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October 27, 2009

Investment Analysis for Intelligent Investors

Genalta Power Inc. – Converting Waste Heat into Power within the Oil and Gas Industry; Valuation Report

Sector/Industry: Renewable Energy **www.genaltapower.com**

Investment Highlights

- Genalta Power Inc. is a Canadian based private company focusing on waste heat to power generation within the oil and gas sector.
- Waste Heat to Power (WHP), which is one of the most promising growth technologies in renewable energy, has one of the lowest electricity generation costs, provides base load capacity, reduces greenhouse gas emissions, and dependence on fossil fuels.
- Technological innovations in the last five to six years have made it possible for WHP to be used in a cost-effective manner on a wide range of heat sources and temperatures. Genalta's strategy is to capitalize on these technological innovations and penetrate the relatively untouched oil and gas sector.
- According to the US Department of Energy (DOE), up to 50% of all fuels burned in the US go unused into the atmosphere as waste heat. The total energy wasted of all fuels burned in the US exceeds the combined output of all other US renewable sources.
- Currently there is no other WHP system that is specifically designed for the oil and gas sector. Most of the competing systems in the market are generic products and might not have the efficiency and cost reduction that Genalta's systems/solutions can achieve.
- Genalta will generate revenues either through wholly owned power plants, joint-partnerships with site operators (that will include long-term revenue sharing contracts) or by selling units directly to site operators.
- Genalta only targets those jurisdictions where it can sell power to utilities/corporations under long-term power supply agreements or to the site owner in behind the fence (internal) applications. By doing so, the company significantly lowers risks associated with future profit and cash flows.
- Management team has a proven track record with specific experience in the renewable energy industry. Over the past year, the company's technology has generated a significant amount of interest from mid-size to major corporations. Genalta has already submitted about 27 proposals, the majority of which are currently in advanced stages of discussion with potential clients. The company has signed five letter of intents (LOIs) with major corporations.
- Near-term cash flow potential exists as the company believes it will receive its first contract in Q1-2010, and complete its first installation in Q2 – 2010.

Risks

- Although the company has near-term cash flow potential, it is yet to start generating revenues.
- The company is exposed to all the risks associated with a private company; especially financing risks, as lenders and investors have a preference for public corporations.
- The company has signed five LOIs with major corporations, but yet to sign a definitive agreement.
- WHP generation is a newly emerging space. There are several companies, small and large, pursuing waste heat to power generation on a broad based approach.
- Cost-effective WHP generation from low temperature sources is a relatively new technology; therefore, technological innovations are key growth drivers of the industry. Genalta will be adversely affected if it is not able to cope with changes in technology.
- Although implementation risks exist as the company has yet to operate its systems on a site, they are not high as the technology has already been implemented in Europe on different applications.

Company Overview

Genalta Power Inc., a private company based in Canada (with offices in Kelowna, BC and Calgary, AB), is an up and coming green energy power developer focusing on waste heat to power generation within the oil and gas sector. Waste Heat to Power (WHP), which is one of the most promising growth technologies in renewable energy, is a sustainable alternative to conventional energy production. WHP has one of the lowest electricity generation costs, provides base load capacity, reduces greenhouse gas emissions, and dependence on fossil fuels.

Heat recovery systems for power production have been in existence for a long time, but they were only used on large scale operations, and high-heat sources, as high equipment costs limited their application in low to medium range temperature sources. However, technological innovations in the past five to six years have made it possible for WHP to be used in a cost-effective manner on a wide range of heat sources and temperatures. Genalta's strategy is to capitalize on these technological innovations and penetrate the relatively untouched oil and gas sector.

Genalta only targets those jurisdictions where it can sell power to utilities/corporations under long-term power supply agreements or to the site owner in behind the fence (internal) applications. By doing so, the company significantly lowers risks associated with future cash flows. Genalta's core competency is not in technological innovation (existing/competing technologies are commercially viable), but in the financial maximization and in the nuances of the engineering design and the heat recovery systems where its systems are deployed. Site operators deploying Genalta's system will benefit from long-term stable revenue streams through long-term power supply agreements, additional power to meet onsite demand, operational maximization through cost reduction and power load reduction, and receive carbon credits by cutting greenhouse gas emissions.

The company's founding partners' have extensive experience in renewable energy sources, and have worked on over 200 MW of greenfield power generation contracts in both Europe and North America. The company's technology has generated a significant amount of interest from mid-size to major corporations since starting full time operations in August 2008. Genalta has already submitted about 27 proposals, the majority of which are currently in advanced stages of discussions with potential clients. The company has signed five LOIs with major corporations.

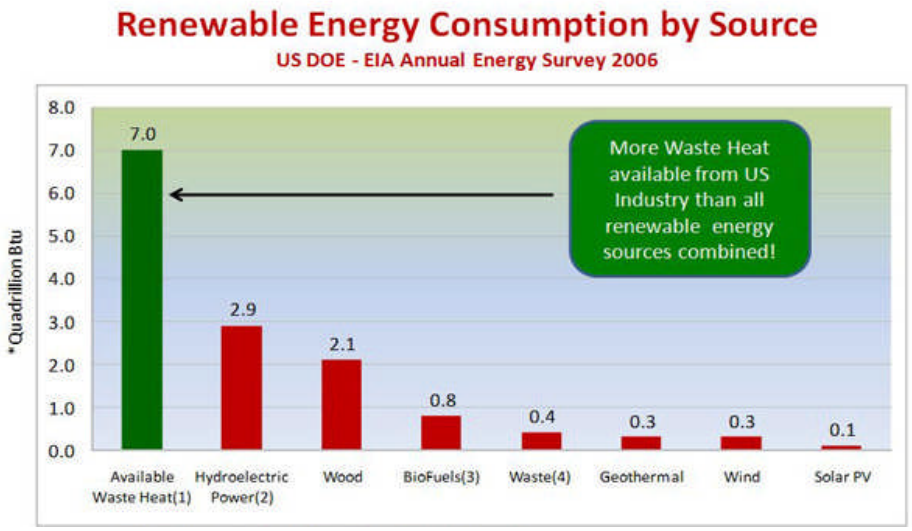
Thermal Heat – One of the Largest Untapped Sources of Energy

Thermal heat is one of the largest untapped sources of energy. The vast amount of heat that is discharged into the atmosphere every day is one of the best sources of clean, fuel-free and inexpensive energy. According to the US Department of Energy (DOE), up to 50% of all fuels burned in the US goes unused into the atmosphere as waste heat. Research indicates that energy currently wasted by the industrial facilities in the U.S., if recovered, could produce about 20% of total U.S. electricity generation capacity without burning any additional fossil fuels, and at the same time, significantly reduce greenhouse gas emissions.

When compared to power generation from fossil fuels, WHP generation is fuel-free, emissions-free and relatively cheap. In addition, WHP plants can run 24/7, and have an operating capacity of 92-98%; which is well above traditional base load power generation sources.

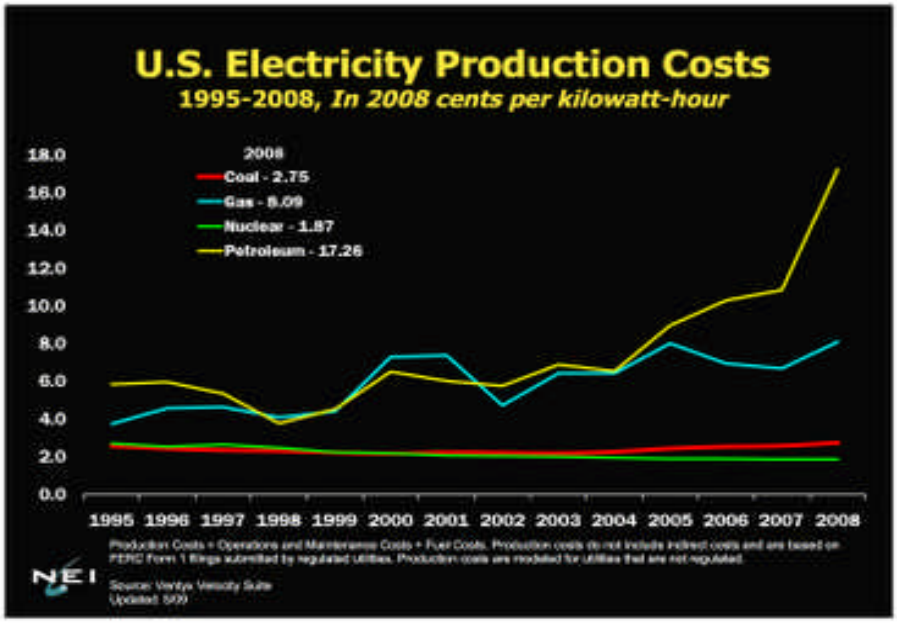
WHP also has the following significant advantages over other renewable sources of energy:

- The US DOE estimates that up to 7 quadrillion BTUs of energy is wasted from all fuels burned in the US every year – this source of energy exceeds the combined output of all other US renewable sources, including solar, wind, and geothermal.



Source: ElectraTherm, Inc.

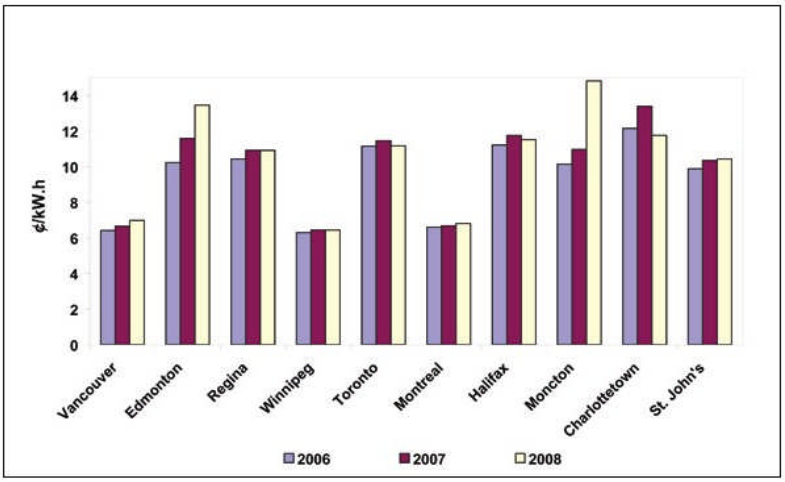
- The power generated from waste heat is predictable and reliable, and thereby, has the capability to provide base load power supply compared to other renewable power sources.
- Technological innovations in the last decade have made WHP generation economically feasible even for low to mid range temperature sources. Costs of electricity generation from waste heat could now be even lower than coal, which is the cheapest fossil fuel. The chart below shows the cost of electricity generated by different sources.



We believe the key growth drivers of WHP generation are:

- **Rising electricity prices and consumption -** According to the CIA World Factbook, electricity consumption in Canada increased from 484.52 billion kWh in 2000, to 540.20 billion kWh in 2008; reflecting a compound annual growth rate of 1.37%. Along with consumption, residential electricity prices in most of the cities in Canada have also been increasing since 2006.

Canadian Residential Electricity Prices

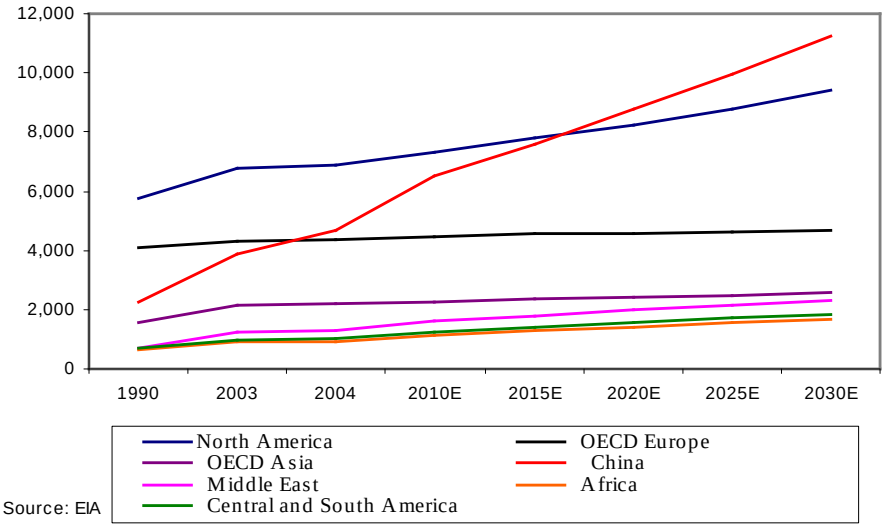


Source: Hydro-Québec

According to Frost & Sullivan, worldwide electricity consumption is estimated to increase at a CAGR of 3.6% from 1990 to 2030. North America and Europe are the largest consumers of electricity worldwide.

- **Increasing greenhouse gas emissions -** The chart below shows the projections for CO_2 emissions worldwide.

World CO2 Emissions (Reference Case) - in million tonnes

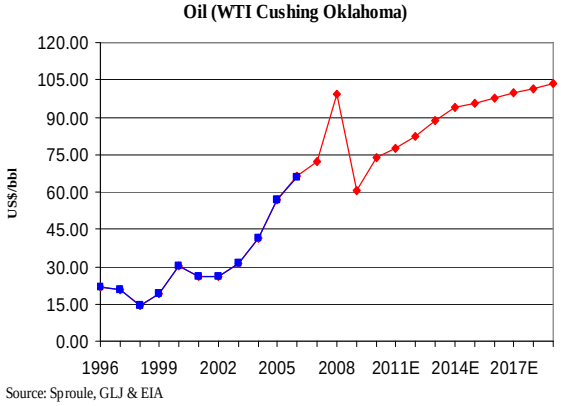


Source: EIA

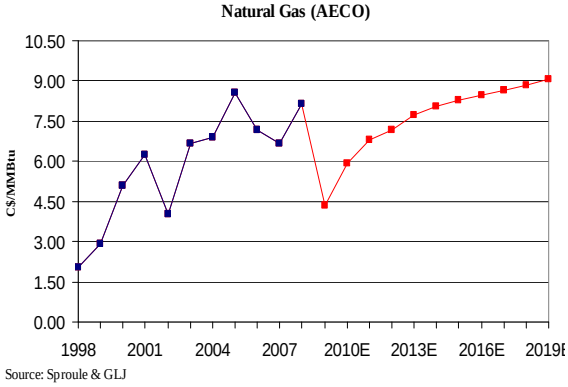
According to the Energy Information Administration, global CO_2 emissions are expected to grow by 1.8% per annum during 2004 – 30, and reach 42.9 billion tonnes by 2030. About 50% of the electricity in the US is generated from coal which produces three times more CO_2 than gas-power generators. Canada has the potential to be a major greenhouse gas emitter as well, as production from oil sands (a major contributor to greenhouse gas emissions) quadruples in the next 15 years. Canada has already started focusing on ways to reduce their greenhouse gas emissions. To meet the Kyoto agreement, the federal government of Canada has set targets to reduce greenhouse gas emissions by 20% from 2006 levels by 2020. All these clearly indicate a strong demand for efficient clean energy technologies that can cut down greenhouse gas emissions.

- **Environmental / regulatory compliance –** Governments worldwide are realizing the importance of reducing GHG emissions, and have started taking steps to control emissions. In 2007, Alberta became the first jurisdiction in North America to impose regulations requiring large facilities (that emit more than 0.1 million tonnes of GHG gases annually) to cut their GHG emissions by 12% per year. In addition, the BC Greenhouse Gas Reduction Target Act requires that the provincial government and all provincial public service organizations be carbon neutral beginning 2010. These requirements imply that companies are now forced to seek ways to cut GHG emissions.

- **Positive long-term outlook on oil and gas prices** will generate more demand for cheaper source of energy**:** The consensus long-term forecast prices for WTI crude oil is US$74 – US$103/ bbl from 2010 – 2019, and for gas, $5.91 - $9.86/mmbtu from 2010 – 2019; which are considerably above historic averages.

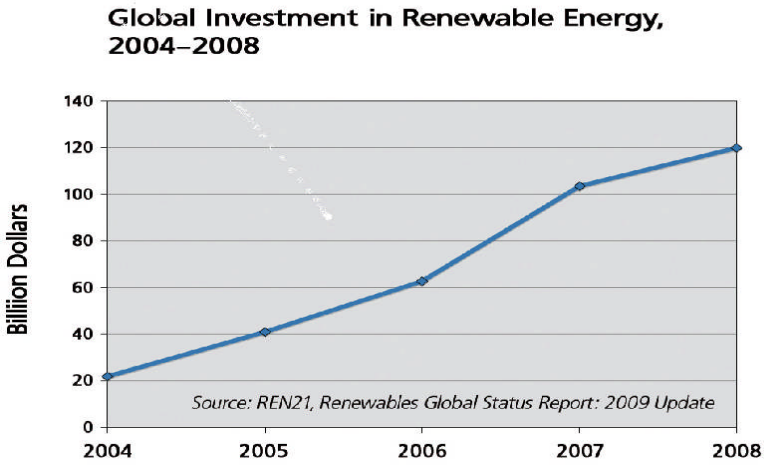


Source: Sproule, GLJ & EIA



Source: Sproule & GLJ

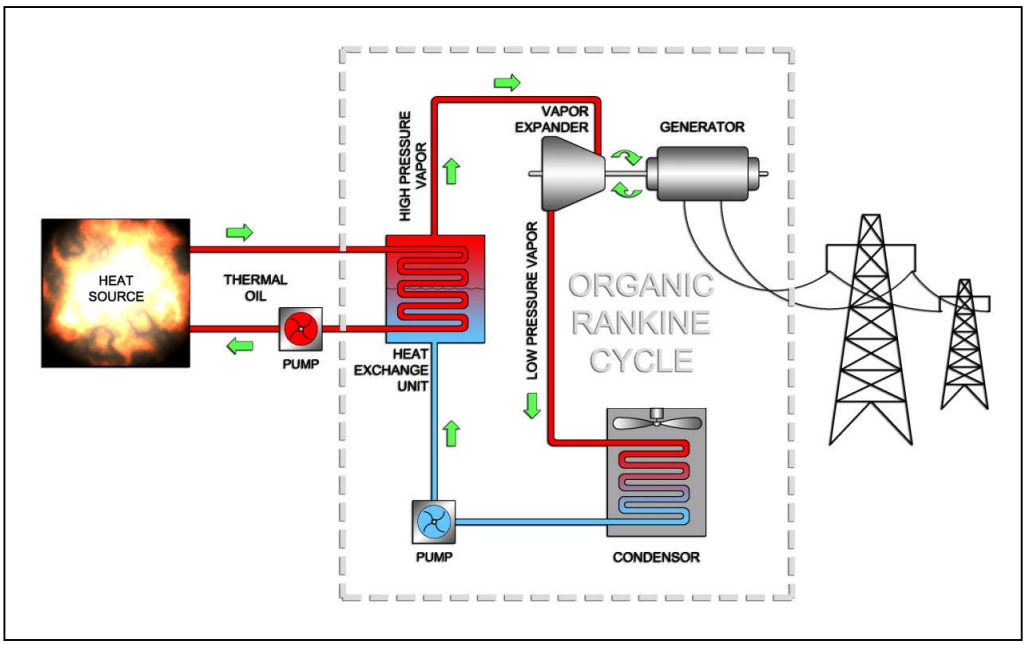
- **Increasing spending on renewable energy sources –** The following chart shows the increasing trend (due to government incentives and high oil prices) in global investment in renewable energy which reached US$120 billion in 2008, up from just $20 billion in 2004.



Waste Heat to Power Systems

Heat recovery systems for power production, based on heat engines (heat engines convert heat energy to mechanical energy; which in turn is converted to electricity) such as steam-based rankine and organic rankine cycles (ORC), have been in existence for a long time. However, they were only used on large scale operations, and high-heat sources, as high equipment costs limited their application in low to medium range temperature sources. Therefore, low to medium temperature heat sources, which account for a significant portion of the total energy discharged as waste heat into the atmosphere, represent a significant untapped energy source.

The following diagram shows the processes involved in a WHP plant based on ORC - heat is first converted to mechanical energy (by heat engines), and the mechanical energy produced is used to run an electric generator to produce electricity.



Source: Genalta Power

In heat engines, water/fluids are first pumped into a boiler. External heat sources (waste heat) convert the water/fluids into dry saturated vapor which is used to run the turbines to produce electricity. The primary difference between ORC and the conventional steam-based rankine cycle (used in most fossil fuel plants) is that ORC uses organic working fluids (instead of water) that have boiling points lower than water, which enables it to be used on low temperature sources. Although ORC can be used on low temperature sources, the process was not economical because of its low thermal efficiency. Low efficiency translates into an increase in power plant equipment size and costs.

Technological innovations in the past decade have made it possible for ORC to be used in a cost-effective manner. One of the biggest breakthroughs in this space came from United Technologies Corporation (NYSE: UTX). UTC found that ORC power plant hardware derived from air-conditioning equipment will significantly lower installation costs as air-conditioning hardware are considerably cheaper than traditional power generating equipment. Air condition equipment, when run in reverse, essentially function as a heat engine. UTC first demonstrated this technology in 2003, with the release of its PureCycle 225 modular power plant. The first major installation in the world on a low temperature application (water less than 70 - 80°C) was on the Chena Geothermal Power Plant.

Chena Geothermal Power Plant – In 2006, Chena Hot Springs Resort (a hot springs recreational and resort facility in Alaska) in partnership with UTC, the US DOE, and the Alaska Energy Authority, installed the first low temperature geothermal ORC power plant.

ORC #1 (background) and ORC #2 installed in the power plant building
Source: Chena Power Company

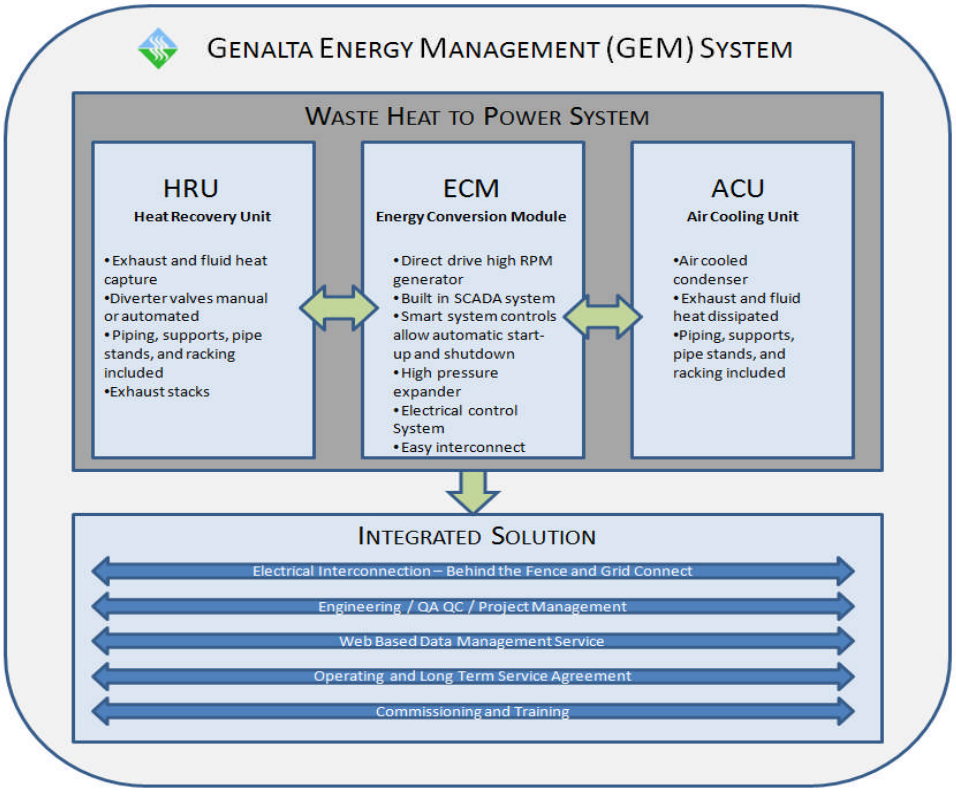
The 400 KW power plant installed at Chena Hot Springs reduced the cost of power from 30¢ to 5-7¢ per kWhr. Maintenance costs for the power plant are about 1¢ per kWhr. Initial capital costs for a similar system are about $3/W, significantly lower than traditional ORC based power plants. The Chena Power Plant was nominated for a prestigious R&D 100

Award by the DOE, and received a Green Power Leadership Award from the Environmental Protection Agency (EPA) and the DOE; indicating that the industry recognizes the potential of ORC based power plants.

Following up on the success of the Chena plant, Raser Technologies (NYSE: RZ), in May 2009, started delivering 10 MW of renewable electricity to Anaheim, California, from its US$33 million (or US$3.3/W) low-temperature, binary geothermal plant in Beaver County, Utah. Although this is a large facility, it is important to note that the associated capital cost of US$3.3/W for low-temperature applications is significantly lower than traditional technologies.

In addition to the above two installations, similar systems using different heat sources (other than geothermal in the above two cases), such as exhaust heat from a gas turbine, heat from a landfill flare, and reciprocating engines, have been in operation since 2004; indicating that power plants based on ORC (using air-conditioning equipment) are now economically feasible for a wide range of applications and wide range of heat sources. **Genalta's strategy is to capitalize on these technological innovations and penetrate the relatively untouched oil and gas sector with similar systems.**

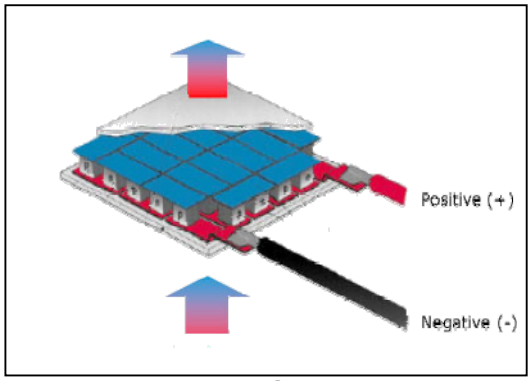
The **Genalta Energy Management System (GEMS),** which is based on an ORC system driven by a reverse refrigeration cycle, uses non-toxic, non-flammable refrigerants (such as R134a, R245fa, iso-pentane, and propane) as working fluids. Depending on the type of organic fluid used, the GEMS can operate over a wide range of resource temperatures (even as low as 70-80°C) to generate electricity.



Source: Genalta Power

Although the modified version of the ORC has been successfully implemented on many sites, it is still in the early stages. Further development/research is required to get a better understanding on its economics, and also its efficiency in industries, such as the oil and gas industry, where the technology has yet to be implemented.

Future Applications - Thermal Electric Power Chip: In addition to the GEMS, Genalta is also pursuing an application that can potentially change the economics of the thermal power development market. Genalta holds the exclusive rights to all industrial and commercial use of a solid-state thermal conversion power chip (manufactured by a third party) that is currently used on an individual basis in residential applications. The thermal conversion power chip (small solid-state devices – see image below) is a newly emerging technology which is expected to provide the advantages of thermoelectrics (convert heat to electricity) at a higher efficiency and lower cost.



Source: Genalta Power

Power chips require no moving parts, which implies that all the moving parts in an existing power plant, including rankine cycle, steam cycle, and turbines, can be eliminated leading to lower costs. According to management, Genalta's technology has the potential to cut costs by two thirds that of existing technologies, which ranges range from $3 to $6 per watt. Also, Genalta's prototype has an efficiency of 10 – 12% (with a potential to reach 18 – 20%), well above the 5-10% efficiency rate of current technologies.

Genalta also signed a proposal with a major corporation pertaining to its thermal electric power chip. As the product is still in its early stages of development (in terms of commercialization), it is too early to comment on how it would impact the company going forward. However, it is certain that this technology will provide significant upside potential for the company if and when a commercial product is developed.

Strategy

Genalta has identified a niche in the WHP generation market and are initially focused exclusively on the oil and gas market. The following factors suggest why we believe Genalta is well positioned to penetrate its target market:

- The **oil and gas sector is one of the major contributors of waste heat** (from a wide range of sources and temperatures) in the atmosphere. Genalta's systems can be used over a wide range of resource temperatures, and will allow the company to target even the

untapped low to mid temperature applications.

- Currently there is **no other WHP system that is specifically designed for the oil and gas sector**. Most of the competing systems in the market are generic products and might not have the efficiency and cost reduction that Genalta's systems or solutions can achieve. This will give the company a significant first mover advantage.

- Genalta's core competency is not in technological innovation (existing/competing technologies are commercially viable), but in the financial maximization of the sites where its systems are deployed. Genalta offers solutions to maximize efficiency and lower costs through the following:

  - Genalta offers flexible power solutions based on 'best-fit' for each application instead of manufacturing fixed 'one-size-fits-all' systems. Solutions are customized depending on site requirements to increase efficiency and lower costs – this is Genalta's key strength

  - Power output is maximized by matching equipment and working fluids.

  - Genalta provides detailed site engineering, capital equipment, and turnkey installations of their systems.

  - Genalta supplies scalable power generation/plants.

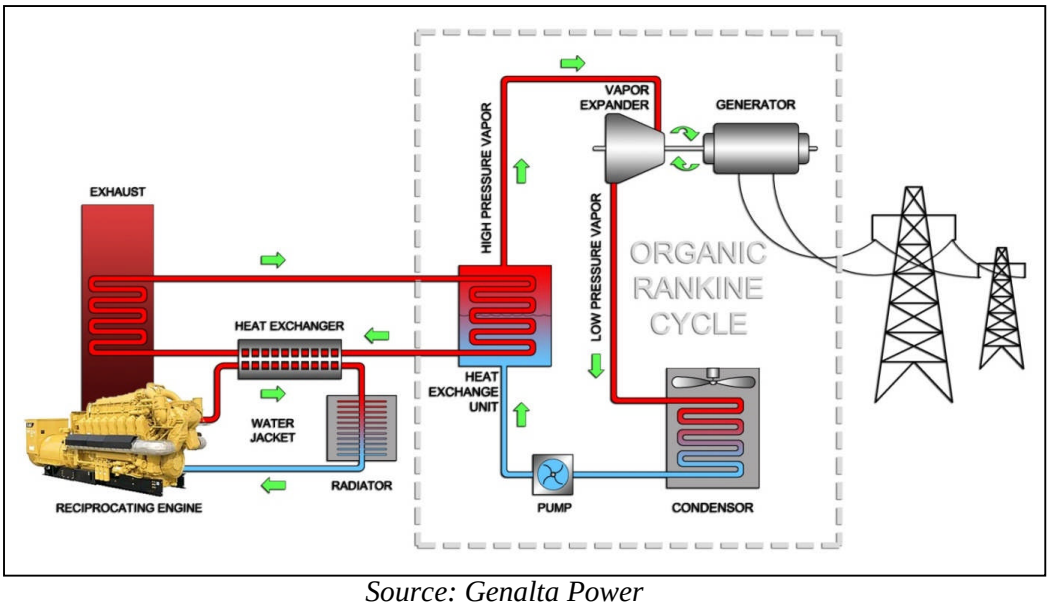
  - Web based data management helps monitor performance parameters

Target Applications

Genalta is currently targeting the following five applications (three of which are low temperature applications – the company's key forte) within the oil and gas industry.

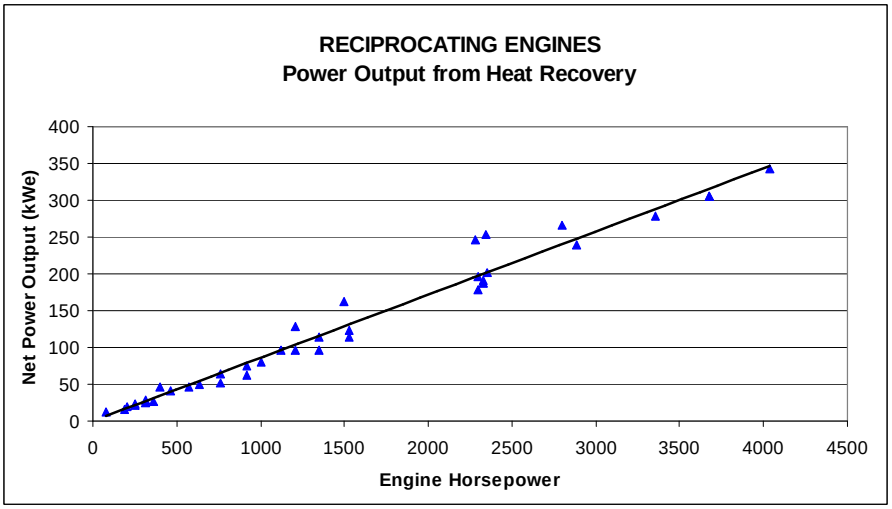
1. Reciprocating engine waste heat recovery - Reciprocating engines, which are basically heat engines that use pistons to convert pressure to rotating motion, represent a very large source of waste heat. This is because reciprocating engines, which are one of the largest consumers of fuel gas in the oil and gas industry, only operate at 30% - 40% efficiency. The major sources of heat waste from reciprocating engines are exhaust (400 – 600°C), water jackets (80 – 90°C), and coolers. Due to the lower temperatures associated with reciprocating engine heat recovery, Genalta's systems are well suited for WHP generation.

The following chart shows how Genalta's systems can be installed to recover waste heat from reciprocating engines. Note that the heat recovery equipment is installed in parallel with the radiator to ensure reliability.



Source: Genalta Power

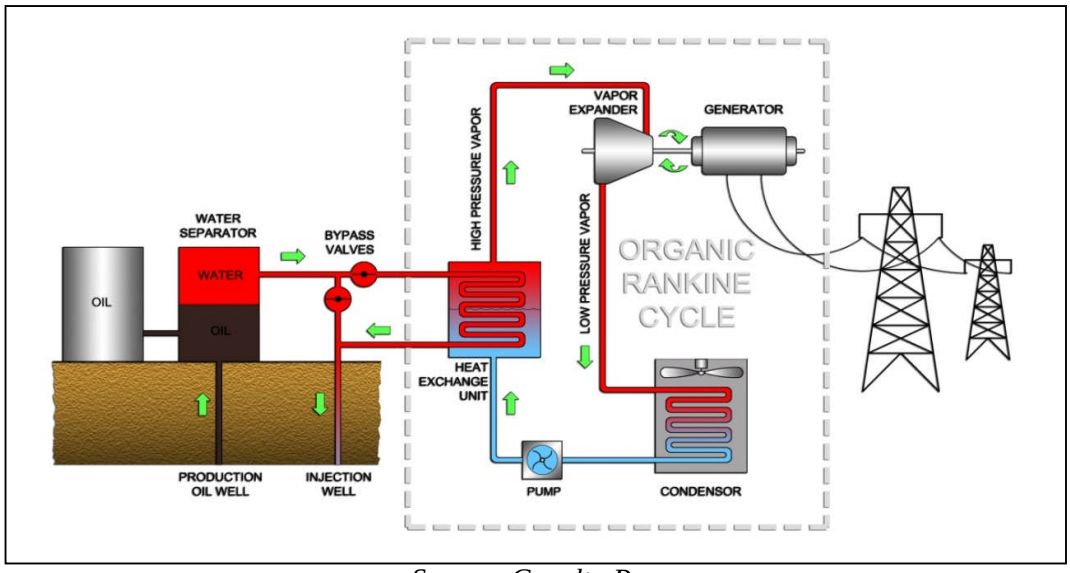
The following chart shows the net power output achieved by Genalta's systems (based on preliminary studies).



Rule of thumb: Engine HP x 8% = kWe (gross output); Source: Genalta Power

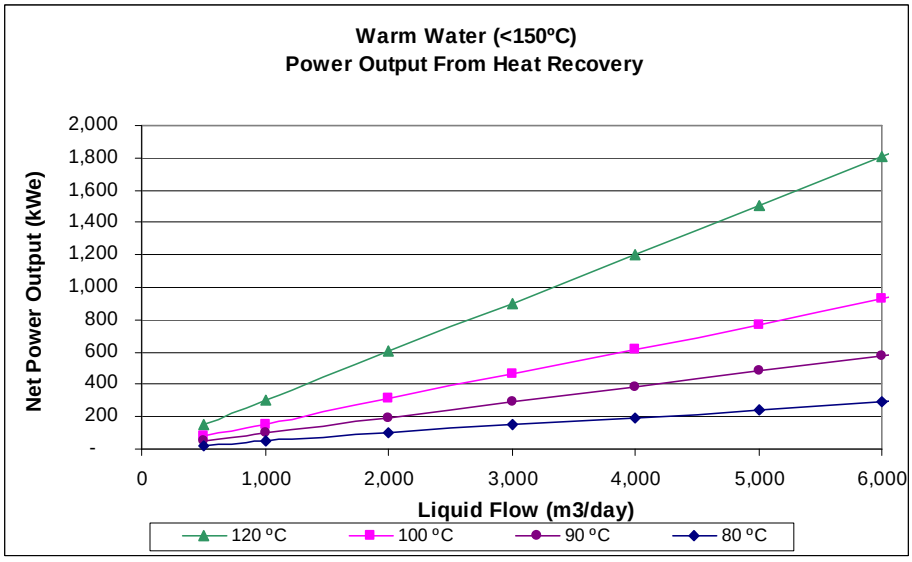
To put things into perspective, a typical site (according to Genalta) with over 3,000 HP has the potential to generate about 240 kWe (gross output), and cut greenhouse gas emissions by 2,200 tons CO2e. (1 MW of power capacity can supply electricity to about 750 - 1,000 homes.)

2. Co-produced water/hot liquids - The heat available from water produced along with oil and gas are often sufficient to generate electricity. Due to the lower temperatures associated with water cut heat recovery, Genalta's systems are well suited for WHP generation.



Source: Genalta Power

The system can also be used to source hot water brought to the surface during Steam Assisted Gravity Drainage (SAGD) operations. SAGD is an enhanced oil recovery (EOR) technology used for producing heavy oil and bitumen. In a SAGD operation, a pair of horizontal wells is drilled into the oil reservoir. Low pressure steam injected into the upper wellbore reduces viscosity and drains the oil into the lower wellbore. Oil in the lower wellbore is then pumped along with the hot water/steam to surface. The following chart shows the net power output achieved by Genalta's systems (based on preliminary studies).

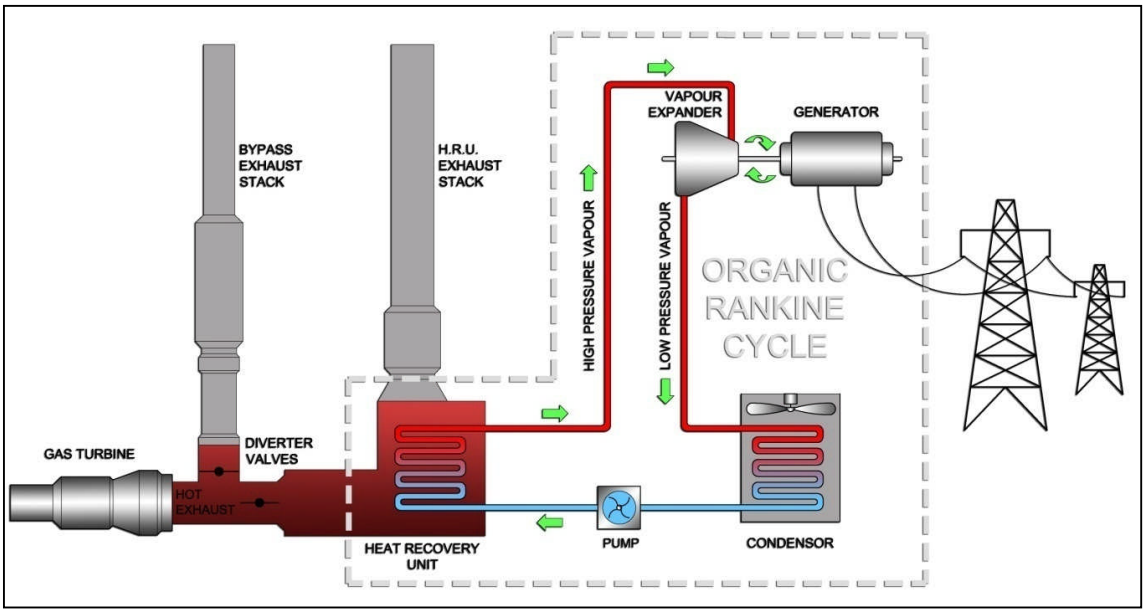


Source: Genalta Power

According to Genalta, a typical site with about 5,000 m^3/day (31,450 bpd) at 90°C has the potential to generate about 500 kWe (gross output), and cut greenhouse gas emissions by 3,700 tons CO2e.

3. Amine Waste Heat Recovery - Amine gas treating process (which is also known as gas sweetening and acid gas removal) is typically used in refineries and gas processing plants to remove hydrogen sulphide (H_2S) and carbon dioxide (CO_2) from gases. In this process, the amine solution, after absorbing H_2S and CO_2, is heated to release the contaminants before being re-cooled to produce "lean" amine that is recycled for reuse. Genalta systems can capture the heat prior to the cooling process to produce electricity. By implementing Genalta's systems, site operators can significantly increase efficiency and reduce costs by electricity generation, power savings from the reduced cooling load on the fans, and lowering greenhouse gas emissions.

4. Gas Turbine Exhaust Heat Recovery - Gas turbine driven compressors, which are used to pressurize natural gas, only operate at 25% to 40% efficiency, and thereby, represent a very large heat source. Steam engines, which were traditionally used to recover exhaust heat, are maintenance intensive and require a licensed operator to oversee the process. Genalta's WHP systems, which use organic working fluids, avoid such problems and are well suited for gas turbine applications.



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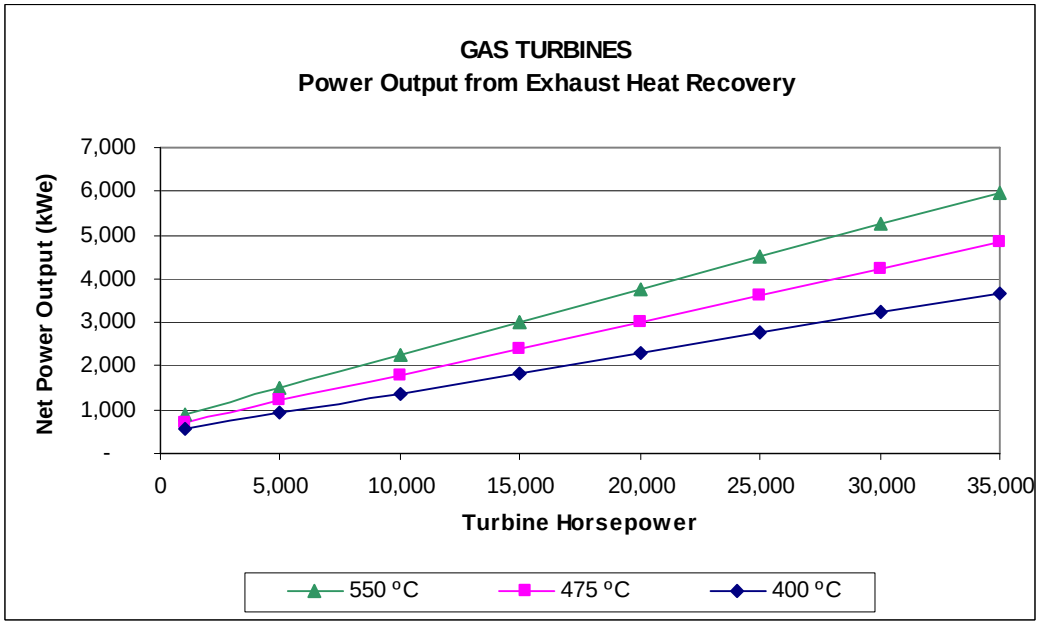
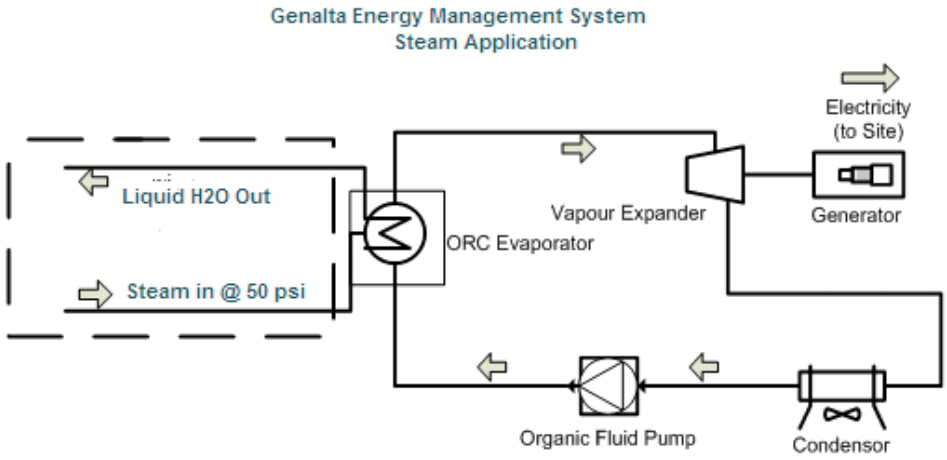


Rule of thumb: Shaft HP x 15% = kWe (gross output); Source: Genalta Power

According to Genalta, a typical site with 4,500 HP has the potential to generate about 0.9 MWe (gross output), and cut greenhouse gas emissions by 6,700 tons CO2e.

5. Excess Steam Heat Recovery – Genalta's systems can also be used in gas plants by recovering heat energy from the remaining excess low pressure steam that is condensed into liquids. In addition to generating power, site operators can also achieve power savings from the reduced load on the condenser fans.



Source: *Genalta Power*

According to Genalta, steam at 10,000 lbs/hr (at 12psi and condensing temperature of 188°C) can generate about 375 kW (gross output).

Business Model Genalta only targets those jurisdictions where it can sell power to utilities/corporations under long-term power supply agreements or to the site owner in behind the fence (internal) applications. By doing so, the company significantly lowers risks associated with future profit and cash flows. The company has already identified several development sites that fit its criteria in BC and Alberta, with the potential to expand into Saskatchewan, Ontario, the US, New Zealand and parts of Europe.

Genalta will generate revenues either through wholly owned power plants, joint-partnerships with site operators (that will include long-term revenue sharing contracts) or by selling units directly to site operators. The following are some of the benefits to site operators from using Genalta's systems:

- Generate long-term stable revenue streams through long-term power supply agreements
- Meet demand for onsite power
- Operational maximization through cost reduction and power load reduction
- Environmental / regulatory compliance
- Greenhouse gas credits

Over the past year, the company's technology has generated a significant amount of interest from mid-size to major corporations. Genalta has already submitted about 27 proposals, the majority of which are currently in advanced stages of discussion with potential clients. The company has signed five LOIs with major corporations. Project sites range from gas plants (semi-lean amine heat recovery and reciprocating engines), compressor stations (turbine heat recovery) to SAGD operations. However, details of the projects cannot be disclosed in this report to maintain confidentiality.

Joint venture models are more favorable (long-term stable revenues with low risks) for Genalta because the company generates lower margins on the sale of units directly to site operators (this is because Genalta's systems are manufactured by third parties). According to management, the company can generate about 20% in gross margins from the sale of units. Almost all (potential sites) but one target that the company is currently working on are based on joint venture models. It shows that site operators prefer to work on joint venture models than buy units from Genalta at this time even though the NPV/IRR on the latter are higher for site operators. We believe, this is because WHP generation on low temperature sources is still in its early stages and therefore, joint venture models carry lower risks.

Based on its current portfolio of potential sites and the interest generated from its clients so far, the company believes it can install, on an average, a 1.5 MW (ranging from 0.25 MW – 5 MW) plant every month in the next three years. Note that this is not a highly optimistic plan, as, at this rate, the company will have 36 sites by the end of the third year, which is only just over 16% of the total market potential (of 220 sites) identified by the company at this stage.

Management Genalta currently has five employees. The company's founding partners' have 37 years of combined experience in renewable energy sources, and have worked on over 200 MW of greenfield power generation contracts in both Europe and North America. Brief biographies

of the management team, as provided by the company, follow:

Graham Illingworth, BCom., Chief Executive Officer - Prior to founding Genalta Power, Mr. Illingworth became the President of EPOD Solar Inc. in October 2007. EPOD is a vertically integrated solar power producer operating in four different countries. During his tenure at EPOD Mr. Illingworth led the effort to privatize the company de-listing it from the OTC in the US. He subsequently arranged re-financing of the company and many of its 18 subsidiaries eventually leading through 5 successful financings. At the time of his departure the company had grown to having 5 operational solar farms with a backlog of 120 MW of projects in Europe and 113 MW in North America. The company operated and built solar farms using solar panels manufactured in its factory located in the UK.

From April 2006 to May 2007 Mr. Illingworth was the Chief Executive Officer of Westbank First Nations Development Company, a Holding company that consisted of subsidiaries that included large scale logging operations, property development, commercial construction and commercial rental properties.

From March 2001 to December 2005, Mr. Illingworth was Chief Executive Officer of Geotivity Limited, a company that he purchased and led it through a 7 year growth rate that resulted in the company wining many awards for product innovation, technology achievements as well as numerous growth oriented awards. The company experienced a 5 year growth rate of 921% ending 2002 and 1537% ending 2001. Geotivity specialized in low voltage, wireless data acquisition devises. It designed, manufactured, serviced and installed its own equipment operating out of 8 offices within North America. The company was widely accepted by the USA Environmental Protection Agency.

Prior to Geotivity Mr. Illingworth was involved in numerous successful ventures mostly dealing within in the banking world completing a financial turner around of the Newfoundland Credit Union System from 1996-1198. Mr. Illingworth started his career with the Canadian Imperial bank of Commerce immediately upon graduating with Bachelor of Commerce from Laurentian University in 1986.

Drew Shaw, CMA, BCom., Chief Financial Officer and Corporate Secretary - Prior to joining Genalta Power Mr. Shaw was the Chief Financial Officer of EPOD. Between 2005 and 2007 he worked for Mastco Derrick Services, Canada's largest fabricator of land-based drill rigs. Mr. Shaw was hired as the Chief Financial Officer to be the principal executive to assume all responsibilities of taking Mastco through the IPO process which resulted in the successful sale of Mastco to Trinidad Drilling Income Trust in a deal that exceeded $64 million. Oversaw divisional financial reporting of three companies within the public accounting arena. Mr. Shaw was also the Chief Financial Officer of TTG Systems Incorporated, a software company that specializes in development and implementation of management software and solutions. Mr. Shaw holds a Certified Management Accountant designation and a Bachelor of Commerce in management information systems from the University of Alberta.

Competition

There are several companies, small and large, pursuing waste heat to power generation. We feel the following are the closest competitors at this time:

Pristine Power (TSX: PPX; Market capitalization - $73 million) is a Canadian developer, owner and operator of independent power facilities. Pristine focuses on large gas-fired and bioenergy generation and hydroelectric projects, and smaller replicable waste heat recovery ERG® and bioenergy projects. EnPower Green Energy Generation Limited Partnership (Pristine owns 25% of EnPower) owns and operates two 5 MW Energy Recovery Generation (ERG®) plants located at compressor stations in BC. EnPower's ERG® technology uses waste heat from gas turbines to generate power.

ElectraTherm, Inc. (a private company based in Nevada) has developed an on-site power generator based on ORC using patented heat and pressure recovery technology. The mobile generator can be used in low-grade energy sources and a wide range of applications. In mid-2008, ElectraTherm installed its first commercial 50kW generator at Southern Methodist University.

General Electric (NYSE: GE) is currently working on ways to improve the ORC. However, their research is not based on using hardware derived from air-conditioning equipment. GE has developed a new evaporator that can be placed directly in the heat source (rather than use working fluids to capture and transfer heat).

There are several corporations like GE that can potentially be a threat to Genalta going forward. It is important for investors to note that Genalta's forte is not in technological innovation, but in the financial maximization of the sites that its systems are deployed. The primary difference and advantage of Genalta's business model compared to Pristine and ElectraTherm, is that Genalta's solutions are specifically designed for the oil and gas sector, while Pristine and ElectraTherm systems seem to be more generic.

Competitive Advantage

We believe the following are Genalta's key competitive advantages:

- WHP is one of the **most promising growth technologies in renewable energy**. WHP has one of the lowest electricity generation costs, provides base load capacity, reduces fossil fuels, and greenhouse gas emissions.
- Genalta's focus on a niche market (oil and gas industry) would give them a significant **first mover advantage.**
- The company differentiates itself from competitors by providing site operators **solutions for financial maximization.**
- In just one year, Genalta's systems have managed to **generate significant interest from major corporations**. Genalta has submitted about 27 proposals and has signed four LOIs with major corporations.
- **Stable revenues, low risk -** The company has the potential to generate stable long-term revenues through long-term power supply agreements.
- **Near-term cash flow potential exists** as the company believes it will receive its first contract in Q1-2010, and complete its first installation in Q2-2010.
- Management team has a **proven track record** with specific experience in the renewable energy industry.

Financial Analysis and Projections

The company was incorporated in 2007 and started full time operations in August 2008, funded solely by founders Mr. Illingworth and Mr. Shaw. Genalta currently does not generate any revenues. In February 2009, the company raised $1.2 million from a private placement. As of August 31, 2009, the company had about $0.85 million in cash. The current burn rate is about $75,000/month.

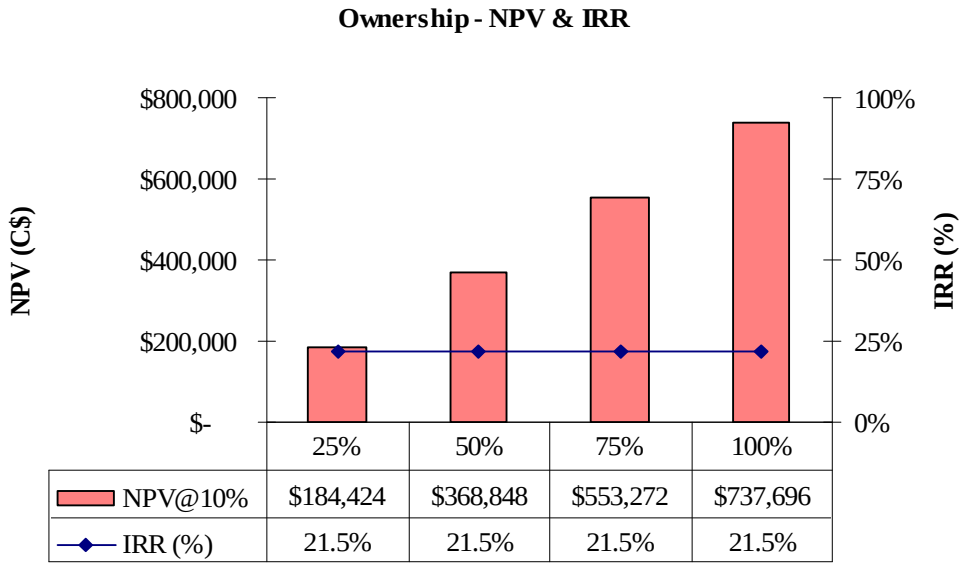
The following table shows our estimate of the economics of a 1MW installation for Genalta.

Economics of a 1MW Installation (in C$) - Base Case Scenario		**Notes**
Assumptions		
Power Capacity	1 MW	Genalta believes it can install, on an average, a 1.5 MW plant every month for the next three years; For conservatism, our analysis was based on a 1MW plant.
Ownership	75%	Genalta's target
Debt/Capital	50%	Genalta's target debt to capital ratio is 0.75; We decided to use 0.5 for conservatism.
10 year PPA	9.5¢/kwhr	PPA was estimated based on the average historic prices (in the last 10 years) in AB and BC, plus delivery charges, and potential GHG credits
Operating Costs (incl. G&A)	0.9¢/kwhr	Based on quotes received by Genalta from manufacturers
Capital Investment	$2,950,000	Estimated based on $2.95/W - as per quotes received by manufacturers
Equipment Life Expectancy	10 years	
Tax	29%	
Output		
Annual Revenues	$592,943	Genalta's share of revenues generated from a 1MW plant at 9.5¢/kwhr
After tax NPV (5%)	$1,050,423	
After tax NPV (10%)	**$553,272**	
After tax NPV (15%)	$206,841	
IRR (after tax)	**21.5%**	

Our base-case net present value (10%) of a 1MW plant for Genalta (assuming 75% ownership) is $0.55 million, and the internal rate of return is 21.5%

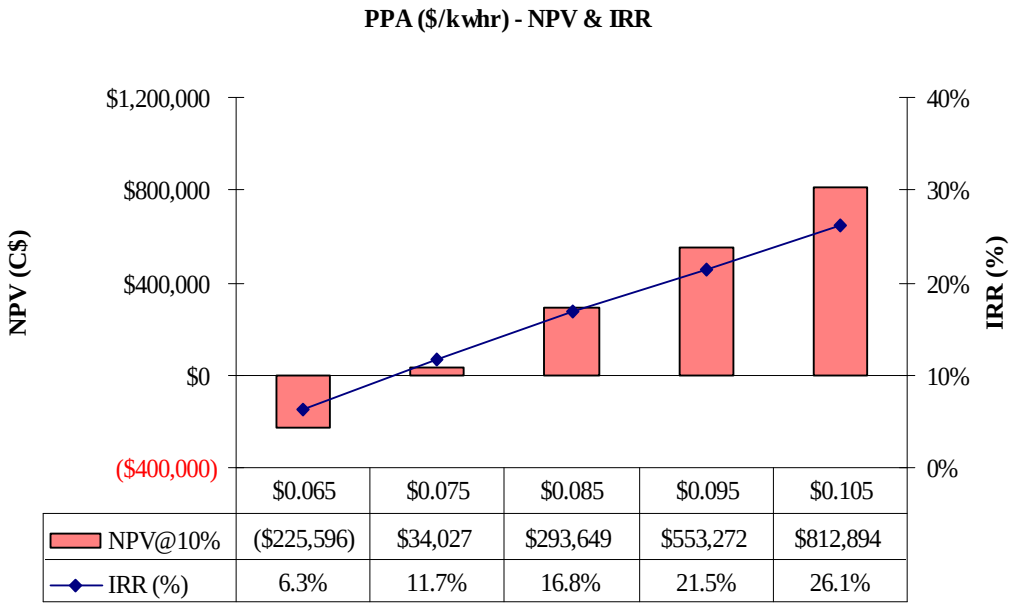
The Net Present Value (NPV) and Internal Rate of Return (IRR) estimates are highly sensitive to the following parameters:

1. **Genalta's Ownership in the Plant -** Although IRR remains constant, NPV estimates are positively correlated to Genalta's ownership (as shown in the following chart).



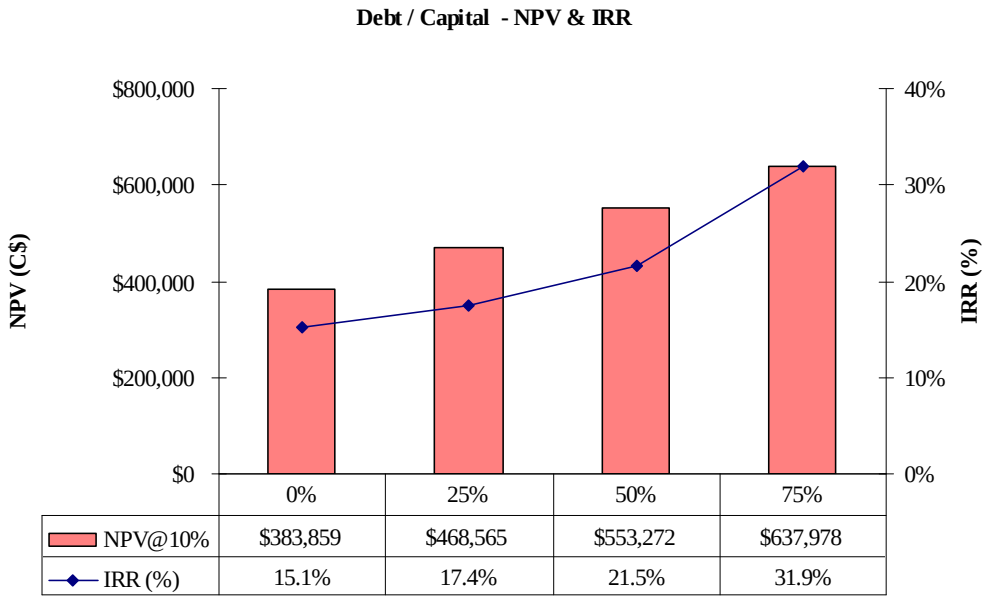
	25%	50%	75%	100%
NPV@10%	$184,424	$368,848	$553,272	$737,696
IRR (%)	21.5%	21.5%	21.5%	21.5%

2. **Power Purchase Agreement (PPAs) -** NPV and IRR estimates are positively correlated to electricity prices set by PPAs.



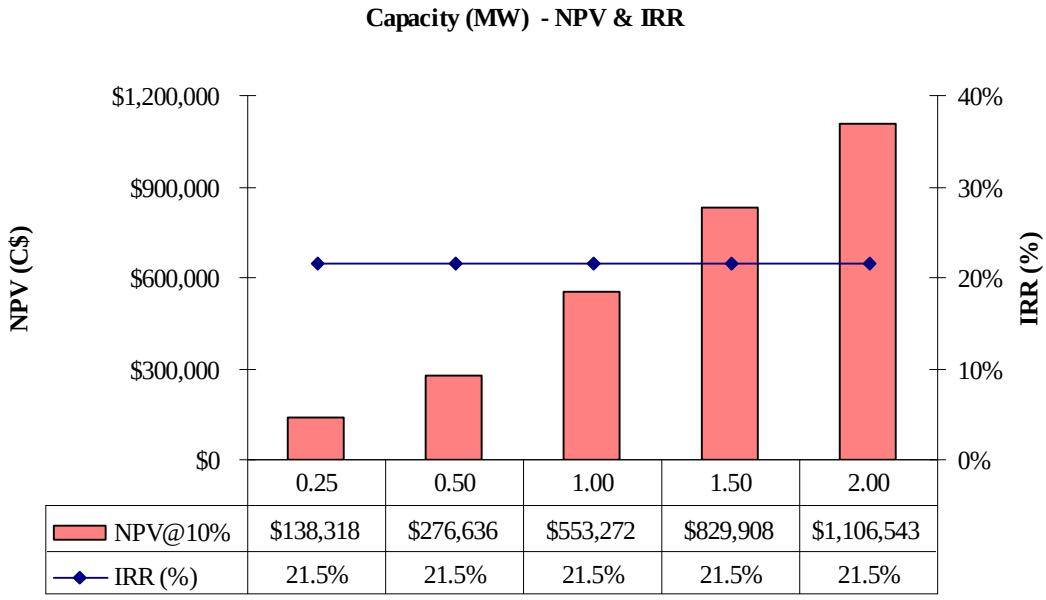
	$0.065	$0.075	$0.085	$0.095	$0.105
NPV@10%	($225,596)	$34,027	$293,649	$553,272	$812,894
IRR (%)	6.3%	11.7%	16.8%	21.5%	26.1%

3. **Capital Structure -** As future cash flows carry low risks (due to long-term power supply agreements), we believe, attaining debt financing will not be a major concern for the company. As Genalta's NPV and IRR increases with debt (as shown in the following chart), it is in the best interest of Genalta to have debt (at optimum levels) in its capital structure.



	0%	25%	50%	75%
NPV@10%	$383,859	$468,565	$553,272	$637,978
IRR (%)	15.1%	17.4%	21.5%	31.9%

4. **Plant Capacity -** Although IRR remains constant, NPV increases with plant capacity.



	0.25	0.50	1.00	1.50	2.00
NPV@10%	$138,318	$276,636	$553,272	$829,908	$1,106,543
IRR (%)	21.5%	21.5%	21.5%	21.5%	21.5%

Valuation

Although Genalta has yet to sign its first definitive agreement, we developed a discounted cash flow (DCF) valuation model to get a preliminary estimate of the company's potential based on its three-year plan as discussed earlier in the report. The following table shows the NPV estimates (based on the same assumptions and inputs used in the base-case scenario for a 1MW plant presented earlier) for different scenarios. All of the scenarios have the same IRR of 21.5%

		Sites/year in the first three years			
		3	6	12	24
Cost of Equity	5%	$9,159,493	$18,318,986	$36,637,972	$73,275,944
	10%	$4,808,533	$9,617,066	$19,234,132	$38,468,264
	15%	$1,993,473	$3,986,947	$7,973,894	$15,947,787

It is important to note that this analysis was just based on the net present value of future cash flows (based on 10 year PPAs) from the plants that could be setup in the first three years. For conservatism, we have not accounted for any installations subsequent to Year 3, or potential cash flows from the sale of units directly to site operators.

Our base-case NPV (at 10%), assuming 12 sites per year in the first three years, is $19.23 million. Our base-case scenario assumes a cost of equity of 10% because:

- Our research indicates that the average cost of equity of public electric utilities is 8.25%. As Genalta's business model will allow the company to generate stable, long-term cash flows, we do not believe that investors' required rate of return should be much higher than an average public electric utility. As the company is still in the early stages, we assigned a slightly higher cost of equity of 10% for Genalta. Note that the company's cost of equity/capital will drop to the industry average if and when the company manages to expand as per its three-year plan.

We applied a illiquidity discount of 30% (we believe that the illiquidity discount for private companies should range between 25 – 35%, depending on the company's business model, assets and exit strategy) on our base-case NPV to account for the risks associated with the fact that Genalta is a private company, and investments in private businesses are relatively harder to buy/sell compared to investments in public companies. However, liquidity risks are not very high for Genalta as:

- Once Genalta starts its operations, it will hold assets (equipment and plant facilities) that are liquid,
- Genalta has the potential to generate stable, long-term cash flows,
- There is a possibility of going public in the future.

Applying the 30% illiquidity discount, we arrived at a base-case NPV of $13.46 million.

Conclusion

Genalta is currently trying to raise $3 million through equity financings to meet its working capital needs. Based on our review of the company's business model and strategy, we believe the company is well positioned to capitalize on the recent technological innovations in the WHP generation space, and penetrate the relatively untouched oil and gas sector.

Fundamental Research Corp. Equity Rating Scale:
Buy – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk
Hold – Annual expected rate of return is between 5% and 12%
Sell – Annual expected rate of return is below 5% or the expected return is not commensurate with risk
Suspended or Rating N/A— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

Fundamental Research Corp. Risk Rating Scale:
1 (Low Risk) - The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

2 (Below Average Risk) - The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.

3 (Average Risk) - The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

4 (Speculative) - The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.

5 (Highly Speculative) - The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

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