Ashok Chawla Committee Report

We are given to understand that the report of the Ashok Chawla Committee on allocation of natural resources also draws similar conclusions regarding the IM-based profit-sharing formula. This committee had, inter alia, representatives from MoPNG and the Ministry of Finance, so it can safely be presumed that its conclusions were well considered. However, the report is not currently available in the public domain.

According to media reports, the Committee has stated that the system ***"gives incentive (to an operator) to increase his investment, or front-end his work plan in order to see that the threshold where Government's profit take rises rapidly is not reached"***.

Citing the example of KG-DWN-98/3, the Committee has stated that "***the relationship between the pre-tax IM and the share of contractor profit petroleum changes dramatically once the pre-tax IM crosses 2.5, with the government's share increasing from 28 per cent to 85 per cent. It is useful to remember that this schedule is bid by the operator, and not determined by the Government."***

Further, according to the Committee, ***"a high share of some pre-tax IM will help to win the bid, depending on the financial mode of evaluation used, but it does raise concerns that such a radical change would provide very strong incentives for any operator to adopt all investment and strategies possible to ensure that the pre-tax IM stays within the 2.5 limit".***

The report clearly points out the risks associated with the IM-based formula for sharing of profit petroleum, especially with a steep jump in profit sharing from one slab to another. In our view, even the linearity introduced in the sliding scale for IM slabs from NELP-VII onwards does not fully address these risks.

The oversight/ control of GoI representatives on high value procurement decisions is also very limited in scope (largely restricted to prior intimation of the list of pre-qualified bidders). In fact, a comparison of the procurement procedure under PSCs in Bangladesh and India reveals that the clauses are similar, except that the Bangladesh PSCs require approval by the Management Committee for high value procurements (typically greater than US$ 500,000). This clause is, however, missing from the Indian PSCs in almost all its versions.

Our audit review also revealed that, by and large, the DGH and the Ministry through the Management Committee were ill equipped to pay adequate attentiion to protecting - at every stage of E&P, be it exploration, development or production - GoI's financial interests. Adequate attention was not paid as to how every proposal/ decision would potentially affect GoI's share of profit petroleum. In addition to their other inadequacies, the constraints of adequately skilled resources with MoPNG/ DGH for monitoring several hundred PSCs simultaneously cannot also be ignored. By contrast, it is inconceivable that the private contractor would fail to protect his financial interests, and assess every

Chapter 8 - Conclusions and General Recommendations

Private sector participation in hydrocarbon exploration and production in India is now robustly established, with major crude oil and natural gas discoveries in different basins putting India firmly on the global E&P map. The Production Sharing Contract (PSC) – the basis of the contract between the GoI and the (private) contractors – has undergone several mutations from those in respect of discovered fields to "pre-NELP" exploration blocks to the blocks under different rounds of the New Exploration Licensing Policy (NELP). However, our audit indicated that there is considerable scope for improvement in the management of hydrocarbon E&P with private sector participation in the light of experience gained by governmental agencies over the years.

8.1 Structure of PSC

The PSC, as it currently stands, is based on a scaled formula for profit sharing between the GoI and the private contractors. This is based on a critical parameter – Investment Multiple (IM) – which is essentially an index of the capital-intensive nature of the E&P project i.e. the amount of "capex" on exploration and development activities relative to income. The slabs for profit sharing are so designed that more the capital intensive the project (i.e. lower IM), the lower the GoI share of "profit petroleum" (which could be as low as 5 to 10 per cent). Contrarily, the higher the IM (i.e less capital intensive vis-a-vis income), the higher the GoI share of "profit petroleum" (which could be as high as 85 per cent).

In practice, however, the private contractors seem to have inadequate incentives to reduce capital expenditure and substantial incentive to increase capital expenditure or "front-end" capital expenditure, so as to retain the IM in the lower slabs or to delay movement to the higher slabs.

The structure of the IM-based profit sharing formula (especially when there is a huge jump in GoI's profit share from 28 per cent to 85 per cent on an IM slab of 2.5 or more) is such that in certain scenarios, an increase in capital expenditure, upto a point, could conceivably result in an increase in the contractor's share of profit petroleum, despite a reduction in the total profit petroleum as well as GoI's share of profit petroleum. Further, "front-ending" of capital expenditure (i.e. skewed towards the initial phases) decreases the IM, and postpones the movement to higher IM slabs; this results in a reduction in GoI share on a discounted cash flow basis, since the slabs involving higher GoI share come later, rather than earlier.

Operational control of E&P operations is largely with the private operators, and the GoI's oversight role is restricted essentially to its representation (through MoPNG and/ or DGH) in the Management Committee for the block, especially in approval of Annual Work Programmes and Budgets and Field Development Plans, as well as a few approval functions delineated in the PSC.

investment/ operational proposal to see whether it would result in incremental revenues for it both in terms of cost recovery and contractor's share of profit petroleum.

Given the similar conclusions that two independent agencies viz. the Chawla Committee and Audit have reached as regards the adverse impact of the profit sharing mechanism in protecting GoI's share (linked to the IM), designed in the late 1990s, there does seem to be enough ground to revisit the formula. The PSC as drawn up then, was with the limited expertise available with the GoI at that point of time. In view of the fact that, we have now gained the knowledge , there is need to conclusively address this issue in respect of future PSCs.

MoPNG stated (July 2011) that they were prepared to look at alternative formulas with an open mind and would consider the suggestion of the CAG and the Ashok Chawla Committee with an open mind and take a final view on merits.

8.2 Recommendations for Future PSCs

The stated strength of the profit sharing mechanism is the sharing of risks between the contractor and the Government – if the profits are low or non-existent, both parties suffer equally.

For future PSCs, we recommend that the IM-linkage with the profit sharing formula (even with the linear sliding scale introduced from NELP-VII onwards) be removed by the GoI. Instead, the biddable profit-sharing percentage should be a single percentage. This will reduce the incentive for skewed volume and timing of capital expenditure resulting in very low GoI share of PP. Further, in order to ensure a modicum of control, very high value procurement decisions above a specified limit should be subject to approval by the MC, more specifically the approval of the GoI representatives. Such a mechanism already exists in PSCs operating in Bangladesh.

8.3 Bid Evaluation Criteria

The bid evaluation criteria currently give weightage to technical/ financial ability and two biddable parameters - committed exploratory work and fiscal package (royalty + GoI share of profit petroleum). As regards fiscal package, the current evaluation model generally involves multiple scenarios of oil reserves and oil prices (typically high, medium and low) as well as a projected profile.

The assumptions based on which calculations of fiscal packages of different bidders are made are completely hypothetical. In the absence of high quality seismic data, let alone drilling and discovery findings, estimates of oil/ gas reserves and production profiles, as also projected capital and operating expenses and even crude oil and natural gas prices, is completely speculative. Admittedly, the evaluation model is applied consistently across all bidders. However, when the current system allows multiple bidding points (viz. different GoI shares of PP for different IM slabs), these hypothetical assumptions can not only make a

significant difference as to who comes out as the winning bidder, but can also convey extremely unrealistic assumptions about what GoI's share of PP will be (e.g. when will GoI's share of PP reach the highest IM slab?).

Consequently, we recommend that the bidders should be allowed to only make a single point bid, which can be compared straightaway without resorting to hypothetical assumptions.

As regards the biddable exploratory work programme, we are generally in agreement with the bid evaluation process, except for the system of awarding points for well depth. As pointed out in Chapter 4 (relating to KG-DWN-98/3), it is unrealistic and impractical, without having accurate and reliable seismic data, to bid upfront how deep the well should be drilled, and then expect that, notwithstanding geological objectives, the well will be drilled to the committed depth even if it means a waste of money.

Consequently, in future, while considering the bid evaluation criteria, we recommend that either no weightage be allocated for well depth, or alternatively, well depth commitments be categorised into two groups – wells above and below a specified depth, e.g., 1500 or 2000 metres and points be awarded accordingly.

8.4 Management of existing PSCs

The vast majority of blocks with high prospects for hydrocarbon discovery have already been awarded through various pre-NELP/ NELP rounds, and GoI has no option but to work within the constraints of the existing PSC structure and clauses to the fullest extent possible.

8.4.1 Development Plans and Annual Work Programmes and Budgets

It is inconceivable that a private operator/ contractor will make investments in absolute as well as incremental terms, in petroleum operations under the PSC without assessing whether such investments would result in increased revenues for him in terms of cost recovery and contractor's share of profit petroleum. It is necessary for MoPNG and DGH to function in a similar manner, with regard to GoI's financial interests. Consequently we recommend the following:

- Review and approval of development plans should be considered not just from a "technical perspective" viz. how best can oil and gas be extracted from the reservoirs, but also from a financial perspective – not only overall (i.e. what is the project NPV, Rate of Return etc.), but specifically from GoI's point of view viz. what are the projections of royalty and GoI share of profit petroleum? What are the risks to these revenues? How will increases/ decreases in capital expenditure, reserves, reservoir productivity, prices etc. affect GoI's financial take?
- While reviewing and approving development plans, GoI representatives on the MC as well as DGH and MoPNG should ensure that detailed and appropriately validated estimates of GoI take and contractor take are included as an integral part of these plans

at the approval stage. A suitable range for GoI take, say ± 15, 20 or 25 *per cent*, as considered appropriate by MoPNG, could be stipulated.

- Approval by MoPNG of such development plans should be on the clear stipulation that any changes in capital and operating expenditure, expenditure commitments, production quantities and other factors, which have the impact of reducing the Investment Multiple and GoI share of profit petroleum **beyond *the stipulated range*** must be submitted for prior approval by GoI representatives on the MC, with detailed justification.

- Annual Work Programmes and Budgets should be strictly in line with the approved development plans. Any deviations or changes vis-à-vis the development plan which have the impact of reducing the IM and GoI share of profit petroleum ***beyond the stipulated range*** must be submitted for prior approval of the MC. Similarly, any significant variations from the approved Work Programme and Budgets with similar impact ***beyond the stipulated range*** must also be subject to prior approval.

- Incurring of any costs which vary from the Development Plans and Annual Work Programmes & Budgets on an overall basis, as well as in terms of significant line items with significant adverse impact on IM and GoI share of profit petroleum – ***beyond the stipulated range -*** without prior approval of GoI representatives on MC should automatically be ineligible for cost recovery.

While some of these recommendations could be misconstrued as hampering operational flexibility in petroleum operations by the contractor, the importance of the overall objective of protecting GoI's revenue interests cannot be ignored under any circumstances.

8.4.2 Procurement Activities

The provisions relating to procurement procedures in the PSCs do not provide for adequate oversight / control by GoI representatives on procurement processes. However, given the existing provisions, we recommend the following measures for protecting GoI's financial interest.

- The objective of effective procurement is to ensure optimum, not necessarily lowest, prices through effective competition. As long as adequate number of 'responsive' financial bids, typically three or more, from reputed vendors, who are pre-qualified after following due process, are received and duly considered (*i.e.,* not withdrawn, disqualified on technical or other grounds, deviations/ non-responsiveness or otherwise not considered), generate adequate competitive tension, the probability of effective procurement at optimum costs remains high.

- However, when high value contracts are awarded on the basis of single 'responsive' financial bids, in our opinion, these are awarded without competition, effectively on nomination basis. In all such cases, prior approval of the MC should be necessary for such awards. Post facto approval, with appropriate justification, for emergent

procurement decisions may also be considered. Similar provisions would also apply to all procurement decisions involving post-priced bid opening changes to scope, quantities, work, prices, conditions etc.

- Also, the practice of repeated extensions, subsequent substantial variations in scope etc. of existing contracts is also not in line with the existing PSC procurement provisions, which incidentally makes no mention of extensions. Extensions or scope variations for high value contracts, beyond the contractually stipulated extensions, should also be subject to prior MC approval, with provisions for post facto approval in emergent cases.

8.4.3 Relinquishment of area, and delineation of discovery and development areas

As pointed out in earlier chapters, the entire PSC process is designed to ensure that the private contractors fully explore the contract area within designated timelines, relinquish areas where hydrocarbon prospects appear poor in a phased manner, and retain only those areas where hydrocarbon discoveries are made, relinquishing the remaining area for re-allocation – through a competitive bidding process - to other potential bidders, whose hopes/ views in terms of hydrocarbon prospectivity differ (either on account of technical and other capabilities or in terms of their risk appetite) from the contract holders who have relinquished such area. We, therefore, recommend the following:

The stipulated timelines and processes in the PSC for relinquishment of contract area should, under no circumstances, be relaxed, and compliance with these provisions should be invariably ensured.

Further, the discovery and development areas should be rigorously delineated, keeping strictly to the discoveries made through exploratory and appraisal well drilling and proper delineation of reservoir boundaries. Attempts by contractors for delineation of excessively wide discovery/ development areas through elastic (and incorrect) interpretation of hydrocarbon discovery should be strongly rebutted.

8.4.4 Compliance with other PSC provisions

The PSC is a contractual document, and compliance with every contractual clause is of utmost importance. It would be inappropriate to distinguish between “major” and “minor” clauses, and neglect monitoring of compliance with so-called “minor” PSC clauses.

We recommend that DGH, and where necessary, MoPNG should put into place adequate and effective measures to ensure that compliance with all provisions of the PSC are fully monitored on a timely basis and appropriately documented, and action taken against operators on a timely and consistent basis, for non-compliance with PSC provisions. For such purposes, strengthening of the resource basis of DGH in terms of adequate quantity of skilled resources may be necessary.

DGH should also consider developing a comprehensive PSC monitoring system, which will not only provide details of compliance with PSC provisions for any block/ contract at a

glance, but will also enable operators to "file" returns/ documents/ information electronically through the web and/or e-mail. The cost of developing (and maintaining) such an IT system will be miniscule, compared to the total GoI PP revenues as well as the potential (although not exactly quantifiable) gains from more effective and timely monitoring of compliance.

MoPNG has assured that conclusions and recommendations drawn by CAG would be considered for appropriate action.

(Anand Mohan Bajaj)
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New Delhi
Dated: 18-8-2011

Countersigned

(Vinod Rai)
Comptroller and Auditor General of India

New Delhi
Dated: 24-8-2011