



***A Global Leader In Clean Coal Upgrading Technology***



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## BOARD OF DIRECTORS

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### **James Young, PhD**

Director and Chairman of the Board

- Dr. Young currently serves as chairman of the Board of Directors of Novavax, Inc. (NASDAQ: NVAX) and is on the Board of Directors for 3-V Biosciences, Inc., a private drug company.
- Dr. Young was President of R&D for MedImmune, Inc. from 1988 through 2008 following its \$15.6 billion sale to AstraZeneca PLC in 2007.
- During his tenure, Dr. Young was directly involved in the development of approximately twenty clinical programs and commercialization of numerous key drugs while overseeing approximately 1,500 people and an annual budget in excess of \$700 million.
- At the time of his retirement from MedImmune, Dr. Young was a Director in the Department of Molecular Genetics at Smith Kline and French Laboratories, now part of GlaxoSmithKline.
- Dr. Young has served on the Boards of Directors of Xencor, Inc., Iomai, Inc. and Arriva Pharmaceuticals, Inc. He received his Ph.D. in Microbiology and Immunology from Baylor College of Medicine.



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## BOARD OF DIRECTORS

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### **Slawek Smulewicz**

CEO and Director

- Mr. Smulewicz has been the acting CEO of MicroCoal™ Technologies Inc. since June 2011. He operated as Vice President of Carbon Friendly Solutions Inc. (predecessor company) from 2008 until his appointment as CEO; he has been a director of the Company since 2008.
- Mr. Smulewicz has served on the Board of several European private companies in consulting, IT and construction industries; especially during the start-up phase or restructuring processes. From 2006 until 2009, he led a successful remedial process, completing the financing of over \$16 million for a European private company.
- In 2001, he founded BDSG Grupa Finansowa Sp., where he acted as CEO and Director until 2008. In 1998, he co-founded Internetowy Instytut Infomacji 3i Sp. where he acted as CEO and Director until 2001.
- Mr. Smulewicz was an advisor to the Vice Marshal of the Presidium of The Sejm of The Republic of Poland (Polish Parliament) in 1998 and received his license as a broker of Warsaw Exchange (WGT S.A.), Poland in 1995.
- He has a M.Sc. in Agriculture & Business Administration from the Warsaw University of Life Science (SGGW) in Warsaw, Poland.



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## BOARD OF DIRECTORS

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### **Stan Lis**

President and Director

- Mr. Lis is a co-founder, President & Director of MicroCoal™ Technologies Inc. since its inception in 2006.
- From 2000 until 2006, he was President, CEO & Director of Stream Communications Network & Media Inc., a cable company where he was directly responsible for taking the company from start up to 60,000 subscribers and personally raised over \$37 million USD for the company.
- From 1993 until 2000, Mr. Lis acted as President, CEO & Director of Trooper Technologies Inc., an environmental company focused on waste management in Central Europe.
- In 1988 he founded International UNP Holdings Ltd., a Toronto Stock Exchange Investment Company used to acquire and finance privatized Polish state enterprises.
- Mr. Lis studied Business Administration and Securities at the Simon Fraser University.



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## BOARD OF DIRECTORS

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### **William C. Hudson**

Independent Director

- Mr. Hudson has been an Independent Director of MicroCoal™ Technologies Inc. since 2010.
- In 1992, he founded The Domus Group, a private holding company that invests in and develops real estate properties in south Texas including a 1,000-acre Master Planned Community with 2,600 households and over \$300 million of tax base created to date.
- Mr. Hudson was also co-founder, in 1989, International UNP Holdings Ltd. Mr. Hudson was a key team leader in the acquisition of control of the public shell corporation, designing the business plan, assembling a first-rate board and competent management team and raising the initial \$20 million in investment capital.
- In 1979, he co-founded Hudson & Hudson Partners, a Texas general partnership that managed real estate, mineral exploration & production and securities investments.
- Mr. Hudson worked as a Geologist with the Continental Oil Company from 1975 to 1980. He was also a director of First Valley Bank Group, Inc. a \$450 million bank with branches in the Rio Grande Valley of Texas from 1968 to 1997, and was crucial in growing the bank 10-fold while retaining strong earnings.



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## BOARD OF DIRECTORS

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### **Ian Hume**

Independent Director

- Mr. Hume has been an Independent Director of MicroCoal™ Technologies Inc. since 2010.
- In 1969, he joined the World Bank as an economist. His career at the World Bank included macroeconomic work, project assignments, and management positions from Division Chief, Assistant Director of Energy Department, Resident Representative and Country Director in Poland.
- Since 1994, Mr. Hume has worked on a range of private energy ventures in electric power and coal industries including: technical advisor to EUROGAZ Gas Pipeline from 1995 to 1996, coordinator of a consortium for an LNG Feasibility Study in Poland in 2007, formed an independent evaluation group and quality assurance group for the World Bank between 2005 and 2010, and acting as a local US Partner for C2E, a coal to liquids technology company in Hong Kong and the USA since 2009.





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## CORE BUSINESS

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- ***100% owned subsidiary of MicroCoal™ Technologies Inc.,***

*“Because the World Can’t Replace Coal...  
We Created a Better Way To Process It”*



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## MANAGEMENT – MicroCoal™ International Inc.

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### Steve E. Sears, MBA, B.Sc., Chief Executive Officer



- 31 years of knowledge and experience in the coal industry
- Formerly Vice-President of Massey Energy Company
- Innovator throughout his tenure at Massey
- Significantly increased revenues during his 25-year tenure
- He concurrently held senior level positions in several Massey subsidiaries
- President of Massey Coal Sales and Coal Handling Solutions Inc., grew to revenues in excess of \$250-million per year
- Holds an MBA from Averett University, Virginia and a B.Sc. in business administration from Virginia Commonwealth University.

*"I am very pleased to be appointed as chief executive officer of MicroCoal International and to the company's advisory board. I have known the MicroCoal and the Carbon Friendly team for a long time and have watched with keen interest as the team has achieved significant technical and engineering milestones. Carbon Friendly is ready to commercialize this technology, and I am excited to be a part of the global marketing rollout."*





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## MANAGEMENT – MicroCoal™ International Inc.

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### Larry Palmer, CMA, MBA, Finance Director



- A coal industry professional for over 32 years;
- Focused on financial, legal and tax aspects of coal transactions.
- Past vice-president of taxation for Massey Energy Company until 2011.
- In that role he was also responsible for major transactions in excess of \$100-million.
- Massey was America's fourth largest producer of coal in the United States until May of 2011, when it was acquired by Apha Natural Resources.
- He served in a transitional position at Alpha until March of 2012, assisting in the successful integration of Massey into Alpha. He is a certified management accountant (CMA), and has an MBA from Indiana University of Pennsylvania

*"This is a timely technology for making coal more affordable and less polluting. A key element in successful international marketing and sales of MicroCoal™ is proper financing and tax planning. I look forward to helping MicroCoal™ achieve its objective to quickly deploy this technology at U.S and international locations around the world."*



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## MANAGEMENT – MicroCoal™ International Inc.

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### **Randall Johnson, P.Eng: Senior Project Manager:**



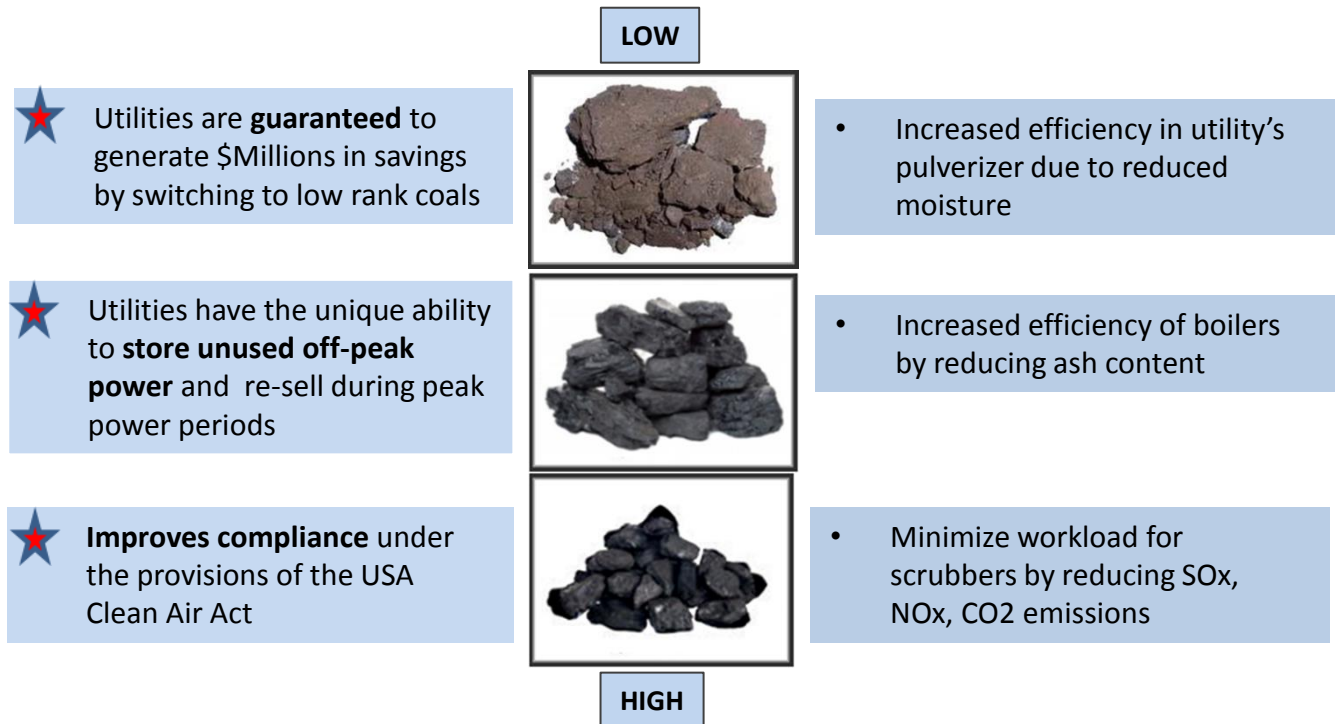
- Previously V.P. of operations and chief engineer at Massey Energy's Martin County Coal Corp.
- Previously V.P. at Coal Handling Solutions LLC, a joint venture between Massey Energy and Penn Virginia; involved in major U.S. and international projects, from start to completion, some of which had 15 year terms.
- Responsible for construction and design of projects in Canada, Texas, Florida, Wisconsin, North Dakota, Kentucky, Tennessee, Virginia and Brazil.
- After Alpha Natural Resources, America's 3<sup>RD</sup> largest coal company by revenue, acquired Massey in June, 2011, he worked at Alpha as a business unit project manager.; responsible for preliminary design and layout of proposed surface and underground operations,; oversaw construction designs; managed construction from start of project to finish,; managed budgets, and day-to-day operation for major projects and environmental issues.

*"I am excited to be a part of the MicroCoal team, which consists of some of the leading international coal experts, as MCI moves forward on its international projects this year. I look forward to helping manage the construction and completion of the first MicroCoal commercial facilities this year."*



## OUR COMPETATIVE ADVANTAGE

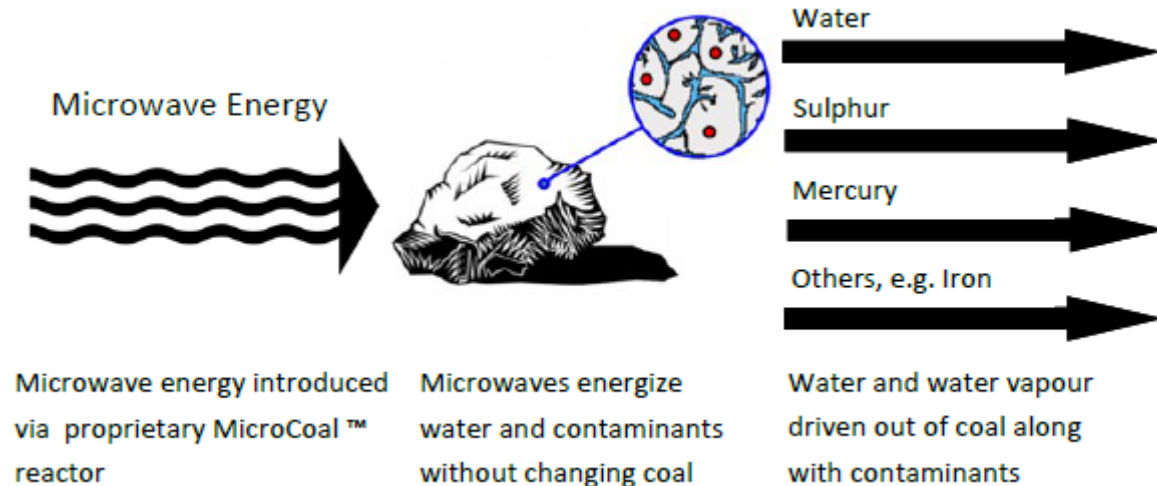
*The MicroCoal™ process is a significant power plant upgrade technology.*



## THE MICROCOAL™ PROCESS

Microwaving of raw coal in a MicroCoal™ vertical reactor, where the coal being microwaved is in free fall, has been continuously proven and independently verified.

- Reduces moisture content from 45% to less than 10%
- Can increase the calorific value from 4200 Kcal to over 11,000 Kcal
- Produces chemical reactions that reduce SO<sub>x</sub>, NO<sub>x</sub>, CO<sub>2</sub> and other impurities



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## THE MICROCOAL™ PROCESS

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- ★ Over **\$10.0 Million** invested in technology development and commercialization;
- ★ Process secured by **multiple patents and patent pending applications**;
- ★ **Vertical configuration**, small footprint;
- ★ Designed for **intermittent on-off operation** to allow for effective load balancing;
- ★ **Industrial microwave has been a proven technology for over 60 years**;
- ★ **Low capital cost, quick amortization**



## OUR GLOBAL MARKET OPPORTUNITY

MicroCoal™ has representative offices strategically positioned in:

- USA (North America)
- Poland (Europe)
- Indonesia (Asia)



### United States of America

- Potential Market Value: >\$17 Billion

### Poland

- Potential Market Value: >\$2 Billion

### Indonesia

- Potential Market Value: > \$2 Billion

*“Coal provides fuel for 42 per cent of U.S. electricity generation in 2011. In some key states such as Ohio, the figure is more like 80 per cent.”*



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## OUR RECENT ACHIEVEMENTS

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July 29, 2013

### **Indonesian Company Purchases MicroCoal Technologies' Clean Coal Upgrading Facility**

- First MCI commercial scale application of proprietary microwave technology to upgrade coal thermal output and reduce pollutants
- MicroCoal to receive U.S.\$6 Million installation fee and annual fees for six years

Slawek Smulewicz, CEO and Director of the Company, states: *"The execution of this Master Agreement is a validation of the importance of our technology as part of a global energy solution that improves the thermal output of coal and reduces the pollution it generates."*

*We are extremely delighted that PT Wijaya Tri Utama has purchased the MicroCoal™ technology to optimize the performance of their coal plant, as Indonesia is one of the world's largest consumers of low-rank coal."*



Slawek Smulewicz, CEO MicroCoal Technologies inspecting future site at Indonesian utility



## OUR RECENT ACHIEVEMENTS

September 6, 2013

**Former President (R&D) for MedImmune Inc., Appointed Chairman of MicroCoal™ Technologies Inc.**

- MedImmune sold to AstraZeneca for \$15.5 Billion in 2007;
- Dr. Young oversaw 1,500 employees and a \$700 million annual budget;
- Holding a Ph.D. in Microbiology and Immunology from Baylor College of Medicine, Dr. Young currently serves as chairman of the Board of Directors of Novavax, Inc. (NASDAQ:NVAX).

August 14, 2013

**Polish Utility Collaborates with MicroCoal™ to Upgrade their Power Plants**

- Poland consumes 77 million tonnes of coal per year, making it the 10th largest coal consumer in the world and the 2nd largest in the EU;
- 93% of Poland's electricity comes from coal;
- Poland is one of the largest consumers of low-rank coal in the EU.

August 20, 2013

**MicroCoal™ Technologies Appoints Former President and CEO of Ontario Hydro International to Advisory Board**

- 26 years with Ontario Hydro in engineering, research and operations functions (predominately Nuclear Energy);
- He formed and headed Canada's R&D Program into Fusion (CFFTP) in 1982 and then moved into International Commercial work with Ontario Hydro International, a spin-off of the world's fourth largest electrical utility, where he was named President and CEO in 1993.





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## NEAR TERM CATALYSTS FOR GROWTH

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Within the next 120 days the Company expects to achieve the following:

- ★ **Start construction of Asia's SECOND MicroCoal™ installation for PT PLN Batubara**, a division of the largest State owned power utility in Indonesia. (Final agreement being prepared by PLN; MOU as of June 14, 2013).
- ★ **Initiate the engineering and design of North Americas first MicroCoal™ installation** requested by a major utility at their Michigan facility. (informal terms agreed, final agreement pending);
- ★ Complete the agreement with the **second largest power utility in Poland (E.U.)**. MOU being prepared.
- ★ Complete an agreement with **one of western Canada's largest metallurgical coal miners** for the installation of MicroCoal™ Technology at their mines site(s).
- ★ **Complete a \$3 million – \$4 million equity offering**



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## BENEFITS TO COAL FIRED UTILITY

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- ★ **Utility saves millions of dollars by switching to low-rank coal;**
- ★ **Able to store unused off peak power and sell during peak power periods;**
- ★ **Greater efficiencies in plant maintenance and performance once moisture and impurities are reduced during the combustion process.**

### Step One:

MicroCoal™ converts **low-rank coal into high-rank coal** during off peak times using excess electricity.

### Step Two:

This higher energy coal, when combusted during peak hours, returns the electricity used to upgrade the coal onto the grid (**effectively stored energy**) .

### Step Three:

Pollutants are greatly reduced, ash is minimized, boiler and related **efficiencies are improved overall.**

### Step Four:

Utility **monetizes the electricity usually lost during off-peak periods** along with saving money when purchasing low-rank coal and obtaining all the financial benefits that impact the bottom line in Step Three above.



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## BOTTOM LINE BENEFITS

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### Example of Potential Cost Benefit to 1,000 MW Coal Fired Power Plant (Capital Cost of MicroCoal™ installation +/- \$40 Million)

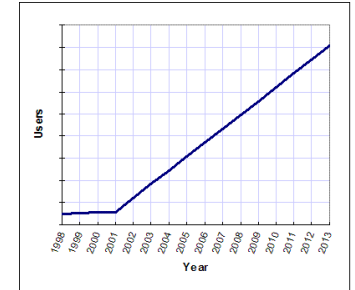
1. Savings by switching to low rank coal:- +/- \$20 Million per year
2. Added revenue from electricity generation:- +/- \$10 Million per year
3. Cost savings gained by improvements in efficiencies:- +/- \$5 Million per year

**★ Estimated savings to utility over a 10 year period: +/- \$350 Million**



# VALUE PROPOSITION TO OUR SHAREHOLDERS

## Why Are We Investors?



- ★ Realistic, near term, potential for **hockey stick** type returns on investment;
- ★ **Management with a track record of significant achievement;** over 60 years of proven experience in coal production, coal handling and profitable business management;
- ★ **Coal powered utilities need our technology** as most of today's coal-fired power generation plants are based on 50-100 year-old technology;
- ★ **Reduced investment risk:** even in times of economic turmoil, utilities can be a good investment.
- ★ **Minimal technology risk;** microwave energy has been in use in materials processing for over 60 years;
- ★ **Sales curve achieving significant traction;** evidenced by recently signed contracts and solicitations from interested parties in North America, Asia and Europe.



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## PUBLIC COMPANY STRUCTURE

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MicroCoal Technologies Inc., a publicly traded Canadian company. **CNSX: MTI**

*MicroCoal Technologies Inc. recently changed its name from  
Carbon Friendly Solutions Inc.*

As at July 31, 2013

- Shares Issued and O/S 69.79 MM
- Fully diluted O/S 106.8 MM
- Ave Volume 43,700
- 52 wk. range \$0.080 - \$0.425
- Recent range \$0.30 - \$0.40
- Current mkt. cap @ \$0.35 \$24.5 MM



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# FORWARD LOOKING STATEMENT

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## Forward Looking Statement

Certain statements or projections contained in this document are forward-looking statements, including those that discuss strategies, goals, outlook or other non-historical matters; or project revenues, income, returns or other financial measures.

These forward-looking statements speak only as of the date on which they are made, and Carbon Friendly Solutions., or any of their subsidiaries undertakes no obligation to update or revise any forward-looking statements. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those contained in the statements.





## CONTACT US



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**MicroCoal Inc.**

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