SUMMARY

- 1. Kalyani Steels Limited (KSL), in strategic alliance with Mukand Limited is operating Hospet Steels Limited, an integrated steel plant in Koppal district of Karnataka. The existing plant capacity is 700,000 tpa of carbon and alloy steels. Considering present market demand and current export scenario for alloy and special steel worldwide, KSL now intends to set up independently a 1.4 mtpa integrated steel plant for production of carbon and alloy steel including micro-alloyed steel, free cutting steel, bearing steel, boron steel, spring steel, tool & die steel, valve steel, file steel and high speed steel, along with stainless steel in the existing complex and area adjacent to the existing plant.
- 2. A study based on the desk research was carried out for estimating the projected demand-supply scenario of alloy and special steel. It is found that consumption of alloy steel has increased with a CAGR of 12.7 per cent over the period of 2002 to 2012. It may be assumed that the growth in consumption of alloy steel will be about 5 per cent annually between the period of 2012 to 2024 in line with growth of manufacturing sector during this period as projected by FICCI. Also alloy steel production is projected to grow at a CAGR of 7.4 per cent during the year 2012 to 2024. Considering this, gap exists between demand and supply of alloy and special steel during the period of 2012 to 2024.

Summary (cont'd)

3. After full implementation, the plant will produce saleable rolled long products, as well as, billets, blooms, rounds and ingots of the following quantities:

| Carbon/ alloy steel rounds (25 to 350 mm) | 692,500 tpa |
|--|-----------------|
| Stainless steel rounds (36 to 200 mm) | 55,900 tpa |
| Carbon/ alloy steel round cornered squares (55 to 340 mm) | 199,400 tpa |
| Carbon/ alloy steel flats (55 x 5, mm to 150 x 13, mm) | 61,700 tpa |
| Carbon/ alloy steel wire rods (5.5 mm to 22 mm) | 91,800 tpa |
| Stainless steel wire rods (5.5 mm to 15.5 mm) | 36,700 tpa |
| Caron/ alloy steel billets (130 x 130, mm to 200 x 200, mm) | 40,000 tpa |
| Carbon/ alloy steel blooms (240 x 280, mm to 320 x 400, mm) | 27,100 tpa |
| Carbon/ alloy steel rounds (160 mm to 800 mm) | 53,300 tpa |
| Carbon/alloy steel Ingots | 100,000 tpa |

4. Based on the product mix envisaged, the proposed plant is planned to be set up in two phases, which includes augmentation of some of the existing plant units and installation of new facilities. In addition to this, some of the existing facilities will also be utilized for the proposed expansion. Following facilities are envisaged for phase-wise implementation of the proposed project:

Expansion of Integrated Iron & Steel Plant to 1.4 mtpa Capacity in Koppal District, Karnataka Pre-Feasibility Report

Summary (cont'd)

| | Phase-I | Phase-II (Over and above Phase-I) |
|--|--|---|
| Pellet Plant Coke Ovens | 1 x 1.2 mtpa 2 x 45 ovens | |
| Sinter Plant | (approx.) 1 x 33 sq m (existing) | |
| Calcining Plant Blast furnace | 1 x 130 sqm 1 x 300 tpd 1 x 250 cu m (existing) + 1 x 350 cum (existing) + 1 x 750 cu m | 1 x 300 tpd 1 x 250 cu m (existing) |
| Gas based DR Plant | $1 \times 0.5 \text{ mtpa}$ | - |
| Basic oxygen furnace | 1 x 60 ton + (future provision for 1 x 60 ton) | 1 x 60 ton |
| Electric arc furnace | - | 1 x 60 ton |
| Ladle furnace | 2 x 60 ton | 1 x 60 ton |
| Argon-oxygen decarburizer | 1 x 60/65 ton | - |
| Vacuum degasser (twin station)/RH degasser | 1 x 60 ton | 1 x 60 ton |
| Induction furnace | 1 x 20 ton | - |
| Billet cum bloom cum round caster | 1 x 3 strand | - |
| Billet cum bloom caster | 1 x 3 strand | - |
| Bloom cum round | - | 1 x 2 strand |
| Heavy bar mill | _ | 1 x 0 32 mtna |
| Bar & wire rod mill | 1 x 0 5 mtpa | . x 0.02 mpa |
| Existing rolling mills | 0.35 mtpa | - |

5. Requirement of some of the major raw materials considered for the production viz. coking coal, anthracite, PCI coal and SMS grade limestone will be met through import. Iron ore fines & lump, BF grade limestone, dolomite, bentonite and quartzite will be procured from indigenous sources. Wagon Summary (cont'd)

tipplers are envisaged for unloading of the raw materials and mechanised systems are considered for storage and distribution of various raw materials.

6. Requirement of fuel, power and other utilities viz. plant and instrument grade compressed air, steam, industrial gases (oxygen, nitrogen & argon), chilled water will be fulfilled through installation of new facilities/augmentation of existing facilities. Coke oven gas, blast furnace gas and LD gas will be available as by-product gases inside the plant. Coke oven gas will be used for the proposed DR plant. Blast furnace gas and mixed gas will be used as fuel for various heating applications of the plant. Total make-up water requirement for the plant after full implementation will be about 900 cu m per hour, which will be drawn from Tungabhadra Dam. A new raw water reservoir of 10 lakh cu m capacity has been considered to take care of the eventualities.

After implementation of Phase-I and Phase-II facilities, the maximum demand of power for the proposed plant will be 69 MW and 137 MW respectively, which will be met partly through captive power generation from CDQ & TRT of blast furnace and balance through drawal from KPTCL grid.

7. It is envisaged that the Phase-I facilities of the project will be completed within 32 months from the 'Effective date of contract'. Phase-II facilities are envisaged to be completed within a period of 31 months from 'Effective date of contract' for Phase-II. Summary (cont'd)

8. The estimated order-of-magnitude capital cost, including plant cost, preoperative expenses, working capital margin and construction, works out interest during to be Rs. 2,306 crore after Phase-I and Rs. 5,531 crore after Phase-II. Annual manufacturing expense in the first year of stabilised operation at rated capacity level works out to be Rs. 3,571 crore after Phase-I and Rs. 5,730 crore after Phase-II. Considering saleable quantity of envisaged products estimated annual sales realisation comes out to be Rs. 5,451 crore after Phase-I and Rs. 8,543 crore after Phase-II, at rated capacity level. Based on this, the return on investment for 1st year of operation with rated capacity is computed at 69 per cent and 46 per cent after Phase-II.