

BLACKSTAR ENVIRONMENTAL GROUP OVERVIEW

Challenges for the 21st Century

The water crisis of the 21st century is upon us and as populations increase, enormous pressure is placed on worldwide watersheds. Affordable clean water is becoming a pressing technological issue facing the world. By the year 2025 it's estimated two out of every three people could be living in water-stressed regions while world demand is increasing by 140% or 97.5 million cubic meters of water per day.

Water demands for agriculture and industrial processes will continue to increase while under extreme aggravation from worldwide droughts. It is now estimated that industrial demand will exceed human consumption by 2025 resulting in shortages, tougher continuing Federal regulations and mandates regarding industrially produced water recycling.

New agricultural requirements are driving regulations and water restrictions. Endangered wildlife is taking precedence over agricultural requirements further stressing the agri-business. Run-off through irrigation is polluting rivers and bays and impacting the quality of the fisheries.



On a consumer level, fresh potable water is becoming scarce in many areas of the globe. In developed countries, bottled water in all forms and fashion has created a multi-billion dollar industry with pricing exceeding a gallon of gasoline by as much as four times the national average.

In context of these market issues, BLACKSTAR has developed those technologies that align with our business strategy and will enable BLACKSTAR to achieve superior financial results while improving the environment. Our core business philosophy revolves around the following points:

BLACKSTAR Environmental Group Water Remediation Services

- BLACKSTAR Environmental Group is a company focusing on energy, the environment and economic benefit for our clients, shareholders and the community at large.
- BLACKSTAR Environmental Group embraces the philosophy of natural capitalism in which business and environmental interests increasingly overlap and businesses can better satisfy their customers' needs, increase profits, and help solve environmental problems all at the same time. Our technology spans water remediation and cleanup for the oil & gas, mining, geothermal industries and municipal water systems.
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BLACKSTAR Environmental Group has developed a unique Green Energy technology portfolio while providing services to key industries with high water / energy demand. This approach drives our diversification but leverages a common strategic view of the market and allows us to offer services that benefit our clients, shareholders, and society.

The Overview

- Challenges for the 21st Century
- Solving the Produced Water Reclamation Problem
- Water Remediation Technology
- BLACKSTAR Opportunity

Solving the Produced Water Reclamation Problem

The Thunderhawk Water Processor

BLACKSTAR Environmental Group has developed a new Green Energy flow through technology designed to treat for and recycle contaminated oil produced water generated by the petroleum industry. Produced water consists mainly of brine water and other chemicals and solids. Approximately 10% of a given site's daily oil production rate can be lost due to oil emulsification within the produced water.

BLACKSTAR Environmental Group technology allows this lost oil to be recovered while simultaneously treating for and removing other contaminants without the addition of chemicals or flocculants.

The costs of water waste and disposal well operations, both in dollars and in terms of public image, are skyrocketing as oil and gas producers are on the brink of a national crisis.

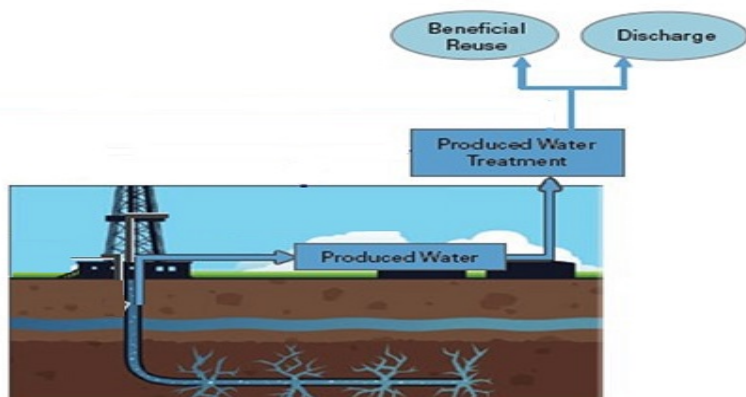
In locations where local water sources are insufficient or otherwise unavailable or where the cost to import water to the location becomes prohibitive, then water from previous oil or gas operations (produced water), is processed through pretreatment for recycling. When unacceptable salinity levels rise from repeated injections, a more costly desalination treatment is required prior to re-injection.

Scale Drives Demand

BLACKSTAR Environmental Group estimates there are over 72 billion barrels of produced water generated annually within the United States containing various levels of contaminate. BLACKSTAR further estimates of this amount, 72 billion barrels could be treated for recycling in agriculture and municipalities for fresh water needs.

Oil and gas producers are all coming under significant political and regulatory scrutiny for traditional water waste disposal practices. Deep concerns are surfacing over environmental damage as well as public health. By the year 2020 Mandatory regulations will end the salt water injection industry as we know it today. Injection into deep water disposal wells will have been directly related to underground seismic activity and contamination of drinking water aquifers in several regions of the North American continent.

Schematic of water flow process



Source: EPA



Economic Viability

The sheer market size in terms of gallons of salt water disposed annually is very high and proves the immediate demand for new water treatment technologies. It's estimated over 72 billion barrels is produced annually with disposal costs running from \$2.00 ~ \$18.00 per barrel. This represents an approximate \$150 billion per year industry in the United States. In a recent report by Lux Research, they concluded the "produced water market will grow nine-fold by 2020".

Real Opportunity

BLACKSTAR Environmental Group is working to establish contracts for its water remediation services in the Continental United States.

Additionally, the company is developing strategic relationships with Oil and Gas companies in established markets to deploy our services and technology solutions improving their contaminated water disposal needs.

Globally, the market includes expansion into oil & gas, mining, disaster recovery and creating potable water for isolated and remote areas of the planet where good clean water is not currently available.



BLACKSTAR Opportunity

There are 1.1 million oil & gas wells in production in the United States (100K new wells coming on line each year) It's estimated over 72 billion barrels is produced annually with disposal costs running from \$2.00 ~ \$18.00 per barrel. This represents an approximate \$150 billion per year industry in the United States alone. Costs to treat / dispose of this water range from \$2.00~\$18.00 per barrel. The impact BLACKSTAR technologies can have on a Global scale is astronomical.

BLACKSTAR has a solution to provide reduced operating costs, improved environmental impact and flexible deployment in the field for all of your water processing requirements.

Our financial summary indicates key revenue sources across the platform. Services revenue is based on sales to the oil and gas industry over the planning period and does not reflect new revenue streams expected to come on board as technology is acquired and distributed. These services will be sold across markets and across the platform, further differentiating the offering.

BlackStar's financial plan is based on a services and transaction model generating recurring revenue across the technology portfolio. Further upside opportunities exist within the business to advance sublicense revenue and joint ventures. However, those initiatives have not been included in this financial outlook.




BLACKSTAR, through our Thunderhawk Water Processor technology, is positioned to meet and exceed the EPA requirements for water processing in the oil & gas industries today at costs that are below traditional methods of processing and disposal.


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BLACKSTAR ECONOMIC BENEFITS	
Barrels of Salt Water Disposal Per Day	100,000
# of Days / Yr	365
Current Disposal Cost Per BBL	\$ 2.50
% Oil Skim Lost	1%
Current Oil Price Per BBL	\$ 40.00
Pounds Per BBL of Salt	20
Price Per Ton of Salt	\$ 25.00
ThunderHawk Operating Cost % Per BBL	15%
ThunderHawk Royalty Cost % Per BBL	0%
Estimated Savings Using Blackstar	
Current Yearly Disposal Cost	\$ 91,250,000.00
ThunderHawk Yearly Operating Cost	\$ 13,687,500.00
Total Yearly Savings per Year	\$ 77,562,500.00
Revenue Using Blackstar	
Oil Skim Revenue	\$ 14,600,000.00
Salt Recovery Revenue	\$ 9,125,000.00
Additional Yearly Revenue	\$ 23,725,000.00
Gross Yearly Savings Using Blackstar	\$ 101,287,500.00
Blackstar Yearly Royalty (<i>Contract Negotiable</i>)	\$ -
Total Net Yearly Savings	\$ 101,287,500.00

	
BLACKSTAR ECONOMIC BENEFITS	
Barrels of Salt Water Disposal Per Day	500,000
# of Days / Yr	365
Current Disposal Cost Per BBL	\$ 2.50
% Oil Skim Lost	1%
Current Oil Price Per BBL	\$ 40.00
Pounds Per BBL of Salt	20
Price Per Ton of Salt	\$ 25.00
ThunderHawk Operating Cost % Per BBL	15%
ThunderHawk Royalty Cost % Per BBL	0%
Estimated Savings Using ThunderHawk	
Current Yearly Disposal Cost	\$ 456,250,000.00
ThunderHawk Yearly Operating Cost	\$ 68,437,500.00
Total Yearly Savings per Year	\$ 387,812,500.00
Revenue Using ThunderHawk	
Oil Skim Revenue	\$ 73,000,000.00
Salt Recovery Revenue	\$ 45,625,000.00
Additional Yearly Revenue	\$ 118,625,000.00
Gross Yearly Savings Using ThunderHawk	\$ 506,437,500.00
Blackstar Yearly Royalty (<i>Contract Negotiable</i>)	\$ -
Total Net Yearly Savings	\$ 506,437,500.00