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**NATIONAL ASSEMBLY**

**WRITTEN REPLY**

**PARLIAMENTARY QUESTION: 4138**

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**Dr M J Cardo (DA) to ask the Minister of Economic Development:**

What were the key findings of the Industrial Development Corporation’s pre-feasibility study for a new low-cost iron and steel facility based on available low-cost resources in the country? NW5011E

**REPLY**

A pre-feasibility study (“PFS”) was conducted by the IDC in August 2012.

The key findings of the PFS include:

* A new low cost iron and steel plant with annual capacity of 2.5 million tons based on low cost iron ore and coal resources in South Africa, is viable.
* The preferred process route would be the Rotary Hearth Furnace (“RHF”) technology. The primary advantage of this technology is that it does not require coking coal and subsequently has the lowest operating cost. The downside is the high capital cost of an RHF project and relative high electricity consumption.
* The second best option is Blast Furnace (“BF”) technology. Although it is the most proven route worldwide for iron making, it requires coking coal which is not currently available in South Africa and was therefore considered second best to RHF.
* Beneficiation of the magnetite could be done at a facility at Phalaborwa.
* Middelburg would be a suitable location (and significantly better than Phalaborwa) based on availability of coal, raw material transport logistics, infrastructure including water, rail and electricity as well as proximity to inland domestic market.

After the PFS was concluded, IDC embarked on a process to find a strategic equity partner which led to the Memorandum of Understanding executed with China’s Hebei Iron & Steel Group (HBIS) in September 2014.

HBIS’s participation is conditional upon using their core competence which is based on BF technology as well as to increase the target size of the project to 5mtpa of which a substantial portion will be exported, to other Sub-Saharan African markets. The BF process necessitates the use of coking coal that would need to be imported (possibly from Mozambique). The capacity change, new markets identified and raw material import requirements may put an inland site such as Middelburg at a competitive disadvantage. Therefore, they are considering a coastal site as an alternative.

HBIS and IDC are currently conducting additional prefeasibility studies to assess the economic viability of BF technology, increased size and the project location. Depending on the outcome of these additional prefeasibility studies, a detailed feasibility study will be conducted before a final investment decision is made.

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