



## The Science of Resource Conversion

### N-Viro International Corporation- NVIC: OTCQB

is a leader in the conversion of organic materials generated from industrial, agricultural and municipal sources. The company's proprietary technologies, unique services and materials handling expertise are combined to offer turnkey solutions in both soil enrichment and alternative biofuel development. The company generates revenues derived from fees that are collected for accepting municipal biosolids and from the processing facilities in the United States and at several international sites that are either wholly owned or operated through licensing agreements.

### Sustainable Solutions

#### What problem does N-Viro solve in the marketplace?

The United States wastewater industry alone produces 8 million dry tons of biosolids a year and is running out of environmentally safe options for reuse. The problem is simple; landfills are reaching capacity and environmental regulators are increasing restrictions on land applications for both untreated and treated biosolids. The best solution is to convert these resources into the most valuable products possible to recover the organic nutrients and energy generation potential of the raw material. N-Viro manufactures two primary products, N-Viro Soil™ and N-Viro Fuel™ and manages all processing and related inbound and outbound transportation logistics associated with this type of specialized materials handling.

**N-Viro has worked in the design, construction and commissioning of more than thirty biosolids processing facilities in the United States and internationally.** Today, facilities built under N-Viro's licensure agreements are in operation in many states and in foreign countries. An N-Viro Soil™ facility was recently commissioned in Tel Aviv, Israel and there are five operating facilities in Canada using the N-Viro process technology.

A good example of our U.S. biosolids processing is found in Daytona Beach, Florida where **Florida N-Viro** manages a large market segment share of bioorganic materials secured through contracts with public municipalities. This facility converts biosolids from the treatment plants into N-Viro Soil™, converting waste into a Class AA, exceptional quality soil fertilizer/amendment sold into the regional agricultural market by internal sales representatives.

### Innovation

After years of research and technology development N-Viro International has focused on the higher potential for profits that exist in the alternative energy industry. N-Viro is uniquely positioned to benefit from increased demand for renewable fuel products. Federal and State incentive programs as well as current restrictions on landfill space support the use of alternative energy products like N-Viro Fuel™. **The power generation from alternative fuel sources is projected to increase from the current level of 10 % to 16% by 2035 and Federal mandates on power generation from renewable resources push toward a goal of 20% of all power produced in any energy production portfolio.**

### Choosing the Right Fuel - N-Viro Fuel™

The process involves the use of heat and chemical reactions to create a solid fuel that is then sold to operators of coal-fired electricity plants. N-Viro Fuel™ is similar to many coals in its heat production value and is easily implemented into existing infrastructure. The benefits are lower fuel costs, avoidance of landfill costs, reduction in SO<sub>x</sub> and NO<sub>x</sub> outputs and increased total energy efficiency. **Spurred by a need to reduce operating costs and reduce emissions, a large utility ownership group conducted a full-scale 10% commercial test burn using N-Viro Fuel™.** The results confirm that co-firing with N-Viro Fuel™ offers a low-cost opportunity to add alternative energy capacity and to hedge against price increases or supply shortages.

**The energy available from N-Viro Fuel™ is similar to the energy available from coal.**

Fuel Source	Approx. B.T.U. Value
1 pound of N-Viro Fuel™	5,500- 7000 BTU
1 pound Lignite Coal (soft)	7,500 BTU
1 pound Bituminous Coal (hard)	12,000 BTU
1 cubic foot of natural gas	1,000 BTU
1 Kwh of electricity (steam boiler)	3,500 BTU

**Our strategy for entrance into the alternative energy industry** is to partner with power generators and process engineering companies that can deliver comprehensive solutions for the wastewater industry where the primary feedstock for the process is sourced. The partnership with the power producer is also enhanced by facilities-sharing and “cogeneration” (the use of waste heat from power production in the N-Viro biosolids drying process) as methods for reducing total emissions and the cost of the fuel. The industry partnerships are the cornerstone of the N-Viro Fuel™ positioning and first-to-market advantage in the segment.

**Company-owned patents give N-Viro exclusive rights to the biofuel technology in the United States and several foreign countries.** The exclusive rights to the method include the treatment of organic waste, which consists of controlling ignitability, odor, ease of handling and storage, as well as the combustion of organic waste as fuel for power generation.

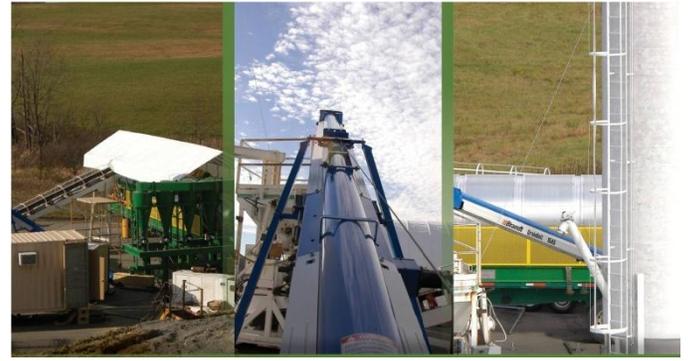
**N-Viro Fuel™ has been recognized by the Environmental Protection Agency as a biomass-derived fuel, and is eligible for REC's.** N-Viro Fuel™ is a valuable commodity that may be eligible for certain IRS Section 45 tax credits in the form of production tax credits, investment tax credits. Eligible projects placed into service by 12/31/2013 receive an \$11MWh incentive for the first 10 years of operation.

## Proven Projects

**A 10% substitution test burn in a commercial boiler demonstrated that N-Viro Fuel™ provides more benefits than other biomass.** N-Viro Fuel™ requires only minor changes in equipment configurations to co-fire with coal. Total emission impact is minimized and fly-ash waste from coal-fired generating plant is used to facilitate N-Viro Fuel™ pasteurization. N-Viro Fuel™ offers exclusive properties that are designed to lower overall nitrogen, sulfur and net carbon emissions at power generating stations.

**Planning for final 20% test burn & next steps toward fuel purchase agreement** is currently underway with a major power generating company that owns power-generating assets across the United States. It is expected that a 20% replacement of coal feedstock with N-Viro Fuel™ will demonstrate a workable solution for power producers based on successful sampling of power station outputs during the 10% replacement test.

**Mobile production equipment,** essential for initial permitting at power generating plants is currently available to manufacture N-Viro Fuel™, primarily for the testing phase. The portable production capacity is indispensable for project development as each power plant is brought online.



## Outlook for the Future

**What is the potential for future revenues in the alternative energy market?** N-Viro is poised to capitalize on the global demand for alternative energy fuel products. To meet energy demand, global energy infrastructure investments will need to average approximately \$1.5 trillion per year through 2035. Source: 2012- The Outlook for Energy: A View to 2040, Exxon Mobil.

The world population will increase more than 25% from 2010 to 2040 reaching nearly 9 billion people. The economic growth of countries such as Brazil, Russia, India and China, contribute to the increasing demand for more energy; the biggest driver is the human desire to sustain and improve as the world uses more energy and the trend continues to shift to clean, efficient and lower carbon fuels. Source: 2012- The Outlook for Energy: A View to 2040, Exxon Mobil.

**Currently 80% of the power generation in these BRIC countries is from fossil fuels.** Coal is the single largest primary energy input to electricity generation. It is crucial to our energy independence that cleaner resources are used to replace fossil fuels. Innovative technologies like N-Viro Fuel™ that are cost-competitive to implement, and also improve the quality of air, can help accomplish global targets for the use of alternative fuels.

### General Inquiries

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Innovation.