



उच्च प्रौद्योगिकी केन्द्र

(पेट्रोलियम एवं प्राकृतिक गैस मंत्रालय, भारत सरकार)

Centre for High Technology

(Ministry of Petroleum & Natural Gas, Govt. of India)

CHT/EC/91/669

5th October 2016

To,

कार्यकारी समिति के सभी सदस्यगण (संलग्न सूची अनुसार)

All Members of the Executive Committee of CHT (As per list enclosed)

महोदय,

Dear Sir,

विषय: उच्च प्रौद्योगिकी केन्द्र की 20^{वीं} कार्यकारी समिति का कार्यवृत्त

Sub: Minutes of 20th Meeting of the Executive Committee (EC) of CHT.

दिनांक 02 सितम्बर, 2016 को हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड, पेट्रोलियम हाउस, मुंबई में संयुक्त सचिव (रिफाइनरीज) की अध्यक्षता में हुई उच्च प्रौद्योगिकी केन्द्र की 20^{वीं} कार्यकारी समिति की बैठक का कार्यवृत्त आपकी सूचनार्थ एवं आवश्यक कार्रवाई हेतु संलग्न है।

Please find enclosed the duly approved Minutes of 20th Meeting of the Executive Committee (EC) of CHT held on 02nd September, 2016 at Hindustan Petroleum Corporation Ltd., Petroleum House, Mumbai under the Chairmanship of Joint Secretary (R), MoP&NG, for kind information and necessary action.

भवदीय,

Yours sincerely,

(बृजेश कुमार)

कार्यकारी निदेशक

पदेन सचिव, कार्यकारी समिति- उ.प्रा.के

(Brijesh Kumar)

Executive Director

Member-Secretary, Executive Committee - CHT

संलग्न यथोक्त

Encl: As above

सूचनार्थ प्रतिलिपि :

Copy for information to:

संयुक्त सचिव (रिफाइनरीज), पेट्रोलियम और प्राकृतिक गैस मंत्रालय के निजी सचिव
PS to Joint Secretary (Refineries), MoP&NG

श्री पवन कुमार, अवर सचिव (रिफाइनरीज), पेट्रोलियम और प्राकृतिक गैस मंत्रालय
Sh. Pawan Kumar, Under Secretary (Refineries), MoP&NG

Members of the Executive Committee of CHT

- | | | |
|----|--|------------|
| 1. | Shri Sandeep Poundrik,
Joint Secretary (Refineries),
Ministry of Petroleum & Natural Gas,
Shastri Bhawan,
<u>New Delhi-110 001</u> | - Chairman |
| | | |
| 2. | Shri Ajit Kumar,
Dy. Secretary (R),
Ministry of Petroleum & Natural Gas,
Shastri Bhawan
<u>New Delhi-110 001</u> | |
| | | |
| 3. | Shri Sanjiv Mittal,
Secretary,
Oil Industry Development Board,
OIDB Bhawan,
Plot No. 2, Sector-73,
<u>Noida - 201 301 (U.P)</u> | |
| | | |
| 4. | Shri Sanjiv Singh,
Director (Refineries),
Indian Oil Corporation Ltd.,
SCOPE Complex, Core-2, 5 th Floor,
Lodhi Road,
<u>New Delhi - 110 003</u> | |
| | | |
| 5. | Shri B.K.Namdeo,
Director (Refineries),
Hindustan Petroleum Corporation Ltd.
Petroleum House,
17, Jamshedji Tata Road,
<u>Mumbai-400 020</u> | |
| | | |
| 6. | Shri R.Ramachandran,
Director (Refineries),
Bharat Petroleum Corporation Ltd.
Bharat Bhawan,
4 & 5 Currimbhoy Road,
Ballard Estate,
<u>Mumbai-400 001</u> | |

7. Director (BD),
GAIL (India) Ltd.,
16, Bhikaji Cama Place,
R.K.Puram,
New Delhi – 110 066
8. Dr.Ram A.Vishwakarma,
Director,
Indian Institute of Petroleum,
P.O. Mohkampur,
Dehradun-248 005
9. Shri Ajay N. Deshpande,
Director (Technical),
Engineers India Ltd.
El Bhawan,
1, Bhikaiji Cama Place,
New Delhi-110 066
10. Shri Brijesh Kumar,
Executive Director/Member–Secretary, Executive Committee,
Centre for High Technology,
9th Floor, Tower-A, OADB Bhawan,
Plot No. 2, Sector-73,
NOIDA - 201 301

Special Invitees

11. Shri Gautam Roy,
Managing Director,
Chennai Petroleum Corporation Ltd.
536, Anna Salai,
Teynampet,
Chennai - 600 018
12. Shri H.Kumar,
Managing Director,
Mangalore Refinery & Petrochemicals Ltd.,
Regd. Office: Kuthethoor,
P.O. Via Katipalla,
Mangalore - 575 030
13. Shri P.Padmanabhan,
Managing Director,
Numaligarh Refinery Limited,
6th Floor, Tolstoy House,
15 – 17, Tolstoy Marg,
New Delhi-110001

Minutes of the 20th Executive Committee (EC) Meeting held on 2nd September 2016 at 09:30 hrs at Hindustan Petroleum Corporation Limited, Petroleum House, Mumbai:

The 20th Executive Committee (EC) Meeting was held under the Chairmanship of Shri Sandeep Poundrik, Joint Secretary (R), MOP&NG on 2nd September 2016 at 09:30 hrs at Petroleum House, Hindustan Petroleum Corporation Limited, Mumbai. List of the participants is attached as **Annexure**. At the outset, Director (R), HPCL welcomed the Chairman and all the participants. Gist of the meeting is as under:

1. Enlarging scope of activities by CHT

Initiating the discussions, Chairman mentioned that MoP&NG is considering enlarging scope of activities presently carried out by CHT to include performance monitoring and R&D in Petrochemicals.

Action by: CHT

2. Energy Efficiency Improvement study and Performance Audit of PSU refineries

ED (CHT) while providing the background of the proposal mentioned that the study for energy efficiency improvement of PSU refineries was envisaged to be carried out in two parts

Part-1:

- i. Aims to identify energy savings schemes over and above already identified by refineries both in short term to meet PAT target and medium term to meet MBN target of 60-70.
- ii. As approved by GC in its meeting held on 10th Dec, 2015 to carry out study by EIL for 15 PSU refineries (including Guwahati and Digboi, which are not part of PAT scheme), detailed proposal was put up for consideration of EC in its meeting 19th Meeting in July, 2016.
- iii. As advised by EC, the Committee comprising of technical representative of industry and Finance representative of IOC, has examined the fee quoted by EIL. EIL indicated that lumpsum fee of Rs 12.9 crore (excluding tax) is competitive and there is no scope for any reduction.
- iv. The refinery wise breakup of fee has been worked out by the Committee. The payment will be paid by refineries directly to EIL and CHT will reimburse its share of 50% to refineries upon confirmation of payment to EIL.
- v. CHT also proposes to line up TSA with EIL on behalf of refineries for feasibility study and costing etc. for the shortlisted schemes, however, refineries will be free to carry out this activity through any other consultant and CHT will have any sharing of fee.
- vi. The desirability of the study for HPCL-Visakh was deliberated in view of on-going study by EIL. After deliberations it was appreciated that the present study is mainly focussed at achieving targeted MBN in refineries in the medium term and therefore, study at HPCL-Visakh would be helpful.



Part-2

- i. It was envisaged that refineries would themselves carry out Mandatory Energy Audit (MEA) through Accredited Energy Auditors, as required under PAT by June, 2016.
- ii. PCRA had approached CHT to carry out MEA of 12 refineries at a cost of Rs 7.22 crore (excluding Digboi and Guwahati, which are not covered under PAT as well as BPCL (K), which has already completed MEA.
- iii. The scope of MEA was deliberated in detail. It was clarified by CHT/EIL that both the studies under Part-1 and Part-2 are mutually exclusive and their scope are not overlapping. It was clarified that PCRA's scope mainly involves audit of boiler system, flare, Insulations, major pumps and compressors, cooling towers, power generation facilities, HVAC, Lighting, electrical systems, etc. EIL clarified that their studies are based on average value data provided by refineries, whereas PCRA would actually measure some of the data in the field.
- iv. EIL has agreed to use this data and combine information from MEA with their report to provide comprehensive report to refineries at no extra fee.
- v. The refineries opined that PCRA has expertise to carry out mandatory audit, however, the resources of PCRA, in terms of equipment and manpower, to carry out MEA simultaneously at 12 refineries needs to be ascertained. It was clarified by CHT that PCRA proposes to engage one team each in 4 regions and assured that the study for all refineries can be completed by June, 2017.

EC considered the above and approved the part-1 of the study for 15 PSU refineries by EIL at a cost of Rs 12.9 crore excluding tax. As regards MEA study by PCRA, EC advised that a committee comprising of technical and Finance representatives of refineries should examine the scope of PCRA to avoid any duplication with scope of EIL in the above study & also the fees quoted by PCRA and put up to EC for consideration. OIDB representative mentioned that fee for MEA should be entirely borne by refineries as it is mandatory.

3. Benchmarking Studies by Solomon Associates for 2016 Cycle

EC in its meeting on 24th May, 2016 approved benchmarking study by Solomon Associates at a cost of Rs 6.9 Crore for 15 Fuel refineries and 4 lube refineries. In order to make it more tax efficient, CHT proposes that the payment is made by oil companies directly. CHT can then reimburse its share to refineries subsequently.

Refineries underlined benefit of continuing with current practice of centralised work order and payment by CHT considering advantage of collective bargaining and coordination. It was suggested to discuss the payment methodology with refineries including their Finance representatives to sort out the matter.

Action by: CHT/ Refineries

4. Sharing of expert group Recommendations

GC of CHT in its meeting held on 10th Dec, 2015, advised CHT to present status and action taken by refineries to EC for review. Accordingly, CHT has held interactions with refineries' senior representatives on 22.4.16 and 29.8.16. Based on various recommendations and



experience gained by refineries over a period of time, a compendium of major schemes implemented, under implementation and identified for future along with best practices has been prepared by CHT and circulated to refineries for identification of implementable schemes. Details of identified scheme and action plan are currently being prepared by refineries. CHT was advised to convene a meeting to consolidate the schemes. Refineries were advised to make presentation on details of scheme with milestone for feasibility studies and implementation in the next EC.

Action By: CHT/ Refineries

5. Performance Improvement Programme of PSU Refineries

CHT had proposed Performance Improvement Programme of PSU Refineries in areas excluding energy (which is separately proposed by EIL) through global tendering based on max benefit after deducting consultant fee and capital charges. Actual payment will be based on demonstrated benefits. It is proposed to call offers refinery wise at CHT, based on which order will be issued by refineries.

EC in its meeting held on 24th May, 2016 advised CHT to discuss with few reputed consultants and subsequently with refineries to finalise the tender document. Accordingly, CHT has consulted reputed consultants (McKinsey, KBC, Axens, Solomon and Shell Global) and also held meeting with nominated technical and Finance representative on 22nd and 29th June, 2016 and again on 29th August, 2016 at CHT to discuss prequalification criteria, scope, payment terms etc.

Refineries expressed that phasing of refineries would be needed as they have undertaken similar studies with consultants, which are still not concluded, and also refineries are implementing large number of projects for meeting BS-VI specifications. Therefore submission of baseline data would be difficult. It was also discussed that refineries can take up this programme either for certain units or for whole refinery.

Oil companies have been requested to indicate schedule for undertaking studies indicating details of current studies and considering ongoing major expansions and BS-VI projects.

Action by: CHT/ Refineries

6. R&D project on Renewable crude and liquid hydrocarbon fuels from Algae by CPCL/ Aban

EC in its 19th meeting held on 24th May, 2016 approved phase -1 of the project with CHT's contribution of Rs 386.4 Lakh. In the 77th Meeting held in Dec, 2015, while recommending the project, SAC also advised CPCL to make an attempt to involve expert to develop Genetically Modified Strain of algae for biomass production. The proposal of Dr Shashi Kumar Rhode, Group leader, Metabolic Engineering, International Centre for Genetic Engineering & Biotechnology (ICGEB), New Delhi at a cost Rs 50.50 Lakh considered and recommended by SAC in its 78th meeting held on 16th Aug, 2016.

EC accorded its approval for enhanced project cost of Rs 436.84 lakh to facilitate participation of ICGEB.



Action By: CHT/ CPCL

7. Commercialisation of CHT funded Projects

On a query from Chairman, CHT briefed that the committee constituted by EC, has deliberated on the subject including impediments faced in commercialisation, and as advised, 2 day workshop was held at CHT to compile information on available technologies with the R&D institutes/ EIL/ IIP. Further, an exclusive plenary session is planned at RTM on "Make in India".

EC advised that the same Committee may discuss further to suggest changes in policy matters to be adopted by Oil Companies and EIL w.r.t certain contentious issues like consideration of captive commercialisation of indigenous technology under PQC, bidding of indigenous technology developed in partnership with EIL, where EIL is PMC also, etc. The Committee may also shortlist promising projects developed with CHT funding having potential for commercialisation and carry out gap analysis.

Action by: CHT/ Refineries

Meeting ended with thanks to the Chair and the participants.



Annexure

List of participants to the 20th Executive Committee (EC) Meeting held under the Chairmanship of Joint Secretary (R) on 2nd September 2016 at Petroleum House, Hindustan Petroleum Corporation Limited, Mumbai:

Ministry of Petroleum & Natural Gas:

1. Shri Sandeep Poundrik, JS (R) - in Chair
2. Shri Ajit Kumar, Deputy Secretary
3. Shri Pawan Kumar, Under Secretary (R)

Indian Oil Corporation Limited:

1. Shri Sanjiv Singh, Director (R)
2. Shri Vijay Prakash, Executive Director (O)

Bharat Petroleum Corporation Limited:

1. Shri R. Ramachandran, Director (R)
2. Shri CJ Iyer, General Manager (I/c), Mumbai Refinery

Hindustan Petroleum Corporation Limited:

1. Shri BK Namdeo, Director (R)
2. Shri Rambabu, Executive Director (RCD)

Chennai Petroleum Corporation Limited:

1. Shri Gautam Roy, Managing Director
2. Shri PNK Mohanty, DGM (TS)

MRPL:

1. Shri H. Kumar, Managing Director
2. Shri M. Venkatesh, Director (Refinery)

Numaligarh Refinery Limited:

1. Shri SR Medhi, Director (R)

Engineers India Limited:

1. Shri Ajay N Deshpande, Director (Tech)
2. Shri A. Soni, Director (Projects)
3. Shri SK Handa, Executive Director (T)
4. Mrs Vartika Shukla, Executive Director (R&D)
5. Shri R. Mohan, GM

OIDB:

1. Shri Rajesh Saini, DCF&AO

Centre for High Technology:

1. Shri Brijesh Kumar, Executive Director
2. Shri AK Agarwal, Advisor (Technical)
3. Shri D. Thakur, Advisor (Technical)

Date: 12th September 2016

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1. Enlarging scope of activities by CHT

Initiating the discussions, Chairman mentioned that MoP&NG is considering enlarging scope of activities presently carried out by CHT to include performance monitoring and R&D in ~~upstream and Petrochemicals~~ in Petrochemicals. For this induction of both, suitable manpower in CHT and experts in SAC, would be required. In this regard, directions are being firmed up by MoP&NG.

CHT was advised to induct experienced retired personnel from PSU to start activity in Petrochemicals. *after discussion*

Action by: CHT

2. Energy Efficiency Improvement study and Performance Audit of PSU refineries

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