Green & Renewable Energy in South Africa

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Comeall Technology & Impact Group

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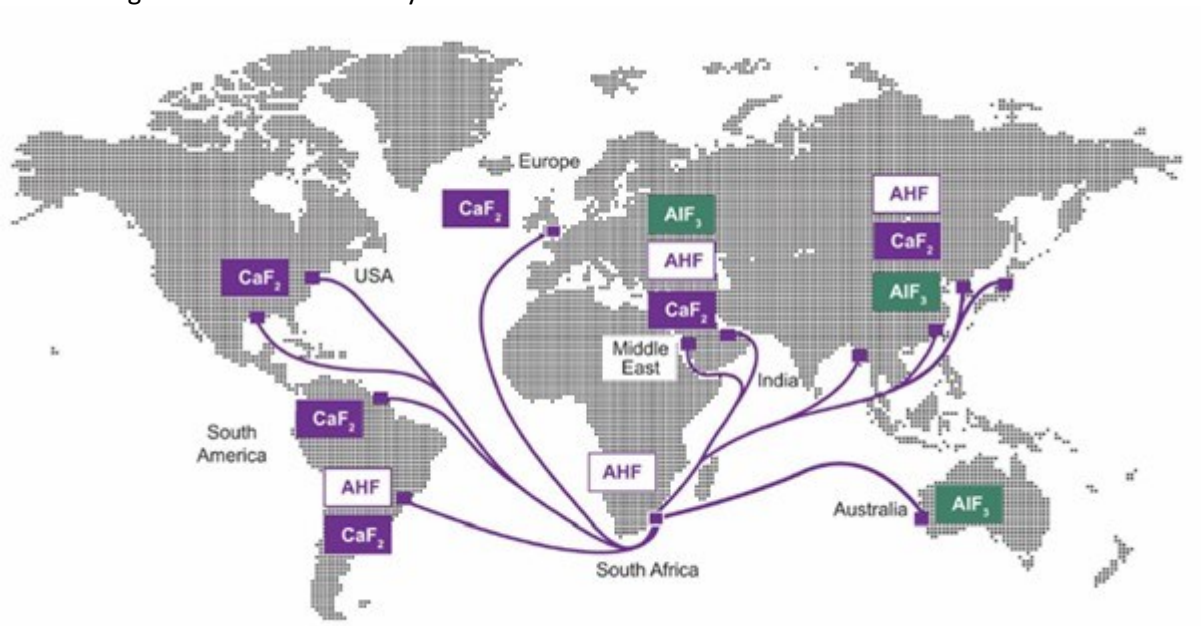
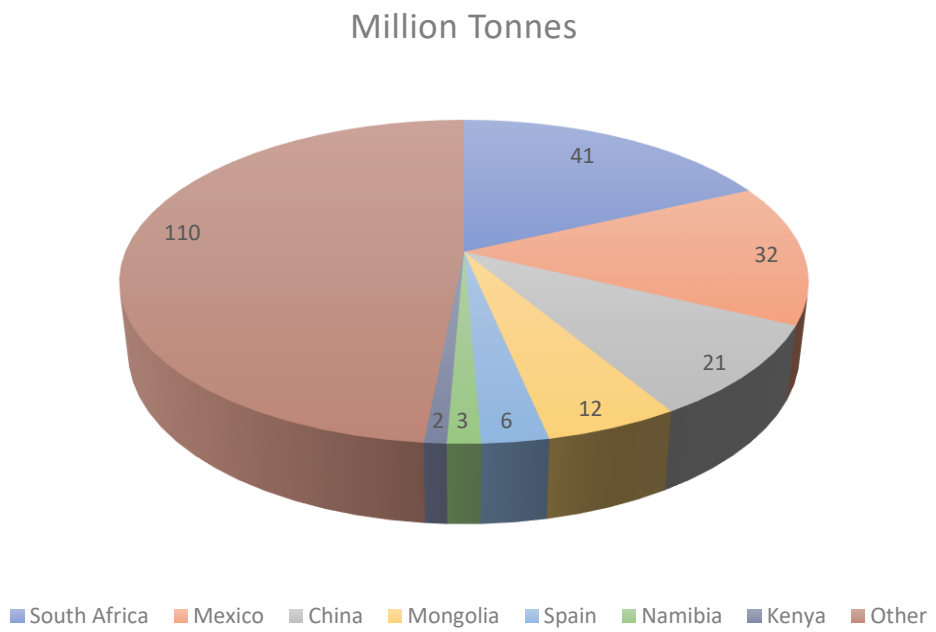
Contents

Background

The largest Fluorspar Producing Countries in the world are China, Mexico and South Africa. South Africa being the Second statistically.



South Africa is known to have the largest fluorspar reserves globally, and the export market is primarily to Europe for hydrogen fluoride beneficiation and the production of aluminium fluoride. Due to the facilities for downstream products being overseas, these products are re-imported at a higher cost.



Value Proposition

South Africa is set to be the world's premium **Fluorspar Provider**, as it has 42-million tonnes of the world's fluorspar reserves, while China has only 21-million tonnes, just highlighting South Africa's strategic logistical position**.**

Markets

Fluorspar is a valuable commodity, with a global market value of approximately US$2 billion and an annual demand of 6Mt per annum. The outlook for global demand growth for acid grade fluorspar in the long term remains positive and will exceed global GDP growth of 2.6% per annum over the next 10 years. In addition, fluorspar's value lies in the multiple downstream levels that can significantly uplift it, and the downstream market value is estimated at US$112 billion.

Countries like China and Mexico are the leading global producers and produce about 80% of total production output. China and Europe are also the largest global consumers with an estimated 20% of consumption.

Downstream Products

Calcium fluoride is a vital component in several industrial applications, including steel production. It is also used to make hydrogen fluoride (AHF) which, in turn, is used in the production of refrigerants and to make aluminium tri-fluoride (AlF_3), critical in aluminium smelting; uranium fluoride (UF_6), used in nuclear power stations; and lithium hexafluorophosphate ($LiPF_6$), used to make the electrolyte for lithium batteries.

Other applications further downstream are:

- refrigerants
- ceramics
- glass
- plastics
- healthcare equipment
- construction materials
- electronic and electrical equipment
- motor vehicles
- pharmaceuticals
- Fluor chemicals

Innovation Technology into Fluorspar Mining

Comeall is the largest **Procurer** and **Buyer** of Fluorspar. Comeall is a China based company specializing in Optic Fibre Technology, and it stand out from other broadband companies. Our Unique Selling Point (USP) is glass which comes from Fluorspar as a by-product that enhances high bandwidth and high value performance for their technology

Comeall Technology Ltd and Impact Group (Impact Consulting & Associates) realised a Niche in purchasing Fluorspar Mines both in China and South Africa. In China to service Asian and European Countries. In South Africa to service SADEC regions and the whole of Africa. Fluorspar is mined for the production of calcium fluorite (CaF2), also known as Fluorspar, which is considered a valuable commodity and has a global market value of about $2 billion.

Green Renewable Energy in South Africa by Comeall & Impact Group

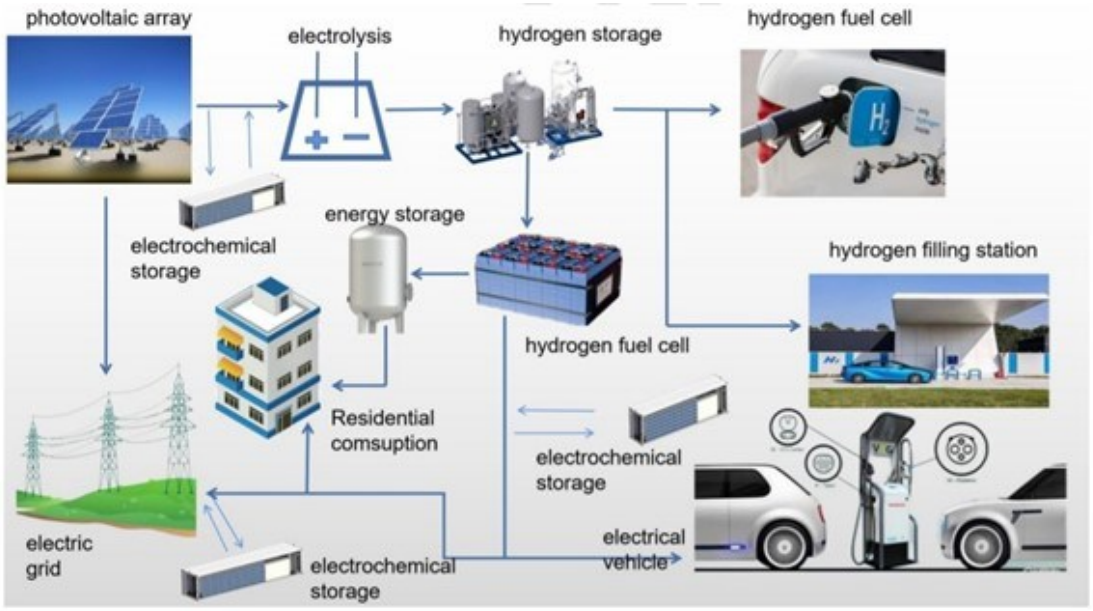
Comeall Tech Ltd & Impact Group are involved in three major projects that are of technological and commercial importance in South Africa. These projects are being transferred from Global Technology Exchange Platform of Dexyan Global Poly Research Institute of Comeall (Shanghai).

Project 1. Fluorspar to new high-tech materials.
This involves buying of Fluorspar mines in South Africa.
1-1 Project Status: mature
1-2 Project nature: proprietary, transfer ready.
1-3 Products to be produced: Three types of fluorine or fluorine-containing chemical product groups.
1-4 Investment: Manufacturing of modems, routers and cables.

Project 2. Hydrogen power generation and utilization.
This involves electrification of residential and commercial properties to assist the enhancement of Waste to Green-Energy Projects to assist South Africa in loadshedding.
2-1 Project Status: mature
2-2 Project nature: proprietary, transfer-ready.
2-3 Products to be produced: Hydrogen, stored for electricity generation – commercial (house-hold, office use and filling to hydrogen-powered vehicles.
2-4 Investment: A medium scale (A 100MW class hydrogen production unit) generating 10,000+ metric tons of green hydrogen annually. The site occupies roughly 500,000 m2 of land, 90% of which is occupied by solar panel arrays.

Project 3. Total-green, self-sufficient hydrogen power for vehicles for private and commercial use.
Manufacturing of electric and hydrogen vehicles.
3-1 Project Status: Under development of Dexyan Global GTEP (in Phase 3 of total 6; Prototypes 2~3 yrs with funding)
3-2 Project nature: proprietary, revolutionary
3-3 Products to be produced: In-car power generation --- Hydrogen stored for electricity generation for driving –can be extended to commercial, residential, office use and filling stations for hydrogen-powered vehicles.
3-4 Investment: USD 250million to produce prototype
This technology has broad applications with solar energy harvested and converted to hydrogen by electrolyzing water DIRECTLY. With special attention to be used as vehicular, self-sufficient power system (in-situ generating power via hydrogen and electricity), the concept is new and the underlining technologies are cutting edge.

Matrix showing Power from Sun to Vehicle



Project Implementors

Comeall Tech Ltd & Impact Group is comprised of three Directors.
Dr Dexi Weng, (PhD) CEO of Comeall (Shanghai) Technology Ltd, is a Scientist who has discovered the potential of Fluorspar and its activities. He is involved in the manufacturing and supply of Optic Fiber and other components made from Fluorite.
Victor Makgwana & Sandra Sefularo are South African Entrepreneurs sourcing unique projects internationally, to benefit communities in South Africa both economically and technically. Green energy technology projects are currently highly desirable projects internationally.

Current Investment into Green Renewable Energy

Comeall and Impact Group, have contracts and MoU to supply:

- Routers, cables and modems made from the Fluorspar.
- We also have concluded MoU's with Tesla, Volkswagen, Mitsubishi and Huwaei.
- We recently held a signing ceremony with the Chinese government for ZTE MoU.

Other negotiations are ongoing regarding MoU's and contracts with other high profile companies and governments.

Skills Development Positions for the Current Projects in South Africa

Several highly technical positions are required. The following describes the key positions.

General Manager, 1X
Qualifications: MS+ degree or MBA degree required. In general management experience of 5 yr+ preferred. Experienced in chemical engineering, polymer synthesis a must.

CFO, 1X
Qualifications: MBA or CPA experience must. With ability in financing and investing preferred.

Chief Technology Officer, 1X.
Qualifications: Ph.D., Chemistry/polymer major; 10+ yrs in related industrial experience; must be familiar with organic, inorganic, polymer synthesis, characterization, application, polymer optical fibre making.

Senior Technical Manager, 3X.
Qualifications: M.S., Chemistry/polymer Engineering major; 5+ yrs in related industrial experience; must be familiar with organic, inorganic, polymer synthesis, characterization. Chemical plant processing experience required.

Technical Manager, 8X.
Qualifications: B.S. + , Chemistry/polymer Engineering major; 2+ yrs in related industrial experience; must be familiar with organic, inorganic, polymer synthesis, characterization, chemical plant operations.

Plant Manager-chemical production, 1X
Qualifications: M.S.+, Chemistry/polymer Engineering major; 5+ yrs in related industrial production experience; must be familiar with organic, inorganic, polymer synthesis, characterization. Chemical plant processing experience required.

Plant Manager – mining, 1X
Qualifications: B.S.+, experienced in mining of minerals and management of workers. Safety training and abiding by laws & regulations. Responsible for properties and assets. Cost effective means of mining.