Ganfeng Lithium
The Integrated Professional Lithium Producer
Company Overview

- Focus on Lithium products production, become leading integrated Lithium producer in China.
- Leading Lithium Metal producer in the world.
- Highly technology oriented, the only Lithium company in the world has the capacity to produce Lithium from both hard minerals and brine.
Company Overview - 2012

Employee: approx. 900 in 4 production sites

Sales revenue: USD 100 m

Export: 30%
Domestic: 70%

Transportation:
To Shanghai Port: 800km
To Guangzhou Port: 750km
To Nanchang Port: 150km

Map of China

- Shanghai Port
- Nanchang Port
- Ganfeng Lithium
- Guangzhou Port
Company Overview - Business Structure

Ganfeng Lithium

- Metal Division
- Organic Division
- Inorganic Division
- Specialties Division

Major market served:
- Battery industry
- Pharmaceutical
- New materials
Metal Division

Major product lines:
- Lithium metal catalyst grade
- Lithium metal battery grade
- Lithium metal High purity grade
- Lithium Alloy
- Lithium foil

No 1 Lithium metal production worldwide in 2011
Advanced Technology in Li Foil Production
Lithium Metal Capacity

- Current capacity: 1000mt/y including all grades of Lithium metal.
- Building second Lithium metal in Yichun city which is in the separate grid networks, commissioning in the Q4 2013 with 500mt/y capacity.
Lithium Metal Export Distribution

- Canada
- U.S.A
- Japan
- Germany
- Turkey
- South Korea
- France
- U.K.
- Italy
- Israel
- India:
- Singapore
Main Market for Battery Grade and High Purity Grade Lithium Metal

- Ganfeng is the key supplier to all types of Primary Lithium battery market in the world, including Saft, Energizer, etc.
- Lithium metal polymer battery for Electrical Vehicle.
- Different types of Lithium contented alloy.
Organic Division

Major product lines:
-N-butyl Lithium

Supply inside China and export to polymer and pharmaceuticals industries

Organic Lithium factory (Located at Hexia town, Xinyu, Jiangxi)

ISO Tank for n-butyl
Inorganic & Specialties

Major product lines:
- Lithium Chloride anhydrate
- Lithium Carbonate Battery grade
- Lithium Carbonate High purity grade
- Lithium Hydroxide Battery grade
- Lithium Fluoride Technical grade
- Lithium Fluoride Battery Grade
Multiple Raw Material Supply

- Lithium brine
- Spodumene
- Lepitolite
- Recycled material from internal and external
- Lithium carbonate TG
Access to Lithium Resources with Low Cost

- Ganfeng owns 17.5% of International Lithium, a Canadian listed mining company who owns Lithium properties in Argentina, Canada and Ireland.
- Ganfeng has the option to convert the loan into 80% of the Mariana brine project in Argentina.
- Ganfeng has the option to buy up to 100% of the Avalonia Lithium mineral project in Ireland.
Mariana Brine Project

Located in the World Renowned Region Hosting Vast Majority of Global Lithium Production

MARIANA PROJECT Claim Map Extensive 160 km²

Unique Strategic Advantage

Ganfeng Lithium
Part 6

Global and Chinese Lithium Supply

- Global main lithium suppliers
- Global lithium projects with mining potential
- Chinese main salt lake lithium projects

Mariana Brine Project
Ganfeng has the option to acquire up to 100% after the Initial exploration report has been completed.
Company Overview - Quality Control

GanfengLithium is certified by:
ISO9001
Our Strength and Unique Technology

- Integrated production
- Recycling: green production and cost saving
- Flexible and fast reaction to market demand
- Highly committed and experienced management team.

Innovation
- Strong R&D capabilities
- 34 major patents until 2012
- Process improvement
- Tailor-made products capability

Unique technology
- Produce LiCl directly from brine
- Produce Lithium metal battery and high purity grades through unique distillation process
- Lithium foil production in the inert atmosphere
- Unique process for Lithium carbonate high purity grade
Strength-Integrated Production Flexible and Cost Saving

More than 20 different Li products

- Brine/Minerals
  - Primary Lithium chemicals
    - LiCl anhydrate
    - LiF Tech Grade
  - Down stream Li chemicals
    - Li Metal
      - Li Metal-CG
      - Li Metal Ingot
        - BG
      - Li Metal Foil
        - BG
      - Li2CO3
        - BG
        - HPG
      - LiF
        - BG
      - LiH2PO4
        - BG
      - LiOH.H2O
        - TG

- Li Alloy
- Organic Li
- Li Hydrids
We have built up 3 major product chains

1. **Brine** → **LiCl anhydrate** → **Li metal catalyst grade** → **N-butyl Lithium**

2. **Brine** → **Li2CO3-BG** → **Li2CO3-HPG** → **LiF - BG**

3. **Li Metal-TG** → **Li Metal-BG** → **Li Anode, Li foil, Li Alloy**
Unique Technology

1st production line in China in 2007 – Produce LiCl directly from brine

Brine → Li2CO3-TG → LiCl Anhydrate → Li Metal

Remark: Gray arrow is the traditional route, green arrow is GanfengLithium route

1st line in China in 2009 – Produce Li2CO3-PG directly from brine

Brine → Li2CO3-TG → Purified Li salt solution → Li2CO3-PG

Remark: Gray arrow is the traditional route, green arrow is GanfengLithium route
Unique Technology-Li Metal Battery and HP grade

Traditional route

Brine → Li$_2$CO$_3$ (TG) → LiOH → LiCl Anhydrate → Li Metal-BG

GanfengLithium Route

Brine → LiCl Anhydrate → Li Metal-TG → Li Metal-BG
Thank you