline or vehicle fuel grade methane from biogas.

On September 25, 2008, Xebec (previously QuestAir) announced it had earned recognition as a winner of the prestigious Deloitte Technology Green 15 Award, an award created to showcase 15 Canadian companies that are leading the way to create major breakthroughs in the field of green technology.

On May 13, 2008, Xebec (previously QuestAir) announced it had closed the offering previously announced resulting in the issuance of 60,000,000 subscription receipts at a price of \$0.15 per subscription receipt and raising gross proceeds of \$9,000,000.

On April 24, 2008, Xebec (previously QuestAir) announced that it would supply an M-3200 PSA system to the "Biomethane for Vehicle Fuel" project located at the Hilarides Dairy in Lindsay, California. Phase 3 Renewables LLC would integrate Xebec's (previously QuestAir) system into a plant that upgrades a portion of the biogas generated from the anaerobic digestion of manure at the 9,000 cow dairy in California.

On April 8, 2008, Xebec announced the opening of a new manufacturing facility in the Songjiang district of Shanghai, China. The factory's primary purpose is to allow Xebec to better serve its expanding Asian customer base. The Songjiang facility will also help Xebec maintain its competitive edge within the North American market by serving as a supply chain base for the sourcing of high quality, low cost components for its Canadian operation.

On April 8, 2008, Xebec announced the appointment of Steve Scott as International Sales Director in order to focus on the Middle East and Asian markets.

On March 11, 2008, Xebec (previously QuestAir) announced that it had signed an agreement to supply its methane purification products to Verdesis Suisse SA, a leading European supplier of integrated plants that produce renewable pipeline or vehicle fuel grade methane from biogas. Under the terms of the supply agreement, Xebec's (previously QuestAir) methane PSA systems would be integrated into Verdesis Suisse SA's biogas enrichment plants, which are supplied to developers and owners of projects that produce biogas from agricultural and municipal wastes or to gas utilities operating natural gas grids.

On March 3, 2008, Xebec (previously QuestAir) announced that its operations were reorganized in order to reduce operating expenses. Thirteen full-time positions were eliminated in order to generate annualized savings of approximately \$1,250,000. The primary focus of the restructuring was the reduction in unfunded development expenditures.

On March 3, 2008, Xebec (previously QuestAir) announced it had signed an agreement valued at \$6,300,000 with EMRE to allow for the further development and commercialization of Xebec's (previously QuestAir) rapid-cycle PSA technology. Under the terms of the agreement EMRE would pay the Company \$6,300,000 over a period of two years in order to advance the commercialization of the H-6200 hydrogen purifier, and progress development in the field of on-board reforming of liquid hydrocarbon fuels to hydrogen for mobile fuel cell applications.

On February 18, 2008, Xebec (previously QuestAir) announced it had received an order valued at approximately \$1,000,000 for an H-3100 hydrogen pressure swing adsorption system from Iwatani International Corporation for a new hydrogen recovery project at an undisclosed location in Japan.

#### **4. DESCRIPTION OF THE BUSINESS**

##### **General**

Xebec specializes in the design and manufacture of purification, separation, dehydration and filtration equipment for gases, including natural gas dehydration for natural gas refueling stations, biogas purification, and specialized gas adsorption units for other types of gases. Xebec's regenerative adsorption equipment filters, and other products provide cost-effective, environmentally responsible solutions to its customers.

Xebec's patented Pressure swing adsorption ("PSA") based biogas upgrading solutions are the fastest growing business segment within Xebec. Its upgrading solutions offer leading performance characteristics compared to operating costs.

Xebec currently enjoys a dominant share in the North American natural gas drying market for natural gas vehicle refueling stations and supplies many companies operating in this field.

Xebec produces a wide variety of filtration equipment needed for gas treatment systems. These products include water separators used primarily for bulk water removal, coalescing filters used primarily for the removal of fine water droplets, and particulate filters used for the capture of particles.

## **Technology and Application**

**Overview.** Almost all industrial gases, whether they are inert, flammable, acid, reactive, or oxidizing, can be dried using what is commonly known as adsorption technology. Adsorption technology is used to remove targeted impurities or separate bulk mixtures. This technology is used in many industrial gas treatment processes including biogas separation and purification, hydrogen recovery, air separation, and oxygen enrichment for medical applications as well as drying applications for air, natural gas, carbon monoxide, carbon dioxide, sulphur dioxide, acetylene, propylene, propane, and syngas.

**Adsorption Technology.** Adsorption is a process that occurs when a gas or liquid (solute) accumulates on the surface of a solid or a liquid (adsorbent) forming a film of molecules or atoms (adsorbate). This process differs from the absorption process, in which a substance diffuses into a liquid or a solid to form a solution. Xebec designs, develops, builds, sells, and services engineered adsorption and filtration products for industrial air and gas purification and separation applications employing the principles of PSA and Temperature Swing Adsorption ("TSA").

Adsorbents are a class of materials that have the property whereby gas molecules adhere to their surface. Because some molecules will adhere preferentially over others, by selecting the right adsorbent material it is possible to selectively remove an impurity from a gas stream. To maximize capacity, adsorbents are made with an extremely high porosity, with the result that for a small quantity of adsorbent material, there is a very high surface area available for the impurities to be adsorbed. Once an adsorbent is laden with adsorbed molecules, it can be regenerated for re-use in two ways. The first method is to reduce the pressure from normal operating conditions of 80 pounds per square inch to 160 pounds per square inch down to between 0 and 1 pound per square inch, at which point most of the adsorbed molecules are released. The second method is to regenerate using heat. By raising the adsorbent to temperatures of 200°C or higher, the adsorbed molecules are driven off. The adsorbent must then be cooled down to be ready for the next cycle.

The adsorbents and zeolites used by Xebec differ from conventional adsorbents in that their pore sizes are smaller and more consistently structured. This means that some molecules are physically too large to enter the pore, so that the selectivity for adsorption is determined by

which molecules can actually enter the zeolite pore. In this way they act just like a sieve, therefore their common name - molecular sieve. One important property of adsorbents is their ability to remove impurities at very low concentrations. This means they can be used to purify a gas to a very high degree of purification. Certain adsorbents have larger pore sizes and are both used for removal of bulk quantities of impurities since they have a high loading capacity needed when impurity concentrations are high.

The purification of a gas implies the removal of a trace impurity or contaminant. The drying of air can be classified in this category since water molecules, considered as the contaminant in drying applications, are selectively adsorbed onto an adsorbent material as air passes over it. The impure moist air passes through the adsorbent material and the purified dry air is then released. Once the adsorbent material is saturated with water molecules, the adsorbed water can be released by changing the conditions under which it originally adhered in the first place. This regenerates the adsorbent so it can be used again. The principles of adsorption are not limited to the extraction of water, extending to many more types of gas purification. For instance, if the appropriate adsorbent material is used and other conditions are favorable, it is possible to selectively remove the carbon dioxide from air, to separate nitrogen from oxygen, or to dry any other gas such as natural gas.

***Pressure Swing Adsorption (PSA).*** Pressure swing adsorption is a widely used technology for the purification of gases. This regeneration process is accomplished by reducing the pressure. At the moderate pressures found in compressed air systems, such as 100 pounds per square inch, an adsorbent can support a certain amount of moisture. When that pressure is dropped to ambient air pressure, the adsorbent can only support a smaller amount of moisture. By swinging the pressure from high to low, it is possible to adsorb large quantities of moisture at the higher pressure, and then release that moisture at the low pressure. This technique is called pressure swing adsorption. By alternating between two adsorbent filled vessels, one vessel being on-line and removing moisture at high pressure, and the other off-line releasing the trapped moisture at low pressure, it is possible to thoroughly dry a gas.

***Temperature Swing Adsorption (TSA).*** Another method uses temperature in order to regenerate the adsorbent. At low temperatures, adsorbents can retain significant amounts of water. At temperatures above 200°C, however, adsorbents hold almost none. By swinging the temperature from low to high, it is possible to adsorb large quantities of moisture at a low temperature, such as 40°C, and release it at the high temperature.

***Conventional PSA Technology.*** Conventional PSA systems used today in industry are made up of four to sixteen large vessels, connected by a complex network of piping and valves to switch the gas flows between the vessels. Despite their widespread use in industry, Xebec believes that conventional PSA systems suffer from a number of inherent disadvantages. These PSA systems typically operate at slow cycle speeds of 0.05 to 0.5 cycles/minute since faster cycle speeds would cause the adsorbent beads to float or fluidize in the vessel, causing the beads to wear and ultimately fail. To meet customer demands for capacity, conventional PSA systems must utilize large vessels to compensate for the slow cycle speeds, leading to higher costs and a large equipment footprint. The use of large vessels also means that these PSA systems are typically erected in the field, increasing installation costs. The network of piping and valves used

in large scale PSA systems, with the associated instrumentation and process control equipment, also adds cost to the overall system.

***Xebec's proprietary PSA Technology.*** Xebec has developed two proprietary technologies that management believes solves some of the inherent disadvantages of conventional PSA systems. Xebec's proprietary rotary valve technology replaces the complex and bulky network of piping and valves used in conventional PSA systems with two compact, integrated valves. These rotary valves are included in Xebec's advanced purification and separation products, and they speed up (or intensify) the rate at which gas can be flowed into a PSA system that uses adsorbent beads in the separation process. In turn, the process intensification allows the PSA to be reduced in size, requiring smaller vessels (compared to conventional PSAs) to purify a particular volume of product gas. In addition, Xebec has developed proprietary structured adsorbent material, which avoids the fluidization limitation of beaded adsorbents. Xebec's structured adsorbent and rotary valve technologies are integrated into some of its advanced hydrogen and biogas purification products, which operate at significantly higher cycle speeds (up to 50 cycles/minute) than conventional PSA systems. This results in a direct reduction in the amount of adsorbent material, the size of equipment and the amount of energy required to purify a given volume of feed gas.

## **Products**

Xebec designs, develops, builds, sells, and services a range of biogas purification PSA systems (BGX Solutions), natural gas dryers for natural gas vehicle refueling stations and for natural gas upgrading (NGX Solutions), hydrogen purification PSA systems (H2X Solutions), helium purification PSA systems (SGX Solutions) and filtration and separation equipment (FSX Solutions).

## **Benefits**

Management believes that Xebec's products offer the following benefits:

***Compact size:*** The increased cycle speed and rotary mechanical design significantly reduce the size of Xebec's PSA systems compared to conventional PSA systems. The smaller footprint makes it easier to install at sites that have limited space available for purification equipment.

***Modular, scalable design:*** The integrated mechanical design of Xebec's PSA systems is inherently modular and is designed to be skid-mounted. Xebec's basic rotary system architecture is scalable from small portable applications to industrial scale, providing its customers with increased operational flexibility regarding desired capacity.

***Low cost structure:*** The smaller size and integrated design of Xebec's PSA systems results in a lower capital cost structure. In addition, the modular, skid-mounted design of Xebec's products reduces equipment installation time and cost.

***Operational benefits:*** Rotary valves offer significant operational benefits, including reduced power consumption and reduced maintenance and down-time compared to conventional PSAs. In addition, Xebec's PSAs adapt to changing operating conditions faster than conventional

PSAs, which provides significant benefit in environments such as biogas upgrading and hydrogen recovery when the feed gas components change over time.

**Flexibility:** Xebec's PSA systems can be modified to purify a range of different gases in a range of capacities by changing the type of adsorbent material and the design of the rotary valve. Xebec has successfully extended its product "platforms" into multiple markets and gas purification applications with minimal incremental investment in product development.

## **Biogas**

### *BGX Solutions – Biogas Upgrading Plants and PSA Systems*

Biogas is a renewable source of natural gas generated from the anaerobic digestion of waste materials in municipal landfills, waste water treatment plants and anaerobic digesters processing agricultural and industrial organic wastes.

The growing trend towards higher demand for renewable energy has created strong demand for equipment to upgrade raw biogas to purified biomethane. Biomethane is a purified form of renewable biogas that meets pipeline natural gas quality specifications and can be distributed and sold by injection into existing pipeline gas utility pipelines.

Biomethane can also be used as a carbon-neutral CNG vehicle fuel for vehicles including refuse trucks, heavy duty transportation trucks, transit buses and passenger cars.

Featuring ruggedness and reliability, Xebec's compact, easily installed systems purify gas streams to meet stringent quality specifications for pipeline natural gas and vehicle fuel. For biogas streams such as landfill gas and digester gas, Xebec's PSA based upgrading systems are designed to operate reliably with minimal maintenance.

Xebec's fast-cycle PSA technology is based on its hydrogen product platform but modified to remove carbon dioxide from low quality methane streams. BGX solutions combine patented Xebec rotary valve technology with conventional beaded adsorbents, and operate with approximately two second cycles compared to three-to-five minutes per cycle for conventional PSA systems. Our fast-cycle systems require only a fraction of the space of conventional PSAs. Our simple, compact and reliable technology also has significant advantages over membrane and amine systems for the removal of carbon dioxide from methane.

The BGX systems remove carbon dioxide, water vapor and most trace gases present in biogas streams to meet and exceed levels for natural gas pipelines or vehicle fuel requirements. In some applications Xebec integrates pre-treatment to reduce contaminants such as non-methane organics (NMOC's) and hydrogen sulfide (H<sub>2</sub>S). The purification process is based on physical adsorption of gas molecules on specially selected adsorbent materials. At operating pressure, the adsorbents remove contaminants such as carbon dioxide and water vapor from the biogas stream and allow upgraded methane to pass through at near operating pressure. Typical pressure loss of the biomethane product is less than 1 bar or 15 psi. The off-gas or exhaust stream removes the contaminants as part of the continuous PSA cycle by allowing the adsorbents to regenerate under vacuum pressure (typically 0.5 bar or 7.4 psia). The process repeats

continuously to provide constant production of high-quality methane gas unlike other upgrading processes which require re-compression of the product biomethane.

Xebec's BGX solutions represented approximately 24% of the Company's revenues for the year ended December 31, 2010 and 0% for the year ended December 31, 2009.

## ***Natural Gas***

### *NGX Solutions - Natural gas dryers for natural gas vehicle refuelling stations*

Xebec offers a full product line of compressed natural gas dryers to serve the needs of the compressed natural gas refueling market. Natural gas dryers, or natural gas dehydration units, are essential for the proper operation of natural gas vehicle refueling stations. According to ISO 15403: 2000 the single most important safety requirement of CNG fuel is a very low water dew point temperature to preclude the formation of liquid water at any time. Natural gas must be dried prior to compression for two reasons. First, when compressing natural gas to the 3600 pounds per square inch needed for vehicle fuel tank storage, there is a risk that the residual humidity in the gas will condense, raising the possibility of corrosion and ice formation within the high pressure fuel tank. Consequently, it is essential the compressed natural gas be dried so that extremely cold winter temperatures do not cause condensation in the fuel tank. Second, at the final stage of compression where the 3600 pounds per square inch of pressure is produced, it is possible for the residual humidity in the gas to form water droplets within the compressor. Liquid water formed inside the compressor may cause severe damage, namely, to the fuel tank.

*Single Tower Natural Gas Dryers (STVNGX).* These products are designed for customers with very low duty cycle natural gas drying applications. The dryers are designed with no moving parts or electrical controls. They consist of an adsorbent filled pressure vessel with an inlet coalescing filter and outlet particulate filter. They are designed to provide adequate drying capacity to last approximately six months based on the low demand of the application. After a six month period, the adsorbent is simply replaced.

*Regenerable Single Tower Natural Gas Dryers (STRNGX).* These products are designed for customers with low duty cycle gas drying applications. The design of this product also employs only one vessel tower. By eliminating the traditional dual tower arrangement, significant capital cost reductions are realized because there is one less pressure vessel and many fewer automated valves. Capital costs are kept low due to minimal automation and the use of a single vessel tower.

*Regenerable Twin Tower Natural Gas Dryers (DTRNGX).* These products are designed for continuous duty gas drying applications and are fully automated. They are intermediate between the manual STRNGX line and the fully customized HRBNGX line. Because these dryers have a standardized off-the-shelf design, they are typically not customized for specific drying applications. However, their standardized design provides customers with a lower cost alternative to the HRBNGX design.

*Fully Automatic Heat Reactivated Twin Tower Natural Gas Dryers (HRBNGX).* These products are a fully automated, custom designed line of gas dryers for severe duty gas drying applications where reliability is paramount. A typical application for these dryers are refueling

stations for natural gas operated bus fleets where such vehicles require regular refueling over a short period of time.

### *NGX Solutions – Natural Gas Upgrading*

Natural gas is a growing lower carbon energy source worldwide. The United States Department of Energy estimates that natural gas production worldwide will increase from 90 trillion cubic feet per year in 2002 to 118 trillion cubic feet per year in 2015. A significant portion of natural gas produced worldwide is considered sub-quality due to contamination by carbon dioxide - according to the Gas Technology Institute the production of carbon dioxide contaminated gas accounted for 13% of total North American gas production (1999).

Natural gas pipeline operators have strict specifications with respect to the carbon dioxide content of gas distributed via pipeline and carbon dioxide must typically be removed from sub-quality gas before the gas can be transported to market.

Xebec's M-3100 and M-3200 PSA systems utilize its proven rotary valve technology. These adsorption systems operate at high efficiency through advanced 6 or 9 bed PSA cycles and are capable of producing pipeline grade methane by removing carbon dioxide and heavier molecular weight hydrocarbons. Fully skid mounted and up to 1/10th of the size of conventional PSA systems, these products offer high reliability and low maintenance costs in a cost effective platform design.

Xebec's NGX solutions represented approximately 40% of the Company's revenues for the year ended December 31, 2010 and 60% for the year ended December 31, 2009.

### ***Hydrogen***

#### *H2X Solutions - Hydrogen Purification Systems*

Xebec's H2X solutions efficiently upgrade hydrogen-containing reformat, petrochemical process gas streams, and refinery off-gas streams to pure and ultra-pure hydrogen. H2X solutions have minimal pressure drop, remarkable uptime performance, and simple installation and operation. While occupying a fraction of the footprint of conventional systems, Xebec's PSA systems have earned a reputation for easy, flexible installation and problem-free, economical performance.

Xebec's PSA systems are purifying hydrogen from steam reforming and off-gas streams containing hydrogen at numerous installations in Asia, North America and Europe. The high purity hydrogen is being used at refineries, chemical plants, metal production and edible oils operations worldwide.

The Xebec H-3100, H-3200 and H-3300 PSA systems remove contaminants in the adsorber bed at feed pressure. Virtually pure hydrogen passes through the bed with minimal loss in pressure. The impurities are desorbed from the bed as the pressure is reduced to the PSA exhaust pressure. This process is completely reversible and repeats to provide continuous flows, essentially splitting the mixed-feed flow into purified product and exhaust flows. The exhaust

gas is typically used as the primary fuel input to the hydrogen-generating reforming process or other fuel, making it a very efficient, integrated process.

Xebec's H2X solutions represented approximately 9% of the Company's revenues for the year ended December 31, 2010 and 9.6% for the year ended December 31, 2009.

## ***Helium***

### *SGX Solutions - Helium Purification Systems*

Helium, a scarce non-renewable gas, is used in the production of fiber-optic equipment and semiconductors. Other industrial uses of helium include optoelectronics, laser welding, cold gas spraying, chemical processing and leak detection.

Rising demand and declining reserves of helium have led to dramatic increases in the price of helium, intensifying the market for helium recovery systems. Helium recovery is used when the gas is required for, but not used up in an industrial process or system. In the production of optical fiber, the cooling rate and the quality of the product can be dramatically impacted if a less-than-effective helium recovery system is used.

With today's high helium prices, the XEBEC He-3200 is an attractive product since this compact, economical system efficiently recovers high-purity helium from contaminated off-gas streams. Fully skid-mounted and configurable for a range of sizes and market applications, the He-3200 is easily installed in almost any setting, offering a quick payback and ongoing returns.

The XEBEC He-3200 is based on the Company's H-3200 product platform, modified to remove impurities from helium. The He-3200 combines patented rotary valve technology and conventional beaded adsorbents with an optimized process cycle to deliver higher recovery performance than conventional systems. The XEBEC He-3200 requires only one-quarter of the space of conventional systems and, with only two valves, is simpler to operate. The He-3200 provides a compact, economical solution for the recovery and recycling of helium in leak testing, metals deposition processes and fiber-optic and semiconductor manufacturing facilities.

## ***Gas Filtration and Separation***

### *FSX Solutions - Filtration and Separation Equipment*

Filtration products are required in most gas and compressed gas applications. Filters are used, for example, to remove entrained liquid droplets or solid particulates such as dust from gas streams. Xebec's filtration solutions include compressed gas filters, high pressure filters, stainless steel process filters, landfill and biogas filters, and replacement filter elements and accessories. Typical applications of Xebec's filtration solutions, which may take the form of coalescing filters, particulate filters or water separators, include coalescing water and oil removal, particulate removal and hydrocarbon vapour removal.

Xebec's FSX solutions represented approximately 23% of the Company's revenues for the year ended December 31, 2010 and 16% for the year ended December 31, 2009.

## *Services*

To date, all of Xebec's services relate to gas purification technologies that incorporate Xebec's technology. Xebec maintains global service support out of Canada, China and Singapore, which provide installation, start up, maintenance, and technical support services worldwide.

For installations, repairs or modifications, Xebec employs trained technicians capable of travelling worldwide to perform the work required to service Xebec's products. Xebec also offers training for customers and business partners who wish to perform their own installation or service of Xebec's products. These training sessions are offered at Xebec's Blainville facility or at the customer's location.

Xebec provides aftermarket support for replacement parts and certain equipment upgrades. A supply chain is maintained for all currently used components, so that replacement parts are readily available for Xebec's products. For discontinued products, engineering records are kept so that aftermarket parts services can still be maintained via correct re-specification of new parts for old equipment.

## *Market Drivers*

There are a number of key market drivers that will have an important impact on Xebec's long term prospects and its ability to create shareholder value:

***Demand for renewable energy:*** Environmental concerns regarding global warming and climate change have collectively increased the demand for renewable energy sources such as biogas. Purified or "upgraded" biogas provides natural gas utilities and users with a renewable source of natural gas supply and the ability to reduce the carbon footprint of their supply base.

***Energy Security:*** Concerns regarding energy security in both Europe and North America have prompted the development of domestic (and in many cases renewable) energy sources. Biogas generated from municipal waste at landfills and waste water treatment facilities, or from agricultural waste on farms is a large secure, domestic source of energy.

***Waste Management:*** Animal manure represents a significant source of air emissions (odor and volatile organics) and groundwater contamination in the agricultural sector worldwide. Anaerobic digestion of this waste material generates a more environmentally benign solid that can be spread directly on crop land, with a lower risk of groundwater contamination. This anaerobic digestion process produces raw biogas which is available for upgrading to renewable natural gas.

***Commodity Prices:*** The long-term trend of rising interest in renewable fuels has improved the economics of upgrading biogas to pipeline or vehicle-fuel quality. In the oil refining market, which is a significant user of natural gas, rising input prices have focused attention on technologies for increasing the efficiency of the refining processes, and for processing unexploited sources of natural gas.

**Government incentives and regulations:** Governments have provided direct incentives and/or funding for the development of biogas upgrading projects. In Canada, provincial governments have each introduced financial incentives for biogas upgrading projects in Québec, Ontario, Alberta and British Columbia. Likewise, a number of state governments in the United States of America have introduced renewable energy portfolio standards and have increased the demand for renewable natural gas as a fuel for the centralized generation of renewable electricity.

### ***Market Opportunities***

#### *Sustainable Energy –Biogas Upgrading Plants*

Biogas is a renewable gaseous fuel containing approximately 50-70% methane and 30% to 40% carbon dioxide. Biogas is produced as a by-product from the decomposition of organic waste in landfills, municipal waste water and anaerobic digesters that process agricultural or municipal organic wastes. Rising demand for low carbon fuels, concerns about energy prices and increasing demand for the supply of renewable energy have increased attention on recovering energy from these renewable sources of methane, either by combusting the biogas to generate electricity or heat, or upgrading the biogas to high purity methane which can be injected into the natural gas distribution grid. In addition, anaerobic digestion of animal manure and other agricultural wastes offers a number of additional benefits to farmers, including reducing air and water pollution, odor management and the production of environmentally benign co-products including organic fertilizer and animal bedding material.

Historically, biogas plants combined anaerobic digestion systems or landfill wells with associated electricity generators such as gas turbines or gas engines. Electricity produced from these generators is sold into the national power grid. To date, electricity generation has been the most common option for recovering energy from biogas. However, electrical generators are known to be about 35% efficient in producing energy, whereas upgraded biogas to renewable natural gas, which is injected into the pipeline grid, or used as transportation fuel, can be about 80% efficient. In recent years, demand for low carbon fuels has increased substantially, improving the relative economics of biogas upgrading compared to electricity generation. At the same time, the price of CNG has escalated, and now generates a premium of more than 50% over the price of pipeline natural gas.

The long term trend of low carbon fuels has created stronger interest in upgrading biogas to biomethane as an alternative to electricity generation. Upgrading of biogas to pipeline quality allows the methane resource to be stored and transported to centralized high efficiency power stations which typically have a use for waste heat. Biomethane can also be sold as carbon-neutral CNG for use as transportation fuel in passenger cars and buses.

In North America, there are a large number of landfills and municipal anaerobic digesters already producing biogas in significant quantities. The United States Environmental Protection Agency (EPA) estimates that there are approximately 1,200 municipal landfills in the United States of America, which produce landfill gas and are large enough to justify the implementation of renewable energy projects. At the end of 2010, it is estimated that there will be approximately 541 operational landfill projects producing biogas electricity in the United States of America,

and there are another 510 landfills that are good candidates for projects. In addition, at the end of 2010, it is estimated that there will be approximately 8200 dairy and swine operations that could support biogas recovery systems. As biogas production increases globally, so will the demand to convert it into pipeline grade methane or liquid natural gas for use as a transportation fuel.

Pursuant to the budget of the Québec government released on March 19, 2009, the government announced the establishment of a program to develop green energy technologies to further stimulate innovation in this sector and develop new markets. The Québec government will, among other things, set up financial support programs to promote investment in bio energy production and will invite the federal government to help fund such initiatives as part of its promise to invest approximately \$1 billion in green energy infrastructure within the next five years. To that end, the Québec government will, among other things, be introducing a program for municipalities aimed at the installation of anaerobic digestion technologies to produce biogas as a replacement for fossil fuels. The intended investment of \$650 million will be funded by the Québec government, the federal government and municipalities.

#### *Natural gas vehicles*

A desire for energy security, cheaper and cleaner fuels, and improved air quality, make natural gas an interesting alternative source of energy for motor vehicle propulsion. Sales of natural gas vehicles are presently growing at an annual rate of 18% worldwide and it is expected that there will be approximately 65 million natural gas vehicles in circulation worldwide by 2020. In terms of regional growth in the natural gas vehicle market, since 2000, Asia leads with a growth rate of 50.1%, South America is next at 27.9%, Africa follows with 21.3%, Europe at 12.9%, while North America is at 3.7%. When compared to the rest of the world, the natural gas vehicle market in North America has yet to realize its full potential. The natural gas vehicle market may represent a significant growth opportunity for Xebec's natural gas dehydration products.

#### *Filtration products for natural gas*

Xebec's filtration products for compressed natural gas dryers and compressed air dryers complement its adsorption product offering. These filtration products cover a complete range of filter housings and filter elements for Xebec's products as well as for some of its competitor's products. Each of Xebec's adsorption products requires between 2 to 4 filters, generating excellent aftermarket opportunities. As the installed base of adsorption units systems grows, the aftermarket and replacement element sales will increase, generating a recurring revenue stream for Xebec.

#### *Sales and Marketing*

Xebec sells its products and services through a number of channels including direct sales, channel partners, and project developers. Xebec's Blainville - based sales team is dedicated primarily to North American sales but is also responsible for other areas including Europe and South America.

Xebec Singapore sells Xebec's products in South East Asia and provides local support and service to the South East Asian customer base including customers in Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Brunei, Sri Lanka, Bangladesh and Pakistan. Xebec Singapore is primarily supplied by Xebec China.

The Xebec China sales team focuses its efforts on natural gas dryer sales and biogas upgrading solutions to Chinese customers, compressor OEM's (original equipment manufacturers), and gas companies. At the international level, Xebec China's customers include packagers of natural gas compression equipment for refueling stations and their agents. Xebec uses a formal process for targeting and evaluating new business and product development opportunities. Xebec draws on a wide range of internal and external resources and a wide range of industry contacts, to identify and pursue leads with potential business and product development partners.

### ***Competition***

Xebec faces competition within its target markets primarily from other manufacturers of natural gas and biogas purification and filtration equipment. The natural gas and biogas purification and separation market has not yet seen considerable consolidation, unlike other industrial or renewable industries. Most competitors of Xebec today are small to medium companies working in niche segments of the natural gas and biogas business.

***BGX Solutions:*** In the emerging biogas purification market, Xebec expects to compete with manufacturers of competing technologies including membrane separation, amine and water wash systems, as well as advanced and conventional adsorption based systems for the purification of biogas. These competitors include, Acrion Technologies Inc., Cirmac International BV, Lackeby Water Group (PURAC), Guild Associates Inc, MT-Biomethan GMBH, Carbotech AC GmbH, Haase Energietechnik AG, Ros Roca Group, Flotech/Greenlane, Yit Vatten Och Misjoteknik, Air Liquide, MalmBerg Water AB and A.R.C. Technologies Corp.

***NGX Solutions:*** In the natural gas dryer market Xebec competes with a number of companies who manufacture gas dryers. These companies include SPX Corp., Parker-Hannifin Corporation, Aircel Corp., PSB Industries Inc., Xi'An Unionfilter Purification Equipment Co. Ltd., Zander Aufbereitungstechnik GmbH and Tecno Project Industriale s.r.l.

***H2X Solutions:*** In the hydrogen purification market, Xebec's competition includes Air Liquide, HydroChem, Linde and Iwatani.

***FSX Solutions:*** The filtration market is dominated by large multinational companies. In this market segment, Xebec's competition includes Parker-Hannifin Corporation, Donaldson Company Inc., SPX Corp., Atlas Copco AB and Walker Filtration Ltd.

### ***Research and Development***

Xebec's research and development activities are conducted at research facilities in Burnaby and Surrey, British Columbia. Xebec's research and development staff of 17 employees consists of scientists, engineers and technicians. Xebec utilizes in-house resources

for its research activities, allowing it to maintain control over proprietary intellectual property related to the design, process and manufacturing of Xebec's products.

Xebec's research and development activities are presently focused on the development of high performance biogas upgrading systems, standardization and containerization of biogas systems. Xebec also works with a U.S. Department of Energy (DOE) laboratory on small-scale liquefaction systems to be used in the production of distributed liquefied natural gas, mainly as a transportation fuel. Xebec maintains a research partnership agreement with the Université de Sherbrooke via the Natural Sciences and Engineering Council of Canada's NSERC-INNOV program and has agreed to be an industry partner to provide technology in support of one their projects.

Xebec maintains a relationship with the Natural Sciences and Engineering Council of Canada network Solid Oxide Fuel Cells (SOFC) Canada. Xebec is participating with Solid Oxide Fuel Cells (SOFC) Canada as an industry partner to provide in-kind support over the next few years.

### ***Manufacturing and Quality Assurance***

Xebec employs a combination of internal and external resources to manufacture its products. Through its establishment of a shared service supply chain function in China, Xebec can fully benefit from low-cost country sourcing, making its products highly competitive while maintaining quality through the deployment of supply quality engineers (SQE) at its Chinese facility. In addition, for special projects, Xebec maintains its own welding capability in Blainville, allowing for flexible production schedules, even for complex products and certification processes.

Xebec applies lean manufacturing techniques in its manufacturing facilities in Blainville and Shanghai carefully managing the purchase of its raw materials and outsourced components to minimize inventories stored at its facilities. Xebec sources materials and components from multiple suppliers and is not dependent on any single supplier for any key components of its products.

Xebec's Blainville facility is a dedicated pressure vessel welding and assembly facility, whereas Xebec China's facility is responsible for assembly only, with pressure vessel welding outsourced to local firms.

Quality assurance is an integral part of Xebec's management and manufacturing philosophy. Xebec holds many high level manufacturing certifications from various organizations including the International Organization for Standardization, the Occupational Health and Safety Assessment Series, the American Society of Mechanical Engineers, the Canadian Standards Association for Canada, the Canadian Standards Association for the United States of America and the Canadian Registration Number. In addition, Xebec is a member of the American Natural Gas Vehicle Association, the Canadian Natural Gas Vehicle Alliance and the National Quality Institute of Canada. Xebec's facility in Blainville is ISO 9001, ISO 14001 and OHSAS 18001 certified and Xebec Shanghai's facility is ISO 9001 certified.

## *Other Business Considerations*

### **Key Relationships**

#### *Exxon Mobil Research and Engineering Company*

##### Exxon Mobil Research and Engineering Company Joint Development Agreement

In July 2004, the Company entered into a multi-year joint development agreement with EMRE (the “**EMRE JDA**”), effective as and from October 30, 2003, to evaluate specific projects to develop, commercialize and market PSA products and processes for a range of refinery and petrochemical applications. The agreement provides a framework for a broad collaboration and could lead to the development of PSA technology and products based on a common product platform for a number of different applications. Subject to certain restrictions, products developed under the EMRE JDA will be available for purchase by third parties.

In September 2005, the scope of the EMRE JDA was expanded to include certain applications in the processing of contaminated natural gas. The Company and EMRE agreed to extend the term of the EMRE JDA to April 30, 2011. This extension effectively extends the period of exclusivity between the parties with respect to substantially similar research with another party for applications in refinery or petrochemical operations. Inventions developed under the EMRE JDA are owned by the inventing party or are jointly owned if both parties contribute to the inventions. The Company is granted certain exclusive rights to inventions in the field of adsorption-based separation or enrichment and EMRE is granted certain exclusive rights to inventions in the field of petroleum and petrochemical processes.

The EMRE JDA provides a framework for the distribution of commercial gain from technology licensing, products and processes developed under a project, based on each party's contribution in three main categories: (a) intellectual property and know-how; (b) financial contribution; and (c) efforts in the commercialization.

On January 24, 2011, Xebec announced that it had agreed to provide engineering services valued at USD 2.0 million to ExxonMobil Research and Engineering Company (“EMRE”) for ongoing development work related to new applications for Xebec's proprietary Rapid Cycle PSA technology. The engineering services are to be provided under an extension to the existing Joint Development Agreement between EMRE and Xebec.

##### Exxon Mobil Research and Engineering Company Commercialization Agreement

To facilitate the marketing and commercialization of the H-6200, the Company and EMRE entered into a multi-year commercialization agreement (the “**Commercialization Agreement**”) in May 2006 which details responsibilities for the marketing and commercialization of the H-6200 for use in oil refineries and petrochemical plants. In most instances, EMRE leads the marketing effort, although the Company assists EMRE in the marketing process and Xebec retains the right to market directly to potential customers in certain circumstances. Xebec has sole responsibility for negotiating and executing purchase agreements

with all H-6200 customers, as well as for manufacturing and order fulfillment. The commercial gain from the sale of H-6200 units will be shared between Xebec and EMRE in proportion to the contributions made by each party towards the research, development, and commercialization of the H-6200. The signing of the Commercialization Agreement allowed for the formal launch of marketing efforts for the H-6200 into the oil refinery market.

#### License and Development Agreement with Nuvera Fuel Cells for Advanced Hydrogen Purification

On March 17, 2011, the Company announced the signature of a license and engineering service agreement for a total value of USD 3.25 million with Nuvera Fuel Cells to allow for the development of two rapid cycle hydrogen purification units for use in hydrogen refueling and merchant hydrogen applications. Under the terms of the agreements, Xebec will receive an upfront payment of USD 1.75 million and the remainder over the course of the development period.

The development work to be performed under this engineering service agreement builds on previous development programs that Xebec has conducted over the past 10 years and in particular builds on previously completed product development projects for advanced separation and rapid cycle PSA technology. In addition, Xebec has entered into a license agreement with Nuvera for some of its hydrogen purification related Intellectual Property (IP) for refueling and merchant hydrogen applications.

#### ***Intellectual Property***

Xebec depends on a combination of patents, including patents on its technology and applications of its technology, licenses, trademarks, copyrights and trade secrets to protect its products and brands. Xebec also identifies and monitors intellectual property owned by others on an ongoing basis, in order to avoid potential intellectual property infringements.

The Company has a stringent formalized process for the identification of patentable inventions, the filing and prosecution of patent applications and the registration of trademarks relating to new products. A review committee composed of senior Company executives oversees this process. At December 31, 2010, the Company had 82 active granted patents covering 31 distinct inventions and had 39 patent applications pending covering 8 distinct inventions in the United States, Canada, and certain European, Asian, and other countries. These patents and patent applications cover namely the Company's fundamental rapid-cycle PSA technology, including structured adsorbents, as well as the application of its technology in fuel cell systems, internal combustion engines and chemical reactors. The Company has also registered the HyQuestor® brand name and Pure Innovations® as trademarks in the United States and Canada, and the Xebec® brand name as a trademark in Canada, the United States and Japan. Additional Registrations in the United States of America as well as in certain countries in South East Asia, in China and in certain countries in Europe are pending.

## ***Employees***

Xebec's human resources goal is to develop policies and programs that support the attraction and retention of the skilled individuals needed to develop its business. Xebec maintains a high performance work environment and works to invest in high performing employees by providing additional development opportunities. Through a reward and recognition program, Xebec recognizes and rewards effort that goes above and beyond when that effort delivers tangible business results. Certain employees participate in a bonus program that is only payable based on the successful achievement of financial objectives.

Xebec has 47 full-time permanent employees at its Blainville head office, 17 full-time permanent employees in British Columbia, 29 full-time permanent employees at its Shanghai manufacturing facility for a total of 97. In addition, Xebec Singapore employs 4 people. No employees of Xebec are unionized. All indirect employees are subject to written terms of employment and confidentiality agreements as a condition of their employment at Xebec.

## ***Government Funding***

Xebec has received funding assistance from the Canadian federal government to support its research and development activities. In 1999, Xebec secured an approximately \$5 million conditionally repayable loan under the Technology Partnerships Canada ("TPC") program of Industry Canada. This loan must only be repaid by payment of a specified sales royalty following the commercialization of the Xebec's industrial and fuel cell related products. In June 2003, Xebec secured a second conditionally repayable loan under the TPC program totaling approximately \$9.6 million. This agreement was amended during fiscal 2008. Among other changes, the total amount of the funding was reduced to approximately \$8.14 million. As at September 30, 2008, Xebec had drawn the full amount of this loan. This funding was used to support the development of the Company's rapid-cycle hydrogen purification products for industrial, stationary fuel cells and hydrogen refueling applications. The royalty period for this second loan began on October 1, 2005 and is based on gross business revenues. Each of the loans also contains typical TPC requirements relating to the production in Canada of resulting products until the end of the royalty periods.

In January 2004, the Company was awarded a grant for \$225,000 from the Government of Canada under the Department of Natural Resources Efficiency and Alternative Energy Program to support the development of hydrogen recycles technology for Molten Carbonate Fuel Cell Systems. In January 2005, the Company received a similar funding award of \$193,944 under the same funding program to support the development of structured adsorbent for the production of high purity hydrogen.

Xebec has received funding assistance from the government of the province of Québec as well as the federal government to support its activities. In June 2007, Xebec obtained a grant from the Ministre du développement économique, de l'innovation et de l'exportation in the amount of \$50,000 for the start-up of its business activities. In December 2007, Xebec obtained two grants from the Ministre du développement économique, de l'innovation et de l'exportation in the amounts of \$20,000 and \$25,000 for the hiring of two engineers. In May 2008, Xebec received a repayable contribution in the amount of \$100,000 from Canada Economic

Development (for Québec Regions) under the Business and Regional Growth Program (CED-Business) for the hiring of a market development specialist and the implementation of Xebec's marketing strategy in China, Russia, Indonesia, Malaysia, and Australia.

Further details on the terms of these funding awards are presented in the Management Discussion and Analysis for the year ended December 31, 2010 which is incorporated in this AIF by reference and which is available on SEDAR at [www.sedar.com](http://www.sedar.com).

## **5. RISK FACTORS**

Xebec's ability to generate revenue and profit from its operations is subject to a number of risks and uncertainties. The risks and uncertainties described below are not the only ones Xebec faces. Additional risks and uncertainties, including those that Xebec is not aware of now, or that management may believe are currently not material, may also adversely affect the ability to maintain a viable business. The risk factors presented below are divided into categories of risks impacting Xebec's internal and external environment.

### ***Risk factors related to Xebec's business***

*Xebec has a limited operating history and it may be difficult to assess its business and future prospects.*

Xebec's historical operating data may be of limited value in evaluating Xebec's future prospects in light of the Arrangement. Xebec, as a privately-held issuer, commenced operations in June 2007 following the management buy-out of the assets and business of Xebec Inc., and since that time, Xebec has been engaged in the development, manufacture, and supply of compressed air and gas products. For the year ended December 31, 2010, Xebec's revenues totaled approximately \$13.5 million. For the year ended December 31, 2009, Xebec's revenues totaled approximately \$18.7 million.

### **Going concern**

These consolidated financial statements have been prepared on the basis of accounting principles applicable to a going concern, which assume realization of assets and discharge of liabilities in the normal course of business for the foreseeable future. The Company has incurred an operating loss of \$13, 592,711 for the year ended December 31, 2010 and has a deficit of \$19,500,084 as at December 31, 2010. The current financial position indicates that there is substantial doubt about the Company's ability to continue as a going concern.

The Company's ability to continue as a going concern is primarily dependent on its ability to generate sufficient future cash flows to fund its operations and to settle its obligations on a timely basis. On November 2, 2010, management concluded a share offering which provided the Company with gross proceeds of \$3,796,754. On March 17, 2011, the Company signed a license and engineering service agreement amounting to USD\$3,250,000 including an upfront payment of USD\$1,750,000. In addition, the Company undertook various initiatives, such as announcing temporary layoffs, and adopting a restructuring plan to manage its operations and liquidity risks in light of prevailing economic conditions. There is no assurance that such efforts will be successful.

These consolidated financial statements do not reflect the adjustments to the carrying values of assets and liabilities, the reported expenses and the balance sheet classifications that would be necessary if the Company was unable to continue as a going concern, and these adjustments could be material.

*Xebec's fluctuating operating results*

There can be no assurance that Xebec will operate profitably in the future. Xebec's operating results may vary from quarter to quarter, depending on a number of factors, including:

- the introduction and market acceptance of new products and technologies and new variations of existing products and technologies;
- the activities of our competitors;
- our ability to control our expenses;
- variations in the timing of orders and subsequent deliveries;
- the length of our customers' approval processes or market tests;
- changes in our mix of products and technologies;
- lack of liquidity;
- changes in capital spending;
- unforeseeable or unavoidable delays in larger-scale customer projects;
- higher interest rates;
- changes in currency rates; and
- general economic conditions.

Any variation in the rate and timing of conversion of our sales prospects into revenue could cause us to plan or budget inaccurately, and those variations could adversely affect our financial results. Delays, reductions in amounts or cancellations of customers' purchases could adversely affect our business, financial condition and results of operations. In light of the foregoing, quarter-to-quarter comparisons of our operating results are not necessarily meaningful and should not be relied upon as indications of likely future performance or annual operating results. Reductions in revenue or net income between quarters or our failure to achieve expected quarterly earnings per share could cause the market price of our Common Shares to decline or adversely affect our business, financial condition and results of operations.

*Xebec faces uncertainties that may have an impact on future operating results and liquidity.*

Xebec has incurred an operating loss of \$13.6 million and used \$6.2 million for operating activities for the year ended December 31, 2010 compare to an operating loss of \$6.7 million and the use of \$3,2 million for operating activities for the year ended December 31, 2009 , Xebec finished the year with cash amounting to \$2,3 million, negative working capital of \$3,3 million

During the fourth quarter of 2010, management concluded a share offering which provided Xebec with net proceeds of \$3,8 million, On March 17, 2011, the Company signed a license and engineering service agreement amounting to US\$3,250,000 including an up-front payment of US\$1,750,000 In addition, the Company undertook various initiatives, such as announcing temporary layoffs and adopting a cost-reduction plan to manage its operations and liquidity risks in light of prevailing economic conditions. There is no assurance that such efforts will be successful.

*Xebec depends upon a limited number of customers for potential revenue due to the nature of its markets.*

To date, a small number of customers have accounted for a majority of Xebec's revenues. As Xebec's gas purification business expands, the Company expects that revenue distribution will be over a large number of different customers. For the year ended December 31, 2010, sales to the four principal customers accounted for approximately 40% of Xebec's total revenue. For the year ended December 31, 2009, sales to two principal customers accounted for approximately 31% of Xebec's total revenue.

*Xebec sells its products to a limited number of customers, some of which may experience financial difficulty, which may result in bad debt for Xebec.*

Xebec sells to customers of varying financial strengths in various geographic locations. Some of these customers, particularly smaller companies with limited financial resources, may be unable to pay their invoices when they become due. This risk is amplified by the current liquidity crisis and general decline in global economies which is calling into question the sustainability of some of Xebec's customers. Xebec mitigates this risk through its standard contract terms for significant equipment sales, which require payment of the majority of the contract value prior to shipment. Nevertheless, it is possible that some of Xebec's customers will default on certain amounts owing. Account receivable insurance provided by Export Development Canada and Sinosure in China may only partially protect Xebec from potential losses resulting from such commercial risks if customers refuse to pay or are in default.

#### *New Products and Technological Change*

The markets for the Company's products, technologies and services are characterized by rapidly changing technology, evolving industry standards and frequent new product introductions. Xebec's products embody complex technology and are designed to be compatible with current and evolving industry standards and Xebec invests significant resources in the development of products for the markets it serves. Xebec's success continues to depend upon market acceptance of its existing products, technologies and services, its ability to enhance those products, technologies and services and its ability to introduce new products, technologies and

services to meet changing customer requirements. Any delays in developing new products or enhancements or any failure by such products, technologies or services or enhancements to gain market acceptance could adversely affect the business, financial condition and results of operations.

*Xebec may be unable to pursue its long term development and commercialization plans and may have to forego attractive business opportunities.*

Xebec requires additional capital to fund its operations and to acquire or invest in complementary businesses or products or obtain the right to use complementary technologies. Xebec may be unable to raise additional capital or may not be able to do so on acceptable terms to pursue its long-term development and commercialization plans. Either of these outcomes could adversely affect the ability of Xebec to respond to competitive pressures or prevent Xebec from conducting all or a portion of its planned operations.

The development and commercialization of its products could be delayed or discontinued if Xebec is unable to fund its research and product development activities or the continued development of its manufacturing capabilities. In addition, it may be forced to reduce its sales and marketing efforts or forego attractive business opportunities.

*Xebec's strategy for the sale of its products depends upon developing key relationships with a number of customers who will incorporate its products and technologies into theirs.*

Other than with respect to a limited number of specific markets, the success of Xebec's business depends on its ability to develop relationships with parties who will integrate Xebec's products and technologies into their products. The ability of Xebec to sell its products and technologies to its target markets depends to a significant extent upon its partners' worldwide sales and distribution network and service capabilities.

*Xebec has foreign currency risk.*

The majority of Xebec's revenues are in U.S. dollars and Euros, while a significant portion of the operating expenses are in Canadian dollars and Chinese Yuan. Foreign exchange gains and losses are included in results from operations. A large decline in the U.S. dollar, the Euro or Chinese Yuan relative to the Canadian dollar could impair revenues, margins, and other financial results. Xebec has not entered into foreign exchange contracts to hedge against gains and losses from foreign currency fluctuations.

*Xebec will need to recruit, train and retain key management and other qualified personnel to successfully expand its business.*

Xebec's future success will depend in large part upon its ability to recruit and retain experienced research and development, engineering, manufacturing, operating, sales and marketing, customer service, and management personnel. If Xebec does not attract and retain such personnel, it may not be able to expand its business. Competition for qualified personnel in its industry is intense. Even if Xebec invests significant resources to recruit, train, and retain qualified personnel, Xebec may not be successful in its efforts. Xebec's success also depends upon the continuing contribution of its key management, research, product development,

engineering, marketing, and manufacturing personnel, many of whom would be difficult to replace. While Xebec has entered into employment agreements and/or confidentiality and non-competition agreements with some of its key employees, Xebec could be significantly adversely impacted if any of its key employees become unable or unwilling to continue their employment with us. The loss of key employees to a competitor and an inability to attract and retain experienced key employees could adversely affect the business, financial condition and results of operations.

*Xebec faces significant competition from other developers and manufacturers of gas purification systems.*

Xebec competes with a number of companies that manufacture conventional gas purification equipment and other competing technologies. New developments in technology may adversely affect the development or sale of some or all of Xebec's products and technologies, or make its products and technologies uncompetitive or obsolete. Other companies, some of which might have substantially greater resources than Xebec does, are currently engaged in the development of products and technologies that are similar to, and competitive with, many of its products and technologies. Xebec's competition includes numerous companies located throughout the world, some of which may have advantages over Xebec in terms of government incentives, labour, component costs and technology. Each of these competitors has the potential to capture market share in Xebec's target markets, which could harm its position in the industry. New competitors may also emerge and entire product lines may be threatened by new technologies or market trends which reduce the commercial viability of Xebec's product lines. In addition, Xebec's customers could potentially become its competitors if they decide to develop and manufacture their own gas purification systems. As the markets for gas purification systems develop, other large industrial companies may enter these fields and compete with Xebec. These large industrial companies may have research and development, manufacturing, marketing and sales resources necessary to deliver gas purification systems more quickly and effectively than Xebec does. Xebec may not be able to compete effectively with all of these competitors, which could adversely affect its business, financial condition and results of operations.

#### *Protection of Technology and Development*

There can be no assurances that Xebec will meet its targeted development or integration timelines, secure components at reasonable prices such that it will be able to offer its products and technologies at competitive pricing, or that Xebec can continue to enhance and improve the functionality and features of its technologies. In addition, Xebec depends on its ability to develop and maintain proprietary aspects of its technology, if and when required.

Xebec's products incorporate complex technology and software. Accordingly, they may contain errors that could be detected at any point. Such errors could materially and adversely affect Xebec's reputation, or that of its customers and partners, resulting in claims and/or significant costs to Xebec, and/or cause customers and other parties to abandon Xebec and impair its ability to market and sell its products in the future.

*Xebec is dependent upon third party suppliers for materials and components for its products.*

Xebec relies upon third party suppliers to provide materials and components for its products. A supplier's failure to provide materials or components in a timely manner, or to provide materials and components that meet Xebec's quality, quantity or cost requirements, or its inability to obtain substitute materials and components in a timely manner or on terms acceptable to Xebec, may harm Xebec's ability to manufacture its products. To the extent that Xebec is unable to develop and patent its own technology and manufacturing processes, and to the extent that the processes, which its suppliers use to manufacture materials and components, are proprietary, Xebec may be unable to obtain comparable materials or components from alternative suppliers, and that could adversely affect its ability to produce commercially viable products.

*Xebec is subject to a variety of governmental regulations*

Xebec is subject to a variety of federal, provincial, state, local and international laws and regulations relating namely to the environment, health and safety, export controls, currency exchange, labor and employment and taxation, namely in Canada, China and Singapore. These laws and regulations are complex, change frequently and have tended to become more stringent over time. Failure to comply with these laws and regulations may result in a variety of administrative, civil and criminal enforcement measures, including assessment of monetary penalties, imposition of remedial requirements and issuance of injunctions as to future compliance. From time to time, as part of Xebec's operations, including newly acquired operations, Xebec may be subject to compliance audits by regulatory authorities in the various countries in which it operates.

*Insurance*

Xebec's operations are subject to risks inherent in the compressed air and gas purification sectors. Xebec subscribes for insurance in amounts which it considers appropriate in the circumstances and having regard to industry norms. Xebec may become liable in relation to risks in respect of which it cannot obtain insurance or for which it chooses not to obtain insurance as a result of high premiums or for other reasons, or for damages which exceed the maximum coverage provided for in the insurance policies.

*Credit Facilities*

Xebec's credit facilities and financing agreements mature on various dates. There can be no assurance that such credit facilities or financing agreements will be renewed or refinanced, or if renewed or refinanced, that the renewal or refinancing will occur on equally favourable terms to Xebec. Xebec's ability to continue operating may be adversely affected if Xebec is not able to renew its credit facilities or arrange refinancing, or if such renewal or refinancing, as the case may be, occurs on terms materially less favorable to Xebec than at present. Xebec's current credit facilities and financing agreements impose covenants and obligations on Xebec. There is a risk that such loans may go into default if there is a breach in complying with such covenants and obligations, which could result in the lenders realizing on their security and causing the shareholders to lose some or all of their investment.

The credit facilities with the Royal Bank of Canada and Export Development of Canada matured on October 31, 2010 and have been extended under the same terms and conditions until March 18, 2011 and March 31, 2011 respectively. Management is currently negotiating an amended agreement with Royal Bank of Canada and received confirmation, on March 29, 2011, from Export Development of Canada that the agreement related to the pre-shipment costs has been extended under the same terms and conditions until June 15, 2011.

### ***Risk factors related to Xebec's target markets***

*Xebec's markets are exposed to recessionary risk.*

A continuation of the current global recession may result in lost or delayed sales orders, as many of Xebec's existing and targeted customers may cut back their proposed capital spending in the face of economic uncertainty and limited access to project financing. This would impact the ability of Xebec to grow its business, and as a result sales orders may be lower than expected. Any decrease in sales would negatively impact Xebec's cash flows and other financial results. Different air and gas purification markets and different geographies may be impacted to different extents, making it difficult to forecast the likely impact.

*Volatility of oil and natural gas prices.*

Xebec's systems represent a significant potential capital cost to Xebec's existing and target customers and their ability to purchase Xebec's products is dependent upon factors which affect energy industries. Xebec's existing and target customers' results of operations and financial condition are dependent on the prices they receive for oil, natural gas and renewable natural gas. Oil and natural gas prices have fluctuated widely during recent years and are determined by local and worldwide supply and demand factors, including actions by the Organization of Petroleum Exporting Countries, weather conditions, the U.S. dollar exchange rate, transportation, competition, and general economic conditions as well as conditions in other oil producing regions, which are beyond Xebec's control. Any material decline in oil or natural gas prices could have a material adverse effect on Xebec's existing and target customers' operations, financial condition, and the amount they spend on new capital equipment and the development of new technology, which could have a material adverse effect on Xebec's existing and target customers' ability to purchase Xebec's products. In addition, Xebec's prospects would be adversely affected should the cost of natural gas fall to levels where production of natural gas becomes uneconomic.

*Risks with conducting business in international markets.*

Xebec conducts business in many geographic markets outside Canada. Changes in local economic or political conditions, namely in China, could have a material adverse effect on Xebec's business, financial condition, results of operations and cash flows. Additional risks inherent in Xebec's international business activities include the following:

- difficulties in managing international operations, including Xebec's ability to timely and cost effectively execute projects;

- unexpected changes in regulatory requirements;
- training and retaining qualified personnel in international markets;
- inconsistent product regulation or sudden policy changes by foreign agencies or governments;
- the burden of complying with multiple and potentially conflicting laws;
- tariffs and other trade barriers that may restrict Xebec's ability to enter new markets;
- governmental actions that result in the deprivation of contract rights, including possible law changes, and other difficulties in enforcing contractual obligations;
- foreign currency exchange rate risks;
- difficulty in collecting international accounts receivable;
- potentially longer receipt of payment cycles;
- changes in political and economic conditions in the countries in which Xebec conducts business, including the nationalization of energy related assets, civil uprisings, riots, kidnappings and terrorist acts;
- potentially adverse tax consequences or tax law changes;
- restrictions on repatriation of earnings or expropriation of property without fair compensation;
- the geographic, time zone, language and cultural differences among personnel in different areas of the world; and
- difficulties in establishing new international offices and risks inherent in establishing new relationships in foreign countries.

In addition, Xebec may expand its business into international markets where it has not previously conducted business. The risks inherent in establishing new business ventures, especially in international markets where local customs, laws and business procedures present special challenges, may affect Xebec's ability to be successful in these ventures or avoid losses that could have a material adverse effect on Xebec's business, financial condition, results of operations and cash flows.

### *Environmental Risks*

All phases of the oil and natural gas business, and of the processing of organic wastes, are subject to environmental regulation pursuant to a variety of Canadian federal, provincial, state and municipal laws and regulations, as well as international conventions (collectively, "Environmental Legislation"). Environmental Legislation imposes, among other things, restrictions, liabilities, and obligations in connection with the generation, handling, storage, transportation, treatment, and disposal of hazardous substances and waste, and in connection with spills, releases, and emissions of various substances to the environment. Environmental Legislation also requires that wells, facility sites, and other properties associated with oil and natural gas operations be operated, maintained, abandoned, and reclaimed to the satisfaction of

applicable regulatory authorities. In addition, certain types of operations, including exploration and development projects and significant changes to certain existing projects, may require the submission and approval of environmental impact assessments. Compliance with Environmental Legislation can require significant expenditures and failure to comply with Environmental Legislation may result in the imposition of fines, penalties and liability for cleanup costs and damages. Changes in Environmental Legislation due to, namely, climate change concerns, may require, among other things, reductions in emissions to the air from Xebec's existing and target customers' operations and result in increased capital expenditures. Future changes in Environmental Legislation could occur and result in stricter standards and enforcement, larger fines and liability, and increased capital expenditures and operating costs, which could have a material adverse effect on Xebec's existing and target customers' ability to purchase Xebec's products.

## 6. DIVIDENDS

To date, the Company has not paid any dividends on its shares. The future payment of dividends will be dependent on the financial requirements to fund future growth, and other factors which the Board of Directors may consider appropriate in the circumstances. As it is anticipated that all available cash will be needed to implement the Company's business plan and growth, there are no intentions to pay dividends in the foreseeable future.

## 7. CAPITAL STRUCTURE

The share capital of the Company consists of an unlimited number of common shares ("**Common Shares**") without par value and an unlimited number of preferred shares ("**Preferred Shares**") without par value.

As at December 31, 2010, 39,363,867 Common Shares, and no Preferred Shares are issued and outstanding. In addition, the Company had 5,834,249, Common Shares issued, but not outstanding, held in escrow that will be cancelled as the performance targets were not achieved, 107,361 options outstanding to purchase Common Shares ("**Options**") and 15,456,424 share purchase warrants outstanding as at December 31, 2010 ("**Share Purchase Warrants**").

The Common Shares, Preferred Shares, Share Purchase Warrants and Options have the following material rights, privileges, restrictions and conditions:

### *Common Shares*

Holders of Common Shares are entitled to one vote for each share on all matters to be voted on by shareholders (except matters requiring the vote of another specified class or series voting separately as a class or series). Holders of Common Shares will be entitled to receive such dividends, if any, as may be declared on the Common Shares by the Company's Board of Directors. On liquidation, dissolution or winding up of the Company, the holders of Common Shares will be entitled to receive the property of the Company remaining after payment of all outstanding debts and after payment of all amounts required to be paid on all issued and outstanding Preferred Shares as provided for in each series of Preferred Shares, including return of capital. The holders of the Common Shares have no pre-emptive, redemption or conversion rights. All Common Shares, when

issued, are and will be issued as fully paid and non-assessable shares without liability for further calls or to assessment by the Company.

### ***Preferred Shares***

Preferred Shares are issuable in series with such dividend rates, redemption and conversion features and other attributes as may be determined by the Board of Directors of the Company and without further action by the shareholders of the Company. Preferred Shares of all series have preference over Common Shares and any other shares ranking junior to the Preferred Shares with respect to payment of dividends and distribution of assets of the Company on liquidation, dissolution or winding-up.

### ***Share Purchase Warrants***

As at December 31, 2010, 15,456,424 Share Purchase Warrants were outstanding. of which 4,292,700 Share Purchase Warrants entitle the holder to acquire one Common Share per Share Purchase Warrant at a price of \$1.10 until May 25, 2011 and 505,588 Share Purchase Warrants entitle the holder to acquire one Common Share at a price of \$0.77 per share until May 25, 2011, 10,091,886 Share Purchase Warrants entitle the holder to acquire one Common Share at a price of \$0.45 per share until November 2<sup>nd</sup> 2015 and 566,250 Share Purchase Warrants entitle the holder to acquire one Common Share at a price of \$0.40 per share until May 2<sup>nd</sup> 2012.

### ***Stock Options***

The Company maintains an omnibus plan (the “**Omnibus Plan**”), which allows for the issuance of stock options, stock appreciation rights, restricted stock, restricted stock units, performance awards and other stock-based awards. Under the Omnibus Plan, common shares approved for issuance under all stock-based compensation arrangements are limited to the greater of 591,560 or 10% of the Common Shares issued and outstanding. As at December 31, 2010, the maximum number of Common Shares available for issuance under all stock-based compensation arrangements is 3,798,967.

Under the terms of the Omnibus Plan, stock options are granted with an exercise price not less than the volume weighted average trading price of the Common Shares for the five trading days prior to the date of grant. The stock options generally vest quarterly over four years and are exercisable for seven years from the date of grant.

As at December 31, 2010, the Company had 107,361 options outstanding under the Omnibus Plan with a weighted average exercise price of \$5.99.

## **8. MARKET FOR SECURITIES**

The outstanding Common Shares of the Company are listed on the Toronto Stock Exchange under the trading symbol “XBC”.

The price ranges and average daily volume of Common Shares traded on the Toronto Stock Exchange were as follows:

<b>Toronto Stock Exchange<sup>(1)</sup></b>			
<b>Month</b>	<b>High (\$)</b>	<b>Low (\$)</b>	<b>Volume</b>
January 2010	1.10	0.86	121,200
February 2010	1.20	.89	387,100
March 2010	1.08	0.87	234,100
April 2010	0.93	0.70	309,500
May 2010	0.85	0.61	407,600
June 2010	0.95	0.64	390,000
July 2010	0.80	0.55	175,200
August 2010	0.71	0.53	216,600
September 2010	0.64	0.45	133,000
October 2010	0.60	0.30	747,500
November 2010	.036	0.23	484,300
December 2010	0.29	0.18	813,500

(1) Data supplied by TSX Datalinx Services, a division of the Toronto Stock Exchange.

## 9. PRIOR SALES

On November 2, 2010, the Company completed a private placement of units (the “Offering”). Pursuant to the terms of the Offering, the Company issued a total of 9,491,886 units (“Units”) at a price of \$0.40 per Unit for gross proceeds of \$3,796,754. Each Unit consisted of one common share of the Company and one common share purchase warrant (“Warrant”) which entitle the holder to acquire one common share at a price of \$0.45 until November 1, 2015, subject to an accelerated expiry if, at any time after December 31, 2010, the published closing trade price of the common shares on the TSX is equal or superior to \$0.75 for any 20 consecutive trading days, in which event the Company may give the holder written notice that the Warrants will expire at the close of business day on the thirtieth day from the receipt of such notice.

## 10. ESCROWED SECURITIES

Pursuant to an escrow agreement dated March 20, 2009, Computershare Trust Company of Canada, as escrow agent, holds a total of 5,834,249 Common Shares in escrow. These shares could be released to former Xebec shareholders on the achievement of specified financial targets. These targets are measured at December 31, 2009 and 2010. Consequently, these shares are considered restricted share awards that are issued but not outstanding. As those performance targets were not achieved no expense was recorded and these shares will be cancelled.

## 11. DIRECTORS AND OFFICERS

### *Directors*

The Directors are elected by shareholders at the annual general meeting and hold office until their term expires at the following annual general meeting, subject to resignation, retirement or re-election.

The following table lists the Directors of the Company as at March 31, 2011:

<b>Name, Province/State and Country of Residence</b>	<b>Director Since</b>	<b>Common Shares beneficially owned, directly or indirectly or on which control or direction is exercised by Director</b>	<b>Principal Occupation</b>
<b>Peter Paul Praxmarer</b> Vienna, Austria	June 2009	N/A (3)	Managing Director, Ca'bea GMBH
<b>John Shakeshaft</b> London, United Kingdom	June 2009	101,600 (2 & 3)	Chairman, Ludgate Environmental Fund Limited
<b>Kurt Sorschak</b> Pointe-Claire, Québec Canada	June 2009	13,757,778 * (1)	President and Chief Executive Officer of Xebec Adsorption Inc.
<b>Glenn R. Kelly</b> Trois-Rivières, Québec Canada	May 2010	N/A	President and Chief Executive Officer of CO <sub>2</sub> Solution Inc.
<b>Mark Goudie</b> Ottawa, Ontario Canada	May 2010	N/A (3)	Mauve Advisors (a personal consulting company).

(1) Member of Governance Committee.

(2) Member of Compensation Committee.

(3) Member of Audit Committee.

\* of which 5,250,823 shares are in escrow which will be cancelled as the targets have not been met

Mr. Denis John Connor resigned as Director as of May 12<sup>th</sup> 2010.

Mr. Guy Ouimet resigned as Chairman of the Board on January 22, 2010. Mr. Claude Létourneau resigned as director on January 18, 2010.

### *Current Director Biographies*

The following biographies are presented in alphabetical order:

*Mark Goudie, Director*

Mr. Goudie is a Principal with Mauve Advisors (an advisory firm that he founded). Prior to that he had been Chief Financial Officer of Mxi Technologies Ltd. from 2005 to 2010 where he was responsible for financial, legal, human resources, information technology, administrative and facilities management. Mark possesses over twenty years of experience as a financial professional with various large organizations including Vice-President Finance and Chief Financial Officer at World Heart Corporation (a medical devices company that was publicly-traded on the NASDAQ and TSX). He has also been Vice-President of Finance and Administration and Chief Financial Officer of the Ottawa Senators Hockey Club and the Palladium, as well as Vice-President of Finance and Administration and Chief Financial Officer of a network services and manufacturing company, and Controller of a U.S. and Canadian publicly-traded networking equipment manufacturer. Mr. Goudie is a Chartered Accountant who started his career with PricewaterhouseCoopers in the auditing, accounting and tax group before joining the management consulting practice in their business controls group. Mark holds a Bachelor of Commerce degree from Carleton University and has served on a number of private, public and charity Boards of Directors

*Glenn R. Kelly, Director*

Mr. Kelly has been a Director of CO<sub>2</sub> Solution Inc., a TSX Venture listed company, since February 2008. He was appointed President and Chief Executive Officer of CO<sub>2</sub> Solution Inc. in August 2008. Prior to joining CO<sub>2</sub> Solution, Mr. Kelly was President and Chief Operating Officer of Rabaska Inc., a subsidiary of Gaz Metro, Gaz de France and Enbridge Inc. Previously, Mr. Kelly was President and founder of Intragaz Inc. a company specializing in the development and operation of underground natural gas storage facilities. Mr. Kelly is also the Chairman of the Board of Gastem Inc., an independent public oil and gas exploration and development company based in Montreal. A recognized leader and experienced energy industry executive, Mr. Kelly holds a degree in Civil Engineering from Queens University and an MBA from Laval University.

*Peter Paul Praxmarer, Director*

Peter Praxmarer is the founder and managing director of Ca'bea GmbH, an industrial management consultancy with assignments in the metal, energy, and filtration industries, based in Vienna, Austria, since April 2007. He is also a senior consultant to KPMG Austria Financial Advisory Services since 2009. From 2002 to 2006 he led Domnick Hunter Led's compressed air and gas business as Chief Operating Officer of the Industrial Division and member of the global business management board. During his tenure at Domnick Hunter Ltd., he developed the business as the leading provider of filtration, separation and purification equipment to the global compressed air industry with a worldwide network of marketing and manufacturing operations. His previous assignments include senior management positions in hi-tech engineering companies such as Siemens and Honeywell Europe, encompassing research and development management for innovative digital telecommunication networks and strategic business development for industrial and environmental controls in Central and Eastern Europe. Mr. Praxmarer obtained a Master's degree in electrical engineering from Stuttgart University in Germany in 1982 and in Business Administration from INSEAD in France in 1989.

*John Shakeshaft, Director*

Mr. Shakeshaft is chairman of Ludgate Environmental, an AIM listed investment company specializing in the cleantech sector, also of Valiance Special Opportunities Fund of Funds and Co-Investment Fund and investment committee chair and advisory director of Corestone, AG, a Zug based fiduciary investment manager owned by Robeco. He is also a non-executive director and chair of the audit committee of Tele2 AB, a telecom company listed on the Stockholm Bourse, of TEB, NV, a trade finance bank owned by BNP Paribas and the Colakoglu Group in Amsterdam and of TT Electronics plc, an electronic sensors manufacturing company listed on the London Stock Exchange. Mr. Shakeshaft is a member of the supervisory board of The Economy Bank NV, a bank offering trade finance, treasury and private banking services. Mr. Shakeshaft has over 25 years corporate finance experience in the City of London and held senior positions at Lazard, Barings and Morgan Stanley. He is also an external member of the audit committee of Cambridge University, a trustee of the Institute of Historical Research, London University, chairman of The Bush Theatre and director of the Alternative Theater Company. He was educated at Cambridge, Princeton and London Universities.

*Kurt Sorschak, President and Chief Executive Officer, Director and Chairman of the Board*

Kurt Sorschak is the President and the Chief Executive Officer, Director and Chairman of the Board of Xebec, a company he co-founded and which he developed from a local compressed air and gas dryer manufacturer into an internationally active gas purification company. He played an important role in establishing strong relationships with different universities and laboratories in Canada and the United States of America, for the development of innovative gas purification and liquefaction technologies. In 2008, he became the sole director of Xebec China, which serves the Chinese and Asian/Pacific market with gas purification and filtration equipment. From 2004 to 2007, he was the General Manager of the Canadian division of Domnick Hunter's air dryer manufacturing facility, at that time the largest adsorption dryer plant in North America. In 2005, he became the General Manager for the Xebec division of Parker-Hannifin Corporation, a U.S. based multinational, after Parker-Hannifin Corporation bought Domnick Hunter Ltd. In June 2007, he bought the Xebec division from Parker-Hannifin Corporation through a management buy-out transaction with two other partners. Mr. Sorschak also worked in different managerial capacities in Europe. He obtained an Associate Degree from the American University in Paris, France, in 1982, and a Masters of Law Degree from the University of Munich, Germany, in 1988. Officers

The following table lists the Officers who do not currently sit on the board of directors of the Company as at March 31, 2011:

Name and country or province of residence	Position	Principal occupation during the past five years
<b>Andrew Graham Hall</b> Shanghai, China	Vice President, Asia Pacific	Vice President, Asia Pacific of the Company; President and Chief Executive Officer of QuestAir; Vice President, Sales and Marketing of QuestAir; Director, Corporate Development and Investor Relations of QuestAir
<b>Dr. Daryl D. Musselman</b> North Vancouver, British Columbia, Canada	Vice President Engineering and Technology Development	Vice President, Engineering and Technology Development of the Company, Vice President Engineering of Xebec, Director of Engineering of Xebec (1)
<b>Lyne Routhier</b> Rosemère, Québec, Canada	Chief Financial Officer by interim	Chief Financial Officer of Xebec by interim, Corporate Controller of Xebec, Corporate Controller of Xebec by interim and acted as a management consultant to Kangaroo Media Inc and GCI Environment Inc, Vice President Finance of Melior Group a Chartwell REIT Partner

(1) Mr. Daryl D. Musselman resigned as Vice President Engineering and Technology Development as of March 31, 2011

### ***Executive Officer Biographies***

Officers who do not currently sit on the board of directors are set for below, in alphabetical order:

#### ***Andrew Graham Hall, Vice President, Asia Pacific***

Mr. Hall was appointed as Vice President, Asia Pacific in July 2009. He has held a number of positions with the Company since joining the Company in 2001, including President and Chief Executive Officer, Vice President, Sales and Business Development, and Director, Corporate Development and Investor Relations. Prior to joining the Company, Mr. Hall held process engineering positions in the mining industry with Teck Cominco Limited and with Gold Fields of South Africa Ltd. Mr. Hall holds a Chemical Engineering degree from the University of Cape Town, a MASc degree in Chemical Engineering from the University of British Columbia, and an MBA degree from the London Business School.

#### ***Dr. Daryl Musselman, P.Eng, Vice President, Engineering and Technology Development***

As the Vice President of Engineering, Dr. Musselman oversees a team of engineers and technologists responsible for the engineering of commercial products and for the development of new products for Xebec. Dr. Musselman began working with the Company in 2003 as a consultant while owning and operating local product development and manufacturing companies. Prior to his current position, Dr. Musselman held the position of Director of Engineering for the Company since January 2006. Before moving to British Columbia in 2000, Dr. Musselman was a registered Professional Engineer in the province of Ontario where he worked in the automotive industry for a major original equipment manufacturer, and then as a Senior Design Engineer on a number of high profile vehicle designs and product developments

for a Tier 1 automotive supplier. Dr. Musselman holds a BSc. and an MSc in Mechanical Engineering from the University of Waterloo, and a Ph.D. in Engineering Science from the University of Western Ontario.

*Lyne Routhier, CA, Chief Financial Officer by interim*

Ms. Routhier was appointed as Chief Financial Officer by interim following the departure of the previous Chief Financial Officer, Ms Ginette Gagné on March 14, 2011. Prior to this appointment, Ms Routhier was serving as Xebec's Corporate Controller. Prior to joining the Company, Ms Routhier acted as a consultant to GCI Environment and Kangaroo Media and was Vice-President Finance at Melior Group a Chartwell REIT Partner. Ms Routhier is a Chartered Accountant who started her career with PricewaterhouseCoopers in the auditing and accounting group and a member of the Quebec Chartered Accounting Association. Ms Routhier holds a Bachelor of Commerce from the Université du Québec à Montréal.

***Corporate Cease Trade Orders, Bankruptcies, Penalties or Sanctions***

To the knowledge of the Company, no director or executive officer of the Company is, as at the date hereof, or has been, within the 10 years before the date hereof, a director, chief executive officer or chief financial officer of any company that:

- (i) while that person was acting in such capacity was subject to a cease trade or similar order or an order that denied the relevant corporation access to any exemption under securities legislation, in effect for a period of more than 30 consecutive days; or
- (ii) was subject to a cease trade or similar order or an order that denied the relevant corporation access to any exemption under securities legislation that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer in the relevant corporation, in effect for a period of more than 30 consecutive days.

To the knowledge of the Company, no director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company:

- (i) is, as at the date hereof, or has been, within the 10 years before the date hereof, a director or executive director of any company that, while that person was acting in such capacity, or within a year of that person ceasing to act in that capacity, become bankrupt, made a proposal under any legislation relating to the bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold its assets other than Mr. Kurt Sorschak who during the period of 1998 to 2002 was a Director of Thermal Heat Exchangers Irl. Ltd, in Drogheda, Ireland, a company that was court liquidated in early 2002; or
- (ii) has, within the 10 years before the date hereof, become bankrupt, made a proposal under any legislation relating to the bankruptcy or insolvency, or become subject

to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

To the knowledge of the Company, no director or executive officer of the Company, or a shareholder holding sufficient number of securities of the Company to affect materially the control of the Company, has been subject to:

- (i) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- (ii) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

### ***Conflicts of Interest***

To the best of the Company's knowledge, and other than as disclosed herein, there are no known existing or potential conflicts of interest between the Company and any directors or officers of the Company, except that certain of the directors and officers serve as directors, officers, promoters and members of management of other companies and therefore it is possible that a conflict may arise between their duties as a director or officer of the Company and their duties as a director, officer, promoter or member of management of such other companies.

The directors and officers of the Company are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosures by directors of conflicts of interest and the Company will rely upon such laws in respect of any directors and officers conflicts of interest or in respect of any breaches of duty by any of its directors or officers. All such conflicts will be disclosed by such directors or officers in accordance with the law and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.

### ***Interest of Directors and Officers***

The directors and officers of the Company, as a group, beneficially own or control 8,025,129 Common Shares, representing approximately 20.39% (excluding the shares in escrow) of the Common Shares issued and outstanding as at December 31, 2010.

## **12. INTEREST OF MANAGEMENT IN MATERIAL TRANSACTIONS**

No director or executive officer of the Company, no person or company that beneficially owns, or controls or directs, directly or indirectly, more than 10% of any class or series of the Company's outstanding voting securities and no associate or affiliate of any of such persons or companies has any material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or will materially affect the Company other than as disclosed below.

	<b>2010</b>	<b>2009</b>
	\$	\$
Marketing and professional services expenses paid to companies controlled by members of the immediate family of a shareholder	85,085	161,020

### **13. MATERIAL CONTRACTS**

The following is a list of the material contracts, other than those contracts entered into in the ordinary course of business, which were entered into within the most recently completed financial year, or before the most recently completed financial year but that are still in effect:

#### ***Combination Agreement***

Xebec entered into a Combination Agreement with QuestAir on March 17, 2009, to allow for the amalgamation of the two companies. For additional information regarding the Combination Agreement and the Arrangement see the “Management Information Circular” of QuestAir dated April 20, 2009 which is available on SEDAR at [www.sedar.com](http://www.sedar.com). Pursuant to the Combination Agreement, Xebec assumed all rights and obligations of QuestAir, including the following material contracts:

#### ***Joint Development Agreement***

The Company entered into a Joint Development Agreement with EMRE effective on October 30, 2003, which is described herein in the section entitled “Key Relationships”.

#### ***Commercialization Agreement***

The Company entered into a Commercialization Agreement with EMRE in May 2006, which is described herein in the section entitled “Key Relationships”.

#### ***Licensing Agreement***

The Company entered into a Licensing and Development Agreement with Nuvera Fuel Cells for Advanced Hydrogen Purification on March 17, 2011, as described herein in the section entitled “Key Relationships”.

### **14. LEGAL PROCEEDINGS**

The Company is party to various ongoing and pending litigation along with other contingencies arising out of normal course of business. Management believes that these claims, when resolved, will not have any material adverse effect on the consolidated financial position or results of operations of the Company.

### **15. EXPERTS**

The Company’s auditors are PricewaterhouseCoopers LLP, Chartered Accountants, who have prepared an independent auditor’s report dated March 31, 2011 in respect of the Company’s consolidated financial statements as at December 31, 2010 and 2009 and for the years then ended, and the related notes including a summary of significant accounting policies.

PricewaterhouseCoopers LLP has advised that they are independent with respect to the Company within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Quebec

## **16. AUDIT COMMITTEE INFORMATION**

### ***Charter of the Audit Committee***

The primary function of the audit committee is to assist the Board of Directors in fulfilling its oversight responsibilities with respect to monitoring the Company's accounting and financial reporting and practices and procedures; the adequacy of the Company's internal accounting controls and procedures; the quality and integrity of financial statements and other financial information provided by the Company to shareholders, and others; and for liaising with the external auditors of the Company. The audit committee charter of the Company, which sets out the audit committee's responsibilities and duties, is attached as Schedule "A" to this AIF.

### ***Composition of the Audit Committee***

The audit committee of the Company currently consists of John Shakeshaft (Chair of the Committee, Mark Goudie and Glenn R. Kelly

Each member of the audit committee of the Company is independent and financially literate; as such terms are defined in *National Instrument 52-110 – Audit Committees*.

### ***Relevant Education and Experience***

The education and experience of each audit committee member of the Company that is relevant to the performance of his or her responsibilities as an audit committee member is described below:

**John Shakeshaft** (Chair of the Audit Committee) has over 20 years of experience in corporate finance in the City of London, during which time he has undertaken a wide range of financial and accounting related analysis, and advised upon numerous corporate finance related transactions involving complex accounting issues. Mr. Shakeshaft is currently a non-executive director and chair of the audit committee of Tele2 AB, a European telecommunications company listed on the Stockholm Stock Exchange and NASDAQ, and currently serves on the audit committee of the Board. Mr. Shakeshaft is a member of the supervisory board of The Economy Bank NV and chair of its Audit Committee, a bank offering trade finance, treasury and private banking services. He is also a member of the Audit Committee of TT Electronics, PLC, a British manufacturing company listed on the London Stock Exchange. He is also an external member of the audit committee of Cambridge University.

**Mark Goudie** is a Principal with Mauve Advisors (an advisory firm that he founded). Prior to that he had been Chief Financial Officer of Mxi Technologies Ltd. from 2005 to 2010 where he was responsible for financial, legal, human resources, information technology, administrative and facilities management. Mark possesses over twenty years of experience as a financial professional with various large organizations including Vice-President Finance and Chief Financial Officer at World Heart Corporation (a medical devices company that was

publicly-traded on the NASDAQ and TSX). He has also been Vice-President of Finance and Administration and Chief Financial Officer of the Ottawa Senators Hockey Club and the Palladium, as well as Vice-President of Finance and Administration and Chief Financial Officer of a network services and manufacturing company, and Controller of a U.S. and Canadian publicly-traded networking equipment manufacturer. Mr. Goudie is a Chartered Accountant who started his career with PricewaterhouseCoopers in the auditing, accounting and tax group before joining the management consulting practice in their business controls group. Mark holds a Bachelor of Commerce degree from Carleton University and has served on a number of private, public and charity Boards of Directors

**Glenn R. Kelly** has been a Director of CO2 Solution Inc., a TSX Venture listed company, since February 2008. He was appointed President and Chief Executive Officer of CO2 Solution Inc. in August 2008. Prior to joining CO2 Solution, Mr. Kelly was President and Chief Operating Officer of Rabaska Inc., a subsidiary of Gaz Metro, Gaz de France and Enbridge Inc. Previously, Mr. Kelly was President and founder of Intragaz Inc. a company specializing in the development and operation of underground natural gas storage facilities. Mr. Kelly is also the Chairman of the Board of Gastem Inc., an independent public oil and gas exploration and development company based in Montreal. A recognized leader and experienced energy industry executive, Mr. Kelly holds a degree in Civil Engineering from Queens University and an MBA from Laval University.

***Prior Approval Policies and Procedures***

The Company’s Audit Committee annually reviews and approves the terms and scope of the external auditors’ engagement. The Audit Committee oversees the procedures and the conditions pursuant to which permissible services proposed to be performed by PricewaterhouseCoopers LLP, the Company’s external auditors, are pre-approved. The consolidated financial statements as at December 31, 2008 for Xebec prior to the Arrangement were audited by PSB Boisjoli LLP.

All non-audit service engagements of PricewaterhouseCoopers LLP, regardless of the cost estimate, are required to be coordinated and approved by the Chief Financial Officer to further ensure that adherence to this policy is monitored.

The following table sets forth, by category, the fees paid to the Company’s auditors, in each of the periods ended December 31, 2010, and 2009

<b>Fee category</b>	<b>2010</b>	<b>2009<sup>(1)</sup></b>
Audit fees	234,000	199,300
Audit-related fees	177,457	35,869
Tax fees	30,870	23,725
All other fees	123,749	0
<b>Total</b>	<b>566,076</b>	<b>258,394</b>

- (1) Also in 2009, an amount of \$32,123 was paid to PSB Boisjoli LLP including \$11,212 in audit-related fees and \$18,911 in other fees for services provided prior to the Arrangement.

The nature of each category of fees is described below.

***Audit Fees:*** Audit fees were for professional services rendered by PricewaterhouseCoopers LLP for the audit of the annual consolidated financial statements of the Company.

***Audit-Related Fees:*** Audit-related fees were for assurance and related services reasonably related to the performance of the audit or review of the annual statements and are not reported under the heading audit fees above. These services consisted of consultations related to accounting matters and amounts incurred in respect of interim reviews of the Company's quarterly financial statements.

***Tax Fees:*** Tax fees were for tax compliance and tax advice. These services consisted of tax compliance related to the preparation of tax returns and tax advice related to various agreements the Company entered into.

***All Other Fees:*** Fees to be disclosed under this category would be for products and services other than those described under the headings audit fees, audit-related fees and tax fees above.

## **17. TRANSFER AGENTS AND REGISTRARS**

The Company's transfer agent and registrar for its Common Shares is Computershare Trust Company of Canada at its offices in Montreal, Québec.

## **18. ADDITIONAL INFORMATION**

Additional information, including information as to directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, options to purchase securities and interests of insiders in material transactions will be contained in the Company's Information Circular for its annual meeting of shareholders to take place during the month of June 2011.

Additional financial information is contained in the audited financial statements and management discussion and analysis for the year ended December 31, 2010.

Additional information relating to the Company may be found on SEDAR at [www.sedar.com](http://www.sedar.com).

## **SCHEDULE A: AUDIT COMMITTEE CHARTER**

The following Audit Committee Charter was updated in June 2009 following an annual review of all Board committee charters.

### **I. PURPOSE**

The Audit Committee (the “Committee”) is a standing committee of the Board of Directors. The primary function of the Committee is to assist the Board of Directors in fulfilling its oversight responsibilities with respect to monitoring the Corporation’s accounting and financial reporting and practices and procedures; the adequacy of the Corporation’s internal accounting controls and procedures; the quality and integrity of financial statements and other financial information provided by the Corporation to shareholders, and others; and for liaising with the external auditors of the Corporation.

### **II. STRUCTURE AND OPERATIONS**

The Committee shall be comprised of three or more members of the Board of Directors, who all satisfy the “independence” and “financial literacy” requirements of Regulation 52-110 – Audit Committees (“52-110”), as amended. No member of the Committee shall be an officer or employee of the Corporation, or any affiliate of the Corporation.

For the purposes of this Charter, a member of the Committee is “independent” if the member has no direct or indirect material relationship with the Corporation, as more fully defined in 52-110, and a member of the Committee is “financially literate” if he or she has the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that can reasonably be expected to be raised by the financial statements of the Corporation.

The members of the Committee shall be annually appointed by the Board of Directors and shall serve until such member’s successor is duly elected and qualified or until such member’s earlier resignation or removal. The members of the Committee may be removed, with or without cause, by a majority of the Board of Directors.

The Chair shall be annually appointed by the Board of Directors. The Chair shall not be entitled to a casting vote, and instead will refer any matter which results in a tie vote to the full Board of Directors for consideration and resolution. The Chair will set the agendas for Committee meetings and chair all meetings of the Committee unless the Chair is not present at such meeting in which case the members present shall elect a chair for the conduct of the meeting.

### **III. MEETINGS**

The Committee shall meet at least quarterly or more frequently as circumstances dictate. As part of its goal to foster open communication, the Committee shall periodically meet with management and the external auditors in separate sessions to discuss any matters that the Committee or each of these groups believes should be discussed privately. The Committee may meet privately with outside counsel of its choosing and the Chief Financial Officer, as necessary.

In addition, the Committee shall meet with the external auditors and management quarterly to review the Corporation's financial statements in a manner consistent with that outlined in Section IV of this Charter.

All non-management directors that are not members of the Committee may attend meetings of the Committee but may not vote. Additionally, the Committee may invite to its meetings any directors, management of the Corporation and such other persons as it deems appropriate in order to carry out its responsibilities. The Committee may exclude from its meetings any persons it deems appropriate in order to carry out its responsibilities.

A majority of the Committee members, but not less than two, will constitute a quorum. A majority of members present at any meeting at which a quorum is present may act on behalf of the Committee. The Committee may meet by telephone or videoconference and may take action by unanimous written consent with respect to matters that may be acted upon without a formal meeting.

The Chair of the Committee shall designate a person, who need not be a member thereof, to act as Secretary, who shall record the proceedings of the meetings. The agenda of each meeting will be prepared by the Secretary, upon consultation with the Chair, and, whenever reasonably practicable, circulated to each member prior to each meeting. The Committee shall maintain minutes or other records of meetings and activities of the Committee.

#### **IV. RESPONSIBILITIES, DUTIES, AUTHORITY**

The following functions shall be the common recurring activities of the Committee in carrying out its responsibilities outlined in Section I of this Charter. These functions should serve as a guide with the understanding that the Committee may carry out additional functions and adopt additional policies and procedures as may be appropriate in light of changing business, legislative, regulatory, legal and other conditions. The Committee shall also carry out any other responsibilities and duties delegated to it by the Board of Directors from time to time related to the purposes of this Committee outlined in Section I of this Charter.

In discharging its oversight role, the Committee is empowered to investigate any matter of interest or concern that the Committee deems appropriate. In this regard, the Committee shall have the authority to retain outside counsel, accounting, or other advisors for this purpose, including authority to approve the fees payable to such advisors and other terms of retention.

The Committee shall be given full access to the Board of Directors, management, employees of the Corporation, directly and indirectly responsible for financial reporting, and independent accountants, as necessary, to carry out these responsibilities. While acting within the scope of this stated purpose, the Committee shall have all the authority of the Board of Directors.

Notwithstanding the foregoing, the Committee is not responsible for certifying the financial statements of the Corporation or guaranteeing the external auditors' report. The fundamental responsibility for the financial statements and disclosures rests with management and the external auditors.

## **Document Reports/Reviews**

### ***Annual Financial Statements***

1. The Committee shall review with management and the external auditors, both together and separately, prior to public dissemination:
  - (a) the annual audited consolidated financial statements;
  - (b) the external auditor's review of the annual consolidated financial statements and their report;
  - (c) any significant changes that were required in the external audit plan;
  - (d) any significant issues raised with management during the course of the audit, including any restrictions on the scope of activities or access to information; and
  - (e) those matters related to the conduct of the audit that are required to be discussed under generally accepted auditing standards applicable to the Corporation.

Following completion of the matters contemplated above, the Committee shall make a recommendation to the Board of Directors with respect to the approval of the annual financial statements with such changes contemplated and further recommended as the Committee considers necessary.

### ***Interim Financial Statements***

2. The Committee shall review with management and the external auditors, both together and separately, prior to public dissemination, the interim unaudited consolidated financial statements of the Corporation, including a discussion with the external auditors of those matters required to be discussed under generally accepted auditing standards applicable to the Corporation.

The Committee shall make a recommendation to the Board of Directors with respect to the approval of the interim financial statements with such changes contemplated and further recommended as the Committee considers necessary.

### ***Management's Discussion and Analysis***

3. The Committee shall review with management and the external auditors, both together and separately, prior to public dissemination, the annual and interim Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A").

The Committee shall make a recommendation to the Board of Directors with respect to the approval of the MD&A with such changes contemplated and further recommended as the Committee considers necessary.

### ***Press Releases***

4. The Committee shall review with management, prior to public dissemination, the annual and interim earnings press releases (paying particular attention to the use of any “pro forma” or “adjusted non-GAAP” information) as well as financial information and earnings guidance provided to analysts and rating agencies.

### ***Reports and Regulatory Returns***

5. The Committee shall review and discuss with management, and the external auditors to the extent the Committee deems appropriate, such reports and regulatory returns of the Corporation as may be specified by law.

### ***Other Financial Information***

6. The Committee shall review the financial information included in any prospectus, annual information form or information circular with management and the external auditors, together and separately, prior to public dissemination, and shall make a recommendation to the Board of Directors with respect to the approval of such prospectus, annual information form or information circular with such changes contemplated and further recommended as the Committee considers necessary.

### ***EBITDA Targets and Earn-Out Shares***

7. The Committee shall implement a process to oversee the achievement of certain adjusted EBITDA performance targets pursuant to the terms and conditions of the escrow agreement executed between some shareholders of the Corporation and QuestAir Technologies Inc. on March 17, 2009 (the “Escrow Agreement”) and shall take with external auditors all necessary measures to manage and assess such process. The Escrow Agreement is attached hereto as Schedule IV-7.

### **Financial Reporting Processes**

#### ***Establishment and Assessment of Procedures***

8. The Committee shall satisfy itself that adequate procedures are in place for the review of the public disclosure of financial information extracted or derived from the financial statements of the Corporation and assess the adequacy of these procedures annually.

#### ***Application of GAAP***

9. The Committee shall assure itself that the external auditors are satisfied that the accounting estimates and judgements made by management, and management’s selection of accounting principles reflect an appropriate application of generally accepted accounting principles.

### ***Practices and Policies***

10. The Committee shall review with management and the external auditors, together and separately, the principal accounting practices and policies of the Corporation.

### **External Auditors**

#### ***Oversight and Responsibility***

11. The Committee is directly responsible for overseeing the work of the external auditors engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Corporation, including the resolution of disagreements between management and the external auditors regarding financial reporting.

#### ***Reporting***

12. The external auditors shall report directly to the Committee and are ultimately accountable to the Committee.

#### ***Performance and Review***

13. The Committee shall annually review the performance of the external auditors and recommend to the Board of Directors the appointment of the external auditors or approve any discharge of the external auditors when circumstances warrant, for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Corporation.

#### ***Annual Audit Plan***

14. The Committee shall review with the external auditors and management, together and separately, the overall scope of the annual audit plan and the resources the external auditors will devote to the audit. The Committee shall annually review and approve the fees to be paid to the external auditors with respect to the annual audit.

#### ***Non-Audit Services***

15. "Non-audit services" means all services performed by the external auditors other than audit services. All "non-audit" services to be provided to the Corporation by the external auditors must either be approved explicitly in advance by the Committee, or pursuant to certain pre-approval policies and procedures established by the Committee that are detailed as to the particular services that may be pre-approved, do not permit the delegation of approval authority to the Corporation's management, and require management to inform the Committee of each service approved and performed under the policies and procedures.
16. The Committee may delegate to one or more members of the Committee the authority to grant such pre-approvals. The decisions of such member(s) regarding approval of "non

audit” services shall be reported by such member(s) to the full Committee at its first scheduled meeting following such pre-approval. Notwithstanding the foregoing, pre-approval is not necessary for certain *de minimis* non-audit services performed by the external auditors, as specified in Section 2.4 of 52-110.

### ***Independence Review***

17. The Committee shall review and assess the qualifications, performance and independence of the external auditors, including the requirements relating to such independence of the law governing the Corporation. At least annually, the Committee shall receive from and review with the external auditors, their written statement delineating all relationships with the Corporation and, if necessary, recommend that the Board of Directors take appropriate action to satisfy itself of the external auditors’ independence and accountability to the Committee.

### **Reports to Board of Directors**

#### ***Reports***

18. In addition, to such specific reports contemplated elsewhere in this Charter, the Committee shall report regularly to the full Board of Directors regarding such matters, including:
  - (a) with respect to any issues that arise with respect to the quality or integrity of the financial statements of the Corporation, compliance with legal or regulatory requirements by the Corporation, the performance and independence of the external auditors of the Corporation;
  - (b) following meetings of the Committee; and
  - (c) with respect to such other matters as are relevant to the Committee’s discharge of its responsibilities.

#### ***Recommendations***

19. In addition, to such specific recommendations contemplated elsewhere in this Charter, the Committee shall provide such recommendations as the Committee may deem appropriate. The report to the Board of Directors may take the form of an oral report by the Chair or any other member of the Committee designated by the Committee to make such report.

### **Whistle-Blowing**

#### ***Procedures***

20. The Committee shall establish procedures for:

- (a) the receipt, retention and treatment of complaints received by the Corporation regarding questionable accounting, internal accounting controls, or auditing matters; and
- (b) the confidential, anonymous submission by employees of the Corporation and of concerns regarding questionable accounting or auditing matters.

### ***Notice to Employees***

21. To comply with the above, the Committee shall ensure the Corporation advises all employees of the Corporation, by way of a written code of business conduct and ethics (the “Code”), or if such Code has not yet been adopted by the Board of Directors, by way of a written or electronic notice, that any employee who reasonably believes that questionable accounting, internal accounting controls, or auditing matters have been employed by the Corporation or its external auditors is strongly encouraged to report such concerns by way of written communication directly to the Chair or any other member of the Audit Committee. Matters referred to a member of the Audit Committee, may be done so anonymously and in confidence.

***The Corporation shall not take or allow any reprisal against any employee for, in good faith, reporting questionable accounting, internal accounting, or auditing matters. Any such reprisal shall itself be considered a very serious breach of this policy.***

All reported violations shall be investigated by the Audit Committee following rules of procedure and process as shall be recommended by outside counsel.

### **General**

#### ***Access to Counsel***

22. The Committee shall review, periodically, with outside counsel of its choosing, any legal matter that could have a significant impact on the financial statements of the Corporation.

#### ***Hiring of Partners and Employees of External Auditors***

23. The Committee shall annually review and approve the Corporation’s hiring policies regarding partners, employees and former partners and employees of the present and former external auditors of the Corporation.

#### ***General***

24. The Committee shall perform such other duties and exercise such powers as may, from time to time, be assigned or vested in the Committee by the Board of Directors, and such other functions as may be required of an audit committee by law, regulations or applicable stock exchange rules.

## **V. ANNUAL PERFORMANCE REVIEW**

### ***Annual Review***

The Committee shall perform a review and evaluation, annually, of the performance of the Committee and its members, including a review of the compliance of the Committee with this Charter. In addition, the Committee shall evaluate the adequacy of this Charter annually and recommend any proposed changes to the Board of Directors.

## **VI. DISCLOSURE OF CHARTER**

This Charter will be made available on the Corporation's website at [www.xebecinc.com](http://www.xebecinc.com)

**SCHEDULE IV-7**

**ESCROW AGREEMENT**

**The Escrow Agreement was filed as a schedule to the Combination Agreement filed as a material document on March 19, 2009 on SEDAR ([www.sedar.com](http://www.sedar.com))**



A world powered  
by **clean energy**