



**FACT THE FERTILISERS AND CHEMICALS  
TRAVANCORE LIMITED**

(A Government of India Enterprise), Regd. Office: Eloor.

Udyogamandal- 683 501, Kochi (Kerala), India. Ph: 0484-2546109,

Email: [dgmenggfedo@factltd.com](mailto:dgmenggfedo@factltd.com), **Website: <http://www.fact.co.in>**

**NOTICE FOR EXPRESSION OF INTEREST FOR JV**

The Fertilisers and Chemicals Travancore Limited (FACT), a Public sector undertaking in Kochi, Kerala, has identified, as part of its expansion plan new projects such as a Sulphuric acid plant, Urea plant, NP complex fertilizer plant, SSP plant and Ammonia-Urea complex.

FACT intends to associate with reputed Public Sector Undertakings for jointly associating with FACT in the above projects. FACT, therefore, invites Expression of Interest from Public Sector Undertakings who are willing to invest in these proposed ventures for Joint Venture participation or through any other appropriate business model. Detailed EOI document with details of the projects is available at our website: **[www.fact.co.in](http://www.fact.co.in)**

**Last date for submission of response: 08-12-2011.**

Date : 18.10.2011

Dy General Manager (Engg)/FEDO

## **Call for Expression of Interest**

The Fertilisers and Chemicals Travancore Limited (FACT), a Public sector undertaking having interests in the field of fertiliser and petrochemical production intends to venture into an expansion and diversification plan in the core sector to sustain its productivity levels and improve profitability. FACT has identified certain projects such as a new Sulphuric acid plant, Urea plant, NP complex fertilizer plant, SSP plant, Phosphoric Acid Plant and Ammonia-Urea complex for which substantial investment is required. FACT intends to associate with suitable Public Sector Undertakings for jointly taking up these projects. FACT, therefore, invites Expression of Interest from Public Sector Undertakings who are willing to invest in these proposed ventures for Joint Venture participation or any other appropriate business model. The details of these projects are given briefly in the following sections.

### **1.0 GENERAL INFORMATION**

1.1 The Fertilisers and Chemicals Travancore Ltd. (The FACT) was, incorporated in 1943, at Udyogamandal, about 20 kms from Cochin, with the aim to produce and propagate the use of chemical fertilisers in the country. Over the years, FACT has grown from a single unit in 1947 producing about 10,000 tonnes per annum of nutrient, to a multi product, multi-division unit. FACT has at present manufacturing divisions at two locations in Cochin producing complex fertilisers, Ammonium sulphate and also the petrochemical- Caprolactam which is used in Nylon manufacture.

Besides the three manufacturing divisions, it has also a consultancy division, FACT Engineering and Design Organisation (FEDO) and a fabrication division FACT Engineering Works (FEW) both located in Cochin itself.

The complex fertilizer NP 20:20:0:13 known by the trade name Factamfos produced by FACT is in huge demand in the southern states principally Andhra Pradesh, Karnataka, Kerala and Tamil Nadu.

1.2 The Production divisions of The Fertilisers And Chemicals Travancore Limited (FACT) are as follows:

1. Udyogamandal Division
2. Cochin Division.
3. Petrochemical Division

Udyogamandal and Petrochemical Divisions are located at Udyogamandal which is about 20 KM from Ernakulum city. These two divisions together form the Udyogamandal Complex of FACT.

Cochin Division is located at Ambalamedu, near BPCL- Kochi Refinery (BPCL-KR) also about 20KM from Ernakulum City.

The plants in these units, products, installed capacities and the normal operating capacities are as given below:

Sl.No.	Plant	Product	Installed Capacity		Operating Capacity MTPA
			MTPD	MTPA	
<b>Udyogamandal Complex</b>					
<b>Udyogamandal Division</b>					
1	Ammonia Plant	Ammonia & Synthesis Gas	990	3, 26,700	326,700
2	SO <sub>2</sub> /Sulphuric Acid Plant	Sulphur Dioxide/ Sulphuric Acid	550	1, 81,500	181,500
3	Sulphuric Acid Plant	Sulphuric Acid/ Oleum	600	1, 98,000	198,000
4	Phosphoric Acid Plant	Phosphoric Acid	100	33,000	Plant not in operation
5	Complex Fertilizer Plant	Factamfos (NP 20:20:0:13)	450	1, 48,500	1, 95,000 (590 TPD)
6	Ammonium Sulphate Plant	Ammonium Sulphate	681	2, 25,000	2, 25,000
<b>Petrochemical Division</b>					
1	Caprolactam Plant	Caprolactam	152	50,000	50,000
<b>Cochin Division</b>					
1	Sulphuric Acid Plant	Sulphuric Acid	1000	3, 30,000	3, 63,000 (1100 TPD)
2	Phosphoric Acid Plant	Phosphoric Acid	360	1, 18,800	1, 18,800
3	Complex Fertilizer Plant	Factamfos (NP 20:20:0:13)	1470	4, 85,000	6, 30,000 (1900 TPD)

The feedstock for the Ammonia Plants is Naphtha, supplied by BPCL-Kochi Refinery (BPCL-KR). The fuel used in the boilers is Furnace Oil, which is also supplied by Kochi Refinery and also imported through IOCL.

Sulphur required for the Sulphuric Acid Plants and Rock Phosphate required for the Phosphoric Acid Plants are imported and received at our storage facility at Cochin Port.

Benzene, the main raw material for Caprolactam, is procured indigenously or imported as spot cargoes. The other inputs required for Caprolactam like Ammonia, Sulphur Dioxide, Oleum and Carbon Dioxide are from captive production. Ammonium Sulphate is generated as a bi-product of Caprolactam. Small quantities of nitric acid and soda ash are also produced in the Caprolactam plant.

The captive production of Sulphuric Acid and Phosphoric acid are insufficient to meet the requirements of NP productions in both the division together, Hence the balance requirements of these raw materials is met through imports or by purchase from indigenous suppliers .

The company has an extensive facility at the Cochin Port for receiving raw materials like ammonia, rock phosphate, sulphur , phosphoric acid. This includes a 10000 MT storage for Ammonia and also unloading facilities for rock phosphate and sulphur. Facility for receiving Sulphuric Acid utilizing hired storages and also in house facilities is also being implemented.

Production of Ammonia and Urea has been suspended in Cochin Division since 2003, as operation of the Naphtha-based energy-intensive Ammonia/Urea Plants of 1970 vintage has become economically unviable. The plant is being disposed off as scrap.

The proposed LNG terminal in Cochin is expected to be operative by 2012 – 2013. LNG will be used as feedstock and fuel in place of costly Naphtha and Furnace Oil, once it is available in Kochi.

## 2.0 **PROJECTS PROPOSED**

The projects which are in the purview of the company's expansion/diversification plans are indicated in the table below:

SL.NO	PROJECT	CAPACITY	INVESTMENT (Rupees)	LOCATION
1	SULPHURIC ACID PLANT	2000 TPD	265 crores	Cochin division
2	UREA PLANT	1500 TPD	930 crores	Udyogamandal
3	NP COMPLEX FERTILIZER PLANT	1000 TPD	220 crores	Cochin division
4	SSP PLANT	500 TPD	60 crores	Udyogamandal
5	AMMONIA-UREA COMPLEX	2000TPD AMMONIA &3500TPD UREA	4500 crores	Cochin division
6	PHOSPHORIC ACID PLANT	600 TPD	650 crores	Cochin division

A brief write up on these proposed projects is given below:

### **2.1 Setting up of a new Sulphuric Acid Plant in FACT Cochin Division**

There is a deficit between the production and consumption of sulphuric acid in Cochin division of FACT to the tune of 800 Tons per day.

The concept of the proposal is to set up additional captive production facilities at FACT Cochin Division to meet the entire requirement of Sulphuric Acid.

A new Sulphuric Acid Plant of 2000 TPD can be installed, which can cater to the present deficit and also meet the additional requirement on account of the proposed revamp of the phosphoric acid plant. The investment required would be approximately Rupees 265 crore.

The proposed Sulphuric Acid Plant will be based on the DCDA route to meet the environmental pollution standards. The plant will be based on the know-how developed by FEDO from its long experience in the design, installation and operation of sulphuric acid plants independently as well as in collaboration with reputed process licensors in the field.

### **2.2 Setting up of a new Urea Plant in FACT Udyogamandal Division**

The production of Urea in FACT Cochin Division has been suspended from 2003 as the operation have become economically unviable.

However the market survey for Urea indicates a demand supply gap of at least 8 million tons by 2020. Already to cater to the market requirement in the Southern States of Kerala, Tamilnadu, Karnataka and Andhra Pradesh, alone FACT requires about 3, 00,000 MTPA of Urea. Recently the Government of India has been encouraging fertilizer companies to revive production of Urea in order to meet the shortages and reduce imports. FACT has a strong marketing network in the southern states and was in the market of Urea till 2004. Even now FACT is maintaining its presence in the Urea market by trading Imported Urea Consignments.

In order to meet this objective FACT intends to set up a Urea Plant at FACT Udyogamandal Division of a single train of 1500 TPD Urea as an add on unit to the existing 900 TPD Ammonia plant which is based on Haldor Topsoe technology. The project also involves setting up of all associated offsite facilities including product-handling systems. Raw materials for production of urea are ammonia and carbon dioxide, both obtained from the existing ammonia plant. The capital investment for the 1500 TPD urea plant and associated facilities has been estimated to be Rupees 930 Crores.

The proposed project is to be based on one of the latest energy efficient technologies offered by process licensors like M/s Snamprogetti S.P.A. Italy, M/s Stamicarbon B.V. Netherlands, M/s Toyo Engineering Corporation, Japan etc.

Existing plant facilities in Udyogamandal like the 2 x 5000 MT Ammonia storage, Steam generation plants, Raw water pumping system, etc. can be utilised for the proposed Urea project.

### 2.3. **Setting up of a new Complex Fertiliser Plant in FACT Cochin Division**

FACT intends to set up a new integrated complex fertilizer production facility capable of manufacturing multiple NP grades at FACT Cochin Division. FACT plans to increase the Annual Complex fertilizer production to 10 Lakh MTPA by installing an additional 1000 TPD NP plant at Cochin Division using outsourced Ammonia, Phosphoric acid and Sulphuric acid.

For the implementation of New NP plant based on outsourced intermediates some new storage & material handling facilities / modifications of existing infrastructure facilities shall be envisaged at FACT's port facility at Willingdon Island (W.I) and Cochin division.

The estimated investment cost of the project is expected to be Rupees 220 crores.

### 2.4 **Setting up a new SSP plant at Udyogamandal Division**

FACT has plans to set up a 500 TPD SSP plant at Udyogamandal. Some of the existing facilities like rock godown, rock handling system etc. Would be utilized to the extent possible after assessing their condition.

The estimated investment cost of the project is expected to be Rupees 60 crores.

### 2.5 **Setting up an Ammonia-Urea complex at Cochin division**

FACT also intends to set up an Ammonia-Urea complex at Cochin division as a part of its plans to revive Urea production. The proposed complex will consist of an Ammonia plant of capacity 2000 TPD and a Urea plant of capacity 3500 TPD.

The estimated investment cost of this venture is expected to be Rupees 4500 crores. Certain existing facilities available like Urea silo, raw water pumping system etc will be utilized for the project.

### 2.6 **Setting up a new Phosphoric Acid Plant at Cochin Division**

FACT has also plans to set up a new 600 TPD Phosphoric Acid Plant at Cochin Division. The estimated investment cost of the project is expected to be Rupees 650 crores.

## 3.0 **BUSINESS MODEL PROPOSED**

FACT intends to set up the above projects at Kochi as Joint Venture with the participating partner or any other appropriate business model.

**4.0 INVESTMENT PATTERN**

FACT will provide land and the available infrastructure facilities like water etc. to the JV as its share of the equity. FACT will also provide design and consultancy services through its design organization FEDO. The design and consultancy fees would also form part of FACT's equity contribution. The JV partner should be willing to invest in the equity of the venture in proportion to his percentage shareholding.

**5.0 MARKETTING ARRANGEMENT**

FACT undertakes to buy back the intermediates and also market the products produced from the JV to the extent of 100% .based on appropriate agreements to be executed with the JV for the same.

**6.0 Response to EOI**

Interested firms are invited to furnish proposal for EOI with following details:

- 1) Letter of submission of proposal.
- 2) Organization profile/ information about organization, organization structure, etc.
- 3) Technical & Financial capability of the organization with audited accounts/reports.
- 4) Proposed business plan, etc.

**7.0 Response to EOI with details may please be forwarded to the following address:**

DY.GENERAL MANAGER (ENGINEERING)/ FEDO  
FACT ENGINEERING AND DESIGN ORGANISATION  
THE FERTILISERS AND CHEMICALS TRAVANCORE LTD.  
UDYOGAMANDAL P.O. KOCHI, KERALA-683501

Email:dgme@fedo.com