



IndianOil

ED (LPG), IOCL, HO

RECD. ON...04/06/13

गोपनीय
CONFIDENTIAL

कार्यसूचि मद संख्या : PP/131

AGENDA ITEM NO. _____

प्रति TO _____

ED (LPG)
Mktg. HO.

Planning & Projects Committee

बैठक की तारीख

22nd May, 2013

Meeting Held on _____

SUBJECT विषय Construction of 60 TMTA capacity LPG Bottling Plant at Village Masudanpur, Dist. Banka near Bhagalpur, Bihar	ACTION BY किसके द्वारा कार्रवाई
<p style="text-align: center;">कार्यवृत्त MINUTES</p> <p>The proposal seeks approval of the Planning & Projects Committee for construction of 60 TMTA (2 carousel, single shift) capacity LPG Bottling Plant at Banka District, Bihar at an estimated cost of Rs.96.74 crore including the cost of land.</p> <p>As against the demand of 295 TMTA of packed LPG in Bihar, the present installed bottling capacity is 240 TMTA. The deficit in capacity is met through assistance from Oil Marketing Companies as well as additional shift operations at IndianOil Bottling Plants. The demand projections also include release of new connections and commissioning of RGGLV as per the directives of MoP&NG. The capacity of existing bottling plants in Bihar is proposed to be augmented from 240 TMTA to 420 TMTA by 2016-17. However, there would still be a deficit. Therefore, it is proposed to construct 60 TMTA capacity LPG Bottling Plant for which land has been identified at Village Masudanpur, Dist.Banka. District Administration has assured help in acquisition of required land. The optimization study considering the projected demand in 2016-17 reflects a saving of Rs.38.67 crore per annum towards logistics cost. The project is expected to be completed in 30 months from the date of approval / manpower positioning / environmental clearance, whichever is later.</p> <p>The Committee desired that efforts should be made for outsourcing the Bottling Plant activities through O&M contract even though the bottling plant is being constructed by IndianOil. A concept paper in this regard be prepared and submitted to the competent authority expeditiously.</p> <p>With the above, the Planning & Projects Committee of the Board approved the proposal and passed the following Resolution: -</p> <p>“RESOLVED THAT approval of Planning & Projects Committee of the Board be and is hereby accorded to the proposal for Construction of 60 TMTA (2 carousel, single shift) capacity LPG Bottling Plant at a total estimated cost of Rs.96.74 crore (including cost of land) on the land acquired through District Administration, Banka District at Village Masudanpur, Dist.Banka, Bihar.”</p>	

प्रतिलिपि COPY TO

: ED(F), IOC, Mktg. HO
: GM, Dir(M)'s Sect. Mktg. HO.DATED :
दिनांक :: 3rd June, 2013

31/6/2013

कंपनी सचिव COMPANY SECRETARY

Item No. PP/131

INDIAN OIL CORPORATION LTD.
(MARKETING DIVISION)

AGENDA ITEM FOR MEETING OF THE PLANNING & PROJECTS COMMITTEE OF THE
BOARD TO BE HELD ON 22/05/13

Sub : Construction of 60 TMTA capacity LPG Bottling Plant
at Village Masudanpur, Dist Banka, near Bhagalpur, Bihar.

1.0 SUMMARY OF PROPOSAL

This proposal is to seek the approval of the Planning & Projects Committee of the Board for construction of 60 TMTA (2 carousel, single shift) capacity LPG Bottling Plant, by acquiring about 29.74 acres of land through District administration, Banka District, at an estimated cost of Rs. 96.74 Crore, including cost of land.

2.0 BACKGROUND

- 2.1 The present demand for Packed LPG in the State of Bihar is 295 TMTA as against the present installed bottling capacity of 240 TMTA. The deficit in bottling capacity is met through bottling assistance from OMCs, as well as by extended/ additional shift operations during Sundays and Holidays.
- 2.1 Action plan has been drawn to release new connections and commissioning of RGGLVs to meet the desired coverage as per the above said directives. Accordingly, packed LPG demand has been worked out on All India Basis including the State of Bihar. The demand projections on All India basis and for the state of Bihar is as given below:

(Figs. In TMT)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2021-22
All India	7012	7688	8363	9008	9620	10141	11583
Bihar	273	304	340	376	410	444	497

- 2.2 In order to meet the future demand in the year 2016-17, the following actions are required:

- Capacity augmentation at existing Bottling Plants
- Setting up of new bottling plants

- 2.3 In order to meet demand projections of 2016-17, additional bottling capacities to the tune of 180 TMTPA have been planned at the existing bottling plants in Bihar (in phased manner based on viability), as per details below:

	Capacity (TMTPA)		
Plant	Present capacity	Augmentation proposed	Proposed by 2016-17
Patna	120	60	180
Barauni	60	60	120
Muzaffarpur	60	60	120
Total	240	180	420

With additional capacity of 180 TMTPA at the existing bottling plants, the total bottling capacity in Bihar State would be 420 TMTPA as against projected demand of 444 TMTPA expected in the year 2016-17.

- 2.4 Additional capacity in the State of Bihar is essential in view of future demand as well as to meet seasonal peak demand.
- 2.5 Bhagalpur has been identified as a potential location in Bihar for setting up a grassroot LPG bottling plant having a capacity of 60 TMTPA, so that the bottling capacities are in line with the demand projections. Optimisation Study (Ref LPG-O/OS/S&D/22 dated 01.11.2012) conducted for the period 2016-17 suggests a saving of Rs 38.67 Crores per annum towards logistic cost.
- 2.6 Land admeasuring 29.74 acres (approx) has been identified, for setting up Greenfield LPG Bottling capacity of 60 TMTPA. The site situated on the State Highway no. 19 in village Masudanpur, Dist Banka, at a distance of 16 km from Banka town, and 38 km from Bhagalpur, has been recommended for setting up of LPG Bottling Plant (Report Ref LPG/OPS/Land/BGP dtd 21.05.2012).
- 2.7 Vide letter no. 059 (Pr)/Bhu-A dated 14.09.2012, District Land Acquisition officer, Banka has requested IOCL for payment of an initial estimated amount of Rs 3,62,96,727/- for initiation of acquisition of the land requested by IOC.

Annexure –A

2.8 The reasons favorable to setting up of 60 TMTPA LPG Bottling Plant at Village Masudanpur, Dist Banka, are as under:

- a) The site is located right on the State Highway no. 19 and has a frontage of about 300 m on the highway at a distance of 15 km from District Headquarter at Banka and 38 km from Bhagalpur.
- b) The plot is almost rectangular in shape and is free of major trees / vegetation and is free of any structures.
- c) The site is near to high demand area.
- d) District administration is favourably inclined and has assured all help for acquisition of the required land.
- e) Land owners are amenable and have expressed their willingness for land acquisition.
- f) There is potential for future growth in the demand.
- g) Bottling capacity is required to meet the market demand of 2016-17
- h) An additional bottling plant in the state of Bihar will lead to reduced pressure on the existing bottling plants in Bihar, to meet the demand.
- i) Creating additional bottling capacity, will reduce the overtime man hours required in existing plants on account of Sunday / Holiday operation during peak season.

3.0 PROPOSAL

3.1 It is proposed to acquire land through the District administration, Banka at Village Masudanpur, Dist Banka, and setting up a 60 TMTPA capacity LPG Bottling Plant at an estimated cost of Rs 9674 lakhs, including the land cost.

3.2 Following major facilities are proposed at the plant :

- a. 2 x 24 point Electronic Carousels & allied facilities
- b. Mounded storage of 3 x 600 MT.
- c. Bulk truck unloading bays – 8 nos.

4.0 **JUSTIFICATION**

Establishing a LPG Bottling plant of 60 TMTA capacity at Village Masudanpur, Dist Banka, near Bhagalpur, is justified due to the following reasons:

- 4.1 Optimisation Study (Ref LPG-O/OS/S&D/22 dated 01.11.2012) conducted for the projected demand of 2016-17 suggests a saving of Rs 38.67 Crores per annum towards logistic cost by setting up a Greenfield LPG plant at Bhagalpur.
- 4.2 Even after considering augmentation of capacity in the existing plants, installed bottling capacity in the State of Bihar will increase to 420 TMTA. Thus there is a requirement to add bottling capacity keeping in view the deficit of bottling capacity in the year 2016-17 and beyond.
- 4.5 Bottling plant being near the demand centre will have further advantages such as:
 - a) Improved Cylinder turn around resulting in
 - i) Reduction in cylinder-customer ratio.
 - ii) Reduction in cylinder requirement
 - b) Substantial saving in freight economics, both for bulk movement and packed movement
 - c) Improved customer service
 - d) Enhanced customer satisfaction
- 4.6 Having a new bottling plant is an operational necessity for meeting the future demand in the State of Bihar.

5.0 **ESTIMATED COST AND FINANCIAL VIABILITY**

- 5.1 The proposal is estimated to cost Rs.9674 lacs, and is expected to be completed in 30 months from the date of approval / manpower positioning / EC Clearance, whichever is later. The project estimate includes the cost of land. Copy of Engineering Estimate is enclosed. Break-up of the cost is as under :

Annexure- B

Sr.No.	Item	Cost (Rs.Lacs)	Remarks
1.	Land about 29.74 acres Freehold to be acquired through Collector, Banka District.	388.38	Payment shall be as per actual measurements and rates as decided by the District administration through land acquisition process.
2.	Land Development	390.15	
3.	Civil Works	2811.19	
4.	Storage	2200.00	1800 MT storage proposed.
5.	Filling Equipment and Conveyor System	806.82	Standard facilities with 2x24 machines electronic carousal.
6.	Equipment and Pipeline	692.59	
7.	Fire Protection System	797.42	
8.	Electrification	720.50	
9.	Others	424.5	Construction period exp, Communication eqpmt viz. PA Paging, VHF, CCTV etc
10	Contingency @ 5%	442.16	Excluding land cost
	Total	9673.71	Say 9674 Lakhs

5.2 Phasing of Expenditure is as under:

Year	1 st Year	2 nd Year	3 rd Year	Total
Rs. (lakhs)	2674	5000	2000	9674

5.3 Considering the project cost of Rs 9674 Lakhs and savings as projected (Logistic saving & Bottling Margin realization) the IRR comes to 33.57 %.

IRR for various sensitivities envisaged is as hereunder:

Scenario	IRR
Estimated Project Cost & full Savings as projected	33.57%
110 % of Project Cost & 100 % realization of Savings	32.03%
100 % of Project Cost & 90 % realization of Savings	32.41%
110 % of Project Cost & 90 % realization of Savings	30.90%

5.4 The project is also justified on operational considerations & necessity to meet the demand.

6.0 BUDGETARY PROVISION

6.1 On approval, the proposal shall be included in RBE (Revised Budget Estimates) of Non- Plan Capital Budget proposals for the year 2012-13.

6.2 Till such time, the cash flow requirements, if any, shall be met through re-appropriation from other non-plan schemes.

7.0 COMPLETION

The completion period of project is 30 months from the date of approval / manpower positioning/ environmental clearance, whichever is later.

8.0 MANPOWER REQUIREMENT

Project manpower consisting of Officers -1 'Grade C' & 2 'Grade B/A', and one Technical Assistant (staff) for the project activities

This manpower will be utilized for construction of the plant and finally adjusted in the manning for operations and maintenance of facilities.

Operating manpower (to be positioned at completion of project)

Officers- 1 in 'Grade E', 1 in 'Grade D' and 6 in Grade A/B/C

And Staff- BCW- 15 nos, WCW- 4 nos. for operation in single shift.

Manpower requirement for operation and maintenance of the plant is as per approved benchmark for 2 x 24 point electronic carousals operations in single shift.

8.1. DoA

As per the guidelines / operating modalities for revised DoA to Chairman and Functional Directors, Enclosure-II, capital investment proposals above Rs.50 crores and less than Rs. 100 crores requires the approval of Planning & Projects Committee of Board.


Annexure- C

9.0 APPROVAL

The Planning & Projects Committee of the Board is requested to approve the proposal and pass the following resolution with or without modification as it may deem fit:

“ RESOLVED THAT the approval of the Planning & Projects Committee of the Board be and is hereby accorded for

Construction of 60 TMTA (2 carousel, single shift) capacity LPG Bottling Plant at a total estimated cost of Rs.96.74 Crore (including cost of land), on the land acquired through District Administration, Banka District at Village Masudanpur, Dist Banka, near Bhagalpur.


(M. NENE)
DIRECTOR(M)

Encl: As above

Annexure D - P&G NOK & replies of LPG Group.

Annexure-A



जयश्री टाकुर, 2000000
अहम भू-अर्जन पदाधिकारी, बांका

बांका समाहरणालय
(भू-अर्जन शाखा)
पत्रांक- (159/88)
भू0310,

सेवा में,

Dy, General Manager (L.P.G)
Indian Oil Corporation Ltd. (MO)
5th Floor, Lok Nayak Jai Prakash Bhawan
Dak Bungalow Chowk, Patna-800001

बांका, दिनांक- 14/11/2012

विषय :- बांका जिला में इंडियन ऑयल कॉर्पोरेशन लि0 की स्थापना हेतु संभावित व्यय विवरणी का प्रेषण।

प्रसंग :- BSO/LPG/ADMIN DATE-06-08-2012

गहाशय,

उपर्युक्त विषयक प्रसंग के संबंध में कहना है कि बांका जिला में इंडियन ऑयल कॉर्पोरेशन लि0 की स्थापना हेतु भू-अर्जन के क्रम में संभावित व्यय विहित प्रपत्र में इस पत्र के साथ संलग्न है।

अतः अनुरोध है कि संभावित ₹3,62,96,727/- (तीन करोड़ बासठ हजार छिपानव्ये लाख सात सौ सत्ताईस) रु.का का आधिकार देने की कृपा की जाय ताकि भू-अर्जन की प्रक्रिया प्रारंभ की जा सके।

अनु0-यथोक्त।

विश्वरामजन

14/11/12

जिला भू-अर्जन पदाधिकारी,
बांका।

Annexure - B

ABSTRACT OF ESTIMATE FOR LPG BOTTLING PLANT AT BANKA NEAR BHAGALPUR IN BIHAR CAPACITY 60 TMT/PA IN SINGLE SHIFT DATED : 08.10.2012		
S.N.	ITEM	AMOUNT , Rs/LACS
1	LAND (29.74 ACRES)	388.38
2	LAND DEVELOPMENT	390.15
3	CIVIL WORKS	2811.19
4	FILLING EQUIPMENT & CONVEYOR SYSTEM	806.82
5	EQUIPMENTS & PIPELINES	692.59
6	FIRE PROTECTION SYSTEM	797.42
7	ELECTRIFICATION	720.50
8	STORAGE FACILITIES	2200.00
9	MISCELLANEOUS INCL. CONSULTANCY, CONSTRUCTION	424.50
SUB TOTAL		9231.55
CONTINGENCY @ 5% EXCEPT LAND COST		442.16
GRAND TOTAL		9673.71
SAY Rs. 9674 LACS		
NOTE:		
1. Plant estimate has been prepared for 02 nos. 24-m/c.carousel system facility, 3 x 600MT mounded LPG Bullets & ITLD bays as advised by LPG-Ops, HO vide IOM ref. LPG-O/829 dated 26.09.2012. Land cost have been calculated based on the details provided by District Land Acquisition officer vide letter dated 14.09.2012.		
2. Estimate is tentative as detailed engineering will be carried out after soil investigation & plot survey. Land development rates have been taken from extant Capex Estimate Rates by BHSO for the plant area.		
3. Dimensions of sheds & buildings, and quantities have been considered based on the current layouts approved by similar projects & the details mentioned in the standardization manual. These dimensions & quantities may vary at the time of actual execution of the project depending on the actual site conditions & layout.		
4. The quantity estimate for civil works have been prepared based on tentative design / dimensions & rate analysis for the same has been carried out based on the extant Capex estimates of BHSO and also based on the tenders / estimates finalised for Mysore LPG BP Project. Lumpsum rates considered for various facilities & equipment are based on the market trends observed for the current ongoing project at Mysore & Tirunelveli.		
5. Rates for filling equipment & conveyors, other equipment like pump, compressors etc are based on recent rate contract / orders finalised during last year and market trends.		
6. Quantities and rates of Pipelines, Fire protection system, Electrification, Storage facilities are based on recent tenders finalised / floated for Mysore LPG BP Project.		
7. Contingency considered is 5 % excluding the land cost.		
8. Completion period will be 30 months from the date of EoC approval/manpower positioning/environmental clearance whichever is later.		
9. Manpower required : 1 'C' + 2 'A/B' Grade officers with at least one of them with Civil Engineering Background and 1 TA in staff cadre.		
PHASING OF CASH OUT LAY:		
1st Year	:	Rs. 2674 lakh
2nd Year	:	Rs. 5000 lakh
3rd Year	:	Rs. 2000 lakh

Prepared by:

K. M. Thakur
(K. M. Thakur) 8/10/2012
Manager (LPG-E)

Concurred by:

P. M. Rohit
(P. M. Rohit)
SFM

Approved by:

Ranjan Mehrotra
(Ranjan Mehrotra)
DGM (LPG-E)

DETAILED ESTIMATE FOR : LPG BOTTLING PLANT AT BANKA NEAR BHAGALPUR, BIHAR					
CAPACITY: 60 TMT/PA [SINGLE SHIFT]					
Dated: 08.10.2012					
S.NO.	ITEM	UNIT	QTY	UNIT RATE RS.	AMOUNT RS/LACS
1.0	LAND (29.74 Acres)				
1.1	Land Cost as per details & breakup provided by District Land Acquisition Officer vide letter dated 14.09.2012	Acre	29.74	As per letter from district authorities	362.97
1.2	Registration Charges, Legal Expenses, Etc (Approx)			7%	25.41
					388.38
2.0	LAND DEVELOPMENT				
2.1	Site Clearance/Soil Investigation/Land Survey	L.S.	JOB	L.S.	10.00
2.2	Cutting & Levelling	CUM	35000	109	38.15
2.3	Filling with imported earth - 1 mtr depth	CUM	95000	360	342.00
					390.15
3.0	CIVIL WORKS				
3.1	Outer Boundry Wall 3M high with fencing	RM	1400	9000	126.00
3.3	Inher Boundry Wall 1M high withfencing	RM	550	4500	24.75
3.4	Flexible Pavement Incl. shoulders				
3.4.1	Internal Roads	Sq. M.	14000	1500	210.00
3.4.2	Peripheral Roads	Sq. M.	2500	1500	37.50
3.5	Rigid Pavement				
3.5.1	Truck Parking Area	Sq. M.	18000	2500	450.00
3.5.2	Approach from main gate to TLD & Sheds	Sq. M.	8500	2500	212.50
3.6	Main/Inner/Emergency/Wicket Gates	L.S.	JOB	L.S.	30.00
3.7	Drainage	L.S.	JOB	L.S.	75.00
3.8	Culverts	L.S.	JOB	L.S.	30.00
3.9	Horticulture	L.S.	JOB	L.S.	25.00
3.10	Non-plant buildings				
3.10.1	Office Building	Sq. M.	400	17500	70.00
3.10.2	Canteen & Amenities Block	Sq. M.	260	17500	45.50
3.10.3	Control Room, S & D room	Sq. M.	200	17500	35.00
3.10.4	Electrical Sub Stn. Incl. DG room	Sq. M.	350	11000	38.50
3.10.5	Fire Pump House incl. Air Comp. House	Sq. M.	300	8000	24.00
3.10.6	Store room	Sq. M.	280	8000	22.40
3.10.7	Security Kiosks	Sq. M.	100	11000	11.00
3.10.8	Open Urinals with soak Pits	Nos.	2	60000	1.20
3.10.9	Cycle Shed & Car Parking	Sq. M.	300	5000	15.00
3.10.10	Driver's rest room with Toilet	Sq. M.	150	15000	22.50
3.10.11	Transit Camp & Guest House	Sq. M.	280	17500	49.00
3.10.12	Contract Worker's rest room	Sq. M.	200	15000	30.00
3.11	Plant Buildings				
3.11.1	Filling cum empty cyl. Shed	Sq. M.	4550	14500	659.75
3.11.2	Filled Cylinder shed	Sq. M.	1100	14500	159.50
3.11.3	Degassing shed	Sq. M.	36	14500	5.22
3.11.4	Loading & Unloading shed Incl. fingers	Sq. M.	874	13000	113.62
3.11.5	Connecting platforms	Sq. M.	356	4200	14.95
3.11.6	Mastic flooring	Sq. M.	7000	800	56.00
3.11.7	TLD 8 bays	Sq. M.	720	10000	72.00

DETAILED ESTIMATE FOR : LPG BOTTLING PLANT AT BANKA, BIHAR					
CAPACITY: 60 TMTPA [SINGLE SHIFT]					
Dated: 08.10.2012					
S.NO.	ITEM	UNIT	QTY	UNIT RATE RS.	AMOUNT RS/LACS
3.11.8	LPG pump/comp. House	Sq. M.	200	10000	20.00
3.11.9	Weigh bridge foundation	L.S.	JOB	L.S.	6.00
3.11.10	Tube well & pump with piping	L.S.	JOB	L.S.	20.00
3.11.11	Overhead drinking water tank with piping	L.S.	JOB	L.S.	11.00
3.11.12	S/water tank with piping	L.S.	JOB	L.S.	3.30
3.11.13	Foundation for all equipments	L.S.	JOB	L.S.	20.00
3.11.14	Miscellaneous civil works such as CC below pipelines, brick pitching for pathways, paver blocks	L.S.	JOB	L.S.	50.00
3.11.15	Fabrication of instruction boards	L.S.	JOB	L/S	15.00
					2811.19
4.0	FILLING EQUIPMENTS & CONVEYORS				
4.1	24 point Electriconic Carousel	Nos.	2	22000000	440.00
4.2	Chain conveyors complete with drive units [with pneumatics]	M	600	28000	168.00
4.3	Dynamic Electronic check scale of 1600 cys/hr	Nos.	2	Included in Item 4.1	0.00
4.4	Check scale stationery [MR+Post Evac.+SQC.]	Nos.	3	275000	8.25
4.5	Telescopic conveyors	Nos.	9	750000	67.50
4.6	Weight correction machines	Nos.	2	Included in Item 4.1	0.00
4.7	Multi head valve testing unit - 1600 Cyls./hr.	Nos.	2	Included in Item 4.1	0.00
4.8	CVT [MR cys. + SQC]	Nos.	2	66000	1.32
4.9	Inline water bath	Nos.	2	400000	8.00
4.10	Auto evacuation unit	Nos.	1	550000	5.50
4.11	Auto Safety Cap fixer machine	Nos.	2	200000	4.00
4.12	Hot air auto seal crimping machine	Nos.	2	605000	12.10
4.13	Portable Hot Air Sealing Unit	Nos.	1	200000	2.00
4.14	Online purging unit incl.vacc.pump	Nos.	1	650000	6.50
4.15	Ultrasonic valve retrieval equipment	Nos.	1	110000	1.10
4.16	Degassing/Dewatering unit	Nos.	1	385000	3.85
4.17	Valve On-off screwing machine	Nos.	1	325000	3.25
4.18	Valve change unit without evacuation	Nos.	2	2875000	57.50
4.19	Online washing & drying unit	Nos.	2	645000	12.90
4.20	Dead weight pressure gauge tester	Nos.	1	55000	0.55
4.21	PVC Seal Cut and Placing Machine	Nos.	1	450000	4.50
4.22	Cylinder de-shaping M/c	Nos.	1	300000	3.00
4.23	Cylinder stay plate straightener M/c	Nos.	1	300000	3.00
					806.82
5.0	EQUIPMENTS & PIPELINES				
5.1	LPG/Propane compressor for unloading	Nos.	3	1540000	46.20
5.2	LPG/Propane compressor for evacuation	Nos.	1	400000	4.00
5.3	LPG Pumps	Nos.	2	2000000	40.00
5.4	Air compressor with non-FLP motors incl. Air receiver.	Nos.	2	1050000	21.00
5.5	Air drier with non FLP fittings	Nos.	1	825000	8.25
5.6	Service water pumps	Nos.	4	45100	1.80

DETAILED ESTIMATE FOR : LPG BOTTLING PLANT AT BANKA, BIHAR
CAPACITY: 60 TMTA [SINGLE SHIFT]

Dated: 08.10.2012

S.NO.	ITEM	UNIT	QTY	UNIT RATE RS.	AMOUNT RS/LACS
5.7	50MT electronic weigh bridge	Nos.	1	1483900	14.84
5.8	Installation of equipments	L.S.	JOB	L.S.	11.00
5.9	Supplying/Laying seamless & ERW pipelines for LPG/Air service	L.S.	JOB	L.S.	225.00
5.10	Supplying/fixing globe/gate/ball valves	L.S.	JOB	L.S.	55.00
5.11	Other fittings including EFC, NRV Pr. Gauge, Strainer, LPG Filter and SFI etc.	L.S.	JOB	L.S.	35.00
5.12	Remote Operated Valves	L.S.	L.S.	L.S.	45.00
5.13	Fabrication/Erection of catwalks/Crossovers	MT	50	85000	42.50
5.14	Other items like Evacuation Vessel, Centrifugal Pump, Cooling tower and Civil Works	L.S.	JOB	L.S.	75.00
5.15	Unloading arms & Quick/Dry couplings for TLD (8x2 = 16 Nos.)	Nos.	16	425000	68.00
6.0	<u>FIRE PROTECTION FACILITIES</u>				692.59
6.1	<u>Hydrant & sprinkler system</u>				
6.1.1	Supplying/Laying pipelines for hydrant & sprinkler systems incl. Fittings, hydrant points & monitors	L.S.	JOB	L.S.	250.00
6.1.2	CI Gate valves, Butterfly Valves, NR valves, Pr. gauges etc.	L.S.	JOB	L.S.	31.25
6.1.3	ILSD system as per OISD 144	L.S.	JOB	L.S.	6.50
6.2	<u>Auto operation sprinkler system</u>				
6.2.1	Plant sheds incl. TLD, P/H etc.	L.S.	JOB	L.S.	62.50
6.2.2	Bullets	L.S.	JOB	L.S.	12.50
6.3	<u>Fire water pumps</u>				
6.3.1	Fire Engines with pump	Nos.	3	1200000	36.00
6.3.2	Jockey pumps	Nos.	2	93500	1.87
6.4	Security Air Compressor	Nos.	2	40000	0.80
6.5	Gas monitoring system	L.S.	JOB	L.S.	77.00
6.6	Fire water Tanks - 3 x 2500 KL	L.S.	JOB	L.S.	265.00
6.7	Vapour extraction system	L.S.	JOB	L.S.	16.50
6.8	Service water tank for make up water	L.S.	JOB	L.S.	7.50
6.9	Safety & security equipments	L.S.	JOB	L.S.	30.00
7.0	<u>ELECTRIFICATION</u>				797.42
7.1	Permanent power connection HT	L.S.	JOB	L.S.	10.00
7.2	Temporary power connection	L.S.	JOB	L.S.	6.00
7.3	Transformers-Lighting & Power	L.S.	JOB	L.S.	20.00
7.4	HT Circuit breaker	No.	1	385000	7.50

Handwritten signature

DETAILED ESTIMATE FOR : LPG BOTTLING PLANT AT BANKA, BIHAR CAPACITY: 60 TMTA [SINGLE SHIFT]					
Dated: 08.10.2012					
S.NO.	ITEM	UNIT	QTY	UNIT RATE RS.	AMOUNT RS/LACS
7.5	Gen Sets				
7.5.1	Main DG	No.	2	5000000	100.00
7.5.2	Lighting DG	No.	1	2000000	20.00
7.6	Supply of PCC/MCC, lighting and capacitor panel	L.S.	JOB	L.S.	82.00
7.7	Supply of Power & Control Cables	L.S.	JOB	L.S.	205.00
7.8	FLP Electrical/ Light Fittings, Bulbs,	L.S.	JOB	L.S.	75.00
7.9	Electrification work, Street / Building light, Instrumentation.	L.S.	JOB	L.S.	75.00
7.10	UPS, battery, charger	L.S.	JOB	L.S.	45.00
7.11	Flood light towers with fittings	No.	5	1000000	50.00
7.12	Earthing & Lightening protection system	L.S.	JOB	2500000	25.00
					720.50
8.0	STORAGE FACILITIES				
8.1	Mounded Storage Bullets [3 x600 MT]	L.S.	JOB	L.S.	2200.00
					2200.00
9.0	MISCELLANEOUS				
9.1	Water connection	L.S.	JOB	L.S.	5.00
9.2	Water treatment plant	L.S.	JOB	L.S.	10.00
9.3	Sanitary connection	L.S.	JOB	L.S.	5.00
9.4	Risk & Environmental studies	L.S.	JOB	L.S.	5.00
9.5	PA paging, Inter comm. System, VHF/ Telephone	L.S.	JOB	L.S.	20.00
9.6	Insurance & freight	L.S.	JOB	L.S.	15.00
9.7	Consultancy charges incl. Third party inspection charges	L.S.	JOB	L.S.	210.00
9.8	Construction period expenses	L.S.	JOB	L.S.	75.00
9.9	PC for project management + Printer and software including AC	L.S.	JOB	L.S.	1.00
9.10	Functional software.	L.S.	JOB	L.S.	5.00
9.11	Environment & Pollution control clearance	L.S.	JOB	L.S.	10.00
9.12	Office/Canteen furniture/Equipment	L.S.	JOB	L.S.	24.00
9.13	20 KL HSD Tank with dispensing unit	L.S.	JOB	L.S.	3.50
9.14	Closed Circuit Cable TV (CCTV)	L.S.	JOB	L.S.	30.00
9.15	Electrical Barrier	No.	2	300000	6.00
					424.50
				SUB TOTAL RS.	9231.55
				Contingencies @ 5% excluding land cost	442.16
				GRAND TOTAL RS.	9673.71
				SAY RS. 9674 LAKH	

Handwritten signature/initials: K. M. S. S.

Annexure-C

ENCLOSURE-II

PLANNING AND PROJECTS COMMITTEE

SCOPE	PARTICULARS	POWERS
SCOPE	To approve capital investment proposals	
CONSTITUENTS	Chairman and all functional Directors	
CHAIRMAN OF THE COMMITTEE	Chairman	
QUORUM	Chairman, Director (F), the concerned functional Director and one other functional Director	
POWERS	1. To approve capital investment proposals	Above Rs. 50 crores and upto Rs. 100 crores
	2. To approve pre-feasibility expenses	Above Rs. 20 crores
	3. To approve capital expenditure exceeding the estimates or component part thereof	a) When it exceeds the originally approved project cost by more than 10% for projects approved by the Planning and Projects Committee B) When revised cost exceeds Rs. 50 crores <u>Note</u> : When revised cost exceeds Rs.100 crores, approval of Board of Directors will be necessary.
	4. To approve change in scope of work (within approved project cost)	Exceeding 10% of the project cost for project costing over Rs. 100 crores.
	5. To approve Purchase/long term leasing of land/ buildings (including residential) <u>Note</u> : If schemes are not approved, with proposals relating to land acquisitions covering infra-structural facilities, the economic viability also be submitted after reckoning standard costs of standard facilities.	Exceeding Rs. 5 crores in each case for non-approved schemes.

Annexure - D

INDIAN OIL CORPORATION LIMITED
(Corporate Office)
Project Appreciation Note

Ref : CO/PAG/02/808

Dated : 13th March, 2013

Sub: Proposal for construction of 60 TMTA LPG Bottling Plant at village Masudanpur, Distt. Banka (near Bhagalpur), Bihar at an estimated cost of Rs.96.74 crs.

Approving Authority for capital investment & DOA	Planning & Projects Committee under item no. 1 of Enclosure – II
Approving Authority for purchase of land & DOA	Chairman under DOA Cl. No. D.11.b
DOA clause for positioning of manpower	Chairman under DOA Cl. No. C.4 of Enclosure – X

1. **Project Cost including land cost(Rs. Cr)**

Total	FE Component	Price Base
96.74	-	Oct, 2012

2. **Phasing of Expenditure (Rs. Cr)**

Year	1 st Year	2 nd Year	3 rd Year	Total
Rs in Crore	26.74	50.00	20.00	96.74

3. **Project Economics**

The Division has worked out IRR of 33.57% based on the projected logistics savings & bottling margins.
The project is also justified on operational consideration & necessity to meet the demand.

4. **Completion Schedule**

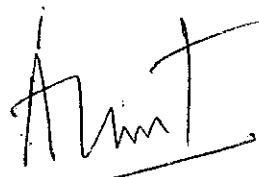
Project completion schedule is estimated to be 30 months from the date of administrative approval/manpower posting/Environmental Clearance whichever is later.

5. **Manpower**

- **During construction** -1 officer in 'Grade-C', 2 officers in 'Grade-A/B' and one technical assistant to be absorbed in operating manpower on completion of project.
- **Operating Manpower** – 1 officer in 'Grade-E', 1 officer in 'Grade-D' and 6 officers in 'Grade-A/B/C'. 15 BCWs and 4 WCW for single shift operations.

6. **Proposal Details:**

- 6.1. Present demand for packed LPG in the State of Bihar is 273 TMTA vis-à-vis present bottling capacity of 240 TMTA. The deficit in bottling capacity is met through bottling assistance from LPG Bottling plant at Malda (WB) as well as additional shift operations during Sundays/holidays.
- 6.2. MoP&NG has mandated coverage of 75% population with LPG connections by the year 2014-15 including LPG connections in rural markets under RGLV scheme. Accordingly,



62

action plan has been drawn to release new connections and commissioning of RGGLVs to meet the desired coverage. The demand projections on all India basis and for the State of Bihar are given as under:

	2013-14	2014-15	2015-16	2016-17	2021-22
All India (TMT)	8363	9008	9620	10141	11583
Bihar (TMT)	340	376	410	444	497

In order to meet demand projections for 2016-17, additional capacities have been planned at the existing bottling plants in Bihar as per following details: Figs in TMT/PA

Plant	Present Capacity	Proposed augmentation	Total by 2016-17
Patna	120	60	180
Barauni	60	60	120
Muzaffarpur	60	60	120
Banka	New plant	60	60
Total	240	240	480

- 6.3. Bhagalpur has been identified as potential location in Bihar for setting up a grass root LPG bottling plant having a capacity of 60 TMT/PA (single shift working) so that bottling capacity in Bihar is in line with the demand. Optimization study (for 2016-17) conducted on 01.11.2012, projected savings of Rs.38.67 crs per annum towards logistics cost.
- 6.4. The suitable land admeasuring 29.74 acres for the proposed plant has been identified near village Masudanpur, (Distt. Banka) and 38 Kms away from Bhagalpur and the District authorities have been approached for acquisition of land by IOCL. District authorities vide letter dated 14.09.2012 have submitted estimated demand of Rs.3.63 crs for initiation of process of acquisition of land.
- 6.6. Detail of the estimated cost under major heads is given as under: Figs in Rs/Lakhs

	Heads	Cost	
1	Land (29.74 acres)	388.38	Payment to be made as per actual measurement and rates as decided by district administration through land acquisition process.
2.	Land development	390.15	-
3.	Civil works	2811.19	-
4.	Storage	2200.00	1800 MT (3 x 600 MT mounded storage)
5.	Filling equipment & conveyor system	806.82	Standard facilities with 2x24 machines electronic carousal
6.	Equipment & pipeline	692.59	-
7.	Fire Protection System	797.42	-
8.	Electrification	720.50	-
9.	Others	424.50	-
10	Contingency @ 5%	442.16	Excluding land cost
	Total	9673.71	Say Rs.96.74 crs.

7. Justification :

The project has been justified on mainly account of the following.

- o CO, Optimisation has worked out logistics savings to the tune of Rs.38.67 crs per annum for putting up the plant.

61

- IRR on the project cost of Rs.96.74 crs works out to 33.57% considering the logistics savings and bottling margins.
- Plant is required on operational consideration & necessity to meet the demand.

8. **Budget Provisions:**

After obtaining approval, the proposal would be included in RBE of Non Plan Capital Budget proposals for the year 2012-13. Till such time, the cash flow requirements, if any would be met through re-appropriation from other non-plan schemes.

9. **Appraisal of Proposed Manpower by CO HR**

Proposed manpower has been appraised by CO, HRD vide note proposal dated 30.01.2013 whereby recommendations are made for positioning of 3 officers & 1 technical assistant during project construction phase and positioning of 7 officers including the plant manager, 3 BCW and 15 WCW as operating manpower.

10. **Points for consideration**

Response of Div on Observation of CH on Jabalpur BP

Chairman on the proposal seeking investment approval for 60TMTPA LPG plant at Jabalpur, made an observation *"Before we take an investment decision, we should also explore possibility of outsourcing the Bottling plant. All possible models assets owned and operated by independent parties under BOOT/BOT & O&M basis should be explored"*.

On the issue, the Div has clarified that various options of outsourcing of bottling activities as well as other operation are under active consideration of the Industry. Considering various inherent disadvantages under the outsourcing through private bottlers/ BOO/ BOOT, the possibly way forward under consideration of the industry is by way of a formation of a Special Purpose Vehicle (SPV) for bringing all infrastructure on common basis for the OMCs wherein the OMCs would have equity lower than 50%. Since materialization of this concept and finalization of the modalities on Industry Basis may take some time and it may not be prudent to hold strategic projects in view of the uncertain timelines and the need to augment capacity to meet the existing and future demand urgently.

Further, the proposal is justified on the ground that getting land for setting up of ~~land~~ is the single most critical activity and at Banka the concerned District authorities are favorably disposed for land allotment. Detailed response received from the Div is placed on file.

Considering very high bottling cost of IOCL bottling plants (Rs.1200/MT in FY 2010-11) vis-à-vis private bottler's cost (maximum being Rs.799/MT for IPPL) and CH's observations with regards to outsourcing, the Div may explore possibility of outsourcing the operation of the plant on O&M basis.

In view of this, positioning of operating manpower is not recommended for approval pending finalization of feasibility study for operation of the plant on O&M basis for the instant proposal by the Div.

Financials

The Div has worked out IRR of 33.57% based on logistics savings of Rs.38.67 Lakhs per annum for 2014-15 and net weighted average margin of Rs.4427.25/MT as per actual

Ant

claim for FY 2011-12. Considering that net bottling margins would be available even if the facility is not set up and are not actually savings for new plant, the IRR based on logistics savings alone works out to 22.99%.

Estimated Cost

The Div has justified the estimated cost of construction vis-à-vis earlier proposals for the construction of LPG plants at Mysore, Tirunelveli and Jabalpur as reasonable as under:

Cost: Rs/crs.					
Item	Banka	Mysore	Tirunelveli	Jabalpur	Justification
Land area (acres)	29	25.5	42	29.45	-
Est. Base year	Oct'12	Aug'10	March'11	Nov'11	-
Land development	3.90	1.77	3.93	4.70	Depends upon size of plot, topographical features like land excavation/filling etc.
Civil works	28.11	15.52	21.52	24.94	Mysore land is of excellent load bearing capacity (rock terrain) resulting in lower civil foundations cost vis-a-vis Banka where the soil is loamy type requiring heavier foundations.
Carousel, conveyor system, equipments & Pipeline	15	9.17	9.26	12.99	1x24 points carousel for Mysore & Tirunelveli (2 shift operations) vis-à-vis 2x24 points carousel at Banka & Jabalpur (single shift operation) to achieve desired 60 TMTA resulting in additional cost of Rs.4 crs.
Fire protection	7.97	5.90	6.83	7.83	Higher cost considering future cost provision about 2-3 years from now.
Storage Facilities	22.00	17.50	17.50	22.00	
Electrification works	7.21	3.34	3.51	3.51	Est. based on recent tender finalised for works at Mysore. Est. for electrification works at Banka incorporates technological improvements viz. remote operation of valves, display of equipment/valve status in control room.
Misc.	4.25	3.89	3.89	3.89	Est. based on different base years due to different input costs.
Contingency@ 5%	4.42	2.85	3.32	3.99	-
Total cost excluding land	92.86	59.94	69.76	83.85	-

Considering the justification provided by the Div, construction cost can be considered reasonable.

11. Conclusions & Recommendations:

Considering the above, Dir (F) may concur in the proposal as under:

1. Construction of 60 TMTA capacity (2 carousal single shift) LPG plant at Village Masudanpur, Distt. Banka (Bihar) at an estimated cost of Rs.96.74 crs for the approval of the Planning & Projects Committee of the Board under item no. 1 of Enclosure-II of the DOA,
2. Purchase of land admeasuring apprx. 39.74 acres through District Administration, Banka at an estimated cost of Rs.3.88 crs for the approval of Chairman under DOA clause D.11.b (unapproved scheme) of Enclosure-X, and
3. Sanction of project manpower consisting of 3 officers and one technical assistant which will cease to exist on completion of project for the approval of the Chairman under DOA clause no. C.4 of Enclosure-X.
4. The proposal for sanction of manpower for operation of the plant is not recommended for approval at this stage. The same would be considered for approval on receipt of feedback from the Div for comparison of Opex with in-house O&M vis-à-vis outsourced on O&M basis. The Div to submit the same well before commissioning of the plant.

Archan Pant
12/3/13

(Archan Pant)
CM (PAG)

DGM (CF)

Ra Lethu
12/3/13

DIR (F)

Dir
12/3/13

365

CH

12.03

2.23

I find Contingency has been kept at 5%. Instead of 10%. I do not know what has been the experience in the past but it should be kept at 10%. Cost before approval. We need not not happen that later we have to go to Board for cost over run. If so Contingency at 10% can be kept at this stage and seek Board approval.

Further on the issue of outsourcing, have we explored with companies like IOTC whether they are interested. Otherwise, as indicated in the note, the idea of a company with 50% holding of PSU companies/IOTC can be explored with F.L.S etc. ~~to name F.L~~ This may be further explored.

As per
6.4.13

LPG-OPERATIONS, HO

LPG-O/829
22.04.2013

**Sub : Construction of 60 TMTA capacity LPG Bottling Plant
At Village Masudanpur, Dist Banka, near Bhagalpur , Bihar.**

This is further to the proposal no. LPG-O/829 dated 15.11.2012 on the subject and the observations made by the Chairman on the body of the Project Appreciation Note no. CO/PAG/02/808 Dated 13.03.2013.

Following manuscript remarks were made by the Chairman:

1. I find contingency has been kept at 5% instead of 10%. I do not know what has been the experience in the past. It should not happen that later we have to go to Board for cost over run. If so, contingency at 10 % can be kept at this stage and we can seek Board approval:
2. Further, on the issue of outsourcing, have we explored with companies like IOTL whether they are interested. Otherwise as indicated in the note, the ideas of a company with 50% holding of PSU companies / IOCL can be explored with F & S etc. This may be further explored:

Following is accordingly submitted:

1. For purpose of obtaining administrative approval of the competent authority, Engineering estimates are prepared considering the standard cost of standard facilities required for the project. Actual cost may increase as per actual design requirements which are ascertained after detailed design and engineering, soil investigation etc. Contingency is kept to take care of such requirements as finalized after detailed engineering. Following guidelines are referred for keeping 5 % contingency:

Engineering Manual Vol. 5 states that the contingencies in Budgetary estimate is to be taken as 5%. Copy of the relevant portion is attached.

Annexure-IX

Apart from the reasons stated above, cost over-run can also be due to delay in execution of project due to delayed statutory clearances, inflation etc. There have been cases in past where we have had cost over-run and revised approval was obtained. In such eventuality, detailed justification for the cost over-run is submitted for obtaining necessary approval of the competent authority for revision in project cost.

LPG-O/829
22.04.2013

**Sub : Construction of 60 TMTA capacity LPG Bottling Plant
At Village Masudanpur, Dist Banka, near Bhagalpur , Bihar.**

2. While various options of outsourcing of bottling activities are explored by us for another LPG Bottling Plant, we have already obtained Budgetary Offer from M/s IOTL as well as M/s IPPL (our JV companies). As per budgetary offer received, the cost of outsourced bottling on BOOT basis is Rs 2450/- per MT (as per offer of M/s IOTL) and Rs 1700/- per MT (as per offer of M/s IPPL). Following is further noted:
 - a) Bhagalpur is strategic market with high potential of growth and having own & captive bottling plant will be advantageous in an open market as well.
 - b) Industry working group has deliberated advantages of various models of outsourcing and is working towards possible formation of a Special Purpose Vehicle for bringing all infrastructure on common basis for the OMCs wherein the OMCs will have a total equity lower than 50%. Such facility is mooted to be owned and operated by the SPV thus created. However, materialization of the above concept and finalization of the modalities on Industry Basis will definitely take some time and it may not be prudent to hold strategic projects in view of the uncertain timelines and the need to augment capacity to meet the existing and future demand urgently. -X. ①
 - c) As per past experience of OMCs, private bottlers per se suffer with inherent drawbacks, few of them are given below:
 - i. Long term dependence on private bottlers will lead to creation of parallel marketers in de-regulated scenario as envisaged in near future.
 - ii. LPG is an essential product and private bottlers do not provide Q&Q assurance and safety of operations.
 - iii. Risk of underfilling and unauthorized bottling have a potential for product diversion
 - iv. Operators lack qualified and trained manpowers
 - v. Issues of inventory (LPG & Cylinders -Bulk & Packed) are also major irritants.
 - vi. Similar disadvantages as above are envisaged under BOO/BOOT concept also.
 - d) The opinion of Industry is also not very favourable for BOOT due to the possible difficulties in implementing the transfer of assets after expiry of agreed period (if the owner decides not to honour the transfer as agreed initially). -X. ②
3. It may be appropriate to mention here that getting land for setting up industry is the single most critical activity for Greenfield projects at strategic locations. In the present case at Banka, the concerned authorities are favourably disposed for land allotment and the location is strategic market with a high growth potential.

**Sub : Construction of 60 TMTA capacity LPG Bottling Plant
At Village Masudanpur, Dist Banka, near Bhagalpur, Bihar.**

CONCLUSION & APPROVAL

In view of foregoing, Chairman is requested to kindly approve the following :

- a. Placing the Agenda for approval of the Planning & Projects Committee of the Board for Construction of 60 TMTA (2 carousel, single shift) capacity LPG Bottling Plant at Village Masudanpur, Dist Banka, near Bhagalpur in the State of Bihar at an estimated cost of Rs.96.74 Crore (under item no. 1 of Enclosure II of DoA)
- b. Purchase of land admeasuring approx. 29.74 acres through District Administration, Banka, at an estimated cost of Rs 3.88 Crores (under DoA Enclosure-X, clause D.11 b, for unapproved scheme).
- c. Sanction of Project manpower consisting of Officers -1 'Grade C' & 2 'Grade B/A', and one Technical Assistant (staff) for the project activities (under clause no. C.4 of Enclosure X).


[Signature]
22/4/13
(A N Jha)
ED (LPG)

~~DIR (M)~~ *[Signature]*
24/4/13

CHAIRMAN

The reasons given at ~~①~~ and ~~②~~ are not very convincing. We need to fast track these concepts, otherwise we will suffer for lower productivity and higher costs, in the face of competition. An approach paper be put up on these concepts/ideas. The proposal may be put up to the Propd & Prg. Committee of the Board.

[Signature] 25/5/13

	ENGINEERING MANUAL – VOL. 5 (PROCEDURES)	Chapter 1	Page 14
		Procedures	

The concept note should mention in brief the various project parameters, philosophy of the project, purpose of the project and other relevant details to serve as reference material during the course of the project implementation.

The concept note for any grass root depot / terminals/ LPG plant etc. should be as per standardised layout plans, policy guidelines, statutory requirements. Construction of various civil facilities should be to the barest minimum.


The standardized facilities/ layouts are to be reviewed once in two years.

1.3.2 Budgetary Estimates:

On receipt of the approved concept note, the Engg. Group of HO/ RO (Metro Project Group) / SO must prepare the estimates in line with the concept note.

Estimate shall be approved by head of Engineering deptt. in HO/SO/RO.

- a) A detailed survey of the location should be undertaken to list out the field data which have a direct bearing on the preparation of estimates & designs such as approach road, sub-strata & other Soil conditions, Water Table, Diversion of Overhead Transmission Lines, Diversion of Nallahs / Drains, etc.
- b) A detailed plan should be prepared, listing out all the facilities to be provided, with due consideration to the statutory regulations
- c) The environmental considerations should form part of the estimation.
- d) The following basic drawings shall be prepared in line with the relevant checklists and all the drawings should bear the reference of the approved concept note.
 - i) Layout Plan
 - ii) P&ID for product pipelines
 - iii) P&ID for Fire hydrant pipeline
 - iv) Product Pipeline layout
 - v) Hydrant Pipeline Layout
- e) The following aspects should be included in the estimate

	ENGINEERING MANUAL – VOL. 5 (PROCEDURES)	Chapter 1	Page 15
		Procedures	

- i) Suitable consultancy fees on components requiring consultancy.
- v) 5% contingencies

1.3.3 Technical Estimate:

Technical Estimates are prepared for invitation of Tenders.

As the estimated rate is a vital element in establishing the reasonableness of prices, it is important that the same is worked out by doing rate analysis in a realistic and objective manner on the basis of prevailing market rates, last purchase prices, economic indices for raw material/ labour, other input costs etc., wherever applicable.

The technical estimates in State Offices shall be approved by the Engineering head of the State Office in Grade 'D' and above. In HO/ RO minimum 'D' grade shall approve the estimates. Estimates in the Divisional Offices can be approved by the Divisional Manager for works within his administrative authority.

1.4 PRE PROJECT ACTIVITIES

It is necessary to carry out pre-project activities on receipt of administrative approval for Phase-1 of the Project.

1.4.1 Procedure to be followed for incurring expenditure to carry out the survey/ feasibility study:

At times, some expenditure is necessary to be incurred on Survey/ feasibility study of proposed Capital Project even before formal administrative approval is taken for Phase 1. In the absence of administrative approval for phase 1, budgetary provision may not exist and in such cases following procedure to be followed.

- a) Before taking up such studies / surveys, IR No. should be obtained by re-appropriation of funds after assessing the requirement.
- b) All expenditures should be booked as Work In Progress under respective I.R.