**NATIONAL ASSEMBLY**

**WRITTEN REPLY**

**PARLIAMENTARY QUESTION: 773**

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

Whether the Industrial Development Corporation (IDC) has commissioned any feasibility studies into (a) platinum and (b) ferrochrome processing methods that reduce electricity consumption; if so, (i) what are the relevant findings and (ii) how does the IDC plan to take advantage of new technologies in this regard? NW832E

**REPLY**

I have been advised by the Industrial Development Corporation (IDC) that it is considering ways to reduce electricity consumption in domestic processing of both metal groups and I attach hereto the more detailed reply by the CEO of the IDC.

“With reference to question (a), the IDC is participating in the feasibility study to advance the development of a process aimed at producing platinum group metals without going through the high energy intensive smelting route.

This process recovers platinum group metals from sulphide flotation concentrates into separate solution streams for further downstream conventional refining. Unlike smelting, it is also able to upgrade low grade platinum group metal concentrates.

The feasibility study has recently been completed with positive findings confirming the economic viability of the process. The process is considered to be a game changer for the beneficiation of platinum because of its innovative nature and the benefits the platinum industry will derive by adopting this technology.

Firstly, indications from test work are that it reduces energy consumption by approximately 20% because the process is hydrometallurgical rather than pyro-metallurgical.

Secondly, it also eliminates CO2 emissions which makes it an environmentally friendly technology. It is not affected by the chrome content of platinum ores which is a major constraint of traditional smelters.

**CHROME SMELTING**

Regarding ferrochrome processing the IDC has conducted an internal study which has identified high costs as a major reason for the recent ferrochrome smelter closures, and has identified the need to build less energy intensive ferrochrome producing facilities going forward if the South Africa ferrochrome sector is to remain competitive.

To that end, the IDC has recently approved funding to participate in a feasibility study that is expected to lead to the establishment of a ferrochrome smelter which utilises heat generated by furnace waste gases from the smelting processes to pre-heat the chrome ore before it is fed into the smelter’s furnaces.

The smelter is expected to operate with production costs of approximately 20% lower than the global average.”

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