

## **Gulf Manganese Corporation study reveals high EBITDA of smelter project**

Time: Mon, 25 May 2015 06:08:34 +0800

Gulf Manganese Corporation (ASX:GMC) has received a study highlighting the robust financial project economics of its planned manganese smelter in Timor that could return EBITDA of US\$623.8 million over 20 years.

Key takeaways from the study indicate operating costs at 80% of industry average cost and the highest quality manganese ore (+50% grade) supply to produce a premium 78% manganese alloy.

The project would have full Government support with fiscal incentives of a 10 year Tax Holiday.

With a modest capital investment of US\$67.5 million staged over 4 years, the project also offers early cash flow from the export of ore.

The company also intends to list on the Singapore Exchange.

The Timor Smelter Study also estimated Net Present Value at US\$201.4 million using an 8% discount factor and IRR of 45.6% with a payback of two years.

The company plans to build eight furnaces over a four year period that will produce a premium quality 78% ferromanganese alloy resulting from the unique qualities of the Indonesian high-grade low impurities manganese ore.

It requires a modest start-up capital investment of US\$67.5 million, which is staged over 4 years, plus working capital, and provides estimated returns supporting an internal rate of return of 45.6%.

“We are pleased to be able to provide shareholders with this Study as it further validates our early belief of the highly prospective nature of the project and our ability to stage a process of ultimately delivering a highly profitable outcome for all shareholders,” chairman Graham Anderson said.

### **Timor Smelter Study**

The study is based on a manganese purchasing, processing and smelting business for Gulf Manganese’s smelter in Indonesia.

Capex is estimated at US\$67.5 million over four years for a project that will be capable of producing 144,000 tonnes per annum of ferromanganese alloy and 180,000tpa of manganese lump ore.

High grade manganese ore will be purchased locally from Timor and blended with medium grade high iron manganese ores sourced from Africa.

Net turnover is estimated at US\$3,525 million, EBITDA at US\$623.8 million, IRR of 45.6% and a

payback period of two years.

The business model can be scaled up or down as ore supply allows which minimises start-up capital requirements. This can also be augmented in terms of revenue streams and ore sources permitting early cash flow and future expansion opportunities.

It allows for early cash flow from the export of locally processed manganese ores whilst construction on the first smelting furnace occurs.

### Development Schedule

- Commence Ore Purchases (2016);
- Develop Manganese Processing Plant (2016);
- Export of Manganese Ore (from 2016);
- Build Smelter Furnace 1 (2016); - Export Premium 78% Ferromanganese Alloy (from 2017);
- Build Smelter Furnace 2 & 3 (2017);
- Build Smelter Furnace 4 & 5 (2018); - Build Smelter Furnace 6 & 7 (2019);
- Build Smelter Furnace 8 (2020);
- Timor Leste Mine Development (2017); and
- Export Timor Leste Ore (2017 onwards).

The project will benefit from sound economics, operating costs at 80% industry average cost, established port and infrastructure as well as government support.

### **Ore Purchases**

Manganese ores for the processing and smelting business will be purchased from a number of local and overseas suppliers.

In the first year, high grade manganese ores will be purchased and treated via a jigging process to produce lump manganese ore.

This will be exported to provide early cash flow whilst the first smelter is being built.

To optimise the smelting process high grade ore will be purchased locally from artisanal miners and others in Timor.

The manganese ores in Timor are typically high grade, approximately +50% and make ideal smelter feed.

The local Timorese manganese ores are typically low in iron content, <2%, and as such iron units need to be added.

To supplement the local manganese ores, other manganese ores will be purchased from Africa. This will be lower grade manganese units but importantly will include medium levels of iron.

Iron units are an important component in the smelting process to ensure the product specifications are met with respect to manganese grade.

GMC will also enter into a supply agreement with a South African group for the supply of up to 80,000 tonnes per annum of high iron manganese ore from its South African operations.

The balance of the ore supply, up to 220,000 tonnes per annum, will be sourced locally in Indonesia and Timor Leste.

## **Processing and Sale of Manganese Ores**

Processing will be via industry standard, crushing, screening and mechanical jigging processes.

The manganese ores in Timor have a high specific gravity and as such they are ideal for separation using a jigging process.

The proposed crushing, screening and jigging components are typically used for processing manganese ores and are relatively low technology, low operating cost and suitable for the ore types seen in Timor.

The systems are also scalable in that a number of smaller processing sites may be located close to mining operations minimising operating costs.

## **Processing and Sale of Manganese Alloys**

GMC will build a ferromanganese alloy smelter at a site near Kupang in West Timor, Indonesia.

It has entered into an agreement to secure 50 hectares of land with the landowners and the local Regent for the development of the proposed smelter.

This site was chosen as it is close to the port of Tenau in Kupang which will minimise consumable import costs and export logistics costs, as well as being close to the coast permitting use of sea water for power station cooling systems.

GMC has engaged a specialist Australian engineering group, Como Engineers Pty Ltd (Como), to oversee the engineering and project management of the proposed smelters.

Como have produced budget level drawings and costings for the supply and operation of a smelter and associated power station.

## **Power Supply**

Power for the first smelter will be supplied on a user pays basis and sourced from the local Government power supply company PT PLN in Kupang.

GMC is in discussions with power supply infrastructure providers about long term power supply options using a BOOT (Build, Own, Operate and Transfer) arrangement, where a contractor builds and supplies power on a user pays basis and ultimately GMC will purchase the infrastructure and operate the power station in the longer term.

## **Taxation**

The corporate tax rate in Indonesia is 25%.

Application will be made to have GMC's Indonesian subsidiary, PT Gulf Mangan Grup, classified as a "Pioneer Industry" as the project will have a combined investment of US\$ 142.5 million (US\$ 67.5 million for the smelter and US\$ 75 million for the Power Plant).

As a Pioneer Industry the company will have access to 10 years of full tax relief followed by another 2 years of 50% tax relief.

## **Market**

As ferromanganese alloys are in general used in higher quality steels the major market will be Japan, Korea and Europe.

China has a strategy to move to producing higher quality steels to support an export industry to adequately compete globally.

This will lead to increasing demands for ferromanganese.

The current annual consumption of high carbon ferromanganese alloy is 4.2 million tonnes per annum.

The premium quality of Gulf's alloys will ensure a strong demand by quality steel producers.

At full production Gulf's output will be 144,000 tonnes per annum which will account for 2.5% of world consumption. World demand for high carbon ferro alloys is forecast to grow at the rate of 10% over the next 5 years.

Gulf's operating costs of US\$ 839 per tonne for high carbon alloy is some 80% of the global industry average while it has used a selling price of US\$1,100 per tonne for the study.

Manganese is the fourth most consumed metal in the world only exceeded by iron, aluminium and copper. Over 90% is used in steel production, where there is no viable substitute in the steel making process.

It is used primarily to remove sulphur during the steel making process as well as hardening the steel.

Manganese is used to make many things, from spacecraft to batteries. Its compounds are important for purifying water and for glazing pottery and glass.

## **Analysis**

The Timor Smelter Study highlights the benefit of having access to high quality manganese ore, access to existing port and infrastructure as well as lower than average industry costs.

The fully integrated manganese business benefits from established port and infrastructure.

Adding further interest, the full Indonesian Government support and a 10 year tax holiday is a significant pointer as to the importance of the smelter and its upside potential.

The project's financial metrics are impressive with an EBITDA of US\$623.8 million, IRR of 45.6% and a two-year payback period for modest start-up capital investment of US\$67.5 million over four years.

The company also plans to list on the Singapore Exchange, aligning the project with its Asian regional investor base.

[http://www.mining-bulletin.com/index.php/read\\_39248.html](http://www.mining-bulletin.com/index.php/read_39248.html)