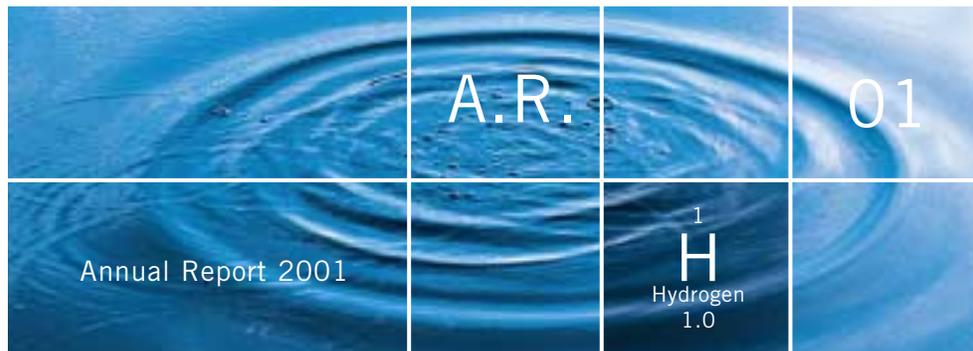


# It's not if...



# ...it's when.

THE WORLD HAS EMBARKED ON AN IRREVERSIBLE PATH TOWARDS NEW, SUSTAINABLE AND ENVIRONMENTALLY RESPONSIBLE SOURCES OF ENERGY TO FUEL ITS GROWING THIRST FOR POWER. HYDROGENICS BELIEVES HYDROGEN IS THE FUEL OF THE FUTURE, AND TO THAT END WE ARE BUILDING A COMPANY WITH THE PEOPLE, THE EXPERTISE, THE PASSION AND THE PRODUCTS TO CAPITALIZE ON THIS WORLD-CHANGING OPPORTUNITY. WE ENVISION A FUTURE WHERE CLEAN, SUSTAINABLE, RELIABLE AND EFFICIENT POWER CONTRIBUTES TO A HEALTHIER ENVIRONMENT AND AN IMPROVED GLOBAL QUALITY OF LIFE.

HYDROGENICS DESIGNS AND BUILDS INTEGRATED PROTON EXCHANGE MEMBRANE (PEM) FUEL CELL SYSTEMS FOR POWER GENERATION AND FOR FUEL CELL TESTING AND OPTIMIZATION. THE EXPERIENCE WE HAVE GAINED FROM OUR TEST SYSTEMS AND THE DEVELOPMENT OF PREMIUM POWER GENERATION SYSTEMS, SUPPORTED BY THE STRONG INDUSTRY PARTNERSHIPS WE HAVE BUILT, IS FORGING OUR PATH TO PROVIDING INNOVATIVE INTEGRATED SOLUTIONS FOR BROAD COMMERCIAL AND CONSUMER MARKETS.

OUR ENTHUSIASM AND PASSION FOR THE POTENTIAL OF THE HYDROGEN FUEL CELL IS TEMPERED WITH A PRAGMATIC BUSINESS STRATEGY FOCUSED ON MAKING FUEL CELL TECHNOLOGIES WORK FOR EXISTING REVENUE-GENERATING PREMIUM POWER MARKETS. OUR FOCUS ON TODAY'S OPPORTUNITIES IS DRIVING CURRENT FINANCIAL SUCCESS, ALLOWING US TO DEVELOP SUCCESSFUL TECHNOLOGY PLATFORMS AND VALUABLE SYSTEM INTEGRATION EXPERTISE.

We have applied for registration of the trademarks "FCATS", "FCAVS", "Screener", "HyPORT", "HyTEF", "HyAL", "MREF", "POTENZ", "IMPACT", "HyUPS" and "HyPM" in Canada. We have applied for registration of "Hydrogenics" in Canada and the United States.

[www.hydrogenics.com](http://www.hydrogenics.com)

The icon  is used throughout the report to let you know where you can access our website for more information.

## Financial Highlights

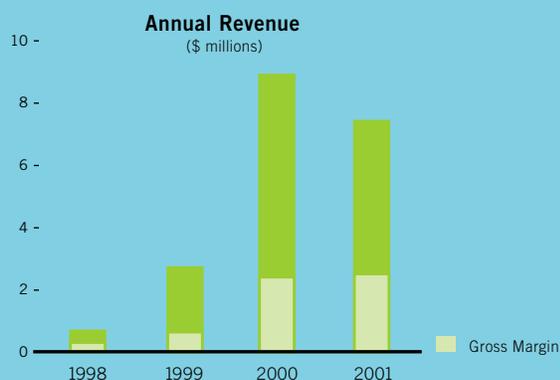
Year ended December 31,  
(U.S. \$000, except per share amounts)

	2001	2000	1999
<b>Income Statement Data</b>			
Revenue	7,418	8,883	2,674
Gross Margin	2,477	2,398	569
Net loss	(2,816)	(1,736)	(208)
Loss per share	(0.07)	(0.08)	(0.01)
Cash Earnings per share (non-GAAP)*	0.02	(0.08)	(0.01)
<b>Operating Data</b> (% of revenue)			
Gross Margin	33.3	27.0	21.3
Gross Research & Development	47.4	8.9	14.9
Selling, General & Administration	59.4	23.3	20.0
<b>Balance Sheet Data</b>			
Cash and short-term investments	65,809	77,436	453
Total Assets	107,633	82,992	1,964
Shareholders' Equity	105,821	80,260	37,767

\* Excludes non-cash amortization of acquired intellectual property of \$0.09 in 2001 (nil in 2000 and 1999)

## Operating Highlights

- Signed key alliance with General Motors to accelerate development of fuel cell technology for global commercial markets. This agreement provides for shared intellectual property rights and joint efforts in fuel cell product development, engineering, prototyping, testing, branding and marketing strategies.
- Established presence in select premium power markets, including telecommunications and military applications.
- Expanded international presence with larger Tokyo office and key new distributorships in Japan and Korea for our fuel cell automated test systems (FCATS).
- Secured engineering services contract with General Motors. This agreement enhances our revenue stability and demonstrates strong technical cooperation.
- Achieved significant technology advancements, including the development and successful demonstration of a number of commercial prototype products.
- Achieved cash EPS (non-GAAP) break-even in 2001, a reflection of the effective execution of our business plan in a challenging economic environment.



## Message to Shareholders

As we close the books on Hydrogenics' first year as a publicly traded company I want to say how pleased we are with our accomplishments in 2001. Our business plan is clearly working, and we are extremely excited about our future, and that of our industry. At Hydrogenics we are truly inspired by the potential for the hydrogen fuel cell. Every day brings us closer to realizing our vision of a world where clean, sustainable, reliable and efficient power contributes to enhanced energy security, a healthier environment and an improved quality of life.

### **MEETING OUR TARGETS**

In last year's annual report we established three goals that we believed would lead to enhanced shareholder value over the long term. Specifically, these goals were to develop commercial power products, establish strategic alliances, and maintain commercial sustainability. I am pleased to report that we made substantial progress on all of these goals in 2001, and in doing so have formed a solid foundation for further progress in 2002 and the years ahead.

Our first objective was to design, build, successfully demonstrate and field test prototype systems as a step toward selling commercial power products. During 2001 we introduced a number of prototype products, building on our system integration expertise and our considerable R&D skills and operational experience. Our strategy is based on a belief that offering fully integrated fuel cell power products, rather than individual system components, is the surest means to drive shareholder value and long term commercial success.

Our second objective was to forge strategic alliances that would provide Hydrogenics with progressive technologies, intellectual property and established channels to launch products across a broad spectrum of markets. Clearly, the strategic alliance we signed with General Motors was the single most important accomplishment of 2001 as it provides us with a license to world-leading stack technology, access to global distribution channels, and numerous other benefits, not the least of which is co-branding opportunities with the world's largest manufacturer. Hydrogenics is one of only two publicly-traded fuel cell companies with equity participation by a global automotive partner, positioning us favorably for the transportation market – potentially the largest power technology market of the future.

Other alliances, including our successful distributorships in the Asia-Pacific markets, have allowed us to diversify our customer base on a geographic basis, mitigating our exposure to any one region or adoption rate. As a result of these new initiatives, Asian-Pacific sales grew to 33% of our sales in 2001, up significantly from 3% in 2000.

Our third objective was to manage our business on a commercially sustainable basis, and in 2001 we successfully maintained our focus on our bottom line and cash flow. We continue to focus on commercial sustainability, believing that fiscal discipline is necessary in order to weather uncertain economic cycles and to capitalize on the many opportunities this industry has to offer. We are very proud to have generated positive cash earnings in 2001 with minimal cash burn, an important competitive advantage and benchmark among peer companies. As a result, Hydrogenics entered the new year with a strong balance sheet and sufficient cash reserves to support our growth strategies.



**PIERRE RIVARD**

President and Chief Executive Officer

#### **MOMENTUM IN OUR MARKETS**

The move to adopt a new, sustainable and commercially viable source of energy is being driven by a number of factors. Traditional energy sources are finite while consumption rates continue to accelerate. The effectiveness of conventional generation and distribution systems is clearly on a downward trend. These factors are compounded by environmental concerns and issues related to supply dependability, homeland security and the desire to become power independent. In addition, the 24/7 digital economy is creating an ever-growing demand for high quality, secure and dependable energy. In short, we are witnessing a timely convergence of many compelling factors that can add momentum to widespread adoption of hydrogen as a new sustainable source of energy.

#### **A PREMIUM STRATEGY**

We are confident that our business strategy, combined with our innovative technologies and integration expertise, positions us to excel in a number of different markets, beginning with premium power users.

Premium power markets are attractive to us for a number of reasons, not the least of which is the fact that they are populated with early adopters of new technology. Early adopters such as those in R&D, military and back-up power markets, possess the technical sophistication to work with new technologies, and as such are integral to our effort to develop new and viable power solutions. In addition, these markets yield premium prices for workable solutions, a key factor in meeting our fundamental objective of commercial sustainability.

Lower production volumes associated with supplying these markets is another important attribute. Higher selling prices, combined with smaller production runs, provide us with good margins and more importantly learning cycles on a reduced level of capital investment. Given that fuel cell technology will continue to undergo significant change for some time, the alignment of our investment in manufacturing infrastructure and capacity to the evolution and pace of our industry is critical to our goal of commercial sustainability.

In addition, by targeting niche, premium power markets, we expect to build enduring customer relationships that will sustain our growth as fuel cell technology gains traction in commercial markets. Successfully addressing premium power markets should provide the cash flow and, most importantly, the necessary experience for us to succeed in the higher volume commercial and consumer markets of the future. While the past is never a guarantee for the future, we believe that Hydrogenics' track record at this early stage of the industry bodes well of our potential to capitalize on near and long-term emerging opportunities.

#### **BUILDING ON OUR PROGRESS**

As we look ahead, we are confident in our ability to build on the significant progress demonstrated in 2001 as we continue to target the same goals so fundamental to our business plan.

In 2002, we anticipate that we will continue to develop new prototypes that address identifiable market niches, and introduce our proven technologies and integrated systems into multiple premium power markets.

We also intend to extend and expand our strategic alliances. We intend to broaden our global presence through strategic relationships with international partners and through expanded sales and marketing efforts, particularly in Asia and Europe.

In 2002 we will continue to focus on the bottom line and will strive to balance our commercial and research activities with fiscal discipline. We believe this is a prudent way to grow our company and increase shareholder value over the long term.

In addition to the pursuit of these ongoing goals, we have set three additional goals for 2002. These new goals include optimizing the technology and business alliance we secured with General Motors, expanding our global customer base for R&D test equipment, and further diversifying our fuel cell commercial product mix.

#### A FUTURE TO BE EXCITED ABOUT

In summary, Hydrogenics has come a long way in a very short time. We have become a recognized leader in the development of testing systems for the fuel cell market, as well as in value-added integration of the various systems that make a fuel cell work. We are now supplying fuel cell products to specific niche markets and generating a growing base of revenues and opportunities. Our alliance with General Motors positions us to capitalize on near term power market opportunities as well as the larger transportation markets of the future. I am confident that we entered 2002 with the team, the technology and the business plan to accelerate our growth and to deliver significant value for our shareholders.

In closing, I want to thank everyone at Hydrogenics for their dedication and their commitment. We executed convincingly in what was a challenging period in 2001, and these accomplishments stand us very well for continued progress in 2002.



PIERRE RIVARD  
President and Chief Executive Officer

# Towards a New Energy

THE DEMAND FOR POWER CONTINUES TO STRAIN THE EXISTING INFRASTRUCTURE IN BOTH DEVELOPING AND DEVELOPED COUNTRIES. THE 24/7 DIGITAL ECONOMY'S GROWING DEMAND FOR HIGH-QUALITY ENERGY THAT IS BOTH RELIABLE AND CLEAN IS NOT LIKELY TO BE MET EFFECTIVELY FROM THE CENTRALIZED POWER GRID.

THE MOUNTING DESIRE FOR INDIVIDUALS, ENTERPRISES, REGIONS, COUNTRIES AND CONTINENTS TO BECOME ENERGY SELF-SUFFICIENT, COMBINED WITH ESCALATING CONCERN OVER ENVIRONMENTAL ISSUES IS SETTING THE STAGE FOR WHAT COULD BECOME A REVOLUTION IN THE ENERGY SECTOR.

## THE ANSWER IS CLEAR – THE HYDROGEN FUEL CELL

AS THE MOST ABUNDANT SUBSTANCE IN OUR UNIVERSE, HYDROGEN HAS THE POTENTIAL TO BECOME THE PRIMARY SOURCE OF CLEAN, SAFE, SUSTAINABLE AND ECONOMICALLY VIABLE ENERGY, ACCESSIBLE BY ALL.

THE HYDROGEN FUEL CELL IS AN EFFECTIVE AND EFFICIENT MEANS TO TRANSFORM THIS BASIC ELEMENT INTO USEABLE POWER BY CONVERTING CHEMICAL ENERGY DIRECTLY INTO ELECTRICAL ENERGY. OPERATING AT LOW TEMPERATURES AND HIGH EFFICIENCIES, THE ONLY BY-PRODUCTS OF A HYDROGEN FUEL CELL POWER MODULE, OR ENGINE, ARE WATER AND HEAT.

POWER SYSTEMS BASED ON THE HYDROGEN FUEL CELL WILL HAVE A PROFOUND IMPACT ON EVERY-DAY LIFE IN THE 21ST CENTURY. WE BELIEVE THAT THERE IS ENORMOUS POTENTIAL FOR FUEL CELLS TO POWER VEHICLES, STATIONARY SYSTEMS, PORTABLE GENERATORS, ELECTRONIC AND COMMUNICATIONS EQUIPMENT AND THE EVER-INCREASING POWER DEMANDS OF MODERN-DAY LIVING.

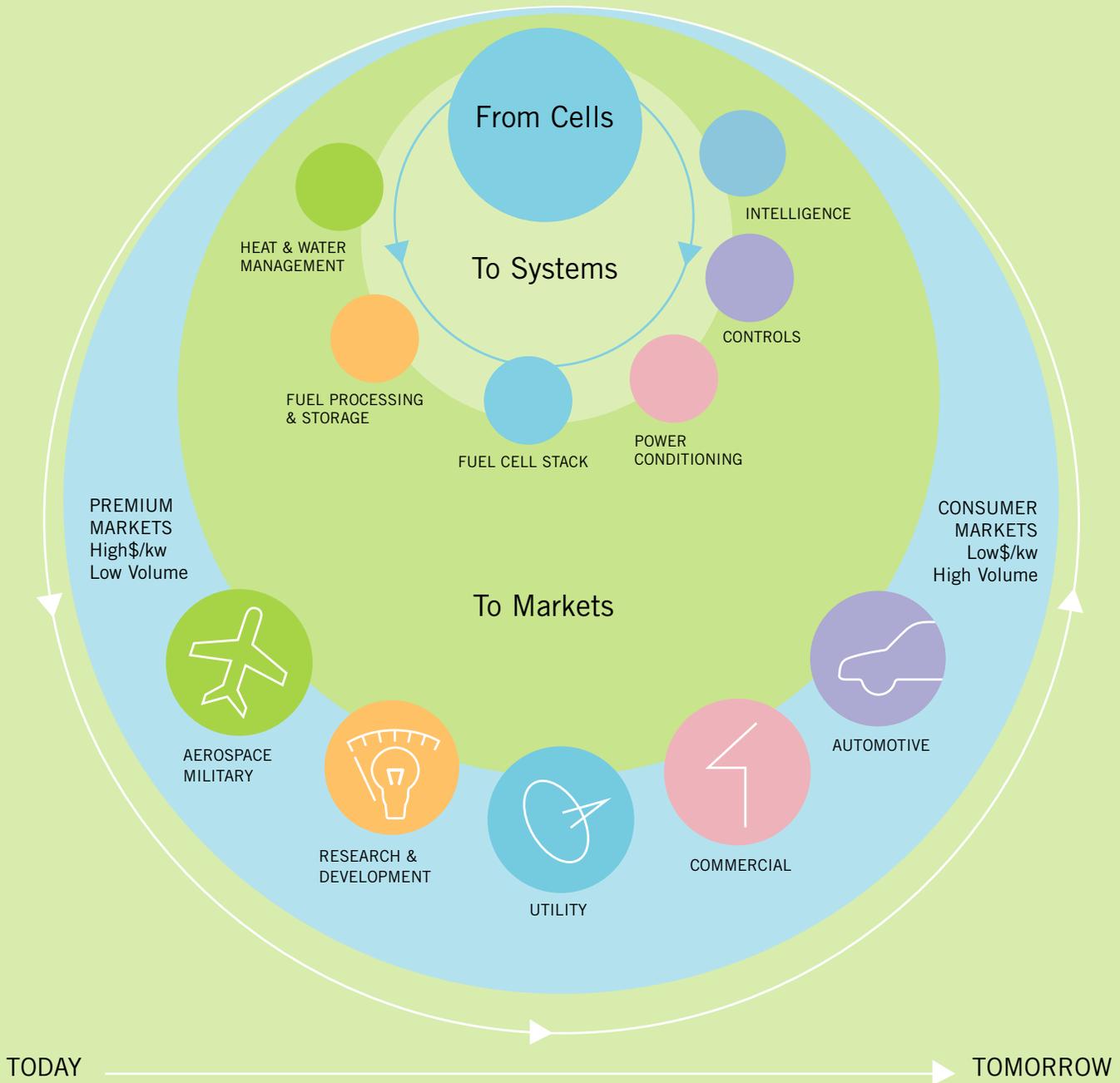
IN FACT, THE OVERALL MARKET FOR FUEL CELLS MAY ECLIPSE THAT OF ALL THE APPLIANCES THEY POWER. HYDROGENICS IS FOCUSED ON DEVELOPING A UNIQUE AND SUSTAINABLE BUSINESS PLAN TO CAPITALIZE ON THESE UNPRECEDENTED MARKET OPPORTUNITIES.



HYDROGENICS: WHO WE ARE...[www.hydrogenics.com/who.htm](http://www.hydrogenics.com/who.htm)

HYDROGENICS: THE TECHNOLOGY...[www.hydrogenics.com/tech.htm](http://www.hydrogenics.com/tech.htm)

# Making Fuel Cells Work



## Did you know...

A fuel cell stack requires a stable and complex, fully optimized system environment in order to operate and produce usable power. Creating and maintaining this environment through rigorous controls is as much a part of fuel cell technology as the fuel cell itself. It requires a comprehensive understanding of how the kinetic properties of a fuel cell respond to a wide range of operating parameters...in other words, what makes a fuel cell work.

A company with expertise in optimizing the performance of a fuel cell stack across a wide range of operating parameters will be able to adapt to a wide range of market opportunities.

## Integration with Innovation

Hydrogenics has a proven track record of success and significant expertise in the burgeoning hydrogen fuel cell industry. However, our competencies go much further than the fuel cell itself.

While a fuel cell produces electricity, converting that power into a useable form requires numerous components and sub-systems that must work together. The successful integration of a fuel cell stack with 'balance of plant' is critical to achieving the desired power performance in a functional fuel cell system. Even the best sub-systems or stacks, when evaluated on a stand-alone basis, will not necessarily generate the best overall system performance without superior dynamic control and integration.

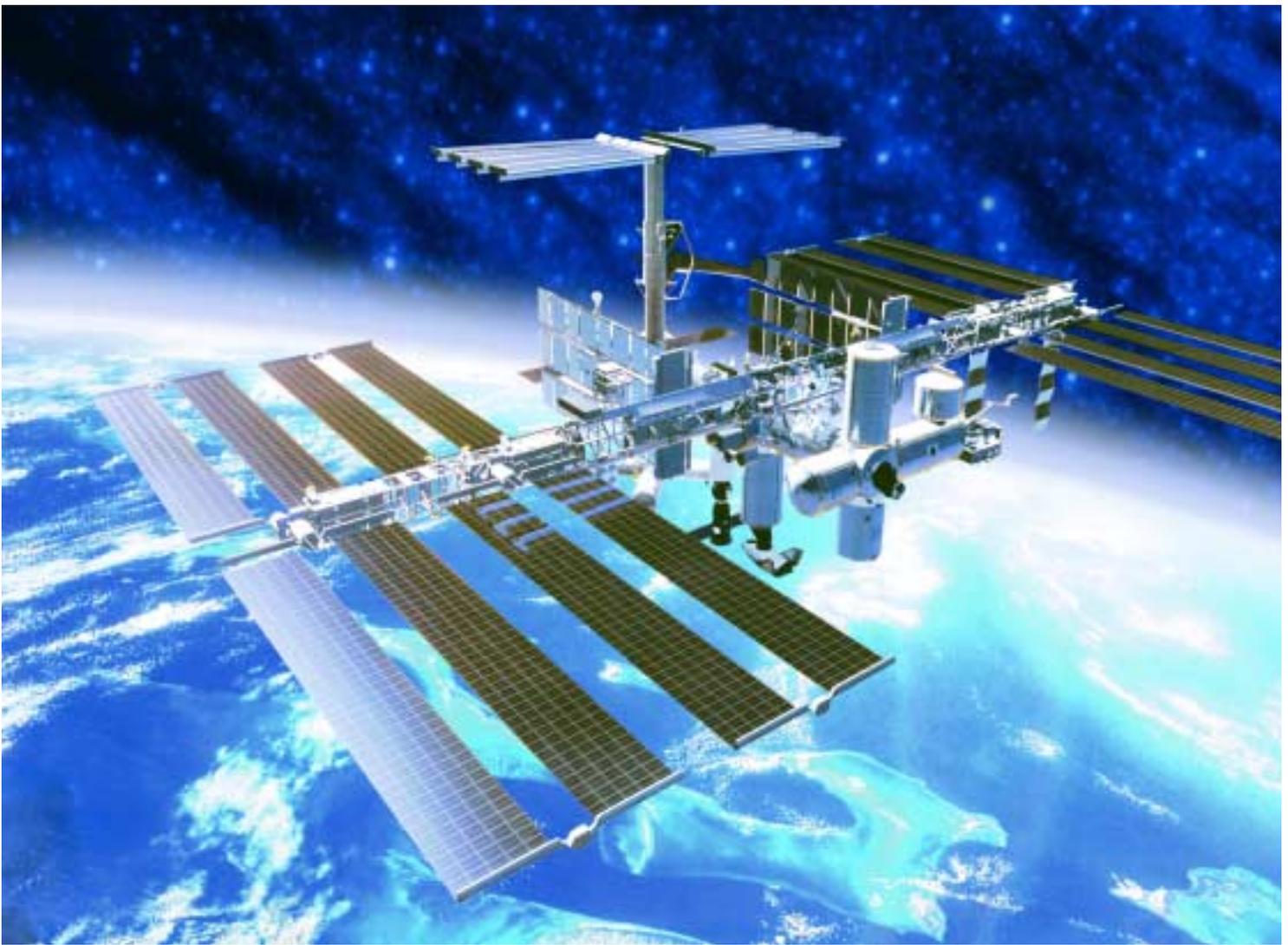
At Hydrogenics, we possess considerable depth in adapting fuel cell technologies to deliver power systems to meet specific needs. Our expertise lies in making fuel cells generate maximum power and efficiency in an optimized and complete system environment, including, but not limited to, fuel management and fuel generation solutions.

We have three distinct value streams, all fundamentally based on our fuel cell system expertise:

- Our test and control systems help advance the development of fuel cell components, stacks and systems
- Our proprietary fuel cell power products are specifically designed to meet our clients' premium power applications
- Our system integration skills provide select customers and partners with significant "balance of plant" expertise to make fuel cells a working reality



Hydrogenics: What We Do...[www.hydrogenics.com/overview.htm](http://www.hydrogenics.com/overview.htm)



The military has been a leader in adopting many key technologies ahead of commercial market acceptance, for example the internet and satellite systems. Take a moment to consider how these two technological advances have changed every day civilian life. Perhaps the military's embracing of fuel cell technology will be its next significant technological contribution to society.

By collaborating on projects with the military, Hydrogenics is capitalizing on a valuable opportunity to 'learn by doing'.

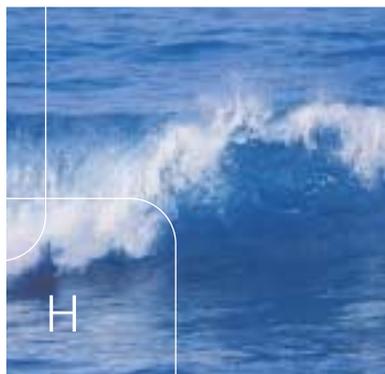
## Where When is NOW

Many fuel cell companies focus their resources on the development of fuel cell systems for future markets or on commodity-level R&D. Using a differentiating approach, Hydrogenics established a commercially viable and financially sustainable business model that targets existing markets today as a path to the larger and broader commercial and consumer markets of tomorrow.

While large-scale commercialization represents the bright future of the fuel cell industry, there is already a demand for fuel cell power generation systems in a number of premium power markets. These are the markets that Hydrogenics is targeting now, “hitting singles and filling the bases rather than trying to hit a home run”.

These markets have power requirements that are not adequately met by conventional technologies. For some, it may be a lack of access to power grids or unacceptable performance or reliability from stand-alone conventional power generators. For others, it may be the inability to sustain financial losses associated with power interruptions. In addition, many companies require sophisticated test and control systems for their own fuel cell development programs. These, and other premium power markets, are willing to absorb the higher costs of adopting emerging fuel cell products, because incumbent technologies cannot adequately meet their needs.

At Hydrogenics, we are active in making fuel cell systems work for these premium markets by developing innovative energy solutions that draw on our expertise in application, design and systems integration. We have demonstrated our ability to develop operational fuel cell systems to exacting criteria, and through the sales of these systems, we are funding and refining the development of our own fuel cell technologies for wider commercial and consumer applications.



Hydrogenics has sold and commissioned more than 110 FCATS systems in more than 26 client sites worldwide. Many of these fuel cell systems operate in full-time continuous mode and the cumulative life of all installations is tens of thousands of hours. Combined, these operating systems have the capacity to test and optimize almost a megawatt of fuel cell power.

Our FCATS products are valuable tools for the fuel cell R&D community. We rely on these products to cement relationships and to create greater opportunities beyond the R&D equipment business.

## Our First Premium Market

The growing recognition that fuel cell technology can provide a cost-effective, viable and commercially sustainable new source of energy is fueling significant investment and development activity by a large number of well capitalized companies with a strong interest in the success of the fuel cell industry.

In order to capture opportunities prior to the mainstream application of fuel cells, Hydrogenics' first commercial premium product line has been our state-of-the-art FCATS test and control systems. This highly engineered R&D equipment is designed to help leading developers of fuel cells and fuel cell components advance their programs toward commercialization. Our participation in the fuel cell industry ahead of the mainstream markets provided us with vital early-stage alliances and learnings.

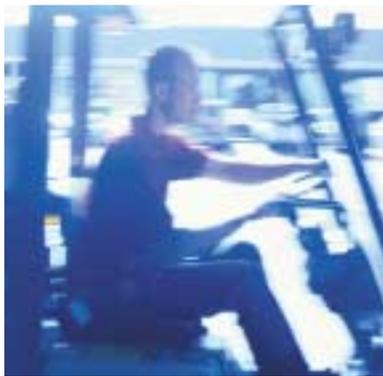
Our FCATS series of test systems are equipped with all the necessary features and capabilities to provide complete balance of plant operations across a full testing range. The full family of FCATS systems covers a comprehensive power output range from 400 W to 100 kW. All products are fully automated to handle comprehensive monitoring and control through data acquisition and sophisticated software.

The ongoing development of fuel cell technology will result in continued growing commercial production and sales of our test and control systems. Our FCAVS test system for mass production applications provides reliable verification and incubation of fuel cell stacks as they come off a customer's production line, the next step in the evolution of our test system business. Eventually, a promising market for our test systems will be the fuel cell powered vehicle industry, as the servicing of these vehicles will require diagnostic equipment similar to our test and control systems.



[www.hydrogenics.com/products.htm](http://www.hydrogenics.com/products.htm):

- FCATS Series Test Systems
  - FCATS-LAA (Large Active Area)
  - FCATS 12000
  - FCATS 24000
  - FCATS Screener
  - FCATS 85000
- IMPACT AC Impedance Module
- FCAVS Validation System



Market pull is the 'force' that markets exert because they need and want the solution that a new technology can provide. Premium power markets by nature exert market pull. Market push is the case where a new technology still has key hurdles to overcome, such as high initial cost, in order to make a compelling value proposition for a particular market. Proponents must rely on creative means, such as financial incentives, to get these markets to try out the new technology. Initially, commercial and consumer markets typically require market push.

The market pull for fuel cell technology is most prevalent in aerospace, R&D, military and backup power applications today. Eventually as awareness for fuel cell technology climbs and costs fall, market pull will become apparent in all commercial and consumer markets.

## Premium Power Markets Today...

Using valuable know-how gleaned from our R&D test and control equipment, the commercialization of power products for portable, stationary and transportation markets began in late 2001. Targetting knowledgeable and fully engaged customers, our commercialization strategy is first focused on premium power applications. For the stationary and portable power markets we have designed and manufactured a proprietary line of fuel cell power modules as well as fully integrated fuel cell systems, initially in power ranges up to 50kW.

While these systems are scaleable, the power output for these initial modules is ideally targetted at the premium power markets that exist today such as telecom backup power, military APU's and portable power generators. The HyPORT and HyPM product lines have incorporated various hydrogen generation and/or storage methods, including electrolyzers and gas reforming technologies. The versatility of these product lines is particularly well suited for the varying demands of a premium power customer. This substantiates the high dollar-per-kilowatt for these innovative solutions.

The military and aerospace industries, primarily funded by the governments of Canada and the United States, are important markets for the early adoption of fuel cell technologies. Our ability to provide these markets with reliable, quiet and self-sustaining portable and auxiliary power sources is generating significant interest.

Another key area for our leading-edge products is the utility and telecommunications industry. High reliability backup power systems show promise as an important solution for telecommunications towers where even very brief power failures cost the industry millions of dollars if primary power to a tower is interrupted.



[www.hydrogenics.com/products.htm](http://www.hydrogenics.com/products.htm):

- HyPM™ Power Modules
- HyUPST™ Critical Back-Up Power Generator
- HyPORT™ Portable Power Generators
- HyPORT™ C Portable Power Generators
- H2X™ Series Fuel Cell Stacks
- HyTEF™ Stationary Power Generators



One of the key benefits of fuel cell technology that people are just beginning to fathom is the design freedom that it allows. The GM Autonomy is an automotive concept born of the realization that a car may now be designed without many of the constraints that current internal combustion engine technology imposes.

This visionary platform unveiled by GM will likely spur creative development across the industry resulting in a growing market awareness for hydrogen fuel cell technology.

Photo courtesy of GM

## ...Consumer Markets Tomorrow

Fuel cell technology is uniquely positioned to address a number of opportunities in future commercial and consumer power applications, across transportation, stationary and portable power markets.

In the transportation markets, our strategic alliance with General Motors positions us well to deliver fuel cell technologies for both commercial and consumer vehicles. Early in 2002, the US Government, through the Freedom Car initiative, provided a significant financial boost to accelerate the development of a hydrogen infrastructure necessary to promote wide spread adoption of hydrogen fuel cells across transportation markets. In addition to the obvious environmental benefits, a gradual migration to hydrogen fuel cell vehicles will likely lessen dependence on foreign oil.

For stationary power markets, such as homes and other buildings, customers look forward to having control over their power supply rather than relying solely on an electricity grid that is becoming less reliable and less cost-effective for expansion in many locales. In addition to electricity, ultimately, these users will also be able to take advantage of the considerable heat that fuel cells generate, providing a combined heat and power product capability. Hydrogenics is involved in developing fuel cell systems for stationary power applications with an eye to this high potential commercial and consumer market.

Finally, we ask that you think globally. Fuel cell technology has the ability to offer power solutions for large segments of the world's population that until now have not had electrical power even as a basic essential. The potential market far exceeds the magnitude of the power market as we know it today. As with the rapid adoption of wireless telecommunications, these developing countries may leap-frog the expensive capital-intensive centralized infrastructure and go directly to a new distributed power solution.

In short, hydrogen, the planet's most abundant element may emerge as the single biggest driving force of the 21st century. Hydrogenics is poised to take advantage of the emerging commercial opportunities sooner rather than later.



Hydrogenics: Who We Are / Our Partnerships...[www.hydrogenics.com/who.htm](http://www.hydrogenics.com/who.htm)

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

The following sets out management's discussion and analysis of our financial position and results of operations for the years ended December 31, 2001, 2000 and 1999. All financial information is reported in U.S. dollars. Our consolidated financial statements are prepared in accordance with Canadian generally accepted accounting principles (GAAP). Canadian GAAP differs in some respects from U.S. GAAP and these measurement differences have been disclosed in note 18 of our consolidated financial statements.

### Forward-looking statements

Certain statements in this Annual Report may constitute "forward-looking" statements within the meaning of the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Law of 1995. Such forward-looking statements are based on management's current expectations, beliefs, intentions or strategies for the future, which are indicated by words such as "may, expects, intends, anticipates, believes, estimates, forecasts, and expects" and other similar words. All forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Such factors include, among other things: technological changes or changes in the competitive environment adversely affecting the products, markets, revenues or margins of our business; changes in general economic, financial or business conditions adversely affecting the business or the markets in which we operate; our ability to attract and retain customers and business partners; the ability to provide capital requirements for product development, operations and marketing; and, our dependency on third party suppliers. Investors are encouraged to review the section in Management's Discussion and Analysis entitled "Business Risks" (page 27) for a more complete discussion of factors that could affect Hydrogenics' future performance.

### Overview

Hydrogenics Corporation is a leading designer and manufacturer of proton exchange membrane (PEM) fuel cell technology. Our principal business is the commercialization of PEM fuel cells and PEM fuel cell systems for use in research and development, portable, stationary, transportation and other power applications. We have demonstrated expertise in PEM fuel cell test and optimization equipment, which represents the first phase of commercialization of PEM fuel cell systems. We have over 110 test stations installed across more than 26 customer sites, optimizing and testing close to a megawatt of fuel cell power.

The Company's fuel cell advanced testing systems (FCATS), are designed for the control and testing of fuel cells. Our equipment has become a critical enabling tool for many of the world's leading fuel cell technology developers, allowing stacks to operate as part of a sophisticated, fully integrated fuel cell power system. FCATS' versatility and extensive operating parameters allows clients to test and optimize stacks and other fuel cell components or systems in a rigorous and verifiable manner.

The FCATS product line extends from a screener, capable of testing up to 2 kW, to full stack testing machines capable of operating at up to 100 kW of power. In addition to growing power requirements for test equipment, we have differentiated our product by offering:

- advanced safety features
- rapid transient response capability
- accurate, dynamic control of humidification
- real-time reformate blending and control
- sophisticated unattended operation
- high precision instrumentation for reliability and repeatability.

Commercialization of power products for portable, stationary and transportation markets began in late 2001. Our commercialization strategy for this sector is first focused on premium power applications. Our approach is to manufacture limited but growing series of progressive generations of technology. At this early stage of technological development, we believe it is critical to have:

- knowledgeable and fully engaged customers
- well defined specifications for product objectives and performance
- controlled volumes of production
- well documented field service performance
- timely iterations of new products developments/enhancements.

Our experience and relationships in the research and development market position us well as we extend our premium power markets focus to military, telecom, aerospace and materials handling.

For the **portable market**, we have introduced the HyPORT series of portable generators which are fully automatic and start with the flip of a switch. These generators are capable of operating within 0 to 40 degrees C and are currently configured to offer 1 to 5 kW of power. The HyPORT power generator is highly efficient and operates in a clean and quiet manner and is therefore particularly well suited for closed or confined spaces.

To fuel the HyPORT, we have incorporated various hydrogen generation and/or storage methods. For example, to supply hydrogen on demand, we have developed a compact proprietary chemical hydride hydrogen generator. Alternatively, hydrogen can be stored in metal hydrides or compressed gas cylinders.

For the **stationary market**, we have introduced the HyPM series of power modules designed for a wide range of power applications such as 5, 25 or 40 kW. The modular design of HyPM allows for scaling up for higher power requirements through a variety of configurations. The compact footprint provides a high degree of space efficiency and the power module is capable of interfacing with a variety of fueling and fuel storage methods.

Fuel for the HyPM power modules can be provided by direct delivery and storage of bulk gas or through on-site generation using electrolyzers or reforming technologies. The HyPM modular design supports integration with our proprietary PEM electrolyzers and reforming technologies or that of third parties.

For the **transportation market**, we have struck a strategic alliance with General Motors. In addition to deploying our 25kW power module in several automotive trials, we have been contracted by General Motors to provide engineering services in direct support of their extensive fuel cell commercialization efforts. We intend to work closely with General Motors and fellow General Motors alliance partners to capitalize on our field experience in the portable and stationary power markets.

Our commercialization and market penetration strategy is based on the following key elements. From a product perspective, we intend to develop power products for the 3 major commercial markets, portable, stationary and transportation, in each case initially targeting premium power applications. We intend to expand our FCATS product capability and services. We intend to commercialize various subsystems and components. We intend to continue to build on core competencies with our technology platform including, but not limited to, refueling and regenerative technologies.

From a relationship perspective, we intend to participate in joint ventures as well as distribution and strategic alliances. We will focus on developing the early-adopting military and telecom markets. We intend to undertake various system integration projects with select clients and will seek out product demonstration opportunities with key end-users and OEMs.

From a financial perspective, we will continue to balance financial sustainability with these exciting product and market opportunities. Our commitment to meeting milestones is well established and all goals for 2001 were met or exceeded. For 2002, we expect to:

- optimize the General Motors technology transfer and business alliance
- expand our global customer base for FCATS
- diversify our product mix
- extend our geographic reach
- maintain fiscal balance between commercial and research activities
- deliver prototypes for field testing in multiple premium markets
- establish strategic, collaborative and developmental alliances.

#### Basis of presentation and accounting policies

The Company's accounting policies are detailed in note 2 of the consolidated financial statements, with key policies highlighted below.

##### *Revenue recognition*

Revenues related to the sale of fuel cell test stations, power modules and fuel cell system components are recorded when goods are delivered, title passes to the customer, and collection is reasonably assured.

Revenues relating to system integration, engineering and testing services are recorded as services are rendered.

Revenues from long-term contracts are determined under the percentage-of-completion method whereby revenues are recognized on a pro rata basis in relation to contract costs incurred.

##### *Foreign currency translation*

Historically the Company has used the Canadian dollar as its functional currency and translated into the U.S. reporting currency using the current rate method. All assets and liabilities have been translated into U.S. dollars using the year-end rate and revenues and expenses were translated at the average rate for the period. Gains and losses from translation into the reporting currency are included in the translation adjustment in shareholders' equity. To December 31, 2001 the Company's income has included gains and losses on monetary assets and liabilities and transactions denominated in currencies other than Canadian dollars.

As a result of the Company's increased U.S. dollar denominated transactions, effective January 1, 2002 the U.S. dollar will be adopted as the functional currency. This change will be applied prospectively. Gains and losses on monetary assets, liabilities and transactions denominated in currencies other than the U.S. dollar will be reflected in income.

##### *Change in accounting policy*

Prior to December 31, 2001, investments with terms to maturity of three months or less were considered cash equivalents. The Company's short-term deposits are held for investment purposes rather than for operating requirements. Accordingly, effective December 31, 2001, the policy for defining cash equivalents has been changed to exclude all investments including those with maturities less than three months. The impact this change has had on the financial statements is disclosed in note 2 to our consolidated financial statements.

##### *New accounting standard on stock-based compensation*

On January 1, 2002 the Company will adopt the new Canadian standard for reporting stock-based compensation. The new standard applies to all awards granted on or after January 1, 2002 and requires the fair value based method of accounting for direct awards of stock to employees and equity instruments granted to

non-employees. For stock options granted to employees on or after January 1, 2002, this standard allows either the recognition of compensation expense based on the estimated fair value at the date of grant, or alternatively, note disclosure of pro forma net earnings and earnings per share data as if the stock-based compensation had been recognized. The Company is currently evaluating the implementation aspects of this new standard. The Company anticipates that there will be no impact on future financial statements for stock-based compensation granted up to December 31, 2001.

#### *Use of estimates*

The preparation of financial statements in conformity with Canadian GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates made by the Company include allowances for potentially uncollectible accounts receivable, warranty provisions, useful life estimates for acquired intellectual property and other long-lived assets, valuation allowances for future income, tax assets and provisions for costs to complete contracts in progress.

### **RESULTS OF OPERATIONS FOR THE YEARS ENDED DECEMBER 31, 2001 AND 2000**

#### **Revenues**

Revenues were \$7.4 million for the year ended December 31, 2001 compared with \$8.9 million for 2000. The reduction in revenues is attributable to a decline in units of test equipment sold. We believe test equipment sales were curtailed or deferred because of weak economic and capital markets in 2001. The reduction in revenue due to test equipment deferrals was somewhat mitigated by sales of power products and other growing streams of revenue.

In addition to test equipment sales, our revenue mix broadened during 2001 to include power modules, system integration and fuel cell related engineering services. Test equipment sales accounted for approximately 55 percent of revenue in 2001, compared with nearly all revenues being derived from test equipment in 2000. We anticipate renewed sales of our test equipment as the economy improves and government and competitive pressures increase the demand for development of fuel cell applications. In 2002, research and development engineering services are expected to have significant revenue growth, and power modules and system integration are expected to continue to contribute to revenues.

Geographically we have seen a significant expansion of our business in Asia, particularly in Japan. Asia accounted for 33% of revenues in 2001 compared with 3% in 2000; North America and Europe combined, accounted for 67% of revenues in 2001 compared with 97% in 2000.

	2001 \$	% of revenues	2000 \$	% of revenues
North America	3,559	48%	5,133	58%
Asia	2,459	33%	308	3%
Europe	1,400	19%	3,442	39%
	<u>7,418</u>	<u>100%</u>	<u>8,883</u>	<u>100%</u>

Although our customer base has expanded, the majority of our revenues is still concentrated with three customers. In 2001, 2000 and 1999 our three largest customers contributed 70%, 78%, and 80% of our revenues, respectively, although the specific customers comprising this group changed during this period.

Based on preliminary information we expect revenues to approximately double in 2002 to between \$14 million and \$16 million. Customers in North America, Europe and Asia are expected to contribute to this revenue growth.

### Gross margin

Cost of revenues were \$4.9 million for the year ended December 31, 2001 compared with \$6.5 million for the year ended December 31, 2000. Correspondingly, gross margins were \$2.5 million, or 33% of revenues, for the year ended December 31, 2001 compared with \$2.4 million or 27% for 2000.

Changes in gross margin percentages are attributable to the product mix and degree of customization on specific projects. Individual projects, due to their relatively large size, can have a significant impact on the overall gross margins. During the fourth quarter of 2000 we had a number of low margin contracts that impacted the overall gross margins. The anticipated increase in revenues for 2002 is expected to increase gross profit. However, the transition to a broader portfolio of revenue, including engineering services, may initially cause a reduction in gross margin percentages. In spite of these impacts, gross margins are expected to remain within a target range of 25% to 30% for 2002.

Cost of revenues comprise materials, direct labour costs and benefits, and indirect labour costs and benefits relating to engineering and design and overhead.

The cost of providing research and development related engineering services for General Motors is included in the cost of revenues and not research and development.

### Selling, general and administration

Selling, general and administrative (SG&A) expenses were \$4.4 million for the year ended December 31, 2001, compared with \$2.1 million for 2000. SG&A expenses consist primarily of wages and salaries relating to our sales, marketing and corporate staff, professional fees, selling and corporate travel, insurance and facilities costs.

The significant increase in SG&A expenses in 2001 is a result of:

- full year operation in the Mississauga, Ontario head office and facilities in Tokyo and the State of New York
- increased sales and marketing in Asia and support for our marketing efforts in broader geographic areas
- full year costs for administrative and support staff hired in late 2000
- full year costs associated with being a public company including insurance, investor relations and meeting corporate governance requirements.

We continue to align our sales and marketing efforts with emerging market opportunities and we expect an increase in SG&A during 2002 in direct support of viable commercial opportunities in the upcoming year.

### Research and development

Research and development expenses were \$3.5 million for the year ended December 31, 2001, compared with \$0.8 million for the year ended December 31, 2000. Research and development costs consist of materials, labour costs and benefits, legal fees for the protection of intellectual property and overhead attributable to research and development activity.

Material costs related to specific development projects, combined with an approximate tripling of research and development staff were the primary contributors to the increase in research and development expenses in 2001.

Research and development efforts are funded by internal cash reserves as well as government research grants and joint development agreements. The external funding arrangements are not included in revenues but recorded as a reduction to our research and development expenses.

The Company will continue to align its resources with emerging market opportunities and will increase investment in research and development as needed to support the development of viable commercial applications.

For financial statement presentation purposes, we reclassified depreciation on research and development equipment to depreciation expense. This has resulted in a reduction in the research and development expense of \$426 thousand for 2001 and \$125 thousand for 2000.

For comparative purposes with industry peers it is important to capture the full scope of the Company's investment in new product and process capabilities and to consider the total activity even though it may be classified in the cost of revenues, depreciation expense, and/or partially funded by third party contributors.

#### Depreciation of property, plant and equipment

Depreciation expense was \$0.7 million for the year ended December 31, 2001, compared with \$0.2 million for the year ended December 31, 2000. The majority of the increase is a result of test equipment used in research and development programs.

Depreciation is expected to increase in 2002 with full year charges on equipment added during 2001 and with the expected addition of more equipment during 2002.

#### Amortization of acquired intellectual property

In October 2001 the Company purchased from General Motors, in exchange for common shares and share purchase warrants, perpetual royalty free intellectual property rights for certain fuel cell stack technology. As a result of this transaction, General Motors became a related company holding a 24% common share position in the Company. The value of the acquired intellectual property and the corresponding expected life of the asset were estimated by management with verification from an independent valuator. The acquired intellectual property is being amortized on a declining basis of 50% per year which reflects the rapid change in technology during the initial years. The declining balance method of amortization is considered the best method to reflect the pattern in which the economic benefits of the acquired intellectual property will be realized by the Company.

Assuming no additional intellectual property purchases or value impairment, the projected amortization charge for this acquired intellectual property for the next five years will be:

	\$ (000's)
2002	14,875
2003	7,438
2004	3,718
2005	1,859
2006	929

We will continue to highlight the non-cash impact on earnings of the amortization of this asset while it has a material impact on the financial results. In 2001, this non-cash impact was \$3.5 million.

#### Accrued dividend and amortization of discount on preferred shares

Concurrent with our initial public offering in November 2000, all issued and outstanding preferred shares were converted to common shares resulting in no expenses relating to preferred shares during 2001. Under Canadian GAAP, issued and outstanding preferred shares were treated, in part, as debt.

#### Provincial capital tax

Provincial capital tax expense was \$123 thousand for the year ended December 31, 2001, compared with \$260 thousand for the year ended December 31, 2000. The decrease is a result of investment allowances which, in part, are based on the maturity terms of short-term investments. The provincial capital tax in 2000 is directly attributable to our initial public offering which closed on November 1, 2000. Due to timing of the IPO the above-mentioned investment allowances were not available for the year ended December 31, 2000.

### Interest and bank charges

Interest income, net of minimal amounts of bank charges and interest expense, was \$2.9 million for the year ending December 31, 2001, compared with \$0.8 million for 2000. The increase results from holding short-term investments throughout 2001 compared with two months in 2000.

Our investments are exclusively in short-term government backed notes. Interest rates have declined during 2001 reducing our effective yield.

### Foreign exchange

A net foreign exchange gain of \$3.0 million was reflected in earnings for the year ended December 31, 2001 compared with a net foreign exchange loss of \$1.3 million for the year ended December 31, 2000. This foreign exchange gain was primarily attributable to holding U.S. denominated short-term investments as the Canadian dollar weakened against the U.S. dollar. The foreign exchange loss in 2000 was attributable to a strengthening of the Canadian dollar during the last quarter of 2000.

Effective January 1, 2002 the Company will adopt the U.S. dollar as the functional currency and monetary assets and liabilities denominated in a currency other than the U.S. dollar will give rise to a foreign currency gain or loss reflected in earnings. We currently hold approximately 60% of our short-term investments in Canadian dollars.

### Income taxes

Income tax expense was \$156 thousand for the year ended December 31, 2001, compared with \$172 thousand for the year ended December 31, 2000. The expense is attributable to the federal large corporations tax, which is based on the taxable capital of the Company. During 2001 certain short-term investments were eligible to be deducted from net assets to arrive at an adjusted net asset base.

There was no tax on income for the years ended December 31, 2001 and 2000 because of tax losses of the Company. Due to historical losses, the Company has provided a valuation allowance against the full amount of tax loss carry forwards of \$6.5 million.

### Net loss for the year

The net loss was \$2.8 million for the year ending December 31, 2001 compared with \$1.7 million for the year ended December 31, 2000. Excluding the non-cash amortization of \$3.5 million for acquired intellectual property, net income would have been \$0.6 million for 2001. The non-cash amortization of acquired intellectual property has been highlighted because of its significant impact on operating results without a corresponding impact on the cash flow.

Loss per share was \$0.07 for the year ended December 31, 2001 compared with \$0.08 for the year ended December 31, 2000. Excluding the non-cash amortization of \$0.09 per share for amortization of acquired intellectual property, basic and diluted earnings per share was \$0.02 for the year ended December 31, 2001.

The weighted average number of shares used in calculating the loss per share increased to 38.2 million shares as a result of the full year effect of the public offering which closed on November 1, 2000. There were an additional 11.4 million shares issued on October 16, 2001. The number of common shares outstanding at December 31, 2001 was 47.9 million shares.

Options granted under the Company's stock option plan and share purchase warrants outstanding have not been included in the calculation of the diluted loss per share as the effect would be anti-dilutive. At year end, there were 3.1 million stock options outstanding, of which 2.0 million were exercisable. There were 2.5 million share purchase warrants outstanding, of which 124 thousand were exercisable. Disclosure of stock options and warrants has been disclosed in notes 9 and 18 of our consolidated financial statements.

**RESULTS OF OPERATIONS FOR THE YEARS ENDED DECEMBER 31, 2000 AND 1999****Revenues**

Revenues were \$8.9 million for the year ended December 31, 2000 compared with \$2.7 million for the year ended December 31, 1999. The increase in revenues was primarily due to increased demand from our existing customers. We also expanded our customer base during this period which resulted in additional revenue.

**Cost of revenue**

As a result of a significant increase in revenues, cost of revenues were \$6.5 million for the year ended December 31, 2000 compared with \$2.1 million for the year ended December 31, 1999. Cost of revenues consist of materials, direct labour costs and benefits, indirect labour costs and benefits relating to engineering and design and overhead costs. We realized a gross margin of \$2.4 million, or 27% of revenues, for the year ended December 31, 2000 compared with \$0.6 million or 21% of revenues for the year ended December 31, 1999.

**Selling, general and administration**

Selling, general and administrative (SG&A) expenses were \$2.1 million for the year ended December 31, 2000, compared with \$0.5 million for the year ended December 31, 1999.

The increase in SG&A expenses in 2000 is attributable to a number of items, including:

- insurance, professional fees and investor relations expenses associated with our change of status from a private company to a public company
- rent and operating expenses resulting from the move to our new 96,000 square foot facility during the fourth quarter of 2000
- sales and marketing expenses reflecting an expansion of our sales and marketing staff and the opening of our Asia Pacific office in Tokyo during the third quarter
- hiring of additional employees during the year to facilitate our manufacturing and development initiatives.

**Research and development**

Research and development expenses, were \$0.8 million for the year ended December 31, 2000, compared with \$0.4 million for the year ended December 31, 1999. Research and development costs consist of materials, labour costs and benefits, legal fees for the protection of intellectual property and an allocation of overhead attributable to research and development.

**Accrued dividend and amortization of discount on preferred shares**

Expenses related to the accrued dividend and amortization of discount on our preferred shares were \$0.3 million for the year ended December 31, 2000 compared with \$0.1 million for the comparable period in 1999. This increase is directly attributable to the issuance of preferred shares in January 2000. Under Canadian GAAP our preferred shares were treated, in part, as debt and the accrued dividends and discounts associated with such debt were amortized, reflecting an expense on our financial statements. Upon the closing of our public offering in November, 2000, all issued and outstanding preferred shares were automatically converted into common shares.

**Provincial capital tax**

As a result of the proceeds realized on the closing of our initial public offering in 2000, our total assets have increased to a level that exceeds the small business classification under Ontario tax legislation. As a result we are now subject to a provincial capital tax on our total assets. For the year ended December 31, 2000 this amount was \$0.3 million. In prior years we were not subject to this tax.

#### Interest and bank charges

Interest income, net of bank charges and interest paid, was \$0.8 million for the year ended December 31, 2000, compared with \$9 thousand for the year ended December 31, 1999. This increase is primarily attributable to the interest earned on the investment of the proceeds of our initial public offering. Our investments are held exclusively in short term Canadian or U.S. government securities.

#### Foreign exchange loss

We incurred a foreign exchange loss of \$1.3 million for the year ended December 31, 2000, as a result of a strengthening of the Canadian dollar against the U.S. dollar in the fourth quarter of 2000. The loss arises primarily because the Canadian dollar is our functional currency and the majority of our cash or cash equivalents are held in U.S. dollar short term investments. There were no significant foreign exchange gains or losses in prior years.

#### Income taxes

Income tax expense was \$0.2 million for the year ended December 31, 2000 compared with a recovery of income tax of \$1,000 for the year ended December 31, 1999. The increase is attributable to a federal large corporations tax, which was triggered by the significant increase in our taxable assets.

We were not subject to any tax on income during the year ended December 31, 2000, due to our net loss for the year. Our effective tax rate changed during fiscal 2000, reflecting our change of status from a Canadian controlled private corporation to a public company. Canadian controlled private companies are taxed at a lower rate than public companies. The change in our effective tax rate will have an impact on future income tax payable.

#### Net loss for the year

Net loss was \$1.7 million for the year ended December 31, 2000 compared with \$0.2 million for the year ended December 31, 1999. The majority of this increase is attributable to the foreign exchange loss of \$1.3 million, increased SG&A and research and development expenses.

Loss per share was \$0.08 for the year ended December 31, 2000 compared with a loss of per share of \$0.01 for the year ended December 31, 1999.

The weighted average number of shares used in calculating the loss per share increased to 22.3 million shares for fiscal 2000, reflecting our public offering which closed on November 1, 2000. The number of common shares outstanding at December 31, 2000 was 35.6 million. Options granted under our stock option plan have not been included in the calculation of the fully diluted loss per share, as the effect would be anti-dilutive. As at December 31, 2000, there were 3.9 million options issued and outstanding, of which 2.0 million were exercisable.

**QUARTERLY RESULTS OF OPERATIONS**

The following tables show the unaudited consolidated statements of operations for the past eight quarters ending December 31, 2001. The information has been obtained from our quarterly unaudited financial statements which have been prepared in accordance with Canadian GAAP and, in the opinion of management, have been prepared using accounting policies consistent with the audited financial statements and include all adjustments necessary for the fair presentation of the results of the interim periods. We expect our operating results to vary significantly from quarter to quarter and they should not be relied upon to predict future performance.

**2001 QUARTER ENDED** (Unaudited)  
(thousands of U.S. dollars – except per share amounts)

	March 31	June 30	September 30	December 31	Total Year
<b>Revenues</b>	656	1,108	2,450	3,204	7,418
<b>Cost of revenues</b>	443	734	1,663	2,101	4,941
	213	374	787	1,103	2,477
<b>Operating expenses</b>					
Selling, general and administrative	818	1,175	1,269	1,141	4,403
Research and development	563	751	1,185	1,019	3,518
Research and development grants	(328)	(225)	(391)	(237)	(1,181)
Depreciation of property, plant and equipment	119	143	234	220	716
Amortization of acquired intellectual property	–	–	–	3,459	3,459
	1,172	1,844	2,297	5,602	10,915
<b>Loss from operations</b>	( 959)	(1,470)	(1,510)	(4,499)	(8,438)
<b>Other income (expense)</b>					
Provincial capital tax	(64)	(63)	18	(14)	(123)
Interest and bank charges	989	779	619	540	2,927
Foreign exchange (gains) losses	2,989	(1,473)	1,216	242	2,974
	3,914	(757)	1,853	768	5,778
<b>Income (loss) before income taxes</b>	2,955	(2,227)	343	(3,731)	(2,660)
<b>Income tax expense</b>	43	43	26	44	156
<b>Net income (loss) for the period</b>	2,912	(2,270)	317	(3,775)	(2,816)
<b>Earnings (loss) per share</b>					
Basic	0.08	(0.06)	0.01	(0.08)	(0.07)
Diluted	0.07	(0.06)	0.01	(0.08)	(0.07)

**2000 QUARTER ENDED** (Unaudited)

(thousands of U.S. dollars – except per share amounts)

	March 31	June 30	September 30	December 31	Total Year
<b>Revenues</b>	1,650	2,809	2,568	1,856	8,883
<b>Cost of revenues</b>	<u>1,236</u>	<u>1,687</u>	<u>1,858</u>	<u>1,704</u>	<u>6,485</u>
	414	1,122	710	152	2,398
<b>Operating expenses</b>					
Selling, general and administrative	375	376	431	887	2,069
Research and development	185	202	208	195	790
Research and development grants	(60)	(46)	(35)	1	(140)
Depreciation of property, plant and equipment	<u>18</u>	<u>27</u>	<u>94</u>	<u>85</u>	<u>224</u>
	518	559	698	1,168	2,943
<b>Income (loss) from operations</b>	(104)	563	12	(1,016)	(545)
<b>Other income (expense)</b>					
Accrued dividends and amortization of discount on preferred shares	(67)	(82)	(82)	(31)	(262)
Provincial capital tax	–	–	–	(260)	(260)
Interest and bank charges	19	22	15	776	832
Foreign exchange gains (losses)	–	–	1	(1,330)	(1,329)
	<u>(48)</u>	<u>(60)</u>	<u>(66)</u>	<u>(845)</u>	<u>(1,019)</u>
<b>Income (loss) before income taxes</b>	(152)	503	(54)	(1,861)	(1,564)
<b>Income tax expense (recovery)</b>	<u>(5)</u>	<u>273</u>	<u>–</u>	<u>(96)</u>	<u>172</u>
<b>Net income (loss) for the period</b>	<u>(147)</u>	<u>230</u>	<u>(54)</u>	<u>(1,765)</u>	<u>(1,736)</u>
<b>Earnings (loss) per share</b>					
Basic	(0.01)	0.01	(0.00)	(0.06)	(0.08)
Diluted	(0.01)	0.01	(0.00)	(0.06)	(0.08)

**LIQUIDITY AND CAPITAL RESOURCES**

At December 31, 2001, the Company held cash of \$1.6 million and short-term investments of \$64.2 million, compared with \$1.8 million in cash and \$75.6 million in short-term investments at December 31, 2000.

Cash used in operations for the year ended December 31, 2001 was \$5.6 million, compared with \$1.2 million used in the year ended December 31, 2000 and \$86 thousand used in 1999. Included in cash used in operating activities for 2001 is a net increase of \$5.4 million in working capital, primarily from increases in accounts receivable and inventories:

- Accounts receivable increased \$1.9 million at December 31, 2001 compared with 2000 as a result of a 73% increase in revenues during the fourth quarter of 2001 compared with the fourth quarter of 2000. The accounts receivables at December 31, 2000 compared with 1999 increased \$1,626 thousand due to an overall increase in revenues during 2000.
- Inventories increased \$1.9 million at December 31, 2001 compared with 2000 in anticipation of revenue growth in 2002. Raw materials, the delivery of which may have long lead times, have increased to \$2.0 million in 2001 from \$1.2 million in 2000. Work-in-progress and finished goods have increased to \$1.0 million from \$52 thousand in 2000.

The Company has an operating line of credit available up to \$0.6 million bearing interest at prime plus 0.5% available for overdraft protection and when necessary, letters of guarantee or letters of credit. The facility is collateralized by a general security agreement over all assets.

#### Investing activities

Property, plant and equipment purchases for the year ended December 31, 2001 were \$3.1 million, compared with \$1.5 million for the year ended December 31, 2000 and \$0.3 million for the year ended December 31, 1999. This increased capital expenditure in 2001 is attributable to increasing our testing facilities for research and development programs. For 2000, the increase includes additions to the test equipment, leasehold improvements and outfitting our current manufacturing, office, and research facility.

Capital expenditure plans for 2002 and subsequent years will result in further increases in property plant and equipment in capital assets as we continue our manufacturing and development initiatives. As a result of our alliance with General Motors we anticipate increased commercial opportunities with corresponding production requirements. Investments will be linked to these opportunities.

The Company holds short-term investments of \$64.2 million at December 31, 2001 compared with \$75.6 million at December 31, 2000. This decrease in short-term investments is partially attributable to the conversion to cash at maturity and subsequent use in financing increased working capital levels and purchases of property, plant and equipment. The decrease is also a result of the declining Canadian dollar during 2001 and the resulting balance sheet impact on translation to the U.S. reporting currency. This is reflected within the foreign currency translation adjustment account in shareholder's equity.

#### Financing activities

During 2001, 994 thousand shares were issued for \$128 thousand under the stock option plan. Acquired intellectual property was received in exchange for the issuance of shares and share purchase warrants to General Motors and no cash was involved.

In 2000, as a result of a private placement of preference shares which closed on January 24, 2000, we received net proceeds of \$3.6 million. On November 1, 2000 we issued 7 million common shares at \$12.00 per share, for net proceeds of \$76.2 million.

#### **BUSINESS RISKS**

We commenced operations of our fuel cell business in 1995 and since that time have been engaged principally in research and development relating to fuel cell systems and the manufacture and sale of fuel cell testing equipment. Accordingly, there is a limited financial basis upon which you can evaluate our business and performance to date. The fact that we have only been in business for a short period of time and operate in a developing market means we face considerable challenges, expenses and difficulties to design, develop and manufacture new products in each of our proposed markets.

Our current business strategy is to significantly expand our development and manufacturing capability of PEM fuel cell products and to market these products in the transportation, stationary and portable markets. In so doing, we will incur significant expenditures for research and development, expansion of our manufacturing capabilities, general administrative and sales and marketing expenses. As a result of these increased costs, we will need to generate significantly higher revenues to achieve and sustain profitability.

Fuel cells currently cost significantly more than many established competing technologies, such as internal combustion engines and batteries. The price of fuel cell products is dependent largely on material and manufacturing costs. There is no guarantee that these costs will be reduced to the level where we will be able to produce a competitive

product or that any product we produce using lower cost materials and manufacturing processes will not suffer from a reduction in performance, reliability and longevity.

To date, a small number of customers has accounted for a majority of our revenues and will continue to do so for the foreseeable future. If we lose any of these customers and do not attract additional customers, we may not generate sufficient revenues to offset this loss of revenues and our financial results will be materially adversely affected.

We expect our revenues and operating results to vary from quarter to quarter. These quarterly fluctuations in our operating performance result from the length of time between our first contact with a business customer and the first receipt of revenue from sales to that customer. Our products are highly-engineered and expensive to produce and many are still in development stages. Often, the length of time between approaching a customer and delivering our products to that customer can span several quarterly reporting periods. As a result, quarter to quarter comparisons of our revenues and operating results may not be meaningful.

Exchange rate fluctuations may cause fluctuations in our quarterly results. We transact business internationally in multiple currencies. Accordingly, gains and losses on the conversion of foreign currency assets may contribute to fluctuations in our results of operations and fluctuating exchange rates could cause reduced revenue and gross margins from our international sales.

Failure to protect our existing intellectual property rights may reduce our ability to prevent others from using our technology. Some of our intellectual property is currently not covered by any patent or patent application. Our ability to establish and maintain such a competitive position may be achieved in part by prosecuting claims against others who we believe are infringing our rights and by defending claims brought by others who believe that we are infringing their rights. Our involvement in intellectual property litigation could result in significant expense to us, adversely affect the sales of any products involved or the use or licensing of related intellectual property, and divert the efforts of our valuable technical and management personnel from their principal responsibilities, whether or not such litigation is resolved in our favor. If necessary or desirable, we may seek licenses under the patents or other intellectual property rights of others. The failure to obtain a license from a third party for intellectual property we use in the future could cause us to incur substantial liabilities and to suspend the manufacture, shipment of products or our use of processes which exploit such intellectual property.

We regularly field test our products and we plan to conduct additional field tests in the future. Any failures or delays in our field tests could harm our competitive position and impair our ability to sell our products. Our field tests may encounter problems and delays for a number of reasons, including the failure of our technology, the failure of the technology of others, the failure to combine these technologies properly, operator error and the failure to maintain and service the test prototypes properly. Any problem or perceived problem with our field tests, whether originating from our technology, from our design, or from third parties, could hurt our reputation and the reputation of our products and limit our sales.

We may acquire technologies or companies in the future. Entering into an acquisition entails many risks, any of which could materially harm our business, including: diversion of management's attention from other business concerns; failure to effectively assimilate the acquired technology, employees or other assets of the company into our business; the loss of key employees from either our current business or the acquired business; and, assumption of significant liabilities of the acquired company. To date, we have not completed any acquisitions, and we may not be able to do so in an effective manner. In addition, our shareholders' interests in our company will be diluted if we issue equity securities in connection with an acquisition.

## Management's Report

To the Shareholders of Hydrogenics Corporation

The accompanying consolidated financial statements and all information in this annual report are the responsibility of management. The consolidated financial statements have been prepared in accordance with generally accepted Canadian accounting principles and include certain estimates that reflect management's best judgments. The significant accounting policies which management believes are appropriate for the Company are described in note 2 to the consolidated financial statements. Financial information contained throughout this annual report is consistent with these financial statements.

Management has established and maintains a system of internal control that provides reasonable assurance that all transactions are accurately recorded, that the financial statements realistically report the Company's operating and financial results, and that the Company's assets are safeguarded.

The Board of Directors, through its Audit Committee, ensures that management fulfills its responsibilities for financial reporting and systems of internal control. The Audit Committee, which has a majority of outside directors, meets regularly with financial management and external auditors to review accounting, auditing and financial matters. The Audit Committee reports its findings to the Board of Directors for consideration when approving the consolidated financial statements for issuance to the shareholders.

The consolidated financial statements have been audited by PricewaterhouseCoopers LLP, the independent auditors, in accordance with generally accepted auditing standards in Canada and the United States of America on behalf of the shareholders. The independent auditors have full and unrestricted access to the Audit Committee.



PIERRE RIVARD  
President and Chief Executive Officer



GARY BRANDT  
Chief Financial Officer

March 1, 2002  
Mississauga, Ontario

## Auditors' Report

To the Shareholders of Hydrogenics Corporation

We have audited the consolidated balance sheets of Hydrogenics Corporation as at December 31, 2001 and 2000 and the consolidated statements of operations and retained earnings (deficit) and cash flows for each of the years in the three-year period ended December 31, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in Canada and the United States of America. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2001 and 2000 and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2001 in accordance with Canadian generally accepted accounting principles.

PRICEWATERHOUSECOOPERS LLP

Chartered Accountants  
March 1, 2002  
Toronto, Canada

Comments by Auditors for United States of America Readers on Canada – United States of America Reporting Difference

In the United States of America, reporting standards for auditors require the addition of an explanatory paragraph (following the opinion paragraph) when there is a change in accounting principles that has a material effect on the comparability of the Company's financial statements, such as the change in the definition of cash equivalents as described in note 2 to the consolidated financial statements. Our report to the shareholders, dated March 1, 2002 is expressed in accordance with Canadian reporting standards which do not require a reference to such a change in accounting principles in the auditors' report when the change is properly accounted for and adequately disclosed in the financial statements.

PRICEWATERHOUSECOOPERS LLP

Chartered Accountants  
March 1, 2002  
Toronto, Canada

## Consolidated Balance Sheets

As at December 31, 2001 and December 31, 2000  
(thousands of U.S. dollars)

	December 31, 2001	December 31, 2000
<b>Assets</b>		
<b>Current assets</b>		
Cash	1,639	1,844
Short-term investments	64,170	75,592
Accounts receivable (notes 3 and 12)	4,353	2,582
Grants receivable	741	75
Inventories (note 4)	2,969	1,213
Prepaid expenses	129	122
	<u>74,001</u>	<u>81,428</u>
Deposits	102	67
Property, plant and equipment (note 5)	3,780	1,497
Acquired intellectual property (note 6)	29,750	-
	<u>107,633</u>	<u>82,992</u>
<b>Liabilities</b>		
<b>Current liabilities</b>		
Accounts payable and accrued liabilities (notes 7 and 12)	1,593	2,463
Income taxes payable	11	169
	<u>1,604</u>	<u>2,632</u>
Loan payable (note 8)	208	100
	<u>1,812</u>	<u>2,732</u>
<b>Shareholders' equity</b>		
Share capital and other equity (note 9)	114,526	80,740
Deficit	(4,659)	(1,843)
Foreign currency translation adjustment	(4,046)	1,363
	<u>105,821</u>	<u>80,260</u>
	<u>107,633</u>	<u>82,992</u>

Commitments and contingencies (note 10)

Approved by the Board of Directors:



NORMAN SEAGRAM,  
Chairman



PIERRE RIVARD,  
President, CEO

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

## Consolidated Statements of Operations and Retained Earnings (Deficit)

For the years ended December 31, 2001, 2000 and 1999  
(thousands of U.S. dollars, except share and per share amounts)

	2001	2000	1999
<b>Revenues</b>	<b>7,418</b>	8,883	2,674
<b>Cost of revenues</b>	<b>4,941</b>	6,485	2,105
	<u><b>2,477</b></u>	<u>2,398</u>	<u>569</u>
<b>Operating expenses</b>			
Selling, general and administrative	4,403	2,069	534
Research and development	3,518	790	398
Research and development grants	(1,181)	(140)	(262)
Depreciation of property, plant and equipment	716	224	44
Amortization of acquired intellectual property	3,459	–	–
	<u><b>10,915</b></u>	<u>2,943</u>	<u>714</u>
<b>Loss from operations</b>	<u><b>(8,438)</b></u>	<u>(545)</u>	<u>(145)</u>
<b>Other income (expenses)</b>			
Accrued dividends and amortization of discount on preferred shares	–	(262)	(73)
Provincial capital tax	(123)	(260)	–
Interest	2,927	832	9
Foreign currency gains (losses)	2,974	(1,329)	–
	<u><b>5,778</b></u>	<u>(1,019)</u>	<u>(64)</u>
<b>Loss before income taxes</b>	<u><b>(2,660)</b></u>	<u>(1,564)</u>	<u>(209)</u>
<b>Current income tax expense (recovery)</b> (note 11)	<u><b>156</b></u>	<u>172</u>	<u>(1)</u>
<b>Net loss for the year</b>	<u><b>(2,816)</b></u>	<u>(1,736)</u>	<u>(208)</u>
<b>Retained earnings (deficit) – beginning of year</b>	<u><b>(1,843)</b></u>	<u>(107)</u>	<u>101</u>
<b>Deficit – end of year</b>	<u><b>(4,659)</b></u>	<u>(1,843)</u>	<u>(107)</u>
<b>Loss per share</b> (note 15)			
Basic and diluted	<b>(0.07)</b>	(0.08)	(0.01)
Shares used in calculating basic and diluted loss per share	<u><b>38,217,593</b></u>	<u>22,341,370</u>	<u>19,687,500</u>

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

## Consolidated Statements of Cash Flows

For the years ended December 31, 2001, 2000 and 1999  
(thousands of U.S. dollars)

	2001	2000	1999
<b>Cash provided by (used in)</b>			
<b>Operating activities</b>			
Net loss for the year	(2,816)	(1,736)	(208)
Items not affecting cash			
Depreciation of property, plant and equipment	716	224	44
Amortization of acquired intellectual property	3,459	–	–
Amortization of discount on preferred shares	–	85	20
Unrealized foreign currency (gains) losses	(1,606)	1,329	–
Imputed interest on loan payable	19	7	–
Future income taxes	–	–	(9)
Net change in non-cash working capital (note 16)	(5,404)	(1,122)	67
	<u>(5,632)</u>	<u>(1,213)</u>	<u>( 86)</u>
<b>Investing activities</b>			
Decrease (increase) in short-term investments	8,782	(75,756)	–
Increase in deposits	(40)	(67)	–
Purchase of property, plant and equipment	(3,138)	(1,492)	(280)
	<u>5,604</u>	<u>(77,315)</u>	<u>(280)</u>
<b>Financing activities</b>			
Increase in loan payable	97	92	–
Preferred shares issued – net of issuance costs	–	3,623	–
Common shares issued – net of issuance costs	(149)	76,186	–
	<u>(52)</u>	<u>79,901</u>	<u>–</u>
<b>Increase (decrease) in cash and during the year</b>	(80)	1,373	(366)
Effect of exchange rates on cash	(125)	18	–
<b>Cash – beginning of year</b>	<u>1,844</u>	<u>453</u>	<u>819</u>
<b>Cash – end of year</b>	<u>1,639</u>	<u>1,844</u>	<u>453</u>
<b>Supplemental disclosure</b>			
Interest paid	9	7	–
Income taxes paid	<u>317</u>	<u>–</u>	<u>4</u>
Non-cash transactions (note 6)			

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

## Notes to Consolidated Financial Statements

For the years ended December 31, 2001, 2000 and 1999

(thousands of U.S. dollars, except share and per share amounts)

### 1. DESCRIPTION OF BUSINESS

Hydrogenics Corporation designs, develops, manufactures and sells proton-exchange membrane, or PEM, fuel cell automated test stations and fuel cell systems. The Company is based in Canada, and its principal customers include automotive companies, fuel cell developers and component suppliers primarily located in the United States, Europe and Asia.

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Basis of presentation

These consolidated financial statements have been prepared in accordance with Canadian generally accepted accounting principles, which conform in all material respects with accounting principles generally accepted in the United States, except as outlined in Note 18.

As at, and for all periods prior to December 31, 2001, the functional currency of the Company was the Canadian dollar. Effective December 31, 1999, the U.S. dollar was adopted as the reporting currency and the financial information for 1999 has been presented in U.S. dollars in accordance with a translation of convenience method using the exchange rate at December 31, 1999 of US\$1.00 – Cdn\$1.4433 being the Bank of Canada noon buying rate at December 31, 1999. For years subsequent to December 31, 1999, Canadian dollar amounts are translated into the U.S. dollar reporting currency using the current rate method, whereby assets and liabilities are translated at the year-end exchange rate, and revenues and expenses are translated at the average exchange rate for the year. Gains and losses from translation into the reporting currency are included in the cumulative translation adjustment in shareholders' equity.

Due to recent changes in the Company's economic circumstances, whereby its cash flows are denominated primarily in U.S. dollars, effective January 1, 2002 the U.S. dollar will be adopted as the functional currency. As a result of this change, the Company's income will include gains and losses on the translation into U.S. dollars of items denominated in Canadian dollars and other foreign currencies. For 2001 and prior years, the Company's income includes gains and losses on the translation into Canadian dollars of items denominated in currencies other than Canadian dollars.

#### Principles of consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany transactions and balances have been eliminated on consolidation.

#### Revenue recognition

Revenues related to the sale of fuel cell test stations, power modules and fuel cell system components are recorded when goods are delivered, title passes to the customer, and collection is reasonably assured.

Revenues relating to system integration, engineering and testing services are recorded as services are rendered.

Revenues from long-term contracts are determined under the percentage-of-completion method whereby revenues are recognized on a pro rata basis in relation to contract costs incurred. Costs and estimated profit on contracts in progress in excess of amounts billed are reflected as unbilled revenue. Cash received in advance of revenue being recognized on contracts is classified as unearned revenue.

#### Product warranty

The Company typically provides a warranty for parts and labour for one year and provides for future warranty costs based on management's best estimates of such costs, taking into account the nature of the contracts.

#### Grants and investment tax credits

Grants to fund various research activities are received from government and other institutions. These grants are recorded as either a liability, a reduction of the cost of the applicable property, plant and equipment, or a credit in

the statement of operations, when earned, based on the terms and conditions of the agreements under which the assistance is provided to the Company. A liability is recorded when repayment of the obligation is probable. Research and development arrangements that obligate the Company to repay the funds regardless of the outcome or commercialization of the research and development are recognized as liabilities.

Investment tax credits related to qualifying research and development expenditures are recorded as either a reduction of the cost of applicable property, plant and equipment or credited in the statement of operations depending on the nature of the expenditures which gave rise to the credits. Investment tax credits are recognized in the year in which the credits are earned and realization is reasonably assured.

#### Change in accounting policy for cash equivalents

Prior to December 31, 2001, investments with terms to maturity of three months or less from the date of acquisition, were considered to be cash equivalents. The Company's short-term deposits are generally held for investment purposes rather than for operating requirements. Accordingly, effective December 31, 2001 the Company changed its definition of cash equivalents to exclude all investments from cash equivalents. This change in accounting policy, which has been applied retroactively, had the following impact:

Increase in cash provided by investing activities for 2001	\$72,325
Increase in cash used in investing activities for 2000	\$75,756
Decrease in cash and cash equivalents as at December 31, 2001	\$3,926
Decrease in cash and cash equivalents as at December 31, 2000	\$75,592

The Company's consolidated statements of cash flows for 2000 and 1999 have been revised to reflect the impact of this change, and to disclose the change in cash, defined as cash on deposit, for each year. This change in accounting policy had no effect on reported earnings and retained earnings for 2001, 2000 and 1999, and no effect on any reported balances for 1999.

#### Short-term investments

Short-term investments are interest bearing securities with original terms to maturity of less than one year and are recorded at amortized cost. The Company intends to hold all short-term investments to the maturity dates.

#### Inventories

Raw materials and are valued at the lower of cost, determined on a first-in first-out basis, and market. Market for raw materials is defined as replacement cost. Finished goods and work-in-progress are recorded at the lower of cost and net realizable value.

#### Long-lived assets

##### *Acquired intellectual property*

Acquired intellectual property is recorded at cost less accumulated amortization. Amortization is calculated using a declining balance method with a rate of 50% per annum which reflects the economic use of the asset and the pace of technological change.

##### *Property, plant and equipment*

Property, plant and equipment are recorded at cost less accumulated depreciation. Property, plant and equipment are depreciated from the date of acquisition or, in respect of internally constructed test equipment, from the time an asset is substantially completed and ready for use. The cost of internally constructed assets includes materials, labour and directly attributable overhead costs.

Depreciation is computed using the declining balance method as follows:

Computer hardware and software	30% per annum
Office furniture and equipment	20% per annum
Test equipment	30% per annum
Automobiles	30% per annum

Leasehold improvements are amortized on a straight line over the term of the lease.

The Company evaluates long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Recoverability of assets held and used is measured by comparison of the carrying amount to future net undiscounted cash flows expected to be generated by the asset. Any excess of the carrying value over the net recoverable amount is charged to income.

#### Deposits

Amounts paid as a security deposit, which are due for repayment more than one year in the future, are recorded as deposits.

#### Research and development costs

Research costs incurred by the Company are expensed as incurred. Costs incurred in applying for patents and licenses are expensed as incurred. Product development costs are expensed as incurred until the product or process is clearly defined and the associated costs can be identified, technical feasibility has been reached, there is intention to produce or market the product, the future market is clearly defined, and adequate resources exist, or are expected to be available to complete the project. To date no product development costs have been capitalized.

#### Foreign currency transactions

Monetary assets and liabilities denominated in currencies other than the Canadian dollar, the Company's functional currency for 2001, 2000 and 1999, are translated into Canadian dollars at the rate of exchange in effect at the end of the year. Revenue and expense items are translated into Canadian dollars at the rate of exchange in effect on the dates transactions occur. Exchange gains and losses on translation to Canadian dollars are reflected in income. See "basis of presentation" above regarding the Company's U.S. dollar reporting currency and a change in the Company's functional currency in 2002.

#### Stock-based compensation

No compensation expense is recognized when stock options are granted to employees. Any consideration paid by employees on exercise of stock options or purchase of stock is credited to share capital. Disclosure of amounts related to stock-based compensation is included in note 18.

#### Income taxes

Income taxes are recorded using the liability method. Future income tax amounts arise due to the temporary differences in the assets and liabilities between their accounting and income tax bases. Future income tax assets and liabilities are measured using substantively enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. The effect on future income tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date. Future tax assets are recognized to the extent that realization of such benefits is more likely than not.

#### Use of estimates

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates made by the Company include allowances for potentially uncollectible accounts receivable, warranty

provisions, useful life estimates for acquired intellectual property and other long lived assets, valuation allowances for future income tax assets and provisions for costs to complete contracts in progress.

**3. ACCOUNTS RECEIVABLE**

	2001	2000
Trade accounts receivable	3,817	1,939
Less: Allowance for doubtful accounts	(122)	-
Goods and services tax	310	253
Refundable investment tax credits	273	333
Other	75	57
	<b>4,353</b>	<b>2,582</b>

**4. INVENTORIES**

	2001	2000
Raw materials	1,962	1,161
Work-in-progress	466	18
Finished goods	541	34
	<b>2,969</b>	<b>1,213</b>

**5. PROPERTY, PLANT AND EQUIPMENT**

	2001	2000
Cost		
Test equipment	3,096	1,032
Office furniture and equipment	746	307
Computer hardware and software	583	253
Leasehold improvements	263	148
Automobiles	15	16
	<b>4,703</b>	<b>1,756</b>
Accumulated depreciation		
Test equipment	557	149
Office furniture and equipment	140	43
Computer hardware and software	157	58
Leasehold improvements	64	8
Automobiles	5	1
	<b>923</b>	<b>259</b>
Net book value		
Test equipment	2,539	883
Office furniture and equipment	606	264
Computer hardware and software	426	195
Leasehold improvements	199	140
Automobiles	10	15
	<b>3,780</b>	<b>1,497</b>

Test equipment under construction, as at December 31, 2001, not yet subject to depreciation amounted to \$147 (2000 – \$311).

#### 6. ACQUIRED INTELLECTUAL PROPERTY

On October 16, 2001, the Company issued 11,364,006 common shares and 2,470,436 common share purchase warrants with an aggregate value of \$33,658 (net of issuance costs of \$277) in exchange for perpetual royalty free intellectual property rights for certain fuel cell stack technology. The terms of the warrants are described in Note 9.

As at December 31 the carrying value of the acquired intellectual property is as follows:

	2001	2000
Cost	<b>33,209</b>	–
Accumulated amortization	<b>(3,459)</b>	–
Net book value	<u><b>29,750</b></u>	<u>–</u>

#### 7. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	2001	2000
Trade accounts payable	<b>1,105</b>	1,816
Provincial capital tax	–	265
Accrued payroll costs	<b>265</b>	80
Warranty accrual	<b>172</b>	186
Unearned revenue	<b>51</b>	–
Other	–	116
	<u><b>1,593</b></u>	<u>2,463</u>

#### 8. LOAN PAYABLE

At December 31, 2001 a loan of \$208 (2000 – \$100) is repayable for grant financing from a government agency for research and development activities. The balance is repayable over a four-year period commencing April 1, 2005. The amount repayable in each quarter is 1.3% of the Company's gross revenues for the proceeding quarter. Based on the maximum amount repayable being 150% of the principal, the Company has charged to expense imputed interest of \$19 in 2001 at an effective rate of 10% per annum (2000 – \$7; 1999 – \$nil).

#### 9 SHARE CAPITAL AND OTHER EQUITY

The authorized capital stock of the Company consists of an unlimited number of common shares and an unlimited number of preferred shares issuable in series.

	2001	2000	1999
Issued and outstanding			
47,918,446 (2000 - 35,560,000; 1999 - 19,687,500)			
common shares	<b>109,804</b>	80,740	21
2,470,436 (2000 – nil; 1999 - nil) common share			
purchase warrants	<b>4,722</b>	–	–
Other equity	–	–	124
	<u><b>114,526</b></u>	<u>80,740</u>	<u>145</u>

On October 16, 2001, the Company issued 11,364,006 common shares and 2,470,436 common share purchase warrants with an aggregate value of \$33,658 (net of issuance costs of \$277) in exchange for perpetual royalty free intellectual property rights for certain fuel cell stack technology. Each common share purchase warrant is exercisable

for one common share of the Company at a price of \$4.00 per share. The fair value of common share purchase warrants issued amounted to \$4,722, net of issuance costs, and was determined using a Black-Scholes pricing model with a risk-free rate of 3.9%, a 5 year term and a volatility factor of 108%. The common share purchase warrants were placed in escrow on October 16, 2001 and are automatically released from escrow at a rate of 61,761 warrants per month over 40 months and expire on October 16, 2006.

During 2001, the Company issued 994,440 (2000 – 49,000) common shares for \$128 (2000 – \$23) in cash under the exercise of options.

During 2000, the Company completed a reverse share split reducing the number of common shares from 3,000,000 to 2,812,500. Prior to the Company's initial public offering in November 2000, the shares were split on a seven to one basis. The effect of these splits has been recognized retroactively in all share and per share data in the financial statements and notes.

On January 24, 2000, the Company issued 510,500 Series B preferred shares at \$7.27 (Cdn\$10.50) per share for proceeds, net of issue costs, of \$3,623 (Cdn\$5,261). These shares were voting, convertible, redeemable and earned 5% cumulative dividends.

On November 1, 2000, the Company completed an initial public offering and listed the common shares on the NASDAQ National Market and The Toronto Stock Exchange, and issued 7,000,000 common shares raising proceeds of \$76,167 net of issue costs of \$7,833.

On November 1, 2000, all outstanding Series A and B preferred shares were converted to common shares in accordance with the terms of the share agreements. A total of 8,823,500 common shares were issued for a total stated value of \$4,529. At conversion, cumulative dividends of \$229 were paid to the preferred shareholders.

During 2000, the Company adopted a broad-based employee share option plan. This plan replaced previous employee share purchase arrangements. The number of common shares that may be issued under the share option plan is limited to 4,641,000. All options are for a term of 10 years from the date of grant and vest over three years unless otherwise determined by the board of directors. As at December 31, 2001, 1,970,335 (2000 – 1,981,438; 1999 – 266,602) options are fully vested and the remainder vest over four years from the date of grant. Under Canadian generally accepted accounting principles no compensation expense has been recorded in respect of these options. A summary of the Company's stock option activity is as follows:

	Options for common shares	Weighted average exercise price CAN\$
Balance – December 31, 1998	–	–
Options granted	1,394,533	0.22
Balance – December 31, 1999	<u>1,394,533</u>	0.22
Options granted	2,547,117	1.21
Options exercised	<u>(49,000)</u>	0.72
Balance – December 31, 2000	3,892,650	0.86
Options granted	668,100	5.73
Options exercised	(994,440)	0.20
Options forfeited on termination	<u>(460,715)</u>	0.70
Balance December 31, 2001	<u>3,105,595</u>	2.15

The following table summarizes information about the Company's share options outstanding as at December 31, 2001:

Exercise Price CAN\$	Number outstanding at December 31, 2001	Weighted average remaining contractual life	Number exercisable at December 31, 2001
0.05	865,000	8.06	865,000
0.29	875,625	8.00	740,250
1.00 to 2.00	403,240	8.24	261,263
2.01 to 4.00	436,400	9.66	16,240
4.01 to 10.00	415,580	9.04	59,890
10.01 to 18.12	109,750	8.81	27,692
	<u>3,105,595</u>		<u>1,970,335</u>

All options granted after November 1, 2000, the date of the Company's initial public offering, have an exercise price equal to the closing share price on the Toronto Stock Exchange the day before the grant.

#### 10. COMMITMENTS AND CONTINGENCIES

The Company incurred rental expenses of \$788 under operating leases in 2001 (2000 – \$390; 1999 – \$30). As at December 31, 2001, the Company has future minimum lease payments under operating leases relating to premises and office equipment as follows:

2002	881
2003	854
2004	688
2005	446
	<u>2,869</u>

The Company has entered into repayable contribution and other research and development arrangements with various governmental ministries and public sector enterprises. Under these arrangements, the Company will receive up to a cumulative amount of \$1,912 (2000 – \$657; 1999 – \$530) towards agreed upon research and development project costs. The utilized amount of the advances at December 31, 2001 was \$1,726 (2000 – \$547; 1999 – \$413). In return, these funding parties have a right to receive as repayments, 1.3% to 4% of gross revenue received by the Company as a result of the commercial exploitation of the associated technology. To date no revenues from these technologies have been recognized and no repayable amounts have been reflected in the accounts. These arrangements will expire in stages between September 30, 2006 and March 31, 2016, or when total payments paid reach the utilized amount of the advance, depending on the terms of the individual contracts.

#### 11. INCOME TAXES

Significant components of the Company's future income tax assets, which are all arising in Canada, are:

	2001	2000
Non capital losses	2,017	585
Investment tax credits	22	15
Warranty and other provisions	60	75
Property, plant and equipment and intellectual property	231	(39)
Share issue costs	1,433	2,157
Unrealized foreign exchange (gains) loss	(475)	477
Valuation allowance	<u>(3,288)</u>	<u>(3,270)</u>
	<u>-</u>	<u>-</u>

The Company's computation of income tax expense (recovery), which is all arising in Canada, is as follows:

	2001	2000	1999
Loss before income taxes	<b>(2,660)</b>	(1,564)	(209)
Statutory income tax rate	<b>34.12%</b>	34.95%	21.62%
Income taxes (recovery) at statutory rate	<b>(908)</b>	(547)	(45)
Non-deductible expenses	<b>306</b>	91	16
Other permanent differences	<b>151</b>	18	7
Large corporations tax	<b>156</b>	172	–
Income tax rate changes	<b>441</b>	–	–
Change in valuation allowance	<b>18</b>	438	21
Income tax expense (recovery)	<b>156</b>	172	(1)

As at December 31, 2001, the Company has available loss carry-forwards of \$6,462 (2000 – \$1,333; 1999 – \$nil) that may be used to reduce taxable income in future years, expiring in 2007 and 2008. The Company also has earned non-refundable investment tax credits amounting to approximately \$22 (2000 – \$15; 1999 – \$nil) that can be used to reduce future federal income taxes payable, expiring in 2009. The Company has recorded a valuation allowance to reflect uncertainties associated with the realization of the future income tax assets.

## 12. RELATED PARTY TRANSACTIONS

In the normal course of operations, the Company subcontracts certain manufacturing functions to a company owned by a relative of one of the principal shareholders of Hydrogenics Corporation. Billings by this related company for manufacturing functions totaled \$1,219 in 2001 (2000 - \$615; 1999- \$178). At December 31, 2001, the Company has an accounts payable balance due to this related company of \$119 (2000 - \$46).

In the normal course of operations, the Company sells certain products and performs services to a company that owns a significant number of common shares. Revenues from this related company totaled \$2,460 in 2001 (2000 – \$2,556; 1999 – \$963). At December 31, 2001, the Company has an accounts receivable due from this related company of \$2,058 (2000 – \$519).

All related party transactions have been recorded at the exchange amount, which is the consideration paid or received as established and agreed to by the related parties.

## 13. FINANCIAL INSTRUMENTS

At December 31, 2001 and 2000, the fair values of cash, short-term investments, accounts receivable, grants receivable, accounts payable and accrued liabilities approximate their respective carrying values because of the short-term nature of these instruments. The Company's loan payable is at market terms and accordingly, fair value approximates carrying value.

U.S. dollar-denominated amounts included in cash and short-term investments at December 31, 2001 amount to \$26,546 (2000 – \$75,547). All cash and short-term investments are deposited with highly rated financial institutions within Canada.

A substantial portion of the Company's accounts receivable is with a limited number of customers located globally (note 17). The Company performs ongoing credit evaluations on its customers' financial condition and generally requires no collateral from its customers. The Company maintains an allowance for doubtful accounts receivable based on management's assessment of expected collectibility.

#### 14. LINE OF CREDIT

The Company has an operating line of credit available up to \$628 (Cdn\$1,000). As at December 31, 2001 and 2000, the Company had not drawn on this line. The operating facility bears interest at Royal Bank of Canada prime rate plus 0.5%, is due on demand and includes a general security agreement over all assets.

#### 15. LOSS PER SHARE

Loss per share is calculated using the weighted average number of common shares outstanding for the year, adjusted for stock splits in prior years, of 38,217,593 shares in 2001 (2000 – 22,341,370; 1999 – 19,687,500). No effect has been given to the potential exercise of stock options and warrants in the calculation of diluted earnings (loss) per share as the effect would be anti-dilutive.

Effective January 1, 2001, the Company adopted the revised section 3500, “Earnings per Share” of the Canadian Institute of Chartered Accountants (CICA) Handbook whereby, the treasury stock method, rather than the imputed earnings approach, is to be used to determine the incremental number of shares that would be outstanding had the Company used proceeds from the exercise of options and warrants to buy shares. The adoption of this standard had no impact on the Company.

#### 16. STATEMENTS OF CASH FLOWS

Net change in non-cash working capital is as follows:

	2001	2000	1999
Decrease (increase) in current assets			
Accounts receivable	(1,920)	(1,626)	(639)
Grants receivable	(690)	63	(109)
Inventories	(1,879)	(1,100)	(89)
Prepaid expenses	(14)	(114)	(8)
Increase (decrease) in current liabilities			
Accounts payable and accrued liabilities	(749)	1,545	851
Income taxes payable	(152)	160	9
Dividends payable	–	(50)	52
	<u>(5,404)</u>	<u>(1,122)</u>	<u>67</u>

#### 17. SEGMENTED FINANCIAL INFORMATION

The Company currently operates in a single reporting segment, being the design, development, manufacturing and sale of proton-exchange membrane, or PEM, automated test stations, power modules, and power module components and the provision of fuel cell related engineering and testing services. Substantially all the Company’s long-lived assets are located in Canada. Revenue is derived primarily from the sale of goods to customers located as follows:

	2001	2000	1999
United States	3,080	5,098	1,753
Japan	2,081	–	–
Germany	699	–	–
United Kingdom	600	3,442	795
Rest of World	958	343	126
	<u>7,418</u>	<u>8,883</u>	<u>2,674</u>

The Company's largest customers comprise the following percentages of total sales:

	<b>2001</b>	2000	1999
	<b>%</b>	%	%
First	<b>33</b>	39	36
Second	<b>28</b>	29	30
Third	<b>9</b>	10	14
Fourth	<b>6</b>	7	9
Others	<b>24</b>	15	11
	<b>100</b>	100	100

#### 18. DIFFERENCES BETWEEN CANADIAN AND UNITED STATES ACCOUNTING PRINCIPLES AND PRACTICES

The financial statements have been prepared in accordance with Canadian generally accepted accounting practices (Canadian GAAP), which differ in certain respects from those principles and practices that the Company would have followed had its financial statements been prepared in accordance with accounting principles and practices generally accepted in the United States (U.S. GAAP).

The reconciliation of loss for the year based on Canadian GAAP to conform to U.S. GAAP is as follows:

	<b>2001</b>	2000	1999
Loss for the year based on Canadian GAAP	<b>(2,816)</b>	(1,736)	(208)
Accrued dividends and amortization of discount on preferred shares (i)	-	262	73
Change in reporting currency (iv)	-	-	4
Stock-based compensation (ii)	<b>(1,468)</b>	(3,369)	(34)
Loss for the year based on U.S. GAAP	<b>(4,284)</b>	(4,843)	(165)
Other comprehensive income (loss)			
Foreign currency translation (v)	<b>(5,409)</b>	1,360	1
Comprehensive loss based on U.S. GAAP	<b>(9,693)</b>	(3,483)	(164)
Basic and fully diluted loss per share based on U.S. GAAP	<b>(0.11)</b>	(0.22)	(0.01)
Weighted average number of shares used in calculating loss per share	<b>38,217,593</b>	22,341,370	19,687,500

The effect of these adjustments on the shareholders' equity of the Company is as follows:

	<b>2001</b>	2000	1999
Shareholders' equity based on Canadian GAAP	<b>105,821</b>	80,260	38
Equity component of preferred shares	-	-	(124)
Cumulative amortization of discount on preferred shares	-	-	21
Shareholders' equity (deficiency) based on U.S. GAAP	<b>105,821</b>	80,260	(65)

(i) *Preferred shares*

Under Canadian GAAP, convertible, redeemable, preferred shares are presented as debt and equity components on the balance sheet. The Canadian GAAP statement of operations includes a charge for interest on the debt component and dividends. However, under U.S. GAAP, these preferred shares meet the definition of mandatory redeemable shares, which are considered a component of temporary equity outside of shareholders' equity and dividends are charged directly to equity.

(ii) *Stock-based compensation*

Under Canadian GAAP, no compensation expense has been recognized with respect to employee stock options. For U.S. GAAP reporting, the Company uses the intrinsic value method of APB Opinion No. 25 and options issued under the plan are deemed to be compensatory to the extent that the fair value of the stock exceeds the exercise price at the date of grant. The compensation cost is recognized over the vesting period. For U.S. GAAP, the compensation cost not yet recognized is presented as a deferred stock-based compensation charge, with a corresponding amount included in stock options outstanding, both of which form part of shareholders' equity. At December 31, 2001, equity balances under U.S. GAAP for deferred stock-based compensation and stock options outstanding are \$648 and \$4,589, respectively.

Had the Company determined compensation cost based on the fair value method as prescribed in Statement of Financial Accounting Standards No. 123, "Accounting for Stock-based Compensation," the fair market value of the stock options granted in 2001 would have been \$2,322 (2000 – \$3,822; 1999 – \$108) and the pro forma net loss would have been \$(5,834) (\$(0.15) loss per share) (2000 – \$(5,444), \$(0.25) loss per share; 1999 – \$(185), \$(0.01) loss per share). For the purposes of these disclosures stock options are valued using the Black-Scholes option pricing model with the following weighted average assumptions: risk free interest rate of 4.86% to 5.39%, expected life of ten years and expected volatility of between 108% and 113%.

(iii) *New accounting standards*

For Canadian GAAP reporting purposes, the Company will adopt the new Canadian standard for reporting stock based compensation effective January 1, 2002, CICA Handbook section 3870 "Stock Based Compensation and Other Stock Based Payments". Under this standard, stock-based payments to non-employees and direct awards of stock to employees and non-employees will be accounted for using a fair value method of accounting. For grants of stock options to employees, this standard allows either the recognition of a compensation expense for grants of stock options to employees, based on the estimated fair value at the date of grant, or alternatively, the disclosure of pro forma net earnings or earnings per share data, as if the stock based compensation had been recognized in earnings. Management is currently evaluating the implementation aspects of this new standard.

The Company has determined that other recently issued Canadian and U.S. accounting pronouncements have no impact on the Company at this time.

(iv) *Change in reporting currency*

As disclosed in note 2, effective December 31, 1999, the Company adopted the U.S. dollar as its reporting currency. Under Canadian GAAP, at the time of change in reporting currency, the historical financial statements are presented using a translation of convenience whereby all amounts for the current year and comparative figures are translated at the exchange rate prevailing at December 31, 1999. Under U.S. GAAP, the financial statements, including prior years, are translated according to the current rate method whereby revenues and expenses are translated at exchange rates prevailing at the respective transaction dates.

The condensed statements of operations and cash flows for the years ended December 31, 1999, after giving effect to the change in reporting currency and stock based compensation under U.S. GAAP, are as follows:

	2001	2000	1999
Revenues	<b>7,418</b>	8,883	2,598
Cost of revenues	<b>4,941</b>	6,485	2,045
Operating expenses	<b>12,383</b>	6,312	727
Loss from operations	<b>(9,906)</b>	(3,914)	(174)
Loss for the year	<b>(4,284)</b>	(4,843)	(165)

	2001	2000	1999
Cash used in operating activities	<b>(7,025)</b>	(984)	(83)
Cash provided by (used in) investing activities	<b>5,443</b>	(77,869)	(272)
Cash provided by (used in) financing activities	<b>(52)</b>	79,672	-

*Comprehensive income*

- (v) U.S. GAAP requires disclosure of comprehensive income which comprises income (loss) and other comprehensive income. The only item of other comprehensive income for the Company is the charge to the currency translation adjustment. Under Canadian GAAP, there is no standard for reporting comprehensive income.

*Earnings (loss) per share*

- (vi) The numerator for purposes of calculating earnings (loss) per share under U.S. GAAP has been calculated as follows:

	2001	2000	1999
Net loss	<b>(4,284)</b>	(4,843)	(165)
Less: Dividends on preferred shares	<u>          -</u>	<u>          179</u>	<u>          50</u>
Loss attributable to common shares	<b><u>(4,284)</u></b>	<b><u>(5,022)</u></b>	<b><u>(215)</u></b>

**19. COMPARATIVE FIGURES**

Certain comparative figures have been reclassified to conform with the basis of presentation adopted in the current year.

## Directors and Officers

### MANAGEMENT

PIERRE RIVARD

President & Chief Executive Officer

GARY BRANDT

Chief Financial Officer

BOYD TAYLOR

Vice President, Sales & Marketing

JOSEPH CARGNELLI

Vice President, Technology

DR. RAVI B. GOPAL

Vice President, Systems &  
Applications Engineering

CHARLEY PAPPAS

Vice President,  
Engineering – Operations

JONATHAN LUNDY

Vice President, Strategic Development  
& Corporate Secretary

JIM COLLINS

Vice President, Finance & Administration

### BOARD OF DIRECTORS

NORMAN SEAGRAM<sup>1,2,3</sup>

Chairman

President,

Sportsco International LP

DONALD J. LOWRY<sup>1,2,3</sup>

Director

CEO, Epcor Utilities Inc

DON J. MORRISON

Director

Senior Vice President, Investments

Working Ventures Canadian Fund Inc.

DR. ROBERT LEE<sup>1</sup>

Director

Independent Technical Advisor

to Air Liquide Canada

FRANK COLVIN

Director

Vice President – Fuel Cell Activities,

General Motors Corp.

PIERRE RIVARD<sup>2,3</sup>

Director

BOYD TAYLOR<sup>1</sup>

Director

JOSEPH CARGNELLI

Director

<sup>1</sup> Member of Audit Committee

<sup>2</sup> Member of Management  
Development &  
Compensation Committee

<sup>3</sup> Member of Nomination and  
Corporate Governance Committee

# Shareholder Information

## LEGAL COUNSEL

Corporate (Canada)  
Osler, Hoskin & Harcourt LLP  
1 First Canadian Place  
Toronto, ON, M5X 1B8

Corporate (USA)  
Brobeck, Phleger & Harrison LLP  
1633 Broadway, 47th Floor  
New York, NY 10019  
United States of America

Intellectual Property  
Bereskin & Parr  
40 King Street West  
Toronto, ON, M5H 3Y2

## AUDITORS

PricewaterhouseCoopers LLP  
Suite 3000, Box 82  
Royal Trust Tower, TD Centre  
Toronto, ON, M5K 1G8

## TRANSFER AGENT

CIBC Mellon Trust Company  
20 Bay Street  
P.O. Box 1  
Toronto, ON, M5H 4A6

## CORPORATE OFFICE

Hydrogenics Corporation  
5985 McLaughlin Rd.  
Mississauga, ON, Canada L5R 1B8  
www.hydrogenics.com

## CORPORATE SUBSIDIARIES

Hydrogenics USA, Inc.  
Hydrogenics (Japan) Inc.

## STOCK EXCHANGE LISTINGS

Nasdaq National Market  
Symbol: HYGS  
The Toronto Stock Exchange  
Symbol: HYG

## SHAREHOLDER INQUIRIES

Investor Relations  
Hydrogenics Corporation  
5985 McLaughlin Rd.  
Mississauga, ON, Canada L5R 1B8  
Tel: (905) 361-3660  
Fax: (905) 361-3626  
Email: investors@hydrogenics.com

## CORPORATE COMMUNICATION

To be placed on the Company's mailing list for Quarterly Reports and News Releases please email investors@hydrogenics.com or contact (905) 361-3631.

For other information about Hydrogenics or inquiries please contact one of the following:  
Email: info@hydrogenics.com  
Tel: (905) 361-3660  
Fax: (905) 361-3626

## ANNUAL MEETING

The Annual Meeting of Shareholders will be held in Toronto at 10:00 a.m. local time on June 6, 2002 in Room CC-3 at the offices of Osler, Hoskin & Harcourt LLP, 63rd floor, 1 First Canadian Place, Toronto, Canada.



**HYDROGENICS**

Hydrogenics Corporation  
5985 McLaughlin Road  
Mississauga, Ontario  
Canada L5R 1B9  
P: 905.361.3660  
F: 905.361.3626  
[www.hydrogenics.com](http://www.hydrogenics.com)