



胜星实业公司

# INVESTMENT OPPORTUNITY VANADIUM

*The Vital Component in Steel and Electricity Storage for Green Energy Power*

- Safe, Clean, Energy Storage for a sustainable future
- Vanadium Flow Batteries, The **Best** Solution for Efficient Electricity Storage from Green Energy Power Generation
- Proven Technology, Multi Megawatt Capacity Numerous Worldwide Installations Strong alloy demand.

## THE VStar ADVANTAGE

- World Class High Grade Deposits, Very Low Cost, Efficient Development and Mining
- Patented, Clean, Efficient, Low Cost Extractive Technology
- High Purity Vanadium Products to Serve both the Battery, Steel and Chemical Industries at very Competitive Prices
- Developed Partnership with a Key Asian VRB Battery Manufacturer.

## THE VStar OBJECTIVE

- To Become the Cost Effective Supplier of Choice for the Highest Quality Vanadium Products



# Expertise in Resource Development to Production

CHALLENGE

Storing Electricity

SOLUTION

**Vanadium Redox Batteries  
(VRB)**

clean, safe, green energy storage and efficient smart grid electricity distribution

VRB Batteries are the leading solution for storage of clean energy from wind and solar installations, and management of smart grid electricity distribution.

Safe, no overheating, non-toxic components, can be scaled up to multi megawatt capacity, very long lasting, and have many advantages over other types of batteries.

Can be charged and discharged at the same time.

Require a high quality core of vanadium electrolyte solution free from impurities.

VStar technology and resources can meet these very strict chemical parameters.

## Advantages of Vanadium Redox Batteries vs. Lithium Batteries

	VANADIUM Redox	LITHIUM
Number of Cycles	35,000+ (35-50 yrs)	300 (3-5 yrs)
Low Self-discharge	✓	X
Low Environmental Footprint	✓	X
Highly Expandable	✓	X
Generates Low Levels of Heat *****	✓	X
Charges and Discharges Simultaneously	✓	X
Can Release Energy Instantaneously	✓	X
Suitable for Connection to Power Grid	✓	X
Small Footprint	X	✓

Source: Wanted: Vanadium Supply The Next Rare Earth Scenario  
By Nick Hodge. Energy and Capital.com December 2011

VStar's unique vanadium deposits in Jiangxi Province, China are ideally suited for the production of high purity electrolyte and other high grade vanadium compounds more economically than its competitors.

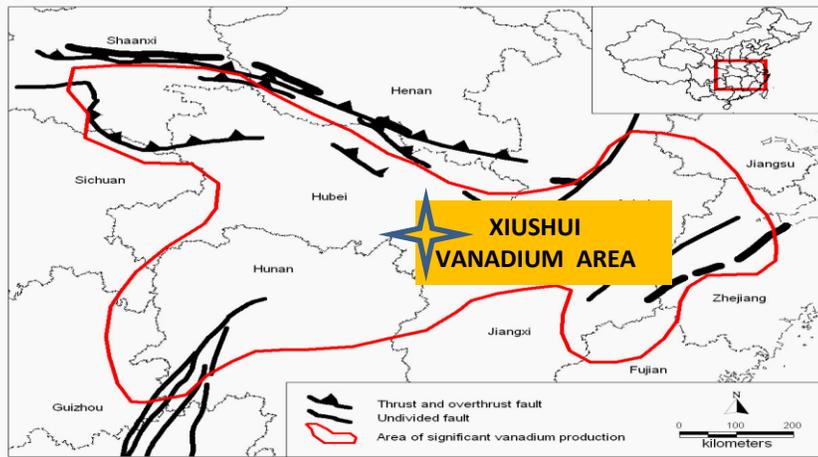
These deposits are low in impurities and ideal for the cost effective production of high quality vanadium products.



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## WHY VStar?

LOCATION



Established Vanadium-Producing Region

ADVANTAGES

### VStar's Resource/Cost advantages are the result of:

- **Integrated Project, resources, production, clean energy electricity generation and storage**
- **Very large, high grade, long life**, primary vanadium deposits not requiring high energy consumption or expensive chemical technology for extraction;
- **Low cost mining** by open pit methods with initial development already completed;
- **Patented clean process technology** for vanadium extraction from Xiushui ore over a 4 year evaluation period;
- **Mining and processing infrastructure** readily available;
- **Established PRC operating structure**;
- **Established strong support** from local and provincial governments;
- **Establishing relationships** with VRB battery producers / other vanadium product consumers;
- **Experienced Management** with strong domestic and international technical partners in PRC.

PRODUCTION

Processing facility available to VStar



PROCESS PLANT  
1000 TPY V2O5 CAPACITY



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## VStar's Management has a Successful Track Record of Resource Development in China and Elsewhere

- **Lee Barker, MA Sc., P.Eng.(Chairman)**
  - Professional Engineer
  - Over 50 years of success in international resource industry projects
  - Over 12 years successful PRC operating experience
  - President and CEO of Sparton Resources Inc.
  
- **Richard Williams, LLB (Director)**
  - International lawyer and Resources executive
  - Over 30 years experience in mineral project development and financing
  - Successful International project development in Latin America, Europe, and Asia
  - Director of Sparton Resources Inc.
  
- **Charles Ge, MA (Managing Director)**
  - Master Degree in International Law from Beijing University
  - Over 30 years experience in China resource project development
  - Former VP of China Stock Exchanges Executive Counsel (SEEC)
  - Former President of Quam Securities China (HKSE: 0952)

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