

Chapter 7: Conclusions and Recommendations

Conclusions

Drilling activities are key to hydrocarbon production and reserve accretion and constitute the single most significant operation of the Company, both financially and operationally. Efficient drilling operations depend on timely availability of suitable rigs and their efficient utilisation. To this end, the Company plans, hires and deploys rigs for drilling assignments. The Company also owns a fleet of rigs (both onland and offshore rigs) which needs to be appropriately maintained and up-graded to ensure efficiency of drilling assignments.

The planning horizon for rigs in the Company is five years. The production and reserve accretion targets of the Company are set for a five-year period which is the basis for working out the requirement of rigs over this period to facilitate timely hiring/ acquisition decisions. The Company based the five-year Rig Requirement Plan (RRP) on past experience in utilising rigs rather than on efficient norms of rig operation. This led to past inefficiencies being built into future plans. The rig days planned for the wells in the Rig Deployment Plans (RDPs) in Western Offshore were also higher as compared to the RRP during 2012-14 and resulted in 786 excess rig days for these wells. Though the Company has initiated an exercise to fix norms for drilling activities, onland development drilling alone has been covered so far, which is also not being uniformly adhered to. Hence, it appears that the ensuing plan also would not have the benefit of efficient norms.

The planning process is incomplete in so far as significant activities of side-track operations are not included in the five year plan though these activities consisting of 37 per cent (14,006 days) of the workload in western offshore area alone, are built in the RRP, creating an inconsistency in the planning process. Onland areas do not prepare a five-year rig requirement plan unlike offshore areas which adds to the incompleteness and inconsistency in the planning process. Besides, actual deployment of rigs was not as per plan, one-third of the locations (615 locations unplanned locations against 1,867 planned locations) that were actually drilled had not been planned in the annual plans.

There have been persistent delays (upto 508 days) in the tendering process for hiring rigs. Delay in hiring leads to non-availability of rigs for drilling operations (there was a loss of 391 rig months due to non-hiring of rigs on time during 2010-14). Significant delays in tendering process were often on account of delays in indenting, even in cases where the rigs were being re-hired. Besides, the Company was yet (May 2015) to firm up its policy regarding acquisition of new rigs though acquisition of offshore rigs was proposed in 2002 and most of its own offshore rigs have outlived their lives.

Rigs remained out of cycle for considerable periods *i.e.* 12 per cent, reducing actual availability of rigs for drilling by 679 rig months. Even after deployment, rigs idled on location. While a fraction of the non-performing time of the rigs was on account of non-controllable factors like weather, the bulk of idling time (valuing ₹ 6,418 crore) was well within the control of the Company and could have been addressed through better planning and coordination.

The efficiency benchmarks of rig operation, cycle and commercial speed were not appropriately fixed for Drilling Services group. While Drilling Services group adequately met these targets, the Company did not match up to its planned cycle and commercial speed for

operating its rigs. The efficiency of Company owned rigs was poor with owned offshore shallow water rigs achieving less than half the cycle speed of hired rigs (the owned rigs achieved a cycle speed of 484 metres/month against 993 metres/month of hired rigs in 2013-14). However, while working out the cost benefit of repair and refurbishment of aged, owned rigs vis-à-vis hire/ acquisition, the Company considered their efficiency to be on par with hired and newly acquired rigs. Besides, significant delays upto 48 months in finalising the scope of work and tender and cost escalation was noticed upto 156 *per cent* with reference to rig repair estimates and the productivity of the rig, post repair did not match up to assumptions made at the time of deciding for repairs of such rigs.

The lapses of ONGC in planning, hiring, deployment and repair of rigs highlighted in the report had the following significant consequences:

- **Availability of rigs for drilling in ONGC was lower than intended on account of delays and deficiencies in the hiring process and rigs remaining out of cycle (over 2010-14, 1,070 rig months were lost on account of both these factors).**
- **Besides limited availability, the efficiency of rig operation was poor. The rigs that were deployed for drilling idled for considerable periods; bulk of the idling period was possible to be controlled by the Company. The inefficiency led to lower cycle speed and commercial speed of rigs, besides the Company incurring significant idling costs (₹ 6,418 crore).**
- **Owned rigs performed poorly vis-à-vis hired rigs. Cycle/commercial speeds of owned rigs were low while cost of their operation was high. Even as major repairs were carried out for owned offshore rigs, the financial viability of such repair remained doubtful. The post repair performance of owned offshore rigs also did not match up to assumption made. Poor performance of owned rigs contributed significantly to inefficiencies of rig operation.**
- **Measurement of efficiency of rigs was flawed. Inefficiencies were built in the plans (RRP and RDP) leading to a lower target of efficiency parameters (cycle speed). Even the lower targets were not achieved in actual operation. The performance of the Drilling Services group (responsible for operation of the rigs) was not measured against targets. In fact, the Drilling Services group met and exceeded their targets even as the Company failed to match up to its planned efficiency targets.**

Recommendations

1. *The Company needs to ensure that the plans (five year plan, annual plan, rig requirement plan, rig deployment plan) are complete and consistent with each other. The Company should make efforts to adhere to the rig deployment plans during actual drilling. The situation where one out of every three wells drilled is un-planned needs to be corrected.*
2. *The controllable non-productive time of past periods should not be loaded to future rig requirement plans. With induction of new technology and hi-tech rigs, realistic targets for rig requirement ought to be set to have the desired stretch in performance. Suitable measures need to be taken to reduce the non-productive time of the rigs, particularly in eliminating rig waiting due to controllable factors like waiting for locations, ready drill sites, environment clearance, material, manpower and logistics support.*

3. *Initiation of indents and tendering procedure for acquisition/hiring of rigs, which are entirely within the control of the Company, needs to be done on time with proper planning so that rigs are mobilised on time. In particular, indents for re-hire of rigs on expiry of their existing contracts should be issued expeditiously so that the Company does not suffer from non-availability of rigs between the periods of de-hire and re-hire. Considering that most offshore rigs owned by the Company had outlived their useful lives, policy regarding acquisition of rigs, pending for over a decade, should be finalised expeditiously.*

4. *The cycle and commercial speed targets for Drilling Services group should be aligned with the planned cycle and commercial speed of the Company. Considering the very different activities carried out in offshore and onland and the consistently poor performance of owned offshore rigs, there is a need for setting separate targets for each category and adequately monitoring for attainment of such targets.*

5. *Efforts need to be made to correct the imbalance in drilling manpower at the cutting edge, necessary for efficient operations of owned as well as hired rigs. A suitable review of the current position needs to be taken up by the Company and the position rectified in a time bound manner.*

6. *The assumptions made while analysing cost-benefit of repairing old owned rigs, having outlived their useful lives, should be realistic, based on past experience, particularly with regard to efficiency expected of such rigs after repairs. This would enable a balanced decision regarding major repairs of these rigs.*

MOPNG, while accepting (August 2015) all the recommendations, stated that the recommendations are for improvement of drilling performance and that the Company would be advised to follow all the recommendations of audit.

New Delhi
Dated : 13 November 2015



(PRASENJIT MUKHERJEE)
Deputy Comptroller and Auditor General
and Chairman, Audit Board

Countersigned



New Delhi
Dated : 13 November 2015

(SHASHI KANT SHARMA)
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