

FORGE INC  
Form 8-K  
October 15, 2003

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 8-K**

**CURRENT REPORT**

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

**SEPTEMBER 30, 2003**

Date of Report (Date of earliest event reported)

**FORGE, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation)

**000-26047**  
(Commission File  
Number)

**65-0609891**  
(IRS Employer Identification  
No.)

**Suite 610 - 375 Water Street**  
**Vancouver, British Columbia**  
(Address of principal executive offices)

**V6B 5C6**  
(Zip Code)

**(604) 801-5566**  
Registrant's telephone number, including area code

**NOT APPLICABLE**  
(Former name or former address, if changed since last report)

## ITEM 1. CHANGES IN CONTROL OF REGISTRANT

### CHANGE OF CONTROL

Forge, Inc. ( We , Forge or the Company ) completed the acquisition of a 97.5% interest in Cryotherm, Inc., a Delaware corporation ( Cryotherm ) effective September 30, 2003. This acquisition was completed pursuant to a purchase agreement and plan of reorganization dated July 28, 2003 between Forge, Cryotherm and the principal shareholders of Cryotherm (the Acquisition Agreement ). On closing, Forge issued an aggregate of 7,403,197 shares of common stock to the selling shareholders of Cryotherm. These shares were issued based on a conversion ratio of 0.23435679 shares of Forge common stock for each share of Cryotherm common stock. All previously outstanding options and warrants of Cryotherm have been exchanged for options and warrants of Forge based on this conversion ratio. In addition, Forge has agreed that certain convertible notes of Cryotherm in the aggregate principal amount of \$450,000 will be convertible at the option of the holder into an aggregate of 633,333 shares of Forge s common stock.

Forge has also issued 4,200,000 shares to certain of its creditors in exchange for the cancellation of an aggregate of 840,000 of indebtedness owed by Forge to the creditors. These shares were issued concurrent with closing of the Cryotherm acquisition.

In summary, Forge issued the following securities on closing of the Cryotherm acquisition:

1. An aggregate of 7,403,197 shares to acquire the 97.5% interest in Cryotherm;
2. An aggregate of 4,200,000 shares to settle \$840,000 in outstanding indebtedness;
3. Options and warrants to purchase an aggregate of 322,531 shares.

As a result of these issuances, Forge now has 12,122,948 shares of common stock issued and outstanding. It is anticipated that additional shares of Forge will be issued to acquire the remaining 2.5% interest in Cryotherm based on the conversion ratio.

On closing, Mr. Lawrence Shultz and Mr. Jim Gayle were appointed to the board of directors of Forge. Each of Mr. Shultz and Mr. Gayle is a director of Cryotherm. The board of directors of Forge now consists of Daniel Hunter, James MacKenzie, Lawrence Shultz and Jim Gayle.

As a result of the acquisition by Forge of the 97.5% interest in Cryotherm and the addition of two new directors to Forge s board of directors, there has been a change in control of Forge. The former shareholders of Cryotherm now own 7,403,197 shares out of our total of 12,122,948 issued and outstanding shares, representing 61% of our total issued and outstanding shares. The shares of our common stock that were issued to the former shareholders of Cryotherm were issued in consideration of the transfer of the shares of Cryotherm held by the former shareholders. The shares were issued to the former Cryotherm shareholders on the basis of 0.23456789 shares of our common stock in consideration for each share of Cryotherm common stock held by each respective shareholder. The former shareholders acquired the Cryotherm Shares using their own funds.

Our new board of directors has approved the change of our corporate name to Encore Clean Energy Inc. and has authorized a shareholder meeting of Forge to obtain shareholder approval to the name change, a 3 for 1 forward stock split, and an increase to the authorized capital of Forge to 100,000,000 shares of common stock.

## **CRYOTHERM MANAGEMENT AND SIGNIFICANT EMPLOYEES/CONSULTANTS**

### **Larry Shultz**

Mr. Shultz was appointed as one of our directors effective September 30, 2003. Mr. Shultz is the founder of Cryotherm and is presently a technology consultant to Cryotherm. Mr. Shultz is an entrepreneur with a track record in product development and marketing. He wrote Cryotherm's business plan, which he is currently implementing with the Cryotherm team. Prior to Cryotherm, Mr. Shultz served as Chairman, Chief Executive Officer of AirBelt Systems LLC, developer of the IntelliFlow™ AirBag Inflator. Mr. Shultz and Airbelt signed an exclusive licensing agreement with TRW, a major air bag manufacturer for manufacturing and marketing the IntelliFlow airbag system to automakers. Prior to AirBelt Systems, Mr. Shultz was Senior Vice President, Audio and Video technologies, and a Director of Aura Systems, Inc., where he was in charge of developing and manufacturing a number of technologies and products, including the award-winning Aurasound loudspeakers, bass-shakers and Interactor video-game accessory). As President of International TeleSystems, Mr. Shultz developed the TickeTV pay-per-view positive trap used by non-addressable cable operators to encrypt and secure pay-tier and pay-per-view programming from unauthorized, non-paying customers. Mr. Shultz was recently partnered with comic book icon, Stan Lee (creator of the Spider-Man, X-Men, Incredible Hulk and Dare-Devil entertainment franchises) in Lee-Shultz Productions, for which Mr. Shultz wrote a number of stories, screenplays and a novel which were optioned and put into development by such Hollywood studios and TV networks as Warner Brothers, 20th Century Fox, Imagine Entertainment, NBC, CBS and Sony.

### **James E. Gayle**

Mr. Gayle was appointed as one of our directors effective September 30, 2003. Mr. Gayle is the president and chief executive officer of Cryotherm. Mr. Gayle received his BBA and MBA from the University of Houston and in 1979 Mr. Gayle founded Mar/Con Energy, Inc., one of the first firms specializing in state and federal regulatory compliance, natural gas marketing, and contract negotiation/administration and is recognized as one of the pioneers of direct gas marketing to end-users. Through his privately held companies, Mr. Gayle expanded into gas gathering, installing 28 gas gathering systems, 21 of which were company operated. Between 1980 and 1990, Mr. Gayle also formed and managed 19 energy related partnerships. Following the sale of the assets of his privately-held company in 1993, Mr. Gayle was engaged by a Wall Street Investment Banking firm to develop a new business plan and engineer a turnaround of Xplor Corporation, a NASDAQ listed E&P company. Following his appointment as Chairman and CEO in June 1994, the company was listed in the September 1996 issue of *Oil and Gas Journal's Top 200* as #4 in return on total assets; #4 in return on total revenue; and, #8 in return on shareholders' equity. The company was subsequently listed in the October 1996 issue of *Oil & Gas Investor* as #2 in most improved revenue per G&A dollar and #1 in most improved cash flow. In 1999 Mr. Gayle resigned and entered into a consulting agreement with Hanover Compression, one of the partners in Hanover Measurement Services Company, L.P. (HMS). Mr. Gayle was subsequently asked by the Board of HMS to become Chairman and Chief Executive Officer and joined HMS in 2000 where he served in this capacity until his resignation in November 2002.

### **Michael McGhan**

Mr. McGhan is a consultant to Cryotherm. Mr. McGhan was a cofounder and has served as President and Chief Executive Officer of Hanover Compressor company from 1991 to August 2002. Under his leadership revenues grew to over \$1 billion, making Hanover the largest natural gas compression company in the World (on the basis of aggregate rental horsepower with over 7000 rental units having an aggregate capacity of approximately 3,500,000 horsepower). Mr. McGhan helped develop the business plan of providing out-sourced compression rental services to the gas industry and expects to utilize his extensive personal business contacts to build a global sales force dedicated to providing low-cost out-sourced clean-energy generating rental services to his old customers in the oil and gas industry as well as to new industrial and power plant customers internationally utilizing Cryotherm power for Kyoto Protocol-compliance.



**Ken Hicks**

Mr. Hicks is a consultant to Cryotherm. Mr. Hicks is the founder of Centripetal Dynamics Inc. and has a background with over 20 years in Mechanical / Industrial Design and Marketing, in the fields of power generation, wind turbines, aerospace, aviation, DOD (US Dept. of Defense) programs and telecommunications. Mr. Hicks has also held Secret DOD clearances for past projects related to nuclear missile systems and also spent 4 years developing and manufacturing down-wind, wind turbine technology for Advanced Wind Turbines of which the AWT-27 wind turbines were installed in India and Zhaugjiakou in the Hedei Province in China. Mr. Hicks has also developed state-of-the-art Ramjet supersonic power generation equipment used in very high profile R&D projects. His blend of skills allows him to understand the product development process from both the technical perspective and the marketing perspective. This is evidenced by his experience in successfully managing programs at other start-up companies like Advanced Wind Turbines, Ramgen Power Systems ([www.ramgen.com](http://www.ramgen.com)), Vindicator Corporation and Advanced Design Technology. Ken manages the ongoing research and technical development of the Centripetal Dynamics program and will add the Cryotherm technologies to his domain. Ken has guided Cryotherm from initial conception through research and development, and is currently negotiating joint venture relationships, strategic alliance agreements and capital funding on behalf of Cryotherm. Mr. Hicks has a B.S. in Mechanical Technology from Trinity University.

**Henry R. Bob Whiteside, President of Oil & Gas Division Cryotherm Clean Energy, Inc.**

Mr. Whiteside is the president of Cryotherm's oil and gas division. Mr. Whiteside has approximately 30 years of in-depth knowledge about and experience in the oil and gas industry. As President & CEO of an integrated oil and gas company in Marietta, Ohio, Mr. Whiteside directed the company's growth from 3 shallow rigs to thirteen 10,000 foot rigs, drilling in excess of 300 wells for both his company's investors and Ashland Oil, Consolidated Oil & Gas and Columbia Gas Transmission. Previously, Mr. Whiteside was an owner and Allied Member of a New York Stock Exchange Firm, responsible for the Corporate Finance Department and Institutional Sales Departments, experience he will bring to Cryotherm in structuring its international deals. Mr. Whiteside has been instrumental in introducing Cryotherm to oil and gas companies which have agreed to allow Cryotherm's products to be installed on their gas wells and pipelines for testing and creating new revenue streams from their oil and gas properties. Mr. Whiteside has also introduced Cryotherm to potential joint venture partners in the areas of product manufacturing, power plant design and is developing partnership agreements between Cryotherm and potential overseas partners in Malaysia, Indonesia, Australia, and Japan to install Cryotherm power generating units. Mr. Whiteside's international market contacts for Cryotherm include but are not limited to, leading oil company executives in Russia, Azerbaijan, Europe, Italy, Korea, Philippines, Australia, South Africa and South America.

**SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth certain information concerning the number of shares of our common stock owned beneficially as of September 30, 2003 by: (i) each person (including any group) known to us to own more than five percent (5%) of any class of our voting securities, (ii) each of our directors and each of our named executive officers, (iii) and (iv) officers and directors as a group. Unless otherwise indicated, the shareholders listed possess sole voting and investment power with respect to the shares shown.

<b>Title of class</b>	<b>Name and address of beneficial owner</b>	<b>Number of Shares of Common Stock</b>	<b>Percentage of Common Stock<sup>(1)</sup></b>
<b>DIRECTORS AND OFFICERS:</b>			
Common Stock	Dan Hunter President and Director of Forge, Inc.	779,999(2)	6.4%
Common Stock	James MacKenzie Director of Forge, Inc.	730,000(3)	6.0%
Common Stock	Larry Shultz Director of Forge, Inc.	2,388,253(4)	19.7%
Common Stock	James Gayle Director of Forge, Inc. President and CEO of Cryotherm	529,278(5)	4.4%
Common Stock	Kenneth Hicks Consultant to Cryotherm	117,284(6)	1.0%
Common Stock	Michael McGhan Consultant to Cryotherm	527,778(7)	4.4%
Common Stock	Robert Whiteside President of Cryotherm Oil and Gas Division	175,926(8)	1.5%
Common Stock	Ken Rickel Consultant to Cryotherm	1,288,364(9)	10.0%
Common Stock	All Officers and Directors of Forge as a Group (4 person)	4,426,030	36.5%
<b>5% BENEFICIAL OWNERS:</b>			
Common Stock	ROBERT AND DIANE HUNT 23707 Red Fish Lane Pass Christian MS 39571	2,319,290	19.1%

- (1) Under Rule 13d-3, a beneficial owner of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise has or shares: (i) voting power, which includes the power to vote, or to direct the voting of shares; and (ii) investment power, which includes the power to dispose or direct the disposition of shares. Certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are



deemed to be beneficially owned by a person if the person has the right to acquire the shares (for example, upon exercise of an option) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares outstanding is deemed to include the amount of shares beneficially owned by such person (and only such person) by reason of these acquisition rights. As of September 30, 2003, there were 12,122,948 shares of our common stock issued and outstanding.

- (2) Consists of 37,500 shares held by Mr. Hunter and 87,499 held by Camino Enterprises Ltd. (Mr Hunter is the sole shareholder of Camino Enterprises Ltd.) prior to September 30, 2003 and 655,000 shares acquired by Mr. Hunter exchange for amounts owed by the Company to Mr. Hunter.
- (3) Consists of 75,000 shares held by Mr. MacKenzie prior to September 30, 2003 and 655,000 shares acquired by exchange for amounts owed by the Company to Mr. MacKenzie.
- (4) Consists of the following shares held indirectly by Mr. Shultz: 1,684,549 shares owned by the Shultz Family 1989 Intervivos Trust; 234,568 shares owned by Larry or Sally Shultz, Custodian for Alexander L. Shultz Under CA UGTMA; 234,568 shares owned by Larry or Sally Shultz, Custodian for Eric L. Shultz Under CA UGTMA; and 234,568 shares owned by Larry or Sally Shultz, Custodian for Brian L. Shultz Under CA UGTMA.
- (5) Consists of 527,778 shares held directly by Mr. Gayle and 1,500 shares held indirectly.
- (6) Consists of 117,284 shares that may be acquired within 60 days hereof pursuant to options held by Mr. Hicks.
- (7) Consists of 527,778 shares held by Mr. McGhan.
- (8) Consists of 175,926 shares that may be acquired within 60 days hereof pursuant to options held by Mr. Whiteside.
- (9) Consists of shares held by 646,235 shares held by Mr. Rickel, 8,796 shares that may be acquired pursuant to share purchase warrants held by Mr. Rickel and 633,333 shares that may be acquired by Mr. Rickel pursuant to convertible notes held by Mr. Rickel



## ITEM 2. ACQUISITION OR DISPOSITION OF ASSETS

### ACQUISITION OF CRYOTHERM

We have completed the acquisition of a 97.5% interest in Cryotherm effective September 30, 2003. On closing, we issued an aggregate 7,403,197 shares of our common stock to the selling shareholders of Cryotherm on the basis of 0.23456789 shares of our common stock for each share of Cryotherm common stock. In addition, the outstanding options, warrants and convertible notes of Cryotherm have been exchanged for options, warrants and convertible notes of Forge based on this conversion ratio. We also converted \$840,000 of our liabilities into 4,200,000 pursuant to cancellation of indebtedness agreements that we entered into with certain of our creditors. In aggregate, we issued the following securities on closing:

1. An aggregate of 7,403,197 shares of our common stock to acquire the 97.5% interest in Cryotherm;
2. An aggregate of 4,200,000 shares of our common stock to certain of our creditors to settle \$840,000 in outstanding indebtedness;
3. Options and warrants to purchase an aggregate of 322,531 shares of our common stock at a price of \$0.30 per share.

In addition, we have agreed that certain convertible notes of Cryotherm in the aggregate principal amount of \$450,000 which will be convertible at the option of the holder into an aggregate of 633,333 shares of our common stock.

The following conditions precedent to the closing of the Acquisition Agreement were waived by Cryotherm and the selling shareholders pursuant to an amendment to the Acquisition Agreement executed effective August 25, 2003:

1. The approval of the shareholders of the Company to:
  - (i) The change of the jurisdiction of incorporation of the Company from Delaware to Nevada;
  - (ii) The completion of a forward split of the Company's outstanding shares of common stock on a three new for one old basis;
  - (iii) The increase of the Company's authorized common stock to 100,000,000 shares of common stock; and
  - (iv) The change of the Company's name to Global Cogen, Inc. or other name acceptable to the Company and Cryotherm.
2. The completion of a private placement financing by the Company for proceeds of a minimum of \$2,000,000 prior to closing.

### BUSINESS OF CRYOTHERM

Cryotherm has acquired rights to proprietary clean energy technologies that it is developing and plans to commercialize. Cryotherm's business plan involves creating products that will be targeted at satisfying the growing worldwide industrial demand for lower-cost, cleaner ways to generate electricity without burning fossil fuels.

Cryotherm's clean energy technologies under development include:

1. Drum Jet Turbine: Used as a "rotary choke," this blade-less turbine is designed to uniquely harness the wasted kinetic energy of dual-phase liquids and gas streams inside high pressure gas



wells, pipelines and storage facilities -- and forms the heart of Cryotherm's planned next generation waste heat recovery power system.

2. **Self-Actuating Wind Shutter Carousel:** Unlike conventional propeller-like wind turbines that can only operate in high speed winds >15 mph, this unique distributed-power wind "carousel" will be designed to offer the potential to cost-effectively generate electricity from low-speed winds of 5-10 mph, with the objective of increasing the number of locations (including building rooftops) which could potentially benefit from the generation of clean wind power.
3. **Turboflux Disk Turbine:** Based upon a blade-less turbine invented by Nikola Tesla and improved by Kenneth Hicks and Centripetal Dynamics, Inc., this advanced engine has been designed to offer the potential of significant economic and environmental benefits over conventional reciprocating engines by burning less fuel for a given power output and emitting less pollution.
4. **Floating Hydro Power Barge:** Applying the same operating principles of the wind-shutter carousel for hydro-turbine use, rushing water in rivers around the world could potentially be harnessed to generate clean electricity on a portable platform supplying localized, distributed power to the grid or end user riverside customers, without the high economic costs and environmental damages that are associated with, and now prevent the construction of, conventional hydro-power dams.
5. **Partial Pressure Membrane Refrigeration System:** Based upon a refrigeration cycle invented by Albert Einstein, Cryotherm plans to develop products that will use modern off-the-shelf *membrane separation* technologies and will be designed to replace the need for power-consuming electric refrigerator compressors, offering the potential to revolutionize the refrigerator, air conditioning and cooling tower industries by generating refrigeration with potential energy savings >50% compared to conventional electric compress-based refrigeration.

Cryotherm intends to fund demonstration units of each of its clean energy technologies and test them under scalable conditions so as to verify the cost and operating advantages of each technology.

Cryotherm's initial primary focus is the commercialization of a Drum Jet Turbine that incorporates some of its licensed proprietary technologies. The Drum Jet Turbine is being commercialized for use in high pressure gas wells and pipelines where the Drum Jet Turbine can be installed to generate electricity from pressure drops occurring within the wells and pipelines.

Cryotherm has completed the development of its initial Drum Jet Turbine prototypes. Cryotherm is currently working on a testing program to install and operate its prototype Drum Jet Turbine with a major gas well operator and a major gas pipeline operator. The objective of these tests will be used to provide the engineering results and data necessary to refine the design of Cryotherm's drum jet turbines for commercial use.

Cryotherm's business plan is to sell its Drum Jet Turbines to gas well and gas pipeline owners and operators for generation of electricity and to pursue the development of other products incorporating its proprietary license technology.

#### **THE CRYOTHERM TECHNOLOGY:**

Cryotherm acquired the technology underlying many of the products it is attempting to develop and commercialize pursuant to a license agreement with inventor Robert Hunt dated May 20, 2003 and a joint projects, license and consulting agreement with Centripetal Dynamics dated June 26, 2003. Mr. Hunt is one of our principal shareholders. Each of these agreements is discussed below.

The Company entered into a license agreement (the Hunt License Agreement ) with Robert Hunt dated May 20, 2003, but effective January 15, 2002, whereby Cryotherm acquired exclusive license rights relating to the patents underlying the following products that Cryotherm is attempting to develop:

1. Drum Jet Turbine.
2. Vertical Axis Wind Turbine.

3. Floating Power Barge .

4. Partial Pressure Membrane Refrigeration System.

The licensed intellectual property includes the patents referenced in the license agreement. The license is a worldwide license to the licensed intellectual property to manufacture, sell and commercially exploit products incorporating the licensed intellectual property for the field of generating, converting, storing or conserving energy or electricity for stationary, portable or vehicular applications.

Under the Hunt License Agreement, Cryotherm paid to Hunt the amount of \$413,000 in license fees plus the issue of 10,457,500 shares of Cryotherm to Hunt. In addition, Cryotherm has agreed to pay the following consideration to Hunt:

1. Cryotherm has agreed to purchase 3,000,000 shares of Cryotherm, now 703,704 shares of Forge, for a purchase price of \$300,000 beginning on or after sixty days following the completion, delivery and successful testing of any electricity generating prototype of any on of the following licensed products: drum jet turbine, vertical axis wind turbine or energy well power system, and payable solely from the receipt by CryoTherm of an amount equal to at least five percent (5%) of any gross cash proceeds received by CryoTherm from the sale of its Common Stock or any instrument convertible into Common Stock on or after such prototype demonstration as and when such cash proceeds are received.
2. In such cases when Cryotherm is selling licensed equipment for a one-time profit margin, Cryotherm has agreed to pay to Hunt a royalty based on licensed product sales revenues of all products sold by Cryotherm that relate to the licensed products. This royalty will be 3% of licensed product sales revenues in the first year that a licensed product is sold, 4% in the second year and 5% thereafter.
3. In such cases when Cryotherm is maintaining an ownership interest in and utilizing licensed equipment to sell electricity or lease electricity-generating equipment to third-parties, Cryotherm has agreed to pay to Hunt a royalty based on adjusted gross revenues . Adjusted gross revenues includes all gross cash revenues received by Cryotherm from the commercialization of a licensed product less direct costs paid or incurred by CryoTherm in connection with such revenues, including equipment financing costs, royalty payments and operating costs directly related to such gross revenues. This royalty will be 3% of adjusted gross revenues in the first year that a licensed product is sold, 4% in the second year and 5% thereafter.
4. Cryotherm has agreed to pay Hunt the sum of \$20,000 per month as non-refundable advances in addition to royalties for the first two years of the Agreement. This amount will increase to \$30,000 per month and will continue until the last of the patents covering the licensed products expires.
5. Cryotherm will pay \$12,500 for each sub-license granted by Cryotherm, in addition to the required royalty payments.

In the event that Cryotherm fails to commence sale or otherwise commercialize any licensed product utilizing the licensed intellectual property within four years from the date of the successful demonstration of a working prototype of a license product incorporating the licensed intellectual property, any royalty payable by a sub-licensee shall be divided 75% to Hunt and 25% to Cryotherm.

Cryotherm entered into a joint projects; license and consulting agreement with Kenneth Hicks and Centripetal Dynamics, Inc. effective June 26, 2003. Under this agreement, Cryotherm issued 500,000 shares of Cryotherm (now 117,284 shares of Forge) to Mr. Hicks in consideration for the grant of sales and marketing rights to the Turboflux engine. The rights granted included the exclusive rights to sell, market and distribute the Turboflux engine for North America and the European Union for distributed power, cogeneration and waste heat recovery power generation

applications. Centripetal Dynamics has agreed to sell Turboflux engines to Cryotherm on a manufactured-cost-plus basis that will be determined once technology and costs are finalized such that the price to Cryotherm will allow Cryotherm to recognize

a market-standard resale profit and still be competitive price-wise in the marketplace. In addition, Centripetal Dynamics granted to Cryotherm the North American and European Union rights to sell, market and distribute the Turboflux wind turbine developed by Centripetal Dynamics. Centripetal Dynamics has agreed to sell Turboflux wind turbines to Cryotherm on a manufactured-cost-plus basis that will be determined once technology and costs are finalized such that the price to Cryotherm will allow Cryotherm to recognize a market-standard resale profit and still be competitive price-wise in the marketplace.

Centripetal Dynamics has agreed not to grant or negotiate any North American or European Union sales, marketing or distribution rights to the Centripetal Dynamics turbines with any other parties for a period of 18 months, beginning once the technologies have been developed, tested and are available for sale to the market place. In order to maintain its exclusive rights, Cryotherm must purchase all turbine units manufactured by Centripetal Dynamics in the initial 18 months of production. If Cryotherm meets reasonable sales expectations of the Turboflux engine and wind turbines during this time frame, the exclusive U.S. license will be extended. These parameters will be identified and agreed up by both parties at a later date, but in no event later than 18 months after sales of the turbines by Cryotherm has begun.

Cryotherm has agreed to employ Mr. Hicks as an executive consultant and Mr. Hicks will be in charge of Cryotherm's engineering efforts through Centripetal Dynamics. Cryotherm will pay an initial consulting fee of \$7,500 per month to Mr. Hicks which will increase to \$120,000 per year, guaranteed for two years upon Cryotherm securing second-round financing of a minimum of \$2,000,000. In addition, Cryotherm has agreed to grant Mr. Hicks options to purchase 500,000 shares of Cryotherm stock, which have not been exchanged for options to purchase 117,284 shares of Forge's common stock at a price of \$0.4263 per share. Cryotherm has also agreed to use its best efforts to register the shares held by Mr. Hicks under the Securities Act of 1933 on par with other executive shareholders of Cryotherm.

Cryotherm has agreed to pay \$35,000 to Mr. Hicks to pay for the fabrication, assembly and testing of a working prototype of the Turboflux engine. This payment has been made and testing of the prototype is expected within 45-60 days.

#### **THE CRYOTHERM PRODUCTS:**

Cryotherm is currently undertaking the development of the following products based on its proprietary licensed technology:

1. Drum Jet Turbine

The Drum Jet Turbine is a turbine that converts the pressure reduction occurring in a gas pipeline or a natural gas engine into rotational energy that powers a generator to create electricity. In the Drum Jet Turbine, a high pressure gas or dual phase mixture of liquid and gas enters into the turbine through a hollow shaft in the center of the turbine. The gas is directed by vortex channels within a rotor that is connected to a shaft within the turbine. The kinetic energy of the high pressure gas or dual phase mixture causes the rotor to spin as the gas drops to a lower pressure as it passes through the vortex channels to the outer circumference of the rotor. The gas then exits the turbine at a lower pressure into the downstream pipeline. This pressure drop experienced by the gas or dual phase mixture creates mechanical torque which in turn spins the rotor. By connecting a generator to the shaft connected to the rotor, electricity can be generated from the pressure drop. This process effectively uses the kinetic energy of the high pressure gas to create electricity.

The Drum Jet Turbine is different from conventional turbines, such as turbines present in natural gas fired power plants, due to the following factors:

- A. The Drum Jet Turbine does not have any bladed lifting surfaces or vanes and accordingly, does not require the precisely manufactured blades made of exotic and expensive materials required for conventional turbines;

- B. The Drum Jet Turbine is not subject to high pending stresses as are conventional turbines;

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- C. The Drum Jet Turbine can be manufactured to operate at higher temperatures than conventional temperatures. This allows for increased gas burning efficiency when the Drum Jet Turbine is used in a gas burning application due to the fact that conventional turbines cannot operate at high temperatures where optimum combustion of natural gas occurs.
- D. The Drum Jet Turbine can operate quieter than conventional turbines as it is not subject to passing blade frequencies .
- E. The Drum Jet Turbine can be used a rotary choke in order to harness kinetic energy from gas where a pressure drop of the gas is required.
- F. The Drum Jet Turbine can be manufactured at lower costs than conventional turbines due to its simpler design.
- G. The Drum Jet Turbine is better suited to mass production and general use than conventional turbines.
- H. The Drum Jet Turbine will have lower maintenance than conventional turbines due to its simpler design and fewer moving parts.
- I. The Drum Jet Turbine can process dual phase mixtures which conventional turbines cannot.

Cryotherm has identified four applications for the Drum Jet Turbine which it believes offer opportunity for commercial applications of the Drum Jet Turbine:

- A. The first application is installation of the Drum Jet Turbine on gas pipelines where the pressure of the gas in the pipeline must be reduced. In typical natural gas pipelines, gas is pressurized at a high pressure for transportation to market. This pressure is typically in excess of the pressure that must be delivered to the ultimate consumer, such as a city or an industrial complex. As a consequence, the pressure of the gas must be choked as it exits the main gas pipeline to a lower pressure. This is currently done using a dumb choke such as a small aperture in the connecting pipeline.

Installation of the Drum Jet Turbine at the connection between the main pipeline and a connecting pipeline offers the opportunity to use the required pressure drop of the natural gas to drive a generator which will in turn create electricity. In the contemplated installation, high pressure gas from the main pipeline would enter into the Drum Jet Turbine where its kinetic energy would be harnessed and would leave the Drum Jet Turbine and exit into the consumer's pipeline. The kinetic energy of the gas would drive a generator attached to the Drum Jet Turbine. The resulting electricity could then be sold into the market by the owner.

- B. The second targeted application is installation of the Drum Jet Turbine on high pressure gas wells. In cases where the pressure of gas exiting a high pressure gas well exceeds the pressure in the gathering pipeline to which the well is connected, the gas must be choked in order to drop the pressure of the gas from the well pressure to the pressure of the gathering line. This pressure drop creates the opportunity for the installation of a Drum Jet Turbine to create electricity from the kinetic energy of the high pressure gas.

Gas wells present a challenge to conventional turbines because the gas commonly is mixed with significant amounts of water. The presence of a dual phase mixture eliminates the possibility of using a conventional turbine on a gas well. The Drum Jet Turbine however can be installed right on top of the well bore inside a pressure vessel and can be configured to operate as a centrifugal separator which separates

the upwelling gas and water and creates electricity from the kinetic energy of the gas, all in one unit.

- C. A related application to the gas pipeline application is for natural gas storage fields. A natural gas storage field is an underground reservoir used to store produced gas for peak usage periods throughout the year. Gas is injected into caverns or caprock protected by aquifers at pressures of up to 5000 psig, although 2,500 psig is more typical. The gas is returned to the

pipeline at 1000 psig through valves and orifices without making use of the pressure energy. This required pressure drop creates an opportunity for installation of the Drum Jet Turbine on pipelines exiting natural gas storage fields in order to create electricity from the kinetic energy of the high pressure storage gas. Previous attempts to capture this energy have failed because the equipment was not rugged enough to handle the high pressure gas stream or the dual phase nature of the gas stream which may have liquid or solid contaminants, or the equipment was too expensive for its power output.

- D. The final application is the generation of electricity using the Drum Jet Turbine to recover energy from steam generated by waste heat exhaust at industrial facilities.

2. Turboflux Disk Turbine:

Based upon a blade-less turbine invented by Nikola Tesla, this advanced engine offers the potential of significant economic and environmental benefits over conventional reciprocating engines by burning less fuel for a given power output and emitting less pollution. The construction of a first-generation advanced TurboFlux Disk Turbine unit by Cryotherm in partnership with Centripetal Dynamics is expected to be tested on a dynamometer within 45-60 days, with the objective of demonstrating the viability and operating efficiency of this new advanced engine.

The present level of today's turbine and engine development is limited at this time due to temperature problems related to materials and manufacturing techniques. The TurboFlux PGS has features that can help to overcome these problems. It takes advantage of an effect known as "boundary layer drag" to convert the energy present in pressurized fluids into mechanical torque. Because it has no lifting or wearing surfaces, the TurboFlux PGS is completely devoid of high bending stresses that are present at the root and trailing edges of conventional gas turbine blades.

This absence of lifting surfaces also explains why these engines run without the noise associated with "blade passing frequencies." More important, its unique design allows the TurboFlux PGS to run at the power "conditions" needed to substantially improve specific fuel consumption and power to weight ratio.

Briefly stated, the TurboFlux PGS consists of a set of flat disks mounted on a shaft and rotating within a casing, the steam [or gaseous products of combustion] entering with high velocity at the periphery of the disks, flowing between them in free spiral paths, and finally escaping through exhaust ports in the center. Instead of developing the energy of the steam [or gas] by pressure, reaction or impact, on a series of blades or vanes [or pistons], TurboFlux PGS depends upon the fluids properties of adhesion and viscosity-the attraction of the steam to the faces of the disks and the resistance of its particles to molecular separation combining in transmitting the velocity energy of the motive fluid to the plates and the shaft.

On the other hand, the Drum Jet Turbine consists of a set of machined disks with internal spiral exhaust paths. This configuration is feed through a vortex inlet and is exhausted (via centrifugal force), into a drum exhaust casing. These spiral paths in effect turn the rotor. At the exhaust of these paths are specialized nozzles that provide extra torque. This concept like the TurboFlux are very simplistic, but yet robust and very reliable. The use of only one moving part eliminates the risk of breakdown and loss of revenues. The flexibility of the technologies to use any fuel source, and or steam bi-product make it's very unique and a one of a kind technology.

The systems also have the capability to act as a process. The technologies may have the capability to produce hydrogen, as well as acting as power generating reducing valves for the petroleum industry. The systems are also tailored for the every growing heat recovery market and the company expects to capitalize on this need.

Cryotherm is finalizing the design of, will soon order parts for, and expect to test within 45-60 days, an advanced Drum Jet Turbine on a dynamometer by utilizing many of the same parts of the TurboFlux Disk Turbine being tested.

**COMMERCIALIZATION OF THE CRYOTHERM PRODUCTS**

Cryotherm is currently prioritizing its efforts to commercialize the Drum Jet Turbine. The Drum Jet Turbine represents the product of Cryotherm that is in the most advanced stage of development.

Cryotherm has completed assembly of the third-generation two-foot diameter prototype of its Drum Jet Turbine. Cryotherm is currently preparing for delivery to and testing of the prototype unit on a gas well in Louisiana with a major gas well operator. The testing will involve the installation of the Drum Jet Turbine on a gas well and monitoring of the performance of the Drum Jet Turbine. The purpose of the test will be to demonstrate the viability of the technology for gas field energy recovery applications and to provide engineering and performance data required to advance development to a stage where a commercial Drum Jet Turbine unit can be specified and built.

## **BUSINESS MODEL FOR THE DRUM JET TURBINE**

Cryotherm's business model for the Drum Jet Turbine includes the following elements:

1. Cryotherm plans to develop standardized Drum Jet Turbine modules that will be mounted on skids for deployment to customers. Skid-mounting of the Drum Jet Turbine units is planned in order to provide a fleet of mobile assets with minimal deployment costs which can be relocated to numerous projects or locations throughout their useful life. Various sizes and capacities of Drum Jet Turbine units will be designed for targeted customers. The skid units will be designed to be capable of being installed in train in order to accommodate increases and decreases in power site/ host demand.
2. Cryotherm will target gas pipeline owners and operators and gas well owners and operators and market the Drum Jet Turbine based on the potential revenue or cost savings that can be realized by installation of the Drum Jet Turbine on the owner/ operator's facility.
3. The Drum Jet Turbine units will be sold to customers through financing arrangements where the up-front capital cost of the Drum Jet Turbine will be borne by a third party finance company or by Cryotherm. Under this arrangement, the customer would lease the Drum Jet Turbine from the finance company or Cryotherm who would pay the up-front capital cost of the Drum Jet Turbine. The customer would pay a monthly lease rate which would presumably be off-set by revenues or cost-savings realized by the customer on electricity generated from the Drum Jet Turbine unit.
4. Cryotherm would enter into operating and service agreements with each customer whereby the customer would receive full service of the Drum Jet Turbine unit at a reasonably-priced, monthly rate. The objective would be to provide the customer with a known operating cost in advance of purchase for budgeting purposes.

## **CRYOTHERM RESEARCH AND DEVELOPMENT ACTIVITIES**

Cryotherm is also undertaking the following research and development activities:

### **1. Vertical Axis Wind Turbine:**

Cryotherm is undertaking research on a vertical axis wind turbine. Unlike conventional bladed wind turbines, vertical axis wind turbine has been designed to cost-effectively generate power from low-speed winds. Cryotherm has developed an initial prototype of a vertical axis wind turbine "carousel". Cryotherm is currently working on second-generation 20-foot diameter version of the Vertical Axis Wind Turbine "carousel" at the facilities of U.S. Marine, Inc. Cryotherm plans to complete testing and demonstration of the new low-wind speed turbine within 45-60 days. Cryotherm's objective is to create a wind turbine that can be installed on roof-tops and that can operate at low-speed winds in order to create electricity for building owners and operators.

### **2. Floating Power Barge :**

Cryotherm is working on the design for a floating "Power Barge" that incorporates use of the Vertical Axis Wind Turbine shutter design for an underwater, higher torque application that generates clean electric power by harnessing the hydro energy of downstream flowing water using a stationary "power barge" moored at a dock or riverside.

Cryotherm's objective is to create a power generation barge that could harness the power of rivers to generate electricity without the high economic and environmental costs associated with conventional hydropower dams.

3. Partial Pressure Membrane Refrigeration System:

Cryotherm is ordering a membrane separation cartridge from a major membrane company in order to begin experiments and tests that will lead to demonstration of its high efficiency Partial Pressure Membrane Refrigeration technology. Cryotherm is hiring a highly credentialed refrigeration consultant and an internationally recognized expert in energy conversion systems to conduct these experiments and tests. Based upon a refrigeration cycle invented by Albert Einstein, Cryotherm's use of modern off-the-shelf membrane separation technologies in place of a conventional compressor offers the potential to revolutionize the refrigerator, air conditioning and cooling tower industries by generating refrigeration with potential energy savings >50%.

**CRYOTHERM PLAN OF OPERATIONS**

Cryotherm's plan of operations for the next twelve months includes the following elements:

1. Cryotherm will pursue the testing of its Drum Jet Turbine prototypes on industrial applications, including gas wells and gas pipelines. Cryotherm anticipates that this testing program will take approximately nine months. The results of this testing program will be used to further refine the design of the Drum Jet Turbine products and to identify the optimal sizes and configurations of the Drum Jet Turbine for various commercial applications.
2. Cryotherm plans to undertake the finalization of the design and specifications for its first commercial Drum Jet Turbine products. The stage of development will be undertaken concurrently with the product testing program and will use the results of the testing program to refine the design and specifications of the Drum Jet Turbine.
3. Cryotherm will refine its marketing and sales program for the Drum Jet Turbine to the oil and gas industry and to industrial waste heat recovery markets. The anticipated costs of manufacturing the Drum Jet Turbine will be analyzed using the final designs and specifications for the Drum Jet Turbine. These costs will be used to develop a business model for installation of the Drum Jet Turbine in various commercial applications. The business models will be analyzed in order to identify the optimum target market for the Drum Jet Turbine. Cryotherm anticipates that the optimum market will depend on various factors, including the availability of a source of high pressure gas, the electricity that can be generated from a Drum Jet Turbine based on the available pressure, the cost of the manufacture and installation of the Drum Jet Turbine and the price of electricity in the targeted customer's market.
4. Cryotherm will continue the research and development of those products that are currently the subject of its research and development activity. Cryotherm plans to focus on commercialization of the Drum Jet Turbine as its primary focus. Research and development activities may have to be scaled back depending on the amount of funding that is available to fund these activities.

Cryotherm anticipates spending approximately \$3,000,000 in pursuing its plan of operations over the next twelve months. These amounts are in excess of the current capital of Forge and the anticipated revenues that Forge anticipates that it will generate over the next twelve months. It is anticipated that the Cryotherm business will not generate any revenues over the next twelve months. Accordingly, Forge will depend on financing in order to fund the Cryotherm plan of operations. Forge anticipates that any financing will be equity financing as debt financing will not be available at this stage of Cryotherm's business. Forge does not have any arrangements in place for the financing necessary to fund the Cryotherm plan of operations. If less financing than required is achieved, then the Cryotherm plan of operations will be scaled back according to the amount of funds available. The inability of Forge to raise funds for Cryotherm will severely restrict the ability of Forge to complete the development and commercialization of Cryotherm's products.

Our board of directors has approved a private placement of units at a price of \$1.00 per unit, with each unit to be comprised of one share of common stock and one share purchase warrant. Each warrant will entitle the subscriber to purchase one additional share of our common stock at a price of \$1.50 US per share during the three year period

following closing, subject to a forced exercise right in favour of the Company. Upon the completion of the sale of the offered Units, we will undertake to file a registration



statement under the Securities Act of 1933 in an appropriate form in order to register the resale of the Shares and the shares issuable upon exercise of the Warrants. We will use our best efforts to ensure filing of the registration statement within 90 days of the date of closing of the private placement. Upon effectiveness of the registration statement, as described below, we will have the right to require the subscriber to exercise the warrants during the thirty day period following the date on which our common stock has traded at a minimum price of at least \$2.00 per share for ten consecutive trading days at a minimum volume of 25,000 shares per day. If the warrants are not exercised during this period, then the warrants will terminate.

## **ITEM 7. FINANCIAL STATEMENTS AND EXHIBITS**

### **(a) Financial Statements of Business Acquired.**

The Company will file financial statements of Cryotherm, Inc., a Delaware corporation, by an amendment to this Current Report on Form 8-K to be filed within the time period required by Form 8-K.

### **(b) Pro forma Financial Information.**

The Company will file pro-forma information showing the effect of the acquisition of the majority interest of Cryotherm, Inc. by an amendment to this Current Report on Form 8-K to be filed within the time period required by Form 8-K.

### **(c) Exhibits.**

<b>Exhibit</b>	<b>Description</b>
10.1	Purchase Agreement and Plan of Reorganization dated July 28, 2003 between Forge, Inc., Cryotherm, Inc. and the major shareholders of Cryotherm, Inc. <sup>(1)</sup>
<u>10.2</u>	Amendment to Purchase Agreement and Plan of Reorganization dated August 25, 2003 between Forge, Inc., Cryotherm, Inc. and the major shareholders of Cryotherm, Inc. <sup>(2)</sup>
(1)	Previously filed as an exhibit to our Current Report on Form 8-K filed with the Securities and Exchange Commission on August 1, 2003.
(2)	Filed as an exhibit hereto.

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**FORGE, INC.**

Date: October 14, 2003

By: */s/ Daniel Hunter*  
Daniel Hunter  
Chief Executive Officer

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