F. No. 2/2/2019-PPP
Government of India
Ministry of Finance
Department of Economic Affairs
PPP Cell

North Block, New Delhi
Dated: 30th.03.2021

OFFICE MEMORANDUM

Subject: Record of Discussions of 100th Meeting of PPPAC to consider the project proposal of M/o PNG for development of Strategic Petroleum Reserves at Chandikhol, Odisha and Padur II, Karnataka projects on DBFOT (Design, Build, Finance, Operate and Transfer) through PPP mode

The undersigned is directed to enclose a copy of the minutes of the 100th Meeting of the PPPAC held on 15th March, 2021 under the Chairmanship of Secretary (DEA) for information and necessary action.

2. This issues with the approval of competent authority.

Encl: As above

Molishree

(Dr. Molishree)
Deputy Secretary to the Government of India

To

1. CEO, NITI Aayog, Yojana Bhawan, New Delhi
2. Secretary, Department of Expenditure, North Block, New Delhi
3. Secretary, Department of Legal Affairs, Shastri Bhawan, New Delhi
4. Secretary, Ministry of Petroleum & Natural Gas, A-Wing, Shastri Bhawan, Dr. Rajendra Prasad Road, New Delhi - 110001

Copy to:

1. CEO & MD, ISPRL
2. Sr. PPS to Secretary (DEA)
3. Sr. PPS to JS (IPF)

Minutes of meeting of the 100th PPPAC Committee to consider the project proposal for development of Strategic Petroleum Reserves at Chandikhol, Odisha and Padur II, Karnataka projects on DBFOT (Design, Build, Finance, Operate and Transfer) through PPP mode.

The 100th Meeting of PPPAC chaired by Secretary, DEA was held on 15th March, 2021 at 12:30 PM to consider the project proposal of Ministry of Petroleum and Natural Gas for development of Strategic Petroleum Reserves at Chandikhol, Odisha and Padur II, Karnataka projects on DBFOT (Design, Build, Finance, Operate and Transfer) through PPP. List of Participants is enclosed at **Annexure I**

Particulars	Chandikhol, Odisha	Padur – II, Karnataka
Name of the Project	Strategic Petroleum Reserve at Chandikhol, Odisha	Strategic Petroleum Reserve at Padur II, Karnataka
Type of PPP	DBFOT (Design, Build, Finance, Operate and Transfer)	
Administrative Ministry/ Department	Ministry of Petroleum and Natural Gas (MoP&NG) of India	
Sponsoring Authority	Ministry of Petroleum and Natural Gas (MoPNG) of India	
Implementing Agency	Indian Strategic Petroleum Reserve Limited (ISPRL) (Authority)	
Capacity	4.0MMT	2.5 MMT
Estimated Capital costs	INR 10,308 crores	INR 6,669 crores
Construction Period	6 years	5 years
Concession Period	60 years (including construction period)	
Justification for the project	To enhance the strategic petroleum reserve from present 5.33 MMT to 11.83 MMT and ensure that crude oil reserves are available in the country in the need of oil shortage events.	

1. DS, PPP welcomed the participants to the 100th meeting of the PPPAC and informed that the proposal for "In-Principle and Final Approval" has been received from M/o PNG for development of Strategic Petroleum Reserves at Chandikhol, Odisha and Padur II, Karnataka projects on DBFOT (Design, Build, Finance, Operate and Transfer) through PPP. The proposal has been appraised by the PPPAC members & Appraisal Note along with comments has been sent to M/o PNG.

2. JS-IC, M/o PNG explained that in this proposal there is no separate RFQ stage and the bidding is single stage two envelop bidding. He further said that the M/o PNG has submitted the RFP and DCA which has been examined by the members of the PPPAC and recommendations / suggestions received from various PPPAC members have been agreed to by M/o PNG except those which are flagged in today's discussion. Therefore, the Secretary, M/o PNG requested that the PPPAC may give its "In-Principle and Final Approval" simultaneously.

3. JS (IPF) informed the PPPAC that earlier also in its 85th and 98th Meetings, PPPAC had given "In-Principle and Final Approval" simultaneously. Representative of NITI Aayog said that the RFP and DCA required to be submitted for "Final Approval" of the PPPAC have already been submitted by the M/o PNG and examined by the members of the PPPAC. Upon request of the M/o PNG, the PPPAC decided, for the reasons explained above, to consider the proposal for "in-Principle and Final Approval" simultaneously. Thereafter, M/o PNG was invited to make the presentation to the PPPAC.

4. M/o PNG briefed the members about the salient features of the proposal/project. It was informed that Phase – I of the Strategic Petroleum Reserves had been undertaken on EPC mode. Under Phase – I, 5.33 Million Metric Tons (MMT) of strategic crude oil storages at three locations namely, Visakhapatnam, Mangalore and Padur (near Udupi) have been constructed at a total cost of Rs. 4,098.35 Crore and construction completed in 2015. It was informed that Cabinet Committee on Economic Affairs accorded 'in-principle' approval on June 27, 2018 for the Phase-II of Strategic Petroleum Reserves (SPR) programme through construction of underground rock cut caverns – SPRs, with a total storage capacity of 6.5 MMT at Chandikhol (Odhisa) of 4 MMT and Padur (Karnataka) of 2.5 MMT with Single Point Moorings (SPM) at Padur and Chandikhol sites for optimum utilization under the PPP mode. The locations have been chosen after taking into account geological features, security & proximity to port & refineries that they would serve. The two separate locations constitute two separate projects – Chandikhol and Padur-II with two separate bidding processes for each project and a single bidder or consortium is free to participate in both the projects and can be awarded both the projects simultaneously if they are the selected bidder as per the terms and conditions of the RfP. This is envisaged to promote market competition for the project bids. The Concessionaire shall transfer the SPR along with SPM, onshore and offshore pipeline to the Authority at the end of the Concession Period. Further, the Authority will have the right to drawdown the entire capacity of the crude oil available at the SPR at the time of Oil Shortage Events in accordance with the terms of the concession agreement. Overall, the construction of Strategic Petroleum Reserves aims to enhance the strategic petroleum reserve from present 5.33 MMT (excluding stocks with oil companies) to 11.83 MMT (excluding stocks with oil companies) and ensure that crude oil reserves are available in the country in the need of oil shortage events. Currently, the total petroleum reserves of the country, including the stocks with oil companies, provide coverage for 74 days of consumption. The development of Phase II Reserves at Chandikhol and Padur II will enhance the cover by 12 days.

5. M/o PNG informed that if taken under the EPC mode, the project requires estimated capital investment for construction INR 16,938 Crore and additional Crude filling estimated cost of INR 24,076 Crore (47.8 Million bbls Crude @69 USD/bbl at Exchange Rate of 1USD = INR 73) resulting in total construction and crude filling costs of these facilities to be around INR 41,014 Crore. With the proposed PPP model, the Government by incurring a maximum estimated cost of INR 10,163 Crore towards grant (capped at 60% of construction cost), will be securing private investment of INR 6,775 Crore + INR 24,076 Crore = INR 30,851 Crore. Also, the notional grant considering INR 41,014 as total cost instead of INR 16,938 Crore comes to 24.76%. Hence, the project proposal aims to leverage private sector resources (in construction as well as operation) with certain financial support from the Government via grant. M/o PNG also submitted revised estimates of EPC based on EIL revision:

Sl. No.	**Particulars**	**Existing**		**Revised based on EIL revision**	
		Chandikhol	**Padur II**	**Chandikhol**	**Padur II**
1	Capacity	4 MMT	2.5 MMT	4 MMT	2.5 MMT
2	Compartments & Capacity	8 (4 of 0.3 MMT and 4 of 0.7 MT)	8 (8 of 0.31 MMT)	8 (4 of 0.3 MMT & 4 of 0.7 MT)	8 (8 of 0.31 MMT)
3	Construction Cost of Chandikhol	~INR 6,129 Cr	~INR 4,622 Cr	~INR 6,577 Cr	~INR 5,093 Cr

	Project				
4	Cost of Dedicated SPM and Associated Pipeline	~INR 4,179 Cr	~INR 2,047 Cr	~INR 3,376 Cr	~INR 1,893 Cr
5	**Estimated Project Cost (EPC)**	**~INR 10,308 Cr**	**~INR 6,669 Cr**	**~INR 9,952 Cr**	**~INR 6,986 Cr**
6	**Variation in EPC**	-	-	**-3.45%**	**4.76%**
7	**Estimated Grant requirement as a % of EPC**	**63.3%**	**58.0%**	**62.1%**	**60.0%**

6. DoE noted that it would not be appropriate to include cost of filling in crude oil in the reserves and if at all, only its carrying cost may be included. It was pointed out that the comparison of investment of Rs.41,014 Crore in EPC mode versus Rs.10,163 Crore under PPP mode is not a real comparison of costs. It was stated that the rationale for undertaking the project under PPP mode needs to be spelt out with facts and figures. DoE also pointed out that the analysis should also contain comparison with Phase-I construction costs and key considerations driving the cost.

DEA pointed out that the number of compartments in the caverns required to be built in the Strategic Reserves should be left at the discretion of the private partner. This may result in better efficiency and market acceptability of the project. DoE also pointed out that it may also lead to reduction in EPC of the project. DEA also suggested that project IDC cost may be re-validated. Further, DEA and DoE pointed out that the project cost estimates are based on DPR prepared in 2013 which have then been escalated @ 8% p.a. initially and then @ 5% p.a. computed based on compounding rather than on simple interest basis or on the basis of respective price escalation indices such as WPI/CPI.

M/o PNG informed that under Phase-II, there are two major changes which have a significant impact on the cost of the project viz-a-viz. Phase-I, namely, design change in terms of number of compartments in the caverns to be constructed are higher and secondly, the construction cost of dedicated SPM and Associated Pipeline have been included in EPC. Further, impact of cost escalation since Phase – I construction is also to be taken into account. In case of Phase –I, the SPM and Associated Pipeline had been constructed as funded works and hence its cost was not included in the TPC of Phase-I.

DoE asked the impact of variation in the number of compartments in the caverns on the EPC of the project. It was also asked if the existing SPM for Phase – I could be utilised for Phase – II. Further, it was also suggested that number of compartments in the caverns should be guided by the strategic requirements and not by commercial considerations. M/o PNG replied the cost calculations had been done considering the number of compartments in the caverns at 8 for both the SPRs so as to provide the concessionaire necessary flexibility to store different varieties of crude petroleum as per market demand. M/o PNG also informed that SPM and onshore pipelines are dedicated facilities and cannot be used interchangeably.

PPPAC took note of above deliberations and asked M/o PNG to provide rationale for necessity of PPP mode in the project and the savings and benefits accruing to the Government under the PPP mode versus execution of the project under EPC mode in the Cabinet Note. It was also decided that Crude oil purchase cost may not be factored into this analysis although its carrying cost including interest payable

may be factored. PPPAC also decided that the number of compartments in the caverns should be guided by the strategic requirements and not from commercial considerations. In view of the same, M/o PNG was also advised to get the revised estimate for project cost considering lesser number of compartments in the caverns in both SPRs, in-line with Phase-1 SPRs construction design and compare revised estimate with the existing cost estimate. The Concessionaire would still retain design flexibility and could choose to build greater number of compartments in the caverns at his discretion. However, the cost for the same shall not be factored into the base cost of the project, to be subsequently presented to the Cabinet.

7. DEA opined that there is lack of appropriate data set and asymmetry of information for this sector. As per the Concession Agreement, the concessionaire is free to commercialize and earn revenue out of the entire capacity of the Project. Revenue generating activities may include but are not restricted to the leasing of Commercial Cum Strategic Petroleum Reserve to any third party, Trading of stored crude oil, SPM rental charges, etc. However, for financial modelling, (including inter alia the ascertainment of the grant requirement) revenues from lease rentals from SPRs and SPMs, lease rentals from above ground lease and recovery from sale of excavation rock debris have been considered. And other potential revenue sources such as gains from crude oil trading have not been factored into the revenue projections. Further, given the nature of business there may be a possibility of the concessionaire earning super profits in future from such trading activities. DEA, therefore, suggested that appropriate clauses for sharing of super profits and also sharing of revenues may be incorporated in the Concession Agreement.

   M/o PNG informed that such speculative future revenue cannot be reasonably ascertained and are, therefore, beyond the purview of grant calculation. Further, adding revenue share norms based on such speculative gains would restrict bidder participation and result in increased grant requirement. Additionally, any participation in the upside potential from concessionaire trading activities would also necessitate Government to bear its share of trading losses – the quantum and certainty of each being undeterminable. Also, this being a unique project for a strategic intent of enhancing crude oil security for the nation, wherein estimation of all revenue streams not being feasible, therefore, arbitrary determination of the same may not be desirable. M/o PNG informed that due to above, it would not be feasible to introduce clause to capture revenue from speculative trading activities. Further, as the bid criteria is 'highest premium or lowest grant', the market competition would factor in the gains from all revenue sources while making an informed bid for the project.

   DEA and DoE suggested that given this scenario, PPPAC has to take a conscious decision that the grant requirement be determined by the market forces discovered through a fair and transparent bidding mechanism.

   PPPAC deliberated the issues and considered that this is a unique project proposal which is more for strategic purposes rather than commercial gains and therefore agreed with the view of M/o PNG that such speculative future revenue cannot be reasonably ascertained and are beyond the purview of grant calculation. It was, hence, decided that, as is proposed, the grant requirement be determined by the market forces discovered through a fair and transparent bidding mechanism.

8. It was observed that the grant estimated initially for Chandikhol was 63.3% of EPC and for Padur-II was 58.0% of EPC. However, based on EIL revision, the same have been

revised to 62.1% of EPC for Chandikhol and 60% of EPC for Padur-II. DoE and DEA pointed out that capping of the grant component may be necessary in order to allow the market to make informed bids. DEA mentioned that indicating a cap on maximum VGF amount, that can be paid by the Authority, in the RFP would enable bidders to evaluate the project better and take informed decision with respect to scope of work and as the bids are invited ranging from premium to grant, just mentioning of maximum grant amount alone may not affect the competition as the RFP has been designed for international competition. It was also informed that in the VGF scheme of the DEA, maximum VGF admissible is standardised and it is not decided from project-to-project basis. The open competition and market dynamics ensures the least amount of VGF is claimed by bidders which in some cases resulted into premium rather than grant.

After deliberations, PPPAC decided that each RFP also needs to specify the maximum amount of grant available for the project capped at 60% of the estimated project cost (as revised by M/o PNG) expressed in terms of absolute amount in INR beyond which the bids for grants will not be accepted. PPPAC noted that this is necessary in order to allow the market to make informed bids. Further, given that the construction cost may change due to time or cost overruns, it was decided that the grant component, if any, shall be quoted by the bidders in absolute INR terms which will ensure that the grant component remains unchanged even if the construction costs change and to avoid any fluctuations due to currency conversion rates at the time of disbursal. It was also decided that for the purpose of disbursal of grant, the Total Project Cost shall mean the lower of the total capital cost of the PPP Project: (a) as estimated by the Government/Statutory Entity that owns the project; (b) as sanctioned by the Lead Financial Institution; and (c) as actually expended.

9. NITI Aayog pointed out that in a critical deviation from the established prudent practice, the DCA provides for Project Assets to be mortgaged and potentially be disposed off for recovery of termination payment. It was also highlighted that financing in PPP projects pursuant to concessions is non-recourse financing and does not allow for mortgaging of projects assets – and that there are other rights and remedies under the concession agreement such as the right of substitution given to the senior lender. DoE also informed that in case of mortgage of assets, the lender's right to recover its loan through sale of assets may be restricted to only its outstanding loan amount. M/o PNG informed that this point is addressed under clause 36.5.1 of the DCA which provides that the charge is created to securitize the 'debt due' which is the amount of debt which the Concessionaire will be obtaining under the financing agreements. The debt due amount will not include the grant provided by the Government. Further, lender does not have a right to enforce any rights created under the mortgage deed prior to the expiry of 180 days from the transfer date (i.e. the date pursuant to the termination when the asset will be transferred to the Authority). Also, the lender will have the right to monetise the asset only in the event if upon termination the Authority has not made the requisite termination payment.

   PPPAC while agreeing with the views of M/o PNG, asked to ensure that the lender's right to recover its loan through sale of mortgaged assets may be restricted to only its outstanding loan amount.

10. DEA opined that no payment should be required to be made upon termination to cover the cost of transferring rights over project assets including the rights over the land purchased for constructing the pipeline by the concessionaire. M/o PNG clarified that the

concession agreement already contains provision for transfer of "Project Assets" (including rights over the land for the single point mooring and onshore and offshore pipeline purchased by concessionaire) at no additional cost at the end of concession period (either through natural efflux of time or termination).

PPPAC noted the above.

11. DEA pointed out that operational life of certain machinery is envisaged to be 25 years in the financial model. So, in a concession period of 60 years, the concessionaire may not have any incentive to replace the machinery in the last leg of the concession period. M/o PNG informed that the operational life of the machinery is only an estimated figure and actual life of the asset may be more based on upkeep and maintenance of the machinery.

PPPAC noted the above.

12. DEA and NITI Aayog pointed out that given the high amount of estimated project cost, Net worth criteria may be revised to 25% of project cost instead of 50% proposed in the submitted RFP, in line with the provisions of the model bid documents of DoE.

PPPAC observed that this would improve biddability of the project and enhance market competition and agreed to the above.

13. The proposed RfP requires that the Bidder's Net Cash Accruals for the 5 (five) preceding financial years must be positive. And in case of a Consortium, the Net Cash Accruals of each member of the Consortium should be positive for the 5 (five) preceding financial years. DEA noted that this is an onerous requirement, one which would adversely impact the biddability of the project restricting participation. NITI Aayog highlighted that the requirement of positive net cash accruals for all consortium members, over the last 5 years, for the purposes of eligibility, is particularly not a recommended stipulation, as not all members join a Consortium for the purposes of establishing financial capacity. If at all retained, it is recommended that the positive cash accruals be restricted only to members who shall have an equity share of at least 26% in the SPV, or the Lead Member. M/o PNG informed that they would go by the view of PPPAC in this regard.

PPPAC considered that this additional requirement of having positive net cash flows for the preceding 5 financial years is onerous and may adversely impact the biddability of the project and decided that the same be removed.

14. DEA suggested that grant pay-out should commence only after the concessionaire has expended its entire equity contribution. M/o PNG informed that this provision is in built in the Clause 25.2.3 of the DCA whereby grant will be disbursed only upon entirety of the equity contribution being infused by the concessionaire.

PPPAC noted the above.

15. After deliberations, PPPAC accorded 'In-Principle and Final Approval' to the project proposal of Ministry of Petroleum and Natural Gas for development of Strategic Petroleum Reserves at Chandikhol, Odisha and Padur II, Karnataka projects on DBFOT (Design, Build, Finance, Operate and Transfer) through PPP and recommended the

proposal for approval of the competent authority subject to the above observations/decisions and with following conditions:

1. M/o PNG shall rework the minimum Project Costs for Phase-II Storage Reserves of 6.5 MMT considering the minimum number of compartments in the caverns in both SPRs in-line with Phase-I SPRs.
2. The maximum amount of grant admissible for the project shall be 60% of minimum project cost as reworked by M/o PNG. However, it should be mentioned in RfP in absolute INR terms so that maximum grant amount may not vary due to change in construction cost or currency fluctuation. The Bidding parameter should be the "highest premium or lowest grant" quoted by the bidder in absolute INR terms and the grant requirement be determined by the market forces discovered through a fair and transparent bidding mechanism.
3. For the purpose of disbursal of grant, the Total Project Cost shall mean the lower of the total capital cost of the PPP Project: (a) as estimated by the government/statutory entity that owns the project; (b) as sanctioned by the Lead Financial Institution; and (c) as actually expended.
4. Lender's right to recover its loan through sale of mortgaged assets be restricted to only its outstanding loan amount.
5. For bidding purpose, only financial qualification criteria shall be Net-Worth equivalent to 25% of minimum project cost as reworked by the M/o PNG.
6. The eligibility requirement of having positive net cash flows for the preceding 5 financial years be removed.
7. The Bid Documents for the project be revised by the M/o PNG in the light of observations/decisions of the PPPAC.
8. The entire project including the project assets created and the land (for non-operational activities as well), given to the concessionaire, should be transferred back to the Authority free of cost at the expiry of the concession period and with termination payment in accordance with the provisions of concession agreement upon prior termination.
9. The M/o PNG shall ensure that legal vetting of all revised documents – RfP and the concession agreement – is undertaken.
10. The M/o PNG may ensure that all the applicable clearances required for the project are obtained within the stipulated period of time.
11. The M/o PNG shall obtain prior approval of the PPPAC for any change in the scope of work or project configuration.
12. The justification for considering Phase-II of Strategic Petroleum Reserves in PPP mode in place of directly by public sector i.e., by Indian Strategic Petroleum Reserves Limited (ISPRL) as in case of Phase-I, should be clearly brought out when seeking Cabinet Approval for the project.

The meeting ended with a vote of thanks to the chair.

Annexure I

Annexure I

List of participants in the 100th PPPAC meeting held on 15.03.2021 at 12:30 PM

1. **Department of Economic Affairs, Ministry of Finance**
    1. Shri Tarun Bajaj, Secretary, Department of Economic Affairs (In Chair)
    2. Shri Baldeo Purushartha, Joint Secretary (IPF)
    3. Dr. Molishree, Deputy Secretary, (PPP)
    4. Shri Kartik Agrawal, Deputy Director, (PPP)

2. **Department of Expenditure**
    1. Dr. T.V. Somanathan, Secretary, Department of Expenditure
    2. Sh. Ashu Mathur, Adviser (Cost), Department of Expenditure

3. **NITI Aayog**
    1. Sh. Partha Sarthi Reddy, Adviser (PPP)
    2. Ms. Nidhi Arora, Consultant (Legal)

4. **Department of Legal Affairs**
    1. Dr. R.J.R. Kasibhatla, Deputy Legal Advisor

5. **Ministry of Petroleum & Natural Gas**
    1. Shri Tarun Kapoor, Secretary, Ministry of Petroleum & Natural Gas
    2. Shri B.N. Reddy, Joint Secretary (IC), Ministry of Petroleum & Natural Gas
    3. Ms. Esha Srivastava, Director (IC), Ministry of Petroleum & Natural Gas

6. **ISPRL**
    1. Shri H.P.S. Ahuja, CEO & MD
    2. Shri Ajay Dashore, Deputy CEO
    3. Shri G.K Singh, CFO

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