Evaluation of Performance of NGEF (Hubli) Ltd.

Internal Evaluation Report No. 17 of 2016

Study Conducted for

New Government Electric Factory (NGEF)

A Government of Karnataka Undertaking

and

Karnataka Evaluation Authority

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ABBREVIATIONS & ACRONYMS

ERP	Enterprise Resource Planning
ESCOMs	Electricity Supply Companies
G -1 , G-2 ,G – 3	Grade 1, 2 and 3
GOI	Government of India
GOK	Government of Karnataka
HR	Human Resource
KEA	Karnataka Evaluation Authority
KVA	Kilo Volt Ampere
MIS	Management Information System
P & L	Profit and Loss account
VRS	Voluntary Retirement Scheme
READI-INDIA	Rural Ecological and Agro Development Institute India

EXECUTIVE - SUMMARY

The Government of Karnataka established New Government Electric Factory at Bangalore and later at Hubballi during 1984 with a view to promote industries outside Bangalore. The company has been in existence for over thirty years but its performance in recent periods has been one of concern with declining business, leading to losses, while Bangalore unit of the company was closed during 2004 and is under liquidation presently, the Hubballi Unit continues to be operational.

The Government of Karnataka sponsored a study on evaluation of performance and entrusted this task to TECSOK. The TECSOK made a number of recommendations for revival of the company for consideration of GOK which are under GOK consideration. The GOK intended to take a second look at working of this company and has now sponsored another study to be conducted by READI INDIA Dharwad, a Consultancy organization. The main objective of the study is to arrive at the current overall status of the company in terms of its working and future prospects and arrive at 'Gap-Analysis' to ascertain the improvement areas towards revival of the company and suggest necessary steps that need to be taken ..

READI-INDIA carried out the study to all the four Regional offices and interactions with dealers were held. Questionnaires were used to capture data from each of them. However desired quantitative data was not shared by them for their own reasons but qualitative information could be gathered through one to one discussions. The team had three rounds of meetings with the Managing Director and two rounds with Departmental in charges of the Factory at Hubballi. All relevant data was collected with some gaps due to non-availability of the same.

BACKGROUND

NGEF Hubballi was established in 1984 under the Indian Companies Act 1956 as a 100% subsidiary of NGEF Ltd. Bangalore engaged in manufacture of electrical motors with German Technology. It has completed 30 years of existence and has made significant contribution to Karnataka's industrial production. The Memorandum of Association of the company among others empowers it to (i) acquire and take over the electric motor division at NGEF Bangalore and Hubballi and (ii) carry on business of manufacture of all kinds of electric motors and rotating machines, starters, regulators etc. The company's vision is to increasing its business opportunities. The company is striving to fulfill its objectives and obligations to the state and country. It has established network of dealers across the country *over the years. During three decades of its existence, NGEF product ranges and quality products have earned goodwill of users and as a result it has created a place for itself in the motor manufacturing activity. The company's products have unquestioned superiority over others.*

PERFORMANCE

A study of operations of the company shows that it made good progress with performance except during the years 2010-11 to 2013-14 resulting in erosion of its net worth. Its business income has been scaling down leading to accumulated loss. As per data for 2013-14, the company had made a business of Rs.6.09 Crores and its expenses amounted to Rs.9.56 Crores, resulting in Rs 3.56 Crores of loss. During previous year i.e., 2013-14, it made a business worth Rs10.30 Crores against an expenditure of Rs14.01 Crores resulting to a loss of Rs3.69 Crores. The volume of business has drastically reduced to about 40% while the fixed overheads keep moving up. Various factors are attributed for this state of affairs and for the company's dwindling business.

The company was working as an extended arm of NGEF Bangalore, its parent company. With the closure of its main unit at Bangalore, its role has changed substantially. Presently it is producing G-1 range of motors. As against production of a range of motors earlier, the company has reduced its production range due to want of facilities at Hubballi including working capital. A major shift in its working is that it has to find its own market for products and explore new markets and products. With changing industrial scenario, demand for higher ranges (G-2 and G-3) is increasing. To meet this demand, addition of new and improved plant and machinery is necessary. Since it is not in a position to make any investments for acquiring new and improved machines, it has to contend itself with available facilities. This has resulted in limited scope for pushing the available ranges of motors into the markets. Large numbers of companies are engaged in motor industry and any of them are able to supply wider ranges of motors. Since available machinery at Hubballi is old and becoming obsolete faster, any addition to the existing ranges is limited and as such the company has to restrict its ranges to the available facilities while the demand for higher ranges is on the rise. Financial constraint is another reason for the company to meet the emerging demands. Since the company is incurring loss, its financial status is eroded so also its net worth. It cannot generate any surplus internally nor can it borrow from financial institutions. Third limitation is comparatively higher per unit cost of products.

EXTERNAL FACTORS

Over the years, the industrial scenario of the country in general has undergone tremendous changes with introduction of newer technologies and processes. Coupled with this, private sector entry in this sector has come in a big way with addition of newer and better quality and power saving motors of different ranges. Secondly, the demand pattern of the users also has been changing as with technological advancement the demand for traditionally used ranges has been taken over by higher ranges leading to unprecedented demand for new ranges of motors. Private sector companies have the advantage of responding to the market and are in a position to adjust to such changing conditions while Government units are not in a position to switch over so easily.

Though NGEF has fulfilled its mandated responsibility as supplier of motors and other accessories to promote industrial growth, its financial performance has not been satisfactory, mainly on account of (i) Reducing market share and declining demand for NGEF Range of motors (ii) Aggressive marketing and offering competitive prices, discounts, prompt after sale services without loss of time, by competitors have resulted in users gradual switch over from NGEF products to other brands. (iii) On the other hand, inordinate delay in meeting the demand and partial supply of motors against demand have created negative impact. (iv) In Northern and Eastern Indian States, some competitors have even been misinforming users about the existence of NGEF Hubballi and giving an impression that NGEF has closed its operations altogether. However, NGEF inability to take on the challenges is a major reason for reduced demand.

PRESCRIBED QUALITY STANDARDS

Notwithstanding internal and external limitations, one thing that puts the company in an enviable position is its quality superiority. In spite of products having comparatively higher prices and delivery being uncertain, there is still some section of users who have very high opinion about NGEF products and they still prefer its products over others but their number is small.

The dealers feel that there is gradual deterioration in the quality, packaging and transport leading to frequent problems of breakages. More importantly, repairs/replacements take considerably longer period of time. During the last five years the company's performance *in terms of overall business level, revenue generation, profitability, labour turnover and cash and funds flow has been declining and financial losses are mounting year after year.*

INFRASTRUCTURE

The plant and machinery presently available with the company is old and becoming obsolete. Frequent break-downs and repairs are common. The designed capacity of production is 90,000 HPs/year of different ranges. Average daily output of the factory is between 50-75 motors against which the present production is around 20 or a monthly production of around 500-800.

With material cost and employee emoluments going up, the margin between cost of production and price realized is reducing and in the last three years it has become negative thus eroding the company's financial status. On the other hand, demand for the range of motors manufactured by NGEF is becoming limited due to availability of required ranges of other brands in the market at competitive prices with attractive terms; Entry of a number of companies into motor manufacturing has further eroded market share of the company. Technological lag is another limiting factor. Due to use of improved technologies that reduce the cost of production and enhance efficiency, private companies are in a position to offer their products at much lower price and allow higher discount. (Ranging between 65-70 percent) against 55-58% offered by NGEF. As per market survey the price differential between NGEF and other competitors is anywhere between 10-20 percent.

Dealers and users find that the NGEF delivery schedule and commitment are not maintained as there is considerable delay between placing order and actual delivery. Besides, demands are not fully met at one go but in installments. Absence of storage facilities for stocks at important centers with high potential demand is causing delays in delivery schedules. Users also feel that NGEF motors though rated high in terms of quality, do not have attractive and aesthetic design or look as in the case of other competitors. There is also a feeling among dealers that the users get impressed with new designs apart from quality and price. The dealers also feel that poor and unresponsive after-sale service of NGEF is a major reason for customers dissatisfaction since there are no service centers at strategic locations to attend to the complaints/repairs; There is also total absence of marketing strategy by NGEF with no market promotion, and no direct and close relations nor frequent contacts with dealers/ users as is being done by other companies. The company is not reaching out to users through advertisement and publicity about NGEF products nor any hoardings are displayed in major *markets. This is attributed to NGEF inability to cope up with demand. As opposed to this, other companies show their presence by spending good money on display of hoardings and banners at strategic points and centers in major cities. This, coupled with the aggressive marketing overshadows NGEF reputation/ brand image.*

ISSUES

During the last two–three years, the Management of the company has been making efforts to improve working of the factory. Small additions to its activities are being taken up such as (i) Transformer Repairs (ii) Transformer manufacture (partly outsourced).Small incidental income is being earned from these activities.

OVERHEAD COSTS

It was reported that the Management has been striving to bring about financial and cost disciplines in the working and reducing avoidable costs without affecting the working. The Management is pursuing this policy in respect of wage bills also.

PRODUCTION OUTSOURCING

The second measure being contemplated is to outsource production of its main product, i.e., motors to private company/companies. It was understood that the Management is in the process of entering into an agreement with some private companies / manufacturers for production of motors and tendering process is on .for which certain terms and conditions are laid down and strict quality control by NGEF is to be adhered to. The company manufacturing NGEF products has to pay 11% of net sales price (minus duties) to NGEF. The company also has offered its facilities to private companies within its premises for which separate quotation is envisaged. The Management also is in the process of identifying surplus work force that can be spared and exploring an arrangement under which some of the spare workforce could be deputed to other Govt. Agencies/Departments where there is shortage of skilled workers. The other measures being initiated are (a) Reduction of maintenance cost (b) Power consumption (c) Economizing of consumables etc. Cumulative impact of these measures would be seen in the years.

REDUCTION IN OVERHEADS

The overhead costs are being controlled and in many cases, reduced through economy measures and disciplining of overhead expenses. However, there is a lower limit below which *it may not be prudent or feasible to curtail these costs. An alternative is to enhance production with given level of overheads so as to reduce per unit cost of production. Presently the Prices quoted by the company are stated to be higher than others by about 10-20 percent. With increased production, overheads would be spread over larger number of units and the unit cost would be reduced and efforts should be made to level the listed price to the market price.*

INVENTORIES

A study of Inventories (raw material and semi-finished) to turnover shows that higher level of stocks are maintained (in some years around 40% of annual use). This would amount to carrying cost, besides risk of becoming obsolete if stored over a longer period. The concept of minimum stock should be followed, so that overhead in holding the stock is reduced.

MANPOWER PROFILE

The Company's man power profile shows that average age is 44 years. As per information, 02 contracts, 06 casual and 17 security personnel were also working taking the total staff strength to 171.

*About 75% of the man power is between age group 50-60 years of whom, about 19% are past 55 years. Of the workforce, less than 10% have professional qualifications (Diploma and Degrees in Engineering) while the remaining are skilled workers with long years of experience. Less than 10% are in Non-technical category. It may be seen that there are no personnel below the age of 40 years. The skilled and highly skilled workforce is an asset but their age-group is not favorable to impart any Special software based training to put them to any Production that requires use of modern technology. Since there are no staff within 40 year age group, imparting any specialized training is not possible unless younger and more qualified personnel are recruited in place of elder workmen. This may attract tough resistance from them since there may be very few takers for any **GOLDEN HANDSHAKE** scheme if introduced. The company has an uphill task of balancing the staff to the best advantage of its business.*

Business planning Vs Realization: A study of business planning and actual achievement indicates that there is wide gap between these two. It was observed that actual realization of revenue against projections had progressively declined during 2010-11, 2011-12 and 2012-13 but rose during the next year (2013-14) which again came down and this *indicated fluctuating trends in working of the company. During 2014-15, the company has projected revenue of Rs 3200 lakhs but actual turnover was just little above Rs 10.50 Crores.*

CURRENT RATIO

The current ratio i.e. current assets to current liabilities are less than 2, which is normally not a good sign of solvency. Even though there is a significant improvement in the ratio in 2013-14, still the industrial average is not achieved as per banking norms. Ideally accepted ratio is 2:1 and lowers than 2 means that firm is moving towards insolvency i.e. firm does not have enough current assets to cover its current liability.

LIQUIDITY RATIO

This is another ratio which signifies meeting current liabilities with liquid assets. This ratio is showing downward trend in last three financial years which is not good for company. Ideal ratio accepted is 1:1 which means in order to meet current liability we need to have equivalent amount in liquid asset form. Current liabilities are more than Liquid assets and the company is not in a position to have sufficient assets in liquid form to clear of its current liabilities.

EMPLOYEE EXPENSES

This is one area which needs immediate attention. It is found that employees salary is gradually increasing from 2012-13 without corresponding increase in productivity and capacity utilization. It is also found that there is a spurt in the employee expenses when compared with the revenue from operation (turnover). Major part of the revenue from turnover is eaten away by employee cost and this has grown over the previous three years. There is a huge disconnect between productivity and employee cost.

BORROWING COST

There is increase in borrowing cost (interest payment) over last year's (except for 2012-13). Higher interest payment without sufficient operating revenue has resulted in deteriorating company performance. Borrowed funds should be used in a proper way to generate higher sales so that it covers the interest cost, in NGEF case this has not happened, borrowings has not contributed in revenue generation. Interest coverage ratio is negative as there is an operation loss in previous 4 years.

ASSET TURNOVER RATIO

This ratio signifies how effectively assets are used in generating revenue from the business. Assets used are not contributing much to the revenue; it is due to assets being underutilized/unutilized to full extent. It is also found that most of the assets are obsolete and do not have proper maintenance

INVENTORY TURNOVER

This ratio signifies how fast inventory gets converted in to Sales (revenue generation). This ratio does not show a good picture as it is taking long time to get inventories converted in to sales. Absence of proper inventory management is resulting in this problem. Most of the raw materials are remaining in stores, there is significant high work-in-progress, and finished goods inventory which has resulted in low inventory turnover ratio.

DEBTORS TURNOVER

This ratio indicates the speed at which collections of debtors. Higher the ratio indicates that it takes lesser days to collect from the customers and lower ratio indicates that it takes more time to collect from customers. Here the ratio for last few years shows that the collections are not happening very fast. There is an increasing trend in receivables over the period of time and there is every chances that some of the debts may go as bad (irrecoverable in the coming years). During 2013-14, there were doubtful debts of Rs 56.60 lakhs and this may increase further if times actions is not taken for collection of outstanding amount from the customers.

WORKING CAPITAL TURNOVER

This ratio indicates firm's ability to generate sales per rupee of working capital. It can be seen from the chart, that the ratio is not significant, the sales are only 2.5 times the working capital and it was negative in 2012-13. The firm is not utilizing the working capital for generating sales; it is diverting the working capital to non-operating activities because of which the significant increase in working capital is not contributing to more sales.

MOTOR SALES

There was a gradual decrease in motor sales over the period 2010-11, 2011-12, 2012-13 and there is significant change in the year 2013-14 during which the sales have increased *compared to previous years. This is a positive sign and a strong case to indicate that honest and sincere efforts have been made to bring back the company in to a profit making unit. The increase in sale has also restored confidence in the minds of the agents and dealers who are now working towards getting more and more business.*

MEASURES FOR PERFORMANCE IMPROVEMENT

In case of Motors, there is need to add a few new ranges as there demand for wide ranging types of motors. A market study indicated that different regions have different demands. The Company has a present designed capacity to produce motors with a cumulative capacity of 90,000 HP. But the actual utilization is around 40-45 % (or 40,000 HP) leaving a balance of around 50,000 HP of designed capacity unutilized. Interactions with the MD NGEF indicated that there is adequate work force on the rolls of the factory which is presently under-utilized due to various reasons. This idle capacity work-force can be used to reach 100% designed capacity level. However, there would be need to improve facilities/add to the present facility if this objective is to be fulfilled

ENHANCING PRODUCTION CAPACITY OF MOTORS

The Company has a present Designed capacity to produce motors with a cumulative capacity of 90,000 HP. But the actual utilization is around 40-45 % (or 40,000 HP) leaving a balance of around 50,000 HP of designed capacity unutilized. Hitherto the company is manufacturing G-1 types of motors for which there is huge competition particularly in pricing and discounts. There is scope to go for G-2 and G-3 ranges where the competition is comparatively less since limited number of companies are in this business. This of course, requires availability of plant and machinery besides finance to meet working capital requirement..

The Hubballi unit was mainly considered as an assembling unit and took us producing G-1 group motors with 0.25HP to 15HP ranges and Bangalore unit was producing higher ranges. Consequent on closure of main unit, production of higher ranges was topped and Hubballi unit which was to produce earlier ranges took up motor production up to 30 and subsequently 40 HPs. Due inadequate facilities, production of higher ranges is not being done.

A request by NGEF Hubballi for transfer of available plant and machinery from Bangalore to Hubballi is presently pending with official liquidator (it was understood that *almost all machinery has been disposed off) The GOK may consider this request and take a favorable decision in this matter so that additional plant and machinery are available at Hubballi. Simultaneously, it is also necessary make an assessment of need for replacement of some of the older machines/facilities with new and improved versions so as to meet quality and quantity requirements of motors production section.*

DESIGN MODIFICATION

Castings in particular are produced with multi core patterns which are complicated to produce. Hence casting suppliers are reluctant to give priority to supplies which are low yielding causing less return. This results in improper and delayed supplies, ultimately resulting in lower productivity. Casting Suppliers consistently advising to have twin core patterns due to which yields are good and supplies can be uninterrupted. b) Alternatively switching over to aluminum bodies and end covers which results in productivity and gives aesthetic look. c) Change/Improvement in painting process is needed by modernizing entire painting process. For the above activities the approach by hiring services of specialized external experts (who are to be located) in the field is needed. In-plant production of shafts and rotor cores should be almost stopped. Dropping in winding and making stator core to be entirely outsourced. The existing internal infrastructure for above activities should be sparingly used wherever too many specialties are required to be met. Winding and stator, assembly, testing, painting and packing are the only activities NGEF is needed to be performed. By outsourcing all other activities as mentioned above at the component and sub-assembly levels, the problems due to old machineries and frequent maintenance can be overcome. All these activities reduce the cycle time of the production; increase the productivity there-by enabling NGEF to meet market demand at lower cost which helps NGEF Hubballi Ltd to regain its market share which is already lost, to meet these requirements along with G-1 range motors, NGEF has to start producing G-2 & G-3 range motors. As early as 1999-2000 line viability was drawn by a project team of NGEF Bangalore for the possibility of developing the in plant and external infrastructure locally available for the production of G-2 range motors, restricting the number of motors to be produced to 4000, though the demand was 8000 at that range. The remaining 4000 were retained for NGEF Bangalore. In the process design data for G-2 range were collected from NGEF Bangalore and launching of production of G-2 motors was taken up, targeting around 1500 to 2000 motors for production in the beginning. However, since NGEF Bangalore is liquidated the entire range of 8000 motors in G-2 range is open for development at Hubballi. The viability *was drawn considering the spare capacity available on some of the existing machineries available in plant which are meant for G-1 range of production, requirement of additional new machineries and local external infrastructure. This viability was drawn as long back as 15 years, when the plant and machineries had already outlived their lives. However, since the market has dropped for G-1 range of motors and due to increase in demand for G-2 & G-3 range motors in Northern and Eastern Region, restricting the production of G-1 range of motors further development of G-3 range motors along with partially developed G-2 range motors has to be taken up for which a detailed market survey has to be made. Based on the survey a detailed project report has to be prepared considering, New plant, Machinery and Equipments, Man Power etc.*

DIVERSIFICATION

The Company is in the process of finding alternative lines of production/ servicing in addition to motor manufacture which has now become a highly competitive proposition due to entry of a number of private players. This new step is most desirable since the present day market dynamics are quite complex and one has to be constantly on the lookout of newer areas that have emerging markets. Over the years, NGEF has made good name in market and established its credibility as manufacturer of best quality motors and bringing any new product in the name of NGEF should not be difficult for the company. The Company has conducted a Feasibility study of production of Transformers to cater to the emerging needs of power sector. The proposal aims at production of transformers to add to its revenue/income The cost of the project is estimated at Rs 100.00 Crores for both phases including land value and value of plant and machinery (presently at Bangalore unit) to be entirely funded by Government of Karnataka. In the first phase, transformers up to 1600 KVA are proposed and in second phase higher capacity transformers. Major market for the products are Electricity Boards, Private sector users, Housing colonies, Agriculture users and other small scale users. The proposed project is expected to provide employment to good number of young professional and skilled personnel and more importantly, this would help NGEF overcome present precarious condition. While this proposal deserves to be considered, there is need to carry out a Detailed Project Report preparation exercise with details on technical, financial, economic, marketing and legal aspects. As per NGEF estimates, in Karnataka itself, the demand for Transformers is estimated at around 100,000 units by various ESCOMs over a period of time. This itself provides opportunity for the company to take up transformer production. This of course, calls for fulfillment of the following conditions. Firm commitment *by ESCOMs to place orders for the supply of transformers to NGEF with time-line supported by payment of some advance (i) Addition of facilities for transformer production in terms of machinery and skilled and trained man power. It was understood that the ESCOMs have agreed to advance to the extent of 90% of the price. As such, the company does not have to borrow on interest. The NGEF will have to estimate both of these two with likely phases;(ii)If the NGEF proposes to outsource production of any part/substantial part of transformers to any single or number of private agencies, there would be need to have an agreement between the two with legal provisions to safeguard the interests of both parties;(iii)The NGEF has strength of 139 technical and non-technical man powers which are under-utilized at present. The Company has to take up a staff restructuring programme including skill up gradation through some structured training programmes.*

STREAMLINING REPAIRS/SERVICING

Presently NGEF is engaged in carrying out repairs to transformers for HESCOM and other ESCOMs may also avail such service in future. The company has been earning some small income from this service and at the same time, the under-utilized workforce is being used for this purpose. Even though this service may not yield big income, the proposition is welcome due to the fact that unproductive cost on wages/remuneration is being avoided for earning small sums of moneys. The company should focus on this activity and pursue on a more commercial line so that eventually, it can provide wide ranging repair-servicing facility. The company has to add to infrastructure/plant and machinery to meet the demand. Since there is huge gap between planned production and actual production, the Management has to think seriously as to how to cope up with this difference and how best the skilled man power could be deployed for productive purpose. There is need to focus on finding ways and means of utilizing the idle capacity. The changing market demand and competitive environment is key factor which if not considered would lead to a situation of perpetual losses.

MANUFACTURE OF TRANSFORMERS

The Company has taken up transformer repairs during financial year 2013-14 from HESCOM, along with the production of motors in the existing plant and intends to have its own separate distribution transformers manufacturing unit. A pre-feasibility report prepared by the company proposes to diversify it's by adding a high income and employment generation activity. Keeping in view the requirement of plant machinery and equipments for taking up additional product line vis –a –vis available stock of machinery and their utility levels, the company has plans to outsource the manufacture to few local industries.

HUMAN RESOURCES

The company has on its pay roll, 139 staff comprising technically qualified (2 Degree and 15 Diploma holders) and highly skilled workers with long years of experience. In addition there are 12 support staff in Sales, Marketing, Administration and Accounts departments. In addition as many as 27 contractual and casual workforces also are also working in the factory. Availability technically trained and skilled manpower augurs well for the company's plan to accept challenges of changing marketing scenario, since manpower availability has many advantages. Thus, about 90% of the staff has one or other technical qualification and skill coupled with experience on the job. To be able to implement revival plan, it is necessary to go for man-power planning for the next five-seven years when over 50% of the skilled staff would superannuate from the services. If the Management is unable to utilize the services of any of the skilled/semi-skilled workforce, it is desirable that a mutually-agreed and acceptable Golden Handshake scheme may be thought of under which willing workers are covered under Voluntary Retirement Scheme. Since the company is hard-pressed of resources, any additional financial burden at this stage could put additional stress on financial status of the company. Hence, an amicable settlement between the willing workforce for VRS on the mode and method of payment of VRS compensation to them will be necessary. There are a number of alternatives available for their compensation, such as: Payment of compensation for the remaining period of their service using certain formulae

CONCLUSIONS

The Company which was in limelight has slid into a difficult position owing to a number of internal and external factors. It has earned respectable goodwill over the years for its high quality standards but entry of a number of private players into motor business has resulted in limited scope. The company's market share has been going down in major markets i.e. Eastern and Northern regions, mainly for its inability to meet changing market demand and price disadvantage in comparison with private suppliers; NGEF is not in a position to meet demand for G-2 and G-3 ranges from major markets leading to declining business in these regions; Non-availability of improved and modern machinery has restricted scope for the company to cope up with changing market demand; Comparatively higher overhead (disproportionate to production level) has been pushing the company in loss; Due to inherent limitations, the company has not been able to fulfill its commitment even for the G-1 ranges; Dealers in NGEF products are highly appreciative of the Quality of products but are not *happy with the company's lukewarm and slow response to the changing needs The dealers feel that the company lacks good marketing strategy which has given an opportunity to rivals/competitors an upper hand; In spite of several weaknesses, there is still high respect for NGEF and its products and Dealers and Regional in charges strongly suggest revival of the company ;*

Recommendations

There is need to take immediate steps for its revival through series of measures such as (i) Enhance infrastructure/plant machinery and equipments to produce higher ranges, in required numbers to meet the changing demand.(ii) Add new product lines like transformer manufacture since there is huge demand for them. Tap markets within the state and outside (with electricity Companies and other bulk users. Consider appealing GOK to take a policy decision under which all the government Department and undertaking should be advised to use NGEF products instead of buying from open markets under Tendering system. Consider appealing GOK to consider waiving duties and taxes in order to reduce the cost of production; (for a fixed period of say 3-5 years till the company reaches a viable status and stands on its own) iii) Take aggressive marketing through a young team of field force. In addition, provide motivation to the dealers, in monetary and non-monetary terms to cope up with competitors iv) Consider outsourcing in some activities since the present facilities are not adequate to augment motor production/transformer manufacture Formulate a plan for reduction of surplus workforce through Golden Handshake or deputation to other GOK agencies/departments where there need for such workforce. Increase employee skills and productivity through training and exposures. Introduce cost/management accounting and cost control system in addition to the present MIS, to facilitate close monitoring of the performance of the company and taking corrective steps;

The GOK should consider positioning a Chief Executive (MD) for a minimum period of 3 years in order the incumbent is able to bring back the company to sustainability level.

IMPROVING FINANCIAL HEALTH

A clear cut Costing system should be put in place. The present system of costing is lacking with lot of shortcomings. There is an immediate need to engage a cost consultant to design the costing system and to revisit the entire costing policy. It is recommended to have a strong inventory policy focusing on ordering, issuing and managing the stocks. Presently *there is no systematic inventory policy and there is no proper ordering policy as well existing. Even though ERP system is introduced, most of the people who are working at stores are not familiar with working and usage of ERP system. Computation of Cost of product is not significant and there is no base on which standards are fixed. There is no proper cost sheet maintained and no one is aware of on what basis the standards are fixed. This is resulting in high cost and there is urgent need to address this issue and see to it that proper cost data are gathered and used to arrive at cost of production. As per the feedback of the dealers and also our interaction with them, it is clear that NGEF brand is still prevalent in market and there are lots of customers who still prefer to buy NGEF motors in high numbers. There is lot of demand but, there is huge supply shortfall which is resulting in not catering to market demand. As we can see that the capacity is not getting utilized fully, the company should work towards, better capacity utilization and should target to achieve at least 80% (from present 50%) and see that it caters to the market demand. Replacing of old machine with sophisticated and better technology machine and having a proper maintenance policy of existing machine. It is found that the machines used are not contributing to high sales, the reason being because of obsolescence and poor maintenance. The firm should bring an effective machine management policy and address this issue on top priority.MIS (Management Information system) reporting system should be developed in a robust manner. The firm should have a strong MIS reporting introduced and all the critical and important data should be shared on timely basis (daily/weekly/monthly etc) to the management for taking further decisions. Better unitization of human resources. The firm should work towards motivating these employees in using their rich experience in increasing efficiency and productivity to greater extent. Dealers have complained on the poor packing conditions under which motors are dispatched and this needs to be taken care. A cost effective packing system should be introduced to make sure that there is no sever damage caused to the motors while in transit and at point of unloading. The company should seek financial assistance from the GOK to (i) provide some short term financial assistance to tide over debt and meet working capital(around Rs 10.00 Crores and (ii) provide funds for Transformer manufacture (estimated at Rs 15.00 Crores to meet plant and machinery requirement only.*

CHAPTER-1

INTRODUCTION

1.1 India's Industrial sector received major focus in the Country's Five year Plans, more so, in the initial phase after independence. The country needed industrial growth at faster pace to cope up with the growing demand for wide ranging products. Generation of industrial output to meet this demand depended on availability of plant and machinery. As such, major concentration of the planners was on promotion of heavy industries, which could cater to the needs of other industries. Absence of private initiative and enterprise due to requirement of huge investments, necessitated governments of the day to enter into industrial development arena with establishment of Public Sector companies. State initiatives were need of the hour in promotion of industries with multiple objectives of meeting the domestic demands, reducing dependence on imports and more importantly creating employment opportunities for youth. A number of financial institutions (State and Central) came up to provide short, medium and long term finance to the industry. A number of industrial companies and Corporations were set up by GOI not only to accelerate pace of industrial production and growth but also motivating private initiatives in this sector.

1.2 KARNATAKA

Industrial development has been accorded high priority on the lines of Government of India. GOK set up number of industrial units under Public Sector. These PSUs did very well in the initial stages and carved niche for their products and services. In the absence of competition by priority sector, they had smooth sail. But, liberalization of economic and removal of number of hurdles, prompted private sector to enter into various industrial ventures to take benefit of GOI facilities and incentives. As a result, an environment of competition was created across the country and so in Karnataka.

Private initiatives have resulted in growth of this sector lead by Corporate. On the other hand, many of the industries set up by Government have been facing wide-ranging problems, such as operational, managerial and financial and their survival is at stake. In fact, quite a good number of them either have been closed/liquidated or are on the verge of closure. The changed industrial scenario has created a situation where the role of the state has been marginalized and taken over by private sector.

Among others, the Govt. of Karnataka established New Government Electric Factory at Bangalore and later at Hubballi. Mainly with the objective of meeting the demand for electric motors/pumps and other accessories, more importantly, for irrigation purposes apart from industrial uses. The company has been in existence for over thirty years but its performance in recent periods has been one of concern with declining business, leading to losses. The Bangalore unit of the company was closed during 2004.

The Govt. of Karnataka sponsored a study on evaluation of performance and rehabilitation of NGEF. TECSOK in its report, made a number of observations and certain recommendations for revival of the company for consideration of GOK. The GOK now intends to take a second look at working of this company. The Public Sector Enterprises Board, GOK/KEA entrusted the task of carrying out the study to READI-INDIA Dharwad, a Consultancy organization. The main objective of the study is to arrive at the current overall situation of the company and arrive at 'Gap-Analysis' to ascertain the improvement areas towards revival of the company and suggest necessary steps that need to be taken.

BROAD TERMS INCLUDE

1. Whether the objectives set for the company have been achieved and If yes, to what extent and if no, why not
2. What are the inherent causes (Internal & Extraneous factors) of sickness of the Unit?
3. Is there any correlation between financial performances with the achievements/non-achievements of the objectives for which the company was set up?
4. Are the prescribed quality standards of deliverables maintained?
5. How satisfied are the consumers with the products of the Company
6. What are the steps taken by management to address sickness issues? Are they effective?
7. Whether the rehabilitation measure taken by the Government effective? What are they?
8. What are the key factors impacting the bottom-line of the Organization?
9. What measures need to be taken to improve the Balance sheet of the Company?
10. What areas of the Organization needs restructuring? What measures need to be taken for restructuring?
11. Is there a scope for technical collaboration or marketing tie-ups with other suitable organizations in the private sector?
12. What is the roadmap for revival and the timeline involved?

13. What are the possible consequences of revival & restructuring on the stakeholders including employees?

The team had three rounds of meetings with the Managing Director and two rounds with Departmental in charges of the Factory at Hubballi. All relevant data was collected with some gaps due to non-availability of the same.

An Inception Report was presented to the client together with work plan and methodology being adopted.

The draft report is based on (i) secondary data made available (ii) interactions with Managing Director, Regional Managers and Dealers in respective regions and (iii) interactions with heads of each of the department in the factory.

READI-INDIA is grateful to Managing Director and staff at Hubballi for all assistance and cooperation received during the team's visit to Hubballi unit.

Special thanks are due to all the Regional Managers for their spontaneous response and co-operation during the team's visit to Kolkata, Mumbai, Delhi, Chennai and Bangalore.

CHAPTER-2

METHODOLOGY

The main objective is to review and study the operational performance and achievement of objectives of the company. Secondly, three main aspects emerge as prominent indicators of company's poor performance in the few years, namely (i) production of desired number of motors (ii) Efficient and economic management of all operations entailed in production and (iii) Financial performance and viability of the company. A multi-disciplinary team of experts was constituted comprising: (i) Engineer (ii) Market studies and (iii) Cost and Management accountant for this purpose. The work involved (i) Collection and desk analysis of available data on company's operations (ii) Conducting a quick market reconnaissance study of markets across the regions (iii) One to One interactions with regional managers and selected dealers. The study was taken at two stages, namely (i) Visits to regional offices and to the dealers under their jurisdiction (ii) Detailed study of working of the company through visits to the factory (each department), interactions with heads of the departments including an assessment of department wise performance (iv) One to One interactions with the Managing Director of the company.

FIELD VISITS

Presently 45 Dealers are listed by NGEF of whom, 25 are reported to be active. The consultant met 17 of them for detailed interactions. Questionnaires were used to capture data from each of them. However, they did not share desired quantitative data for their own reasons but qualitative information could be gathered through one to one discussions. The region wise number of dealers met is given below-

REGION	RM	DEALERS MET
Eastern	Sri. P K Ganguly	07 (Kolkata 7)
Western	Sri. Sukumar Shetty	03 (Mumbai 3)
Northern	Sri. M Natarajan	03 (Delhi 3)
Southern	Sri. K S Parappa	04 (Chennai 3, Mysore 1)
Total		**17**

Secondary Data

For collection of data from the company, checklists were provided. Most of the data required for immediate purpose has been provided by the company.

Limitations

Efforts were made to obtain detailed information from respective departments by the consultant, but some of the data required could not be accessed due to non-availability. The consultant was unable to analyze most recent trends in company's working, financial, and technical performance. In the light of the above, some of the consultant's observations had to be arrived at on the basis of certain inferences and experience in earlier studies. (TESCOK)

The respondent dealers were requested to provide data on

(a) Overall business in motors

(b) Share of NGEF MOTORS in total sale

(c) Other companies supplying motors

(d) Trends in NGEF share in overall sale of motors during five years.

None of the companies provided this above data

Team of consultants had an opportunity to visit the NGEF, Hubballi plant to understand the plant layout and to interact with various department heads and employee.

Consultants interacting with Managing Director, NGEF, Hubballi

Consultants interacting with different Departments at NGEF, Hubballi

Consultants interacting with different Departments at NGEF, Hubballi

Consultants interacting with different Departments at NGEF, Hubballi

Consultants interacting with different Departments at NGEF, Hubballi

Consultants interacting with different Departments at NGEF, Hubballi

CHAPTER-3

NGEF - AN OVERVIEW

The NGEF Hubballi was established in 1984 under the Indian Companies Act 1956 as a 100% subsidiary of NGEF Ltd. Bangalore engaged in manufacture of electrical motors with German Technology. It has completed 30 years of existence and has made significant contribution to Karnataka's industrial production.

The Memorandum of Association of the company among others empowers it to (i) acquire and take over the electric motor division at NGEF Bangalore and Hubballi and (ii) carry on business of manufacture of all kinds of electric motors and rotating machines, starters, regulators etc. The company's vision is to increase its business opportunities. The company is striving to fulfill its objectives and obligations to the state and country. It has established network of dealers across the country over the years.

The company was established with the main objective of catering to the industry needs by supplying required number and types of motors and providing repair services. The role of NGEF was to cater to the needs of various industries across the country, generate industrial output, employment and facilitate growth of agriculture, small and medium scale industries apart from large industries. To this extent, the objectives set forth for the company have been fulfilled.

During three decades of its existence, NGEF has been meeting the demands from cross section of industries. Its product ranges and quality products have earned goodwill of users and as a result it has created a place for itself in the motor manufacturing activity. The company's products have unquestioned superiority over others.

A study of operations of the company shows that company is incurring losses with effect from 2010-11 and in no financial year since then; the company has registered a profit. As per data for 2012-13, the company had made a business of Rs.6.03 Crores and its expenses amounted to Rs.9.56 Crores, resulting in Rs.3.56 Crores of loss. During next year i.e., 2013-14, it made a business worth Rs.10.31 Crores against an expenditure of Rs 14.01 Crores resulting to a loss of Rs 3.69 Crores.

The volume of business has drastically reduced to about 40% while the fixed overheads keep moving up. Various factors are attributed for this state of affairs and for the company's dwindling business. A number of operational and financial Ratios are showing adverse and unfavorable trends. Broadly, areas, which call for special, focus namely:

a) Productivity

b) Product ranges –limitations.

c) Production capacity limitations.

d) Costs of production-direct, indirect and overheads.

e) Market penetration and strategies for retention of market share.

f) Financial management.

The earlier study conducted by TECSOK has come out with certain recommendations among them, manufacture of higher capacity pumps and acquisition of plant and machinery of higher capacity, modernization and skill up gradation, market expansion and strengthening sales forces.

Performance

Inherent causes (Internal & External factors)

In recent years, NGEF has been facing a range of challenges mainly due to (I) Internal and (II) External factors.

(I) Internal Factors

The company was working as an extended arm of NGEF Bangalore, its parent company. With the closure of its main unit at Bangalore, its role has changed substantially. Presently it is producing G-1 range of motors. As against production of a range of motors earlier, the company has reduced its production range due to want of facilities at Hubballi. With changing industrial scenario, demand for higher ranges (G-2 and G-3) is increasing. To meet this demand, addition of new and improved plant and machinery is necessary. Since it is not in a position to make any investments for acquiring new and improved machines, it has to contend itself with available facilities. This has resulted in limited scope for pushing the available ranges of motors into the markets. Large numbers of companies are engaged in motor industry and any of them are able to supply wider ranges of motors. Since available machinery at Hubballi is old and becoming obsolete faster, any addition to the existing ranges is limited and as such, the company has to restrict its ranges to the available facilities while the demand for higher ranges is on the rise.

Financial constraint is another reason for the company to meet the emerging demands. Since the company is incurring loss, its financial status is eroded so also its net worth. It cannot generate any surplus internally nor can it borrow from financial institutions.

Third limitation is higher per unit cost of production due to low productivity of plant machinery and manpower and higher overheads.

(II) External Factors

Over the years, the industrial scenario of the country in general has undergone tremendous changes with introduction of newer technologies and processes. Coupled with this, private initiative in this sector has come in a big way with addition of newer and more brands of motors of different ranges. Secondly, the demand pattern of the users also has been changing as with technological advancement the demand for traditionally used ranges has been taken over by higher ranges leading to unprecedented demand for new ranges of motors.

A study brought out by TECSOK also highlighted the changing industrial scenario of the country. NGEF ironically has very small market share in Karnataka, estimated between 6 to 7 percent while its major market is in East and North Indian state. Over the years, good number of companies has come into the field adding to fierce competition among motor manufacturers (Eg: Kirloskar Electric, Crompton Graves, Bharat Bijlee, Siemens, ABB, LHP, Hindustan Motors, Jivels, Elgi, Marathon etc). The price-sensitive market environment has posed a challenge to companies that cannot respond to changing market demands. NGEF is one of them. (Particularly in Eastern & Northern region as reflected in sales trends during the last five years).

Private sector companies have the advantage of responding to the market and are in a position to adjust to such changing conditions while Govt. units are not in a position to switch over so easily.

Following are some of the reasons for NGEF market shrinking for motors.

TABLE-1: COMPARATIVE ANALYSIS OF NGEF WORKING

Sl. No.	Particulars	Private sector companies	NGEF
01	Pricing	Private suppliers price the products	This company cannot reduce

		on most competitive lines and adjust the prices to the market demand	the price. It is estimated that the difference between prices of private suppliers and NGEF ranges between 10 to 20%.
02	Delivery	Private companies are able to meet the demand for early delivery since they have opened godowns in respective regions and the demanded products can be made available in short time.	In case of NGEF, there is considerable gap between the confirmation of order and actual delivery. The required products have to travel all the way from Hubballi to any destination which takes longer period of time in transport.
03	Bulk Orders	Private suppliers having facilities of storage of motors are able to supply even large number of motors within short period of time	NGEF is not in a position to make bulk supply of motors is not possible since the NGEF is not able to produce the required number of motors. NGEF takes up production only after firm order from parties and that too, in installments and at one go. Dealers/users are made to wait for considerable period. Secondly, NGEF is not in a position to supply large number of motors due to inadequate facilities and required manpower including financial constraints. (Pending Order in Annexure 7)
04	Discounts/ Rebates	There is fierce competition among private suppliers in respect of allowing highest feasible rebate to the customers. The on-going rate of discount ranges from 65-70 per cent of listed price, besides cash discount.	NGEF offers a discount ranging from 50-55% on listed prices, which is about 5% less than others. Secondly, there is also price differential of an average 15%. Thus, the difference amounts to around 20%.
05	After-Sale Service	Private suppliers have set up service centers at strategic	NGEF does not have facilities. All complaints are

		locations, where they have larger user and provide after sale services promptly and quickly.	to be handled by Hubballi. There is long time-gap between receipt of complaint/and attending to the same. This affects client's work.
06	Ranges and Quality of the Product	Private suppliers have wide ranges of motors that are in demand and thus, are in a position to meet market demand. Quality of motors supplied vary from company to company	Quality of NGEF motors is considered superior and clients and dealers are highly satisfied.
07	<u>Other aspects</u> Designs Packing	a) Dealers and users feel that designs of private suppliers have aesthetic look b) Packing is considered to be superior to NGEF packing	a) Dealers feel that NGEF designs are old and do not match modern tastes of aesthetic values b) Packing is considered to be inferior with higher incidences of damages.
08	Marketing /Sales promotion	a) Private companies resort to aggressive marketing tactics through media and hoardings to attract the users. b) The companies Market force is in close touch with dealers and users and meet them frequently c) The companies offer motivation to dealers such as Diaries, calendar, gifts, Annual get-together picnics etc.	a) NGEF has no such strategy of marketing b) Regional Managers do keep in touch with the dealers but due to financial constraints they are unable to increase frequency of visits/contacts with dealers c) NGEF has no such strategy of dealer motivation.

FINANCIAL PERFORMANCE VIS A VIS ACHEVEMENTS

Though NGEF has fulfilled its mandated responsibility as supplier of motors and other accessories to promote industrial growth, its financial performance has not been satisfactory, mainly on account of (i) Reducing market share and declining demand for NGEF Range of motors (ii) Aggressive marketing and offering competitive prices, discounts, prompt after sale services without loss of time, by competitors have resulted in users gradual switch over from NGEF products to other brands.(iii) On the other hand delay in meeting the demand and partial supply of motors against demand have created negative impact. (iv) In Northern and

Eastern Indian states, some competitors have been misinforming users about the existence of NGEF Hubballi and giving an impression that NGEF has closed its operations altogether.

However, NGEF inability to take on the challenges is a major reason for reduced demand. The Regional Managers are struggling to retain NGEF image and share in the market but due to constraints, they are unable to reach out to the users and dealers.

PRESCRIBED QUALITY STANDARDS

Notwithstanding internal and external limitations, one thing that puts the company in an enviable position is its quality supremacy. Interactions with Regional Managers, and dealers show that in spite of products having comparatively higher prices and delivery being uncertain, there is still some section of users who have very high opinion about NGEF products and they still prefer its products over others but their number is small .

The Regional Managers and some dealers feel there gradual deterioration in the quality, packaging and transport leading to frequent problems of breakages more importantly repairs/replacements take considerably longer period of time.

During the last five years the company's performance in terms of overall business level, revenue generation, profitability, labor turnover and cash and funds flow has been declining and financial losses are mounting year after year. This is a major cause of concern for the management as also the GOK. A number of reasons are identified to be attributed for this trend. The main among them are

(a) The plant and machinery presently available with the company is old and becoming obsolete.

(b) Frequent breakdown and repairs are common. The designed capacity of production is 90,000 HPs/year of different ranges. Average daily output of the factory is between 50-75 motors against which the present production is around 20 or a monthly production of around 500-800.

TABLE - 2 : PRODUCTION OF MOTORS

YEAR	PLANNED		PRODUCED	
	PHYSICAL (NUMBERS)	FINANCIAL (RS IN LACS)	PHYSICAL (NUMBERS)	FINANCIAL (RS IN LACS)
2009-10	28360	191.07	20018	1386.92
2010-11	31850	2264.63	22355	1460.83
2011-12	27000	2288.07	7653	981.37
2012-13	37500	3053.92	8981	637.57

2013-14	20000	2028.00	6175	827.14
2014-15(December 14)	9750	401.25	3673	-

Source: NGEF Hubballi

With material cost and employee emoluments going up, the margin between cost of production and price realized is reducing and in the last three years it has become negative thus eroding the company's financial status.

Even so, the market demand for the range of motors manufactured by NGEF is becoming limited due to availability of required ranges of other brands in the market at competitive prices with attractive terms; Entry of a number of companies into motor manufacturing has further eroded market share of the company. Technological lag is another limiting factor. Due to use of improved technologies that reduce the cost of production and enhance efficiency, such companies are in a position to offer their products at much lower price and allow higher discount. NGEF competitors offer much higher discount (ranging between 65-70 percent) against 55-58%offered by NGEF

As per market survey the price differential between NGEF and other competitors is anywhere between 10-20 percent.

DEALERS OPINION AND FEEDBACK

As dealers were key people who regularly interacted with the customers, it was immense importance to interact with dealers spread across India. As part of collecting feedback and understanding various challenges faced by the dealers who are the chief architects of NGEF business, we personally went to dealers place and had a face-to-face interaction with major dealers. The outcome of the interaction is presented in the below table.

TABLE - 3 : REGION WISE GENERAL AND COMMON OPINION OF THE NGEF DEALERS

<table>
<tr>
<td>1. Kolkata

Dealers Name: Chandragupta Shaw
H.L. Engineering Corporation

2. Kolkata</td>
<td>1. ON PRICING
Private Suppliers of motors like ABB, LHP, NEC & NMR Motors CRI Pumps Beacon, Hicsol, Tecmo, Crompton, Bharath Bijlee Ltd Motors are price the products on competitive lines and adjust to price to the market demand.
The difference rate between prices of private suppliers 10-20% comparing to NGEF.</td>
</tr>
</table>

Dealers Name: Ashok Baid
Sarvamangal Trading Company
Kolkata. (WB)

3. Kolkata

Dealers Name: Kishan Baid , Karan Cable Industries

4. Kolkata

Dealers Name: Lalit Baradia
National Industrial Corporation

5. Kolkata

Dealers Name: K.K Jalan S British Electric Mfg. Co.

6. Delhi

2. **DELIVERY**

Private Companies is able to meet the demand for yearly delivery since they opened godowns in respective regions and demand product can be made available in short time.

In case of NGEF delivery is centralised and time consuming.

3. **BULK ORDERS**

Private suppliers have facilities of storage of motors in Local godowns and they are able to supply even large numbers of motors with in short period of time.

In case of NGEF storage facility is absent due to which bulk orders cannot be executed on time.

4. **DISCOUNTS/REBATES**:

There is a fierce competition among private suppliers in respect of giving highest possible rates to the costumers, the ongoing rate of discounts ranges from 65-70 % of listed price, besides cash discounts.

The difference amount is around 20% has compare to NGEF.

5. **<u>After - Sales Service:</u>**

The private suppliers have set up service centres at strategic locations, where they have larger users and provided after sale service promptly and quickly.

6. **<u>Ranges and Quality of the product:</u>**

Private suppliers have wide ranges of motors that are in

Dealers Name : Suresh C Sapra
Punjab Engineering and Mill Stores
Delhi - 110006

7. Delhi

Dealers Name : Sanjay Agarwal,
Shivaji Electricals, New Delhi

8. Mysore

M/s Surakasha Enterprise, Mysore

demand and thus, are Position to meet market demand. Quality of motors supplied varied from company to company

7. <u>Designs/ Packing:</u>

Dealers and users feel that designs of private suppliers have aesthetic look. Packing of competitors is considered to be superior to NGEF packing.

8. <u>Marketing/ Sales Promotions:</u>

Private companies adopted aggressive marketing tactics through media and publicity to attractive the users.

The companies' market force is in closed touch with dealers with users and meets them frequently. The companies offer motivations to dealers, such as diaries, calendar, gifts, annul get together picnics etc.

As there is considerable time gap between demand and supply NGEF products also generation gap of the dealers and users, it has become difficult to position the NGEF product in the market and re-establish the credibility of the brand.

Dealers and users find that the NGEF delivery schedule and commitment are not maintained, as there is considerable delay between placing order and actual delivery. Besides, demands are not fully met at one go but in installments. Absence of godowns and stocks at important centers with high potential demand is causing delays in delivery schedules.

The dealers and Regional managers also feel that packaging material used by NGEF is changed over the years leading to breakage and damages (though in some cases).

Users also feel that NGEF motors though rated high in terms of quality, do not have attractive and aesthetic design or look as in the case of other competitors (This opinion came from dealers in Kolkata and Delhi).There is also a feeling among dealers that the users get impressed with new designs apart from quality and price.

The dealers also feel that poor and unresponsive after-sale service of NGEF is a major reason for customers dissatisfaction since there are no service centers at strategic locations to attend to the complaints/repairs;

There is also total absence of marketing strategy by NGEF with no market promotion, and no direct and close relations nor frequent contacts with dealers/ users as is being done by other companies. The company is not reaching out to users through advertisement and publicity about NGEF products nor any hoardings are displayed in major markets. As opposed to this, other companies show their presence by spending good money on display of hoardings and banners at strategic points and centers in major cities. This, coupled with the aggressive marketing overshadows NGEF reputation/ brand image.

CHAPTER-4

RECENT MEASURES TO ADDRESS SICKNESS

Issues

During the last two–three years, the Management of the company has been making efforts to improve working of the factory. Small additions to its activities are being taken up such as

a) Transformer Repairs

b) Transformer manufacture (partly outsourced)

Small incidental income is being earned from these activities. The following table provides year-wise earnings from other sources

Table – 4 : Income from Servicing (Rs in lakhs)

Year	Income from repairs	Income from transformers	Income from other sources (scrap sales)	Total income from other than sale of motors
2009-10	Nil	Nil	0.67	0.67
2010-11	Nil	Nil	4.90	4.90
2011-12	Nil	Nil	1.31	1.31
2012-13	29.22	Nil	7.95	37.17
2013-14	103.08	41.03	58.18	202.38
2014-15	37.16	99.81	33.00	169.97

Source: NGEF Annual reports

Reduction of Overhead costs

1. Wage bills

It was reported that the Management has been striving to bring about financial and cost disciplines in the working and reducing avoidable costs without affecting the working. The Management is pursuing this policy in respect of wage bills also. An arrangement is worked out under which transformer manufacture is being outsourced to a private company with a condition that part of the workforce required is to be deputed from the company. The wages for the workers so deputed to that company are borne by outsourced company. By this arrangement, the management is able to;

i. Reduce the wage bill
ii. Ensure that the workforce is put to productive use
iii. Earn additional income from transformer manufacture

iv. Facilitate employment generation in private sector

2. Production Outsourcing

The second measure being contemplated is to outsource production of its main product i.e., motors and transformers to a private company/companies. It was understood that the Management is in the process of entering into an agreement with some private companies/manufacturers for production of motors and transformers under strict quality control by NGEF. The company manufacturing NGEF products has to pay 11% of net sales price (minus duties) to NGEF. Tenders have been called for in case of INDUCTION MOTORS with certain terms and conditions laid down in Annexure-9.

3. Surplus workforce

The Management also is in the process of identifying surplus work force that can be spared and exploring an arrangement under which some of the spare workforce could be deputed to other Govt. Agencies/departments where there is shortage of skilled workers.

4. Other measures

The other measures being initiated are (a) reduction of maintenance cost (b) power consumption (c) economizing of consumables etc.

Cumulative impact of these measures would be seen in the years. The following table provides trends in overhead expenses

Table 4.1 : Overhead Expenses- by Years (Rs in Lakhs)

Year	Factory overhead	Admin overheads	Total overheads
2009-10	395.38	151.78	547.16
2010-11	437.48	162.24	599.72
2011-12	464.93	172.27	637.20
2012-13	507.15	167.72	674.87
2013-14	596.47	162.36	758.83
2014-15(Dec 14)	344.30	94.12	438.42

Source: NGEF Annual Reports

CHAPTER-5

FINANCIAL PERFORMANCE

A study of the financial performance of the company presents an overall unfavorable condition. The earlier study by TECSOK had also highlighted this fact. It is seen from the statements of accounts (P & L Account and Balance) that most of the financial ratios are unfavorable from viability point of view, notably

a) Raw-Material-Turnover Ratio

b) Salaries and Wages-Turnover Ratio

c) Selling and distribution-Turnover ratio

d) Administrative Expense-Turnover Ratio

e) Power-Water consumption-Turnover Ratio

f) Total Expenditure-Turnover Ratio

All the above ratios are above the industry norms. Major cost centers are (a) Raw material and (b) Salaries and Wages, both collectively account for between 85-95%.

The company has unfavorable selling and distribution-turnover ratio, which needs to be trimmed to fall in line with industry norms;

One of the major areas that call for disciplining is Salaries and Wages, which account for 45-50% and vary on a year-to-year basis. This again is not in tune with industry norms. Similarly, raw material cost forms around 73% of total cost and RM-Turnover ratio is highly unfavorable. Trimming this holds key to profitability of the company.

Cost Centre- wise Trends

A study of trends in the movement of cost-centers over a seven year period under review is indicated in the following the following Table which provides the details of Year wise business operations of the company during 2009-10 to 2013-14.

Table - 5 : Performance trends of NGEF (Rs. In Lakhs)

Particulars	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Revenue	1288.74	1324.1	886.9	603.11	1031.53	1114.44
Material	925.39	863.19	626.94	301.68	642.09	522.81
Operating	36.84	42.75	21.12	21.12	23.52	22.25
Salaries and remunerations	358.54	378.2	381.1	433.8	499.59	539.57
Sales and distribution	70.87	62.15	63.32	50.08	88.37	83.60
Administrative Expenses	45.53	55.24	61.65	64.68	57.33	54.24
Financial cost	35.38	44.85	66.52	42.06	55.17	72.66
Depreciation	19.94	16.53	17.32	17.04	17.05	18.74
Others	-4.63	-99.29	26.18	28.92	17.81	23.97
Total	1492.49	1363.62	1264.15	959.38	1400.93	1325.31
Net income	-199.13	-39.52	-377.25	-356.27	-369.4	-239.01

(Cost Sheets in Annexure-5)

The trend is (i) reducing revenue receipts and (ii) proportionate rise in costs.

The two have together resulted losses and consequently company's operational and financial health.

The accumulated loss (reflected as a part of Reserves and Surpluses in the Balance Sheet) is Rs 9.95 Crores.

Reduction in Overheads

The overhead costs are being controlled and in many cases, reduced through economy measures and disciplining of overhead expenses. However, there is a lower limit below which it may not be prudent or feasible to curtail these costs. An alternative is to enhance production with given level of overheads so as to reduce per unit cost of production. Presently the Prices quoted by the company are stated to be higher than others by about 10-20 percent. With increased production, overheads would be spread over larger number of units and the unit cost would be reduced and efforts should be made to level the listed price to the market price.

Inventories

A study of Inventories (raw material and semi-finished) shows that huge stocks are maintained (in some years around 40% of annual use). This would amount carrying cost, besides risk of becoming obsolete if stored over a longer period. The concept of minimum stock should be followed, so that overhead in holding the stock is reduced

Manpower Profile

The Company's manpower profile shows that average age is 44 years and following is the composition of employees. Detailed Manpower profile containing information like name, years of service, qualification, designation etc has been enclosed in Annexure 3.

Table - 6 : Employee Profile

Age group	Technical(Q)	Skilled/Semi Skilled	Non-technical	Total	% to total
25-30	0	0	0	0	0
30-35	0	0	0	0	0
35-40	0	0	0	0	0
40-45	0	0	0	0	0
45-50	01	29	04	34	24.40
50-55	12	63	04	79	56.80
55 plus	0	22	04	26	18.80
Total	13	114	12	139	100.00

As per information, 02 contracts, 06 casual and 17 security personnel were also working taking the total staff strength to 171. About 75% of the manpower is between age group 50-60 years of whom, about 19% are past 55 years. Of the workforce, less than 10% have professional qualifications (Diploma and degrees in Engineering) while the remaining are skilled workers with long years of experience. Less than 10% are in Non-technical category. It may be seen that there are no personnel below the age of 40 years. The skilled and highly skilled workforce is an asset but their age group is not favorable to impart any Special software based training to put them to any Production that requires use of modern technology. Since there are no staff within 40 year age group, imparting any specialized training is not possible unless younger and more qualified personnel are recruited in place of elder workmen. (This can be done only when the company improves its business and generates adequate resources). This may attract tough resistance from them since there may be very few takers for any GOLDEN HANDSHAKE scheme if introduced. The company has an uphill task of balancing the staff to the best advantage of its business.

Business planning Vs Realization

A study of business planning and actual achievement indicates that there is wide gap between these two as reflected in the following Table:

Table – 7 : Projected and Actual performance (Rs in Lakhs)

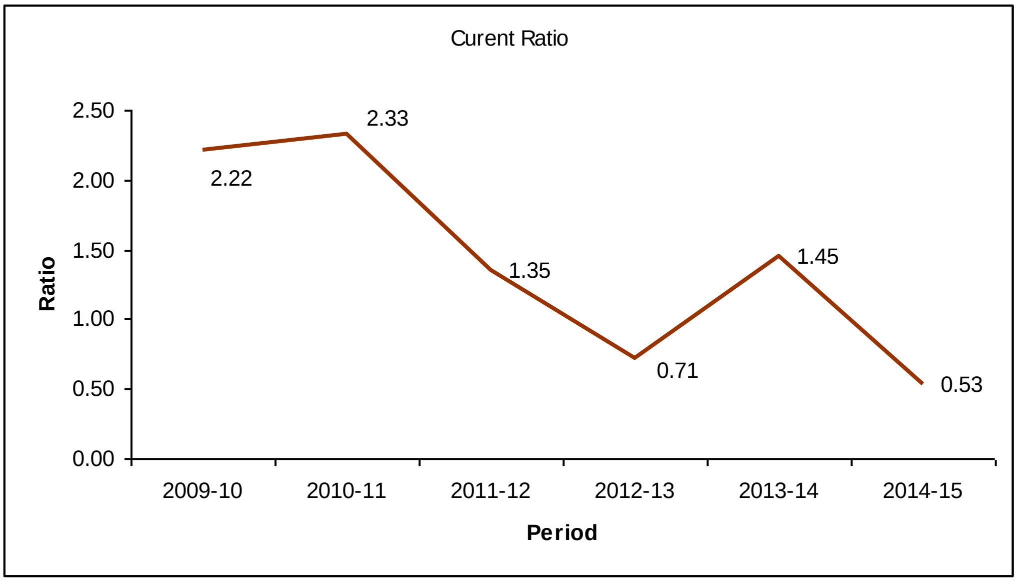
Year	Projected income	Actual	% of actual to projected revenue
2008-09	2019	1460	70%
2009-10	1981	1289	65%
2010-11	2265	1324	55%
2011-12	2273	887	40%
2012-13	3675	603	17%
2013-14	3182	1032	33%

It was observed that actual realization of revenue against projections had progressively declined during 2010-11, 2011-12 and 2012-13 but rose during the next year (2013-14) which indicated some improvement in working of the company. During 2014-15, the company has projected revenue of Rs 3200 Lacs and results are yet to be seen.

Financial Analysis
Solvency Analysis
Current Ratio

Chart 1 below indicates that the current ratio i.e. current assets to current liabilities are less than 2, which is normally not a good sign of solvency. Even though there is a significant improvement in the ratio in 2013-14 but in 2014-15 the ratio has dipped to .53 which indicates that current ratios are not sufficient to cover current liabilities, still the industrial average is not achieved as per banking norms. Ideally, accepted ratio is 2:1 and lowers than 2 means that firm is moving towards insolvency i.e. firm does not have enough current assets to cover its current liability.

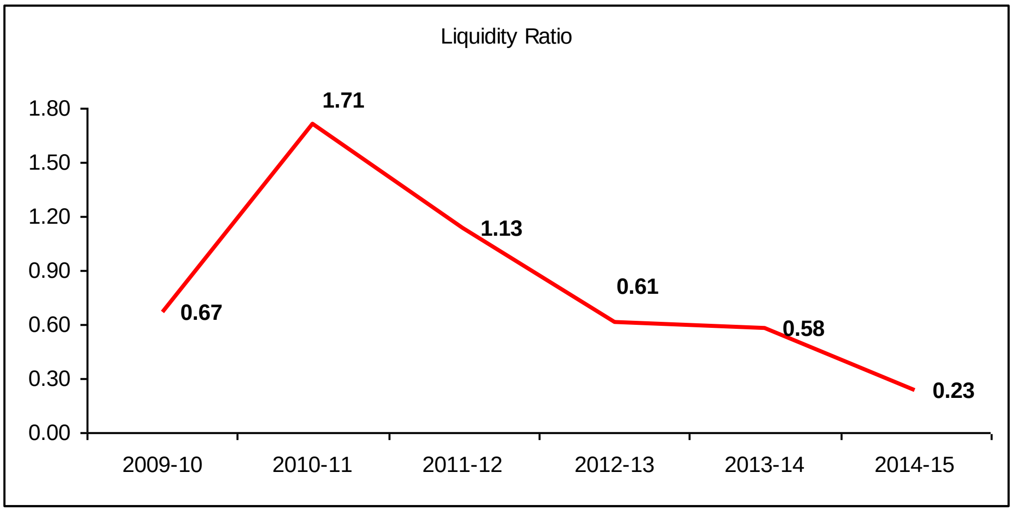
Chart 1 : Current Raito Analysis (Solvency Ratio)



Liquidity Ratio

This is another ratio, which signifies meeting current liabilities with liquid assets (Current assets which can be easily converted in to cash with in no time gap). This ratio is showing downward trend in last three financial years, which is not good for company. Ideal ratio accepted is 1:1, which means in order to meet current liability we need to have equivalent amount in liquid asset form. Chart 2 below clearly shows that Current liabilities are more than Liquid assets and the company is not in a position to have sufficient assets in liquid form to clear of its current liabilities.

Chart 2 : Liquidity Ratio (Solvency analysis)



Employee Expenses

This is one area, which needs immediate attention. It is found that employees salary is gradually increasing from 2012-13 (Chart 3) without corresponding increase in productivity and capacity utilization (Chart 3.1). It is also found that there is a spurt in the employee expenses when compared with the revenue from operation (turnover). Major part of the revenue from turnover is eaten away by employee cost and this has grown over the previous three years (Chart 3.2). There is a huge disconnect between productivity and employee cost.

Chart 3: Employee Salary Trend (% increase)

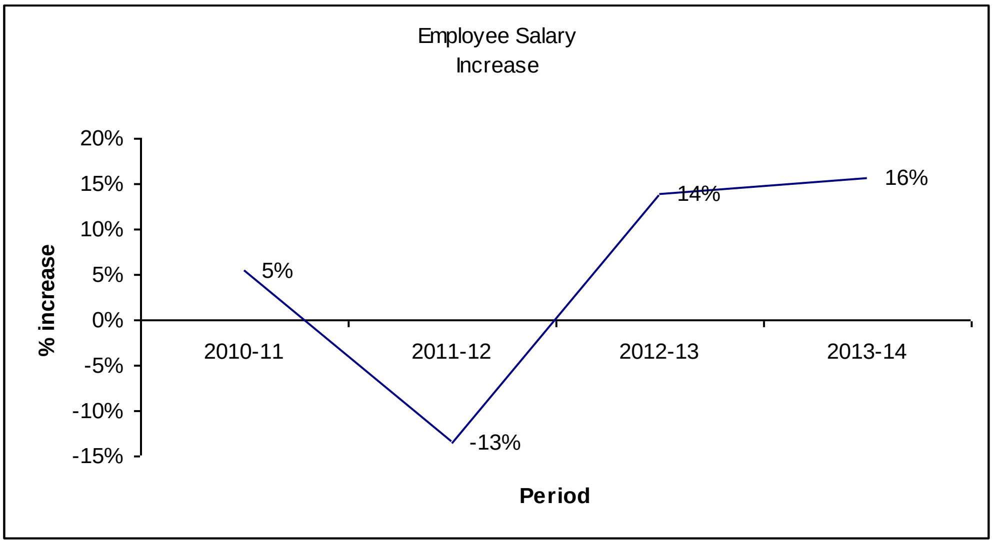


Chart 3.1 : Unutilized Capacity

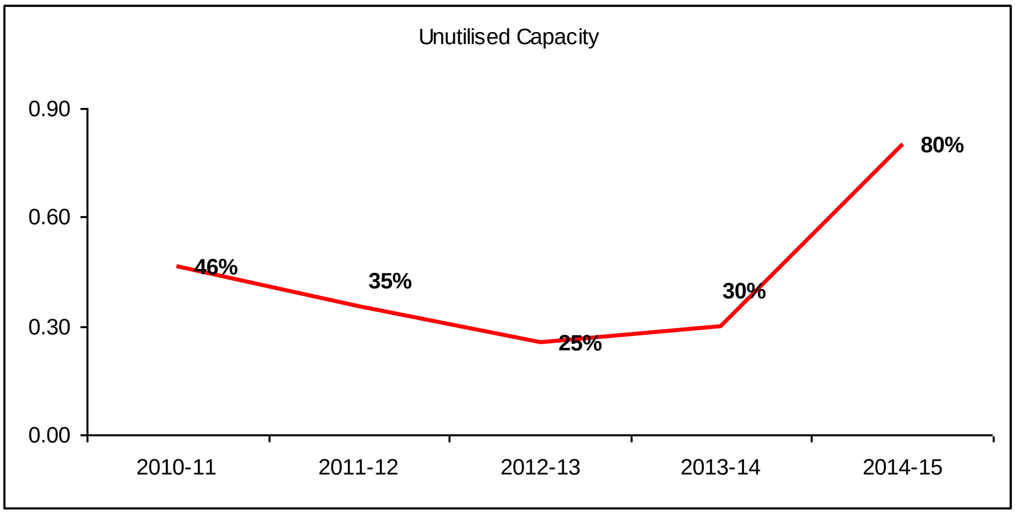
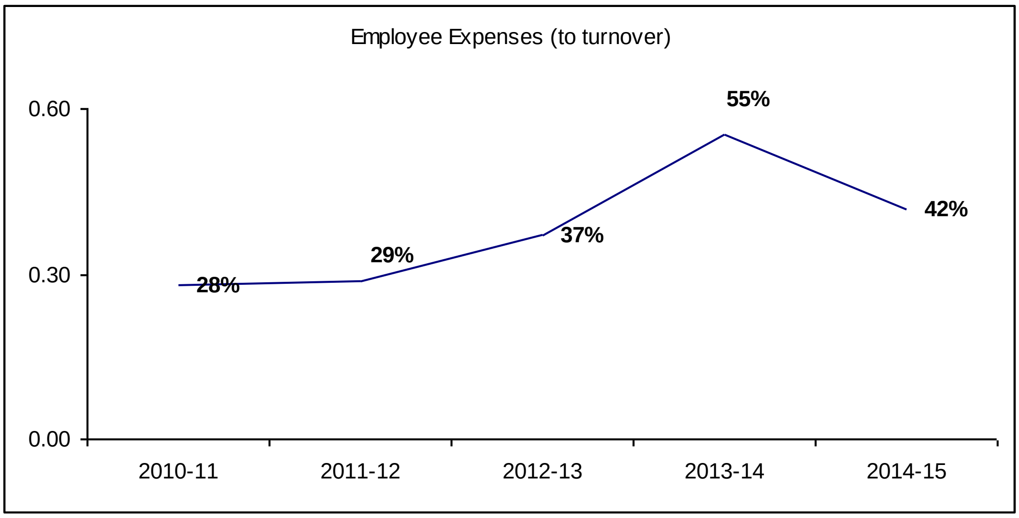


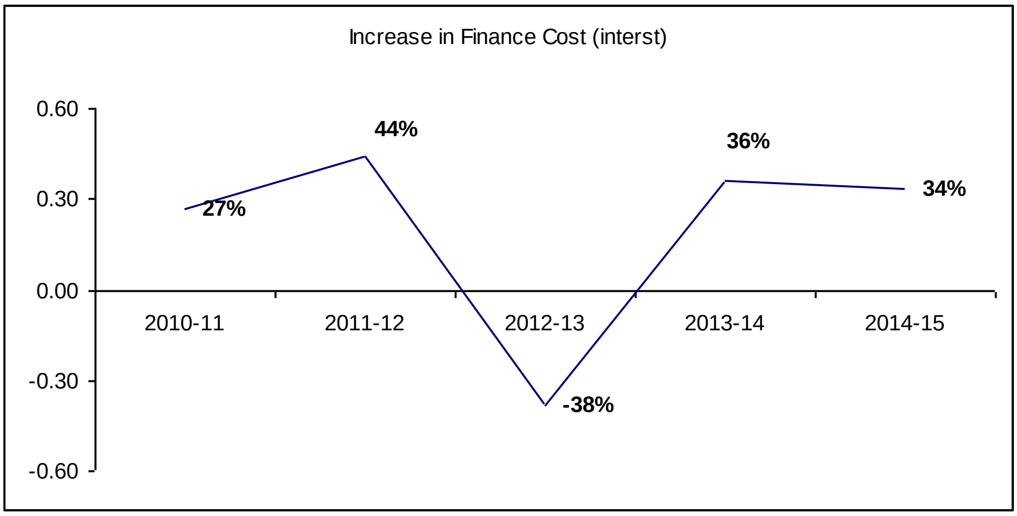
Chart 3.2 : Employee Expenses as a % of Total Turnover



Borrowing Cost

There is increase in borrowing cost (interest payment) over last year's (except for 2012-13). Higher interest payment without sufficient operating revenue has resulted in deteriorating company performance. Borrowed funds should be used in a proper way to generate higher sales so that it covers the interest cost, in NGEF case this has not happened, borrowings has not contributed in revenue generation. Most of the borrowing was used to repay the debts and as such does not find investment in productive assets. Interest coverage ratio is negative as there is an operation loss in previous 4 years.

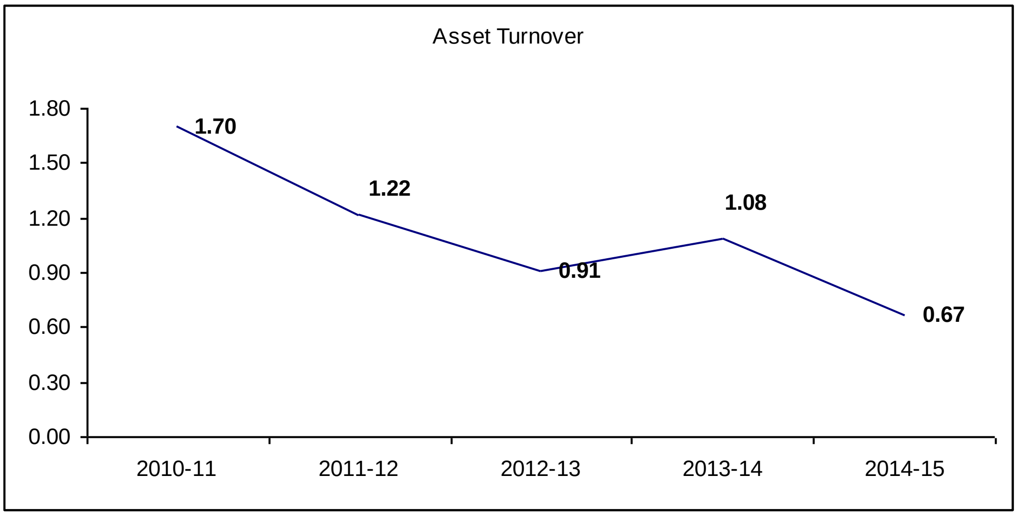
Chart 4: Borrowing Cost Trend



Asset Turnover ratio

This ratio signifies how effectively assets are used in generating revenue from the business. From the Chart 5, we see that assets used are not contributing much to the revenue; it is due to assets being underutilized/unutilized to full extent. It is also found that most of the assets are obsolete and do not have proper maintenance

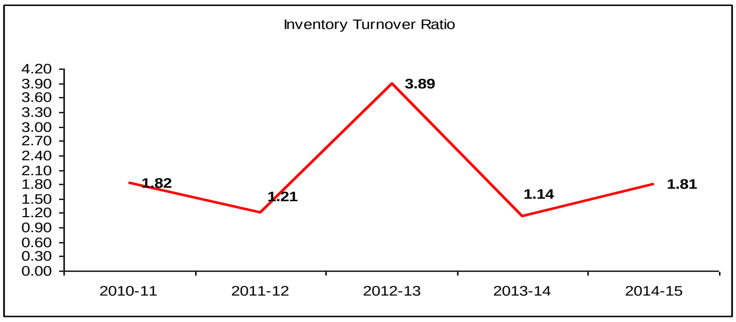
Chart 5 : Asset Turnover Ratio



Inventory Turnover

This ratio signifies how fast inventory gets converted in to Sales (revenue generation). This ratio does not show a good picture as it is taking long time to get inventories converted in to sales. Average Inventory holding days is around 200 days which is very far from industrial average. Absence of proper inventory management is resulting in this problem. Most of the raw materials are remaining in stores, there is significant high work-in-progress, and finished goods inventory which has resulted in low inventory turnover ratio.

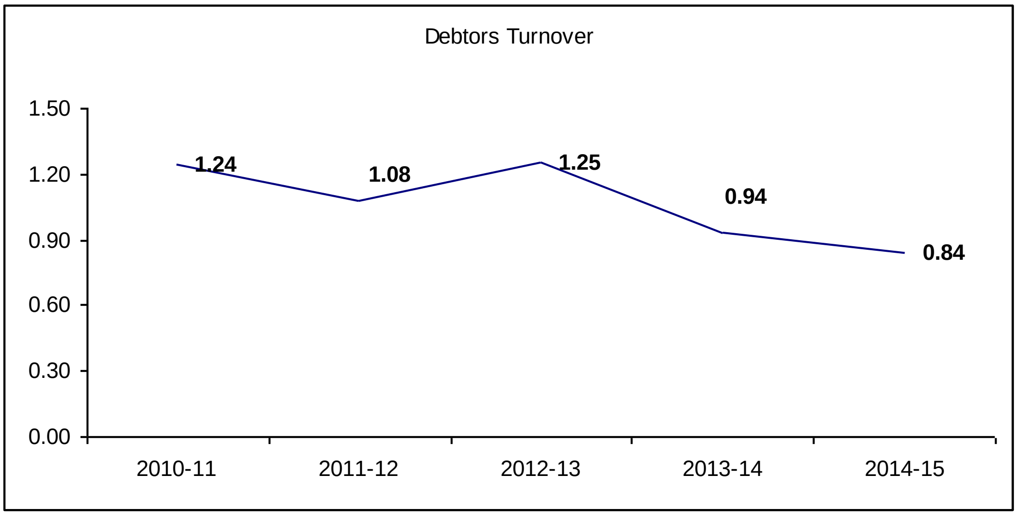
Chart 6 : Inventory Turnover Ratio



Debtors Turnover

This ratio indicates the speed at which collections of debtors. Higher the ratio indicates that it takes lesser days to collect from the customers and lower ratio indicates that it takes more time to collect from customers. Here the ratio for last few years shows that the collections are not happening very fast. There is an increasing trend in receivables over the period of time and there is every chances that some of the debts may go as bad (irrecoverable in the coming years). During 2013-14, there were doubtful debts of Rs 56.60 Lakhs and this may increase further if times actions is not taken for collection of outstanding amount from the customers.

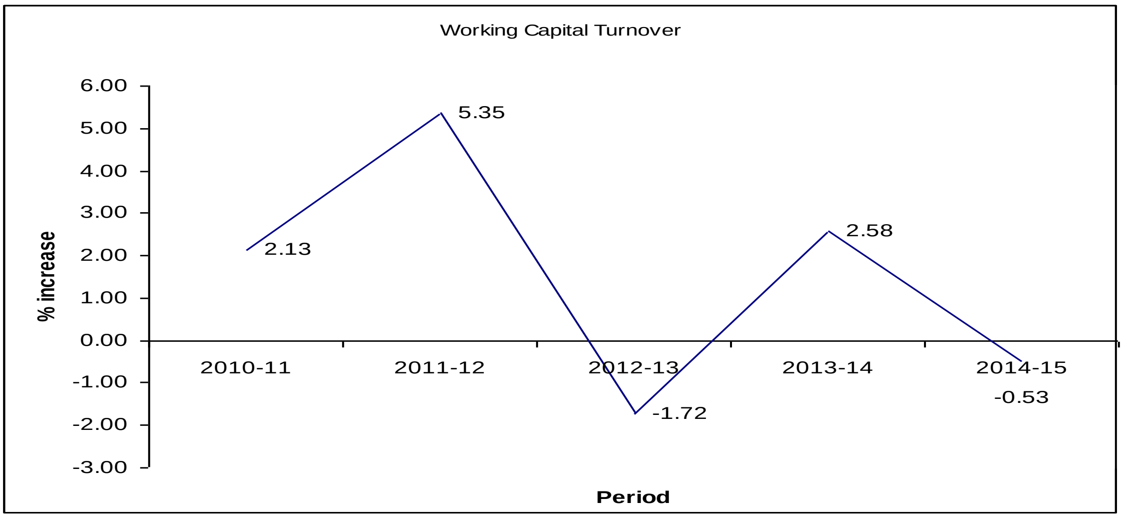
Chart 7 : Debtors Turnover Ratio



Working Capital Turnover

This ratio indicates firm's ability to generate sales per rupee of working capital. It can be seen from the chart below, that the ratio is not significant, the sales are only 2.5 times the working capital and it was negative in 2012-13. The firm is not utilizing the working capital for generating sales; it is diverting the working capital to non-operating activities because of which the significant increase in working capital is not contributing to more sales. (Annexure-8 for details)

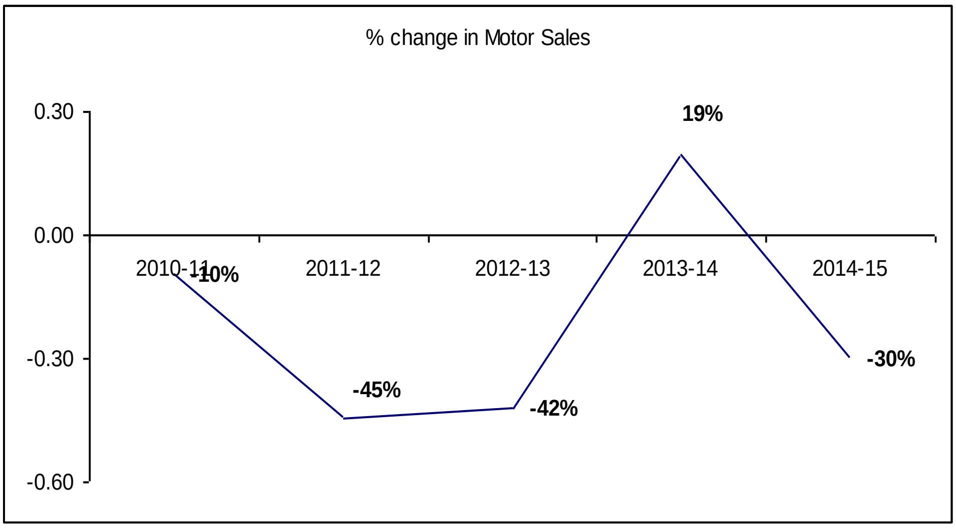
Chart 8 : Working Capital Turnover Ratio



Motor Sales

It can be seen from the below Chart, there was a gradual decrease in motor sales over the period 2010-11, 2011-12, 2012-13 and there is significant change in the year 2013-14 during which the sales have increased compared to previous years. This is a positive sign and a strong case to indicate that honest and sincere efforts have been made to bring back the company in to a profit-making unit. The increase in sale has also restored confidence in the minds of the agents and dealers who are now working towards getting more and more business.

Chart 9 : Trends in Motor Sale



CHAPTER-6

MEASURES FOR PERFORMANCE IMPROVEMENT

The country's industrial scenario is changing faster to meet domestic and export market demands. New Technologies are not only being introduced but also are also being improved upon. Since the NGEF caters mainly the demand of industry sector, NGEF has to transform itself into a multi-product company and not just concentrate only on Motors.

Even in case of manufacture of Motors, there is need to add a few new ranges as there demand for wide ranging types of motors. A market study and interactions with Regional managers and Dealers in all the four Regions indicated that different regions have different demands.

Broadly, the demand for motors conforms to the following (with minor deviations)

Region	Most demanded range
Eastern	225-350 for Industries Bihar, Jharkhand, Orissa Smaller ranges for Jute Mills-West Bengal, NE
Western	Up to 30 HP Motors Western States
Northern	Higher ranges-225-400 Delhi, Punjab Haryana
Southern	Smaller ranges- Up-to 30 HP Motors.TN, Karnataka, AP, Kerala

(Based on market study, discussions with dealers and Regional in charges of NGEF in all the four regions).

The Company has a present Designed capacity to produce motors with a cumulative capacity of 90,000 HP. But the actual utilization is around 40-45% (or 40,000 HP) leaving a balance of around 50,000 HP of designed capacity unutilized. Interactions with the MD NGEF indicated that there is adequate work force on the rolls of the factory, which is presently under-utilized due to various reasons. This idle capacity work force can be used to reach 100% designed capacity level. However, there would be need to improve facilities/add to the present facility if this objective is to be fulfilled. Broadly, there are three areas for revival of this company

A) Enhancing production capacity of Motors

The Company has a present designed capacity to produce motors with a cumulative capacity of 90,000 HP. However, the actual utilization is around 40-45% (or 40,000 HP) leaving a balance of around 50,000 HP of designed capacity unutilized.

Hitherto the company is manufacturing G-1 types of motors for which there is huge competition particularly in pricing and discounts. There is scope to go for G-2 and G-3 ranges where the competition is comparatively less since limited number of companies are in this business. This of course, requires availability of plant and machinery. Interactions with the MD NGEF indicated that there is adequate work force on the rolls of the factory which is presently under-utilized due to various reasons. This idle capacity work-force can be used to reach 100% designed capacity level. However, there would be need to improve facilities/add to the present facility if this objective is to be fulfilled.

The Hubballi unit was mainly considered as an assembling unit and took producing G-1 group motors with 0.25HP to 15HP ranges and Bangalore unit was producing higher ranges. Consequent on closure of main unit, production of higher ranges was topped and Hubballi unit, which was to produce earlier ranges, took up motor production up to 30 and subsequently 40HPs, due inadequate facilities, production of higher ranges is not being done.

A request by NGEF Hubballi for transfer of available plant and machinery from Bangalore to Hubballi is presently pending with official liquidator. The GOK may consider this request and take a favorable decision in this matter so that additional plant and machinery are available at Hubballi. Simultaneously, it is also necessary make an assessment of need for replacement of some of the older machines/facilities with new and improved versions so as to meet quality and quantity requirements of motors production section.

i) Design modification - Castings in particulars are produced with multi core patterns, which are complicated to produce. Hence casting suppliers are reluctant to give priority to supplies, which are low yielding causing less return. This results in improper and delayed supplies, ultimately resulting in lower productivity. Casting Suppliers consistently advising to have twin core patterns due to which yields are good and supplies can be uninterrupted.

ii) Alternatively switching over to aluminum bodies and end covers which results in productivity and gives aesthetic look.

iii) Change/Improvement in painting process is needed by modernizing entire painting process.

For the above activities the total approach by hiring services of specialized external experts (who are to be located) in the field is needed.

iv) In-plant production of shafts and rotor cores should be almost stopped.

v) Dropping in winding and making stator core to be entirely outsourced

❖ The existing internal infrastructure for above activities should be sparingly used wherever too many specialties are required to be met.

- ❖ Winding and stator, assembly, testing, painting and packing are the only activities NGEF is needed to be performed.
- ❖ By outsourcing all other activities as mentioned above at the component and sub-assembly levels, the problems due to old machineries and frequent maintenance can be overcome.
- ❖ All these activities reduce the cycle time of the production, increases the productivity there by enabling NGEF to meet market demand at lower cost which helps NGEF Hubballi Ltd to regain its market share which is already lost.

The demand of motors in different region is as under;

Region	Demand	Falls under
Eastern	225 to 350 hp	G-3 range
Western	Up to 30 hp	G-1 & g-2 range
Northern	150-250 hp	G-3 range
Southern	Up to 30 hp	G-1 & g-2 range

- ❖ To meet these requirements along with G-1 range motors, NGEF has to start producing G-2 & G-3 range motors. As early as 1999-2000 line viability was drawn by a project team of NGEF Bangalore for the possibility of developing the in plant and external infrastructure locally available for the production of G-2 range motors, restricting the number of motors to be produced to 4000, though the demand was 8000 at that range. The remaining 4000 numbers were retained for NGEF Bangalore.
- ❖ In the process design data for G-2 range were collected from NGEF Bangalore and launching of production of G-2 motors was taken up, targeting around 1500 to 2000 motors for production in the beginning.

However, since NGEF Bangalore is liquidated the entire range of 8000 motors in G-2 range is open for development at NGEF Hubballi Ltd.

The viability was drawn considering the spare capacity available on some of the existing machineries available in plant, which are meant for G-1 range of production, requirement of additional new machineries and local external infrastructure.

This viability was drawn as long back as 15 years, when the plant and machineries were already outlived their lives. Hence, the same will not hold good now.

However, since the market has dropped for G-1 range of motors and due to increase in demand for G-2 & G-3 range motors in Northern and Eastern Region, restricting the production of G-1 range of motors further development of G-3 range motors along with partially developed G-2 range motors has to be taken up for which a detailed market survey has to be made.

Based on the survey a detailed project report has to be prepared considering,

- New plant
- Machinery and Equipments
- Man Power

For this consultancy service of experts, preferably those who had worked with NGEF Bangalore in the different fields should be availed since these experts have full knowledge about the market demands, technical feasibility and other aspects.

B) Diversification:

i) Adding New Product Line

The company is in the process of finding alternative lines of production/servicing in addition to motor manufacture, which has now become a highly competitive proposition due to entry of a number of private players. This new step is most desirable since the present day market dynamics are quite complex and one has to be constantly on the lookout of newer area that have emerging markets. Over the years, NGEF has made good name in market and established its credibility as manufacturer of best quality motors and bringing any new product in the name of NGEF should not be difficult for the company.

The Company has conducted a feasibility study of production of Transformers to cater to the emerging needs of power sector. The proposal aims at production of transformers to add to its revenue/income by Rs 40.00 Crores annually in the first phase and another Rs 115.00 Crores in second phase. The cost of the project is estimated at Rs 100.00 Crores for both phases including land value and value of plant and machinery (presently at Bangalore unit) to be entirely funded by Government of Karnataka. In the first phase, transformers up to 1600 KVA are proposed and in second phase higher capacity transformers. Major market for the products are Electricity Boards, Private sector users, Housing colonies, Agriculture users and other small scale users.

The proposed project is expected to provide employment to good number of young professional and skilled personnel and more importantly, this would help NGEF overcome present precarious condition. While this proposal deserves to be considered, there is need to carry out a Detailed Project Report preparation exercise with details on technical, financial, economic, marketing and legal aspects. The company has to critically study the markets across the country for transformers, carry out a detailed potential demand study before taking up the project, more importantly; it has to recognize the competitors and their marketing tactics and strategies.

As per NGEF estimates, in Karnataka itself, the demand for Transformers is estimated at around 100,000 units by various ESCOMs over a period. This itself provides opportunity for the company to take up transformer production. This of course, calls for fulfillment of the following conditions

i. Firm commitment by ESCOMs to place orders for the supply of transformers to NGEF with time-line supported by payment of some advance;

ii. Addition of facilities for transformer production in terms of machinery and skilled and trained manpower. The NGEF will have to estimate both of these two with likely phases;

iii. If the NGEF proposes to outsource production of any part/substantial part of transformers to any single or number of private agencies, there would be need to have an agreement between the two with legal provisions to safeguard the interests of both parties;

iv. The NGEF has strength of 139 technical and non-technical man powers, which are under-utilized at present. The Company has to take up a staff-restructuring programme including skill up gradation through some structured training programmes.

i) Streamlining Repairs/Servicing

Presently NGEF is engaged in carrying out repairs to transformers for HESCOM and other ESCOMs may avail such service in future. NGEF should explore with ESCOMS within and neighboring states for this purpose. The company has been earning some small income from this service and at the same time, the under-utilized workforce is being used for this purpose. Even though this service may not yield big income, the proposition is welcome due to the fact that unproductive cost on wages/remuneration is being avoided for earning small sums of moneys. The company should focus on this activity and pursue on a more commercial line so that eventually, it can provide wide ranging repair-servicing facility.

ii) Continue with Motor production Business

The management is required to consider whether or not to expand its production base for higher ranges of motors since there is demand for the same. A reconnaissance study indicates that different regions require different ranges. The company has to add to infrastructure/plant and machinery to meet the demand.

Since there is huge gap between planned production and actual production, the Management has to think seriously as to how to cope up with this difference and how best the skilled manpower could be deployed for productive purpose.

The designed capacity of the Hubballi unit is estimated at a gross capacity of 90,000 HP. Presently only around 45000 HP equal motors are being produced which is just 50% utilization of capacity. Viability of any activity is feasible only when the production capacity is used to at least reach Break Even Level. The present annual overhead expenditure is much higher when the present production level is considered and this is the reason why the unit is making losses year after year. Utilization of designed capacity holds key to viability and recovery of overheads in the least, if not generate surplus/profit. There is need to focus on finding ways and means of utilizing the idle capacity.

The changing market demand and competitive environment is key factor which if not considered would lead to a situation of perpetual losses. The market survey and discussions with dealers and regional managers of NGEF indicates the present share of market in respect of the four regions. On a rough estimate, the following is the market demand;

Table - 8 : Region wise demand pattern for motors

Region	Estimated market share	Demand pattern
Eastern (WB, Orissa, Bihar, Jharkhand, North Eastern region)	60%	225-350 HP ranges Plus to some extent less than 20 HP for Jute and textile industries
Western (Maharashtra, Gujarat, MP, Chattisgarh)	10%	Up to 30 HP ranges
Northern Region (Delhi, UP, Haryana, Punjab, HP, J & K, Rajasthan)	20%	150-250 HP ranges
Southern Region (Karnataka, Andhra, Goa, Tamil-Nadu, Kerala,	10%	Up to 30 HP ranges

Pondicherry)		
Total	100%	

There is higher margin of profit in case of motors with higher capacities like 150-200-225-350 HPs and demand for them is also higher than over ranges.

Keeping this in view, the company may focus on higher capacity utilization in phases so as to reach at least 90% capacity utilization. This may not be possible without adding to existing infrastructure and skilled man power but it is desirable that the company focuses on this proposition in phases.

Following assumption, if realized could help improve the 90% performance to significant extent.

Year	Capacity use	Production equivalent to HPs	Range mix
Present	50	45000	No fixed ranges
First	65	58500	35000 HP (Mixed ranges for Eastern and Northern regions 23000 HP (Western and Southern regions)
Second	75	67500	41000 HP (mixed higher ranges to meet Eastern Region and Northern Region demands) 26500 HP (Smaller ranges to meet Western and Southern regional demands)
Third	90	81000	49000 HP (Mixed Higher ranges to meet Eastern Region and Northern Region 32000 HP (Mixed smaller ranges to meet Western and southern region demands
Fourth year on	90	81000	The pattern may continue with small variations as and when occasioned

Range mix can be determined on an year to year basis depending on trends in demand from respective regions and inter- region adjustments could be made to maintain market share. Assuming the present level of income from sale of motors at around 9.00 Crores (at

50% capacity use), it is expected that at full development level (90%capacity use) the revenue generation may reach to Rs 16.00 Crores.

C) Manufacture of Transformers

- NGEF has taken up transformer repairs during financial year 2013-14 from HESCOM, along with the production of motors in the existing plant.
- NGEF Hubballi Ltd has taken up transformer repairs during financial year 2013-14 from HESCOM, along with the production of motors in the existing plant.
- The company intends to have its own separate distribution transformers manufacturing unit.
- Targeted numbers is 40000 annually in the first phase ranging from 25 KVA to 1600 KVA
- Intends to have its own separate distribution transformers manufacturing unit
- Targeted numbers is 40000 annually in the first phase ranging from 25 KVA to 1600 KVA

  However, these proposals would fructify only with

i. Either addition to plant machinery and equipment

ii. Additional skilled man power

iii. Additional financial resources and

iv. Changed marketing strategy

Human Resources Development

The company has on its pay roll, 139 staff comprising technically qualified (2 Degree and 15 Diploma holders) and highly skilled workers with long years of experience. In addition, there is 12 support staff in Sales, Marketing, Administration and Accounts departments. In addition, as many as 27 contractual and casual workforces also are also working in the factory.

Availability technically trained and skilled workers augur well for the company's plan to accept challenges of changing marketing scenario, since manpower availability has many advantages. What are required measures aimed at motivation and productivity enhancement of available manpower.

The presently under-utilized manpower offers scope for their optimal use with some additional training and skill up gradation.

An analysis of the present profile of personnel at different levels indicates that about 19% of them are in 55-60 age brackets while another 57% fall in the age group between 50-55 years. None of the staff is less than 45 year old.

Further study also shows that about 10% of the 139 personnel have technical qualifications (Engineering Degree or Diploma) while 80% come under semi-skilled and skilled categories. Percentage of non-technical personnel is just about 9%. Thus, about 90% of the staff has one or other technical qualification and skill coupled with experience on the job.

To be able to implement revival plan, it is necessary to go for man-power planning for the next five-seven years when over 50% of the skilled staff would superannuate from the services.

If the Management is unable to utilize the services of any of the skilled/ semi-skilled workforce, it is desirable that a mutually agreed and acceptable Golden Handshake scheme may be thought off under which willing workers are covered under Voluntary Retirement Scheme. Since the company is hard-pressed of resources, any additional financial burden at this stage could put additional stress on financial status of the company. Hence, an amicable settlement between the willing workforce for VRS on the mode and method of payment of VRS compensation to them will be necessary. There are a number of alternatives available for their compensation, such as:

a) Payment of compensation for the remaining period of their service using certain formulae

b) Payment of compensation under staggered method

c) Payment of compensation in installments (intervals to be decided in consultation with each other)

d) Moratorium on payment by a year or two or till the company reaches a stage of viability;

e) Issuance of Bonds/ Certificates (under relevant Laws and with GOK backing)

Suggested Steps

Before introduction of the scheme, there would be need to follow certain statutory, legal and regulatory rules and practices. Following step-by-step process is suggested.

Identify section wise surplus staff

↓

Shortlist dispensable staff

↓

Hold consultations with HODs and concerned staff

↓

Finalize Exit Modalities

↓

Determine Quantum of Compensation

↓

Arrive at mode of payment

↓

Work out Administrative procedures- Obtain approval by Board/Govt/Competent Authority at mode of payment

↓

Implement the scheme notify

CHAPTER -7

SUGGESTED WORKING RESULTS

In the light of changing demand pattern as also competitive environment, the only course left to the company is to improve its performance in terms of its working and earning capacity. The approach of focusing on single line of product needs to be changed and new areas need to be explored. While motor manufacture is its main domain, which has earned good will and brand image, this needs to be en-cashed by taking up additional (supplementary) product lines using its present goodwill. One emerging area identified by the company is manufacture of transformers of different capacities. Significant strides have been made in generation, transmission and distribution of power across the country by public and private sector companies to meet unprecedented demand for power both in urban / industrial areas as also countryside with rural electrification and energisation agriculture operations.

The company has already ventured into this field and is poised for a takeoff in a big way. However, it is desirable to tread slow and make a moderate beginning in the initial stages. The company has envisaged production of around 40,000 transformers, but it is suggested that a small beginning with 5000 transformers will turn the table and help the company cross over breakeven level. This, coupled with increased production of motors would certainly bring the company to the state of financial viability.

To show how the company can achieve viability, an indicative working plan is developed and presented in the following Table

Table – 9 : SUGGESTED OPERTAING RESULTS OF NGEF (Rs in Lakhs)

Particulars	Years				
	2015-16	2016-17	2017-18	2018-19	2019-20
Revenue from Operations - Motors	951.22	1,093.90	1,257.99	1,446.69	1,663.69
Transformer Sales	2,700.00	3,240.00	3,780.00	4,320.00	4,536.00
Other Incomes (Repairs & Scrap)	214.43	227.30	240.94	255.39	280.93
Total Revenue	3,865.65	4,561.20	5,278.92	6,022.08	6,480.62
Expenses					
Cost of Materials – Motors	478.36	526.19	578.81	636.70	700.36
Production cost Transformers	2,265.00	2,718.00	3,261.60	3,624.00	3,805.20
Employee benefits & Expenses	468.99	531.66	574.19	620.12	669.73
Depreciation	140.00	126.00	113.40	102.06	91.85
Other Expenses	196.38	206.20	214.45	223.03	231.95
Total Expenses	3,548.73	4,108.05	4,742.45	5,205.91	5,499.10
Earnings Before Interest & Tax	316.93	453.15	536.47	816.17	981.52
Add : Depreciation	140.00	126.00	113.40	102.06	91.85
Cash Flows from Operations	456.93	579.15	649.87	918.23	1,073.37

Note :* Accumulated losses will be set off out of the profits and hence no provision of Tax.

* NGEF has been assured by ESCOMS to pay 90% cost of Transformers as such, no financial resources will be required.

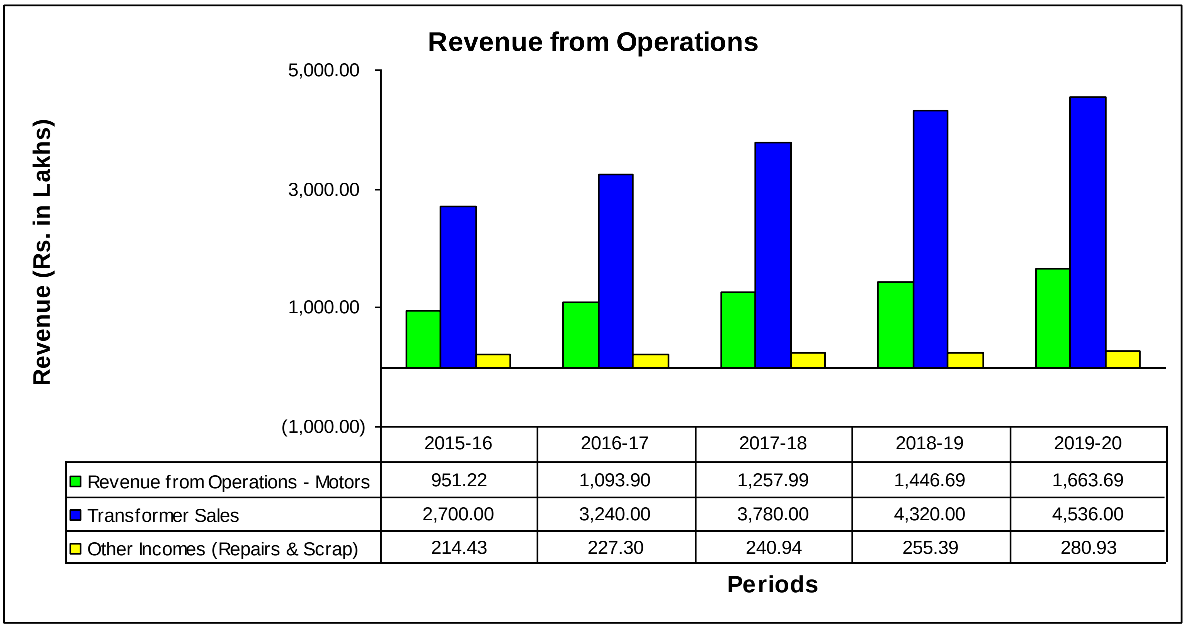
1. Sales from Motor business is assumed to go up 15% from 2015-16 and from 2018-19 it is expected to grow at 10%
2. Transformer business is expected to add additional revenue from 2015-16 onwards. We are expecting sale of 3000,3600,4200,4800 and 5040 transformers in the period 2015-16,2016-17,2017-18, 2018-19 and 2019-20 respectively

3. Other incomes - mainly from repairs of transformer, motors and sale of scrap is expected to give additional revenue of 6% every year.

4. Cost and selling prices of motor are taken on constant basis and any change in them is expected to be offset automatically.

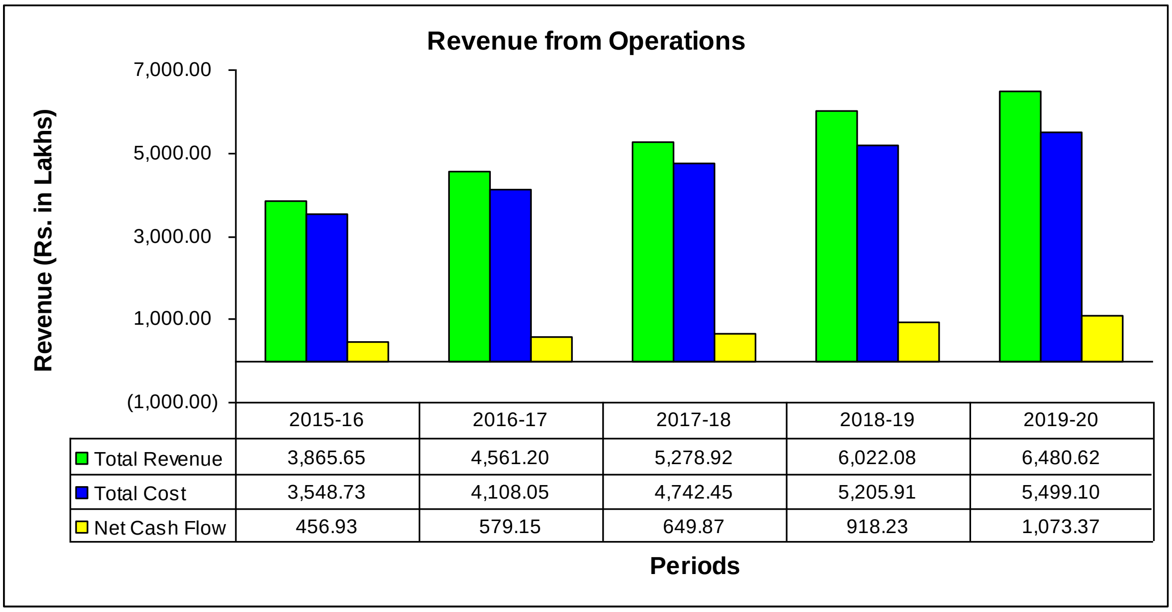
5. Revenue from motor sale is assumed to increase by 15% annually in view of production of higher Capacity motors (100+HP). Cost of Production of Motors is assumed to rise by above 10% annually.
6. Average Production cost per transformer is estimated at Rs 75,500 and Average Selling price per unit Rs. 90000/- which may vary with capacity
7. Employee benefit cost for existing employee is expected to increase at 8% and since new hiring is required for Transformer division.
8. Employee cost in 2015-16 and 2016-17 is high for transformer division and from 2017-18, the increase employee benefit cost is pegged at 8% for transformer division also.
9. Fresh recruitment of technical man power should be resorted to from third year and also keeping in view superannuation of existing staff in a synchronised manner.
10. Depreciation on new asset purchased for Transformer business is assumed at 10% Written Down Value (WDV)
    - i. Other Expenses is assumed to increase at 5% in first two years because of new business added
    - ii. Existing line and from 2017-18 onwards assumed to increase by 4%
    - iii. It is assumed that the NGEF will be provided with a soft accommodation of Rs 14.00 Crores towards cost of new machinery and investment in case machineries presently in Bangalore NGEF is not transferred to Hubballi unit. Therefore no interest is charged to operation.

CHART - 10 : Revenue Analysis (Suggested)



	2015-16	2016-17	2017-18	2018-19	2019-20
Revenue from Operations - Motors	951.22	1,093.90	1,257.99	1,446.69	1,663.69
Transformer Sales	2,700.00	3,240.00	3,780.00	4,320.00	4,536.00
Other Incomes (Repairs & Scrap)	214.43	227.30	240.94	255.39	280.93

CHART - 11 : Revenue, Cost and Cash Flow Analysis (Suggested)



	2015-16	2016-17	2017-18	2018-19	2019-20
Total Revenue	3,865.65	4,561.20	5,278.92	6,022.08	6,480.62
Total Cost	3,548.73	4,108.05	4,742.45	5,205.91	5,499.10
Net Cash Flow	456.93	579.15	649.87	918.23	1,073.37

OBSERVATIONS

The company may earn an annual income of Rs. 4.57, Crores in the first year, which would increase to Rs10.73Crores by fifth year. This would enable to meet its financial obligations and liquidate loans. In case GOK provides loan free of interest for investment purpose, interest burden would get reduced by that extent and the company would earn higher income in that case.

CHAPTER - 8

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- ✓ The Company which was in limelight has slid into a difficult position owing to a number of internal and external factors;
- ✓ It has earned respectable goodwill over the years for its high quality standards but entry of a number of private players into motor business has resulted in limited scope;
- ✓ The company's market share has been going down in major markets i.e. Eastern and Northern regions, as reflected in the annual sales, mainly for its inability to meet changing market demand & price disadvantage in comparison with private suppliers;
- ✓ NGEF is not in a position to meet demand for G-2 and G-3 ranges from major markets leading to declining business in these regions;
- ✓ Non-availability of improved and modern machinery has restricted scope for the company to cope up with changing market demand;
- ✓ Comparatively higher overhead (disproportionate to production level) has been pushing the company in loss;
- ✓ Due to inherent limitations, the company has not been able to fulfil its commitment even for the G-1 ranges;
- ✓ Dealers in NGEF products are highly appreciative of the Quality of products but are not happy with the company's lukewarm and slow response to the changing needs;
- ✓ The dealers feel that the company lacks good marketing strategy which has given an opportunity to rivals/competitors an upper hand; The Company has no presence in terms of service centres to attend to repairs/after sale services. Its Regional Officers have to face queries /comments from dealers;
- ✓ In spite of several weaknesses, there is still high respect for NGEF and its products and Dealers and Regional in charges strongly suggest revival of the company;

RECOMMENDATIONS

Short Term

There is need to take immediate steps for its revival through series of measures such as:

(i) Enhance infrastructure/plant machinery and equipments to produce higher ranges in required numbers to meet the changing demand.

- ✓ Slowly the machineries are to be modernized even for manufacturing G2 and G3 motors and designed capacity to be fully used for improving the financial status of the company. Before liquidating Bangalore unit of the Company, the machineries should have been shifted to Hubballi.

(ii) Add new product lines like transformer manufacture since there is huge demand for them. Tap markets within the state and outside (with electricity supply Companies and other bulk users). Provide financial support for this purpose.

- ✓ Carry out a detailed market demand study for transformers to assess the annual requirement before taking up transformer business.
- ✓ Consider appealing GOK to take a policy decision under which all the government Departments and undertakings are advised to use NGEF products instead of buying from open markets under Tendering system subject to quality priority.
- ✓ Consider appealing GOK to consider waiving duties and taxes in order to reduce the cost of production; (for a fixed period of say 3-5 years till the company reaches a viable status and stands on its own.)

(iii) Take aggressive marketing through a young team of field force. In addition, provide motivation to the dealers, in monetary and non-monetary terms to cope up with competitors.

(iv) Consider outsourcing in some activities (other than transformer) since the present facilities are not adequate to augment motor production/transformer manufacture; while doing so necessary safeguard should be provided in the agreements on a long term basis so that private manufacturers do not compromise on quality & bring bad name to the company and start dictating terms.

v) Formulate a plan for reduction of surplus workforce through Golden Handshake or deputation to other GOK agencies/departments where there need for such workforce.

vi) Induct technical workforce in phases synchronising superannuation and increase in sales.

- ✓ Introduce cost/management accounting and cost control system in addition to the present MIS, to facilitate close monitoring of the performance of the company and taking corrective step

Recommendations - Financial

1. A clear cut Costing system should be put in place. The present system of costing is lacking with lot of shortcomings. There is an immediate need to engage a cost consultant to design the costing system and to revisit the entire costing policy.
2. It is recommended to have a strong inventory policy focusing on ordering, issuing and managing the stocks. Presently there is no systematic inventory policy and there is no proper ordering policy as well existing. Even though ERP system is introduced, most of the people who are working at stores are not familiar with working and usage of ERP system.
3. Computation of Cost of product is not significant and there is no base on which standards are fixed. There is no proper cost sheet maintained and no one is aware of on what basis the standards are fixed. This is resulting in high cost and there is urgent need to address this issue and see to it that proper cost data are gathered and used to arrive at cost of production.
4. As per the feedback of the dealers and also our interaction with them, it is clear that NGEF brand is still prevalent in market and there are lot of customers who still prefer to buy NGEF motors in high numbers. There is lot of demand but, there is huge supply shortfall which is resulting in not catering to market demand. As we can see that the capacity is not getting utilized fully, the company should work towards, better capacity utilization and should target to achieve at least 80% (from present 50%) and see that it caters to the market demand. For this purpose NGEF may seek financial assistance from GOK or seek additional accommodation from Banks under GOK guarantee.
5. The GOK might consider providing Rs. 10 Crores as proposed by NGEF to meet with demand and manufacture of transformer.
6. Replacing of old machine with sophisticated and better technology machine and having a proper maintenance policy of existing machine. It is found that the machines used are not contributing to high sales, the reason being because of obsolescence and

poor maintenance. The firm should bring an effective machine management policy and address this issue on top priority.

7. MIS (Management Information system) reporting system should be developed in a robust manner. The main drawback which we found is that there is no proper data available on time and the data available is also not accurate and clear. The firm should have a strong MIS reporting introduced and all the critical and important data should be shared on timely basis (daily/weekly/monthly etc) to the management for taking further decisions.
8. Better unitization of human resources. It is found from the HR records that 96% of the employees have more than 24 years of service to their credit working for NGEF and somewhere the company is not capitalizing on the rich experience of such people to improve productivity and efficiency. The firm should work towards motivating these employees in using their rich experience in increasing efficiency and productivity to greater extent. There seems to be lack of coordination and co-operation between different levels of management when it comes to the question of delegation and accountability. Management should aim at bridging this gap. Training for skill staff up-gradation of technical should be prioritised.
9. Dealers have complained on the poor packing conditions under which motors are dispatched and this needs to be taken care. A cost effective packing system should be introduced to make sure that there is no sever damage caused to the motors while in transit and at point of unloading.
10. There are some complaints of deteriorating quality standards and this was openly expressed by few dealers. Firm should take strong measures to improve quality by having better quality control and checks in place and see to that all the standards are fulfilled before dispatching the motors.

Terms of Reference for

Evaluation of Performance of NGEF (Hubli) Ltd

I. **Study Title:** Title of the proposed study is " Evaluating the Performance of NGEF (Hubli) Ltd"

II. **Background information:** The NGEF is one of the prestigious Public Sector Enterprises (PSE) of north Karnataka. It is a 100% subsidiary of NGEF Ltd., and is located between twin cities i.e. Hubli and Dharwad, Karnataka State. A reputed manufacturer of electrical motors with a world class quality of tough proven German Technology. NGEF (HUBLI) Ltd., has been making significant contribution since 3 decades for the industrial and domestic development of the country by supplying electric motors of high quality and reliability as per national and international standards. The company's motors are in various industrial applications operating across the country and abroad. While the New Government Electric Factory (NGEF) in Bangalore closed operations and sought liquidation six years ago, its branch in Hubli is silently making profits. The state government plans to keep this unit away from the liquidation process and upgrade it to increase capacity and ensure a heavier bottomline.

The unit, established in a shed in Hubli in 1984, produces electric motors. It has had a turnover of Rs 18.5 crores and recorded a profit of Rs 50 lakh in 2008. It has been making profit except for the last 3 years. However, focus on quality and brand building has ensured that NGEF motors have survived competition from global electric companies. NGEF Hubli unit is trying to be independent and move out of the liquidation process. The unit that now produces 20 hp motors plans to start producing 50 hp motors & want to upgrade the factory. However, officials point out that this may not be easy. The liquidation document prepared by the state government considers NGEF as a single unit. It does not have separate plans for Bangalore and Hubli. If the government is serious about saving the Hubli unit, it will have to redraft the document and convince the liquidators to sell off only the Bangalore unit. The Govt wants to revive this unit and wants to undertake necessary steps towards those directions in the form of a Bailout package, restructuring, and possible tie-ups with private sector for revival. In this direction the Govt wants to undertake feasibility cum evaluation study to ascertain the present situation of the company and undertake a gap analysis to find remedial measures.

III. **Evaluation Scope, Purpose and Objectives:** The main objective of the evaluation study is to arrive at the current overall situation of the company and arrive at 'Gap-Analysis' to ascertain the improvement areas towards revival of the company. The study will arrive at these issues and analyze them objectively and suggest the necessary steps that need to be taken towards revival of the company.

IV. **Evaluation Questions**: Based on the objectives, the evaluation questions are framed as mentioned hereunder:

a. Whether the objectives set for the company have been achieved? If yes, to what extent and if no, why not?
b. What are the inherent causes (internal & extraneous) of sickness of the unit?
c. Is there any correlation between financial performance with the achievements/non-achievements of the objectives for which the company was set up?
d. Are the prescribed quality standards of deliverables maintained?
e. How satisfied are the consumers with the products of the Company?
f. What are the steps taken by management to address sickness issues? Are they effective?
g. Whether the rehabilitation measures taken by the Govt are effective? What are they?
h. What are the key factors impacting the bottom-line of the Organization?
i. What measures need to be taken to improve the balance sheet of the Company?
j. What areas of the Organization needs restructuring? What measures need to be taken for restructuring?
k. Is there a scope for technical collaboration or marketing tie-ups with other suitable organizations in the private sector?

l. What is the roadmap for revival and the timeline involved?
m. What are the possible consequences of revival & restructuring on the stakeholders including employees?

Evaluation Methodology: The evaluator is required to analyze the operational and financial performance of the company for the past 5 years. The evaluator along with his team will do a walkthrough of various departments & wings of the Company and meet employees at various levels & elicit information through a structured questionnaire. They evaluator should have at least one qualified Electrical Engineer/Power Engineer/Electronics and Electrical Engineer for conducting this study.

In addition, the evaluator should interview at least 10% of the stake holders with whom the products of the company are supplied and material procured. The company will revisit various MIS & Reports to arrive at the data of the Company for the last 5 years, cross check the data validity appropriately, and analyze the same. A few key areas may be visited and their performance efficiency assessed. The evaluator will examine its business model and draw broad inferences and suggest the best model for operation of the Company. This are inclusive methods, not exhaustive.

V. **Deliverables and Time Schedule**: NGEF (Hubli) will provide the required information and data to the consultant who is expected to adhere to the following timelines and deliverables

a. Work plan submission- within one month after the release of the first Installment of the contract amount
b. Primary data collection –within two months after the work plan is approved by the Karnataka Evaluation Authority (KEA)
c. Draft evaluation Report – within one month after completing data for approval by a joint team of KEA and the line dept/agency officers
d. Final report submission – within one month after draft report is approved

Thus excluding the time taken for approval, the evaluation study must be completed within 5 months time.

VI. **Cost and schedule of budget releases :**

Cost , schedule and budget release are suggested by the Karnataka Evaluation Authority as follows:

a) **The first installment** of Consultation fee amounting to 30% of the total fee shall be payable as advance to the Consultant after the approval of the inception report, but only on execution of a Bank guarantee of a scheduled nationalized bank valid for a period of at least 12 months from the date of issuance of advance.

b) **The second installment** of Consultation fee amounting to 50% of the total fee shall be payable to the Consultant after the approval of the Draft report.

c) **The third and final installment** of Consultation fee amounting to 20% of the total fee shall be payable to the Consultant after the receipt of the10 hard and 3 soft copies of the final report in the form and presentation style approved by the KEA. Three hard and one soft copy of final report along with all raw data, literature relied upon, data process etc. To be given to KEA for hosting on website.

VII. **Contact person to get further details about the evaluation study:**

Sri Prashant Barigidad Managing Director of NGEF (Mobile No-9448544086) will be the contact person for getting information and details of this study.

VIII. **Agency for evaluation**:

The Agency should be finalised as per provision of the transparency Act and Rules without comprising on the quality.

IX. **Other general conditions:**

The evaluation report and its findings must demonstrate highest professional standards. The KEA will provide over site for the study.

Approved in 8th Technical Committee Meeting of KEA held on 21-04-2014

CHIEF EVALUATION OFFICER 21/04/14.
Karnataka Evaluation Authority,
Bangalore-560001.

ANNEXURE-II

REGION WISE N.G.E.F. DEALERS LIST

1. STATE : WEST BENGAL

Sl. No.	Firm Name & Address	Proprietor Name		Telephone No.
1	M/s National Industrial Corporation 16, Ganesh Chandra Avenue Kolkata – 700013. West Bengal	Sri. Sohonlal Baradia, Sri. Laiit Baradia	Off Res Fax Mobile Email	22217675 22375680 09830943201
2	M/S Karan Cable Industries 37, Ezra street Kolkata – 700001. West Bengal	Sri. Kisan Baid.	Off Res Fax Mobile Email	 24861369 22352957 09339862064
3	M/S Eastern Trade Centre 54, Ezra Street Kolkata – 700001. West Bengal	Sri. Binod Chajjar.	Off Res Fax Mobile Email	 22343451,52 22343453 09830701996
4	M/S H.L. ENGG. CORPN. 35A, Bipiabi Anukul Ch. Street Kolkata – 700072 West Bengal	Sri. S.K. Gupta, Sri. Chandra Gupta	Off Res Fax Mobile Email	22150337/3924 22153924 09831181521, 09831359108
5	M/S British Electric Mfg.co 31, Ezra Street, Kolkata - 700001	Sri. K.K Jalan	Off Res Fax Mobile	0661-2510934 0661-2523051 09331026788, 09330981293

2. DELHI

Sl. No.	Firm Name & Address	Proprietor Name		Telephone No.
1	M/s Punjab Engineering & mill store, 62 Shardanand Marg, Delhi – 110 006	Mr. Suresh Sapra	Off Res Fax Mobile Email	011-2321 3813 9811044846 pems99@hotmail.com
2	M/s Shivji Electricals (India) 2978, Ground Floor, Main Road Tri Nagar, Delhi - 110035	Mr. Sanjay Agarwal	Off Res Fax Mobile Email	011-2739 5518 98114 48835 Shivelec0403@yahoo.co.in
3	M/s United Trafotech Pvt. Ltd A-49 Ground Floor, Nirman Vihar, Delhi – 110092	Mr. Anurag Malhotra	Off Res Fax Mobile Email	 9810016323 unitrafotech@gmail.com

3. STATE: MAHARASHTRA

Sl. No.	Firm Name & Address	Proprietor Name	Telephone No.	
1	British Engineering Co. 105, Mumbai Smacharmarg Fort Mumbai - 400001	ASIT Parikh Anoop Parikh	Off Res Fax Mobile Email	022) 22662045/3746 (022) 23698141/23885451 (022) 226451107 9821656449/9821219843 britishengg@gmail.com
2	AMEY Prabhu Sales PVT. LTD Unit No. 1,2,3 Midtown Plaza Shivaji Nagar Thane – 400604	MRS. R.V. Prabhu	Off Res Fax Mobile Email	(022) 25802118/19/20 (022) 25883326 (022) 25802122 ameyprabhu@sify.com

4. STATE: KARNATAKA

Sl. No.	Firm Name & Address	Proprietor Name	Telephone No.	
1	M/s Suraksha Enterprise Banumaian Square Mysore – 570024	Sri. Jayadeva Sri. Gurumallappa	Off Res Fax Mobile Email	 918212449596 / 9880059585

5. STATE: TAMIL NADU

Sl. No.	Firm Name & Address	Proprietor Name	Telephone No.	
1	Berdsell Ltd S.F No. 482/B Pollachi Main Road Malumlchamptt Post Coimbatore - 641021	Mr. Chindralingam	Off Res Fax Mobile Email	0422-2611581/2611865 9363110025
2	M/s Beardsel Ltd. 47 Greams Road Chenni – 600006		Off Res Fax Mobile Email	044-28290900/28293296
3	Divyashri Engeeers # 150 Annagappa Naicken Street Chennai – 600001	Sri. S. Abinandan	Off Res Fax Mobile Email	044-25251214/25251215 9840066834

ANNEXURE-IV

N.G.E.F. EVALUATION STUDY
TERMS OF REFERENCE-COMPLIANCE STATEMENT

Sl. No	Terms of reference	Compliance
1.	Whether the objectives set for the company have been achieved and If yes, to what extent and if no, why not	A study of the company's Memorandum and Articles of Association shows that the company has a mandate to meet the demand of the industrial sector through production of motors and promote auxiliary industries in its vicinity. Indirect contribution of the company is seen in the form of supply of required motors that would facilitate industrial development and employment generation. To this extent, the company has fulfilled its obligatory objectives.
2.	What are the inherent causes (Internal & Extraneous factors) of sickness of the Unit?	In recent years, NGEF has been facing a range of challenges mainly due to (i) Internal and (ii) External factors. i) **Internal Factors** With the closure of its main unit at Bangalore, its role has changed substantially. Presently it is producing G-1 range of motors. The company has reduced its production range due to want of facilities at Hubballi. NGEF is not in a position to make any investments for acquiring new and improved machines, it has to contend itself with available facilities. This has resulted in limited scope for pushing the available ranges of motors into the markets. Available machinery at Hubli is old and becoming obsolete faster. Any addition to the existing ranges is limited and as such the company has to restrict its ranges to the

		available facilities Financial constraint is another reason for the company to meet the emerging demands. It cannot generate any surplus internally nor can it borrow from financial institutions. Higher per unit cost of production due to low productivity of plant machinery and manpower and higher overhead **External:** Over the years, industrial scenario of the country in general has changed Newer technologies and processes. Are being adopted private sector entry in this sector has come in a big way with addition of newer and better quality and power saving motors of different ranges. Secondly, the demand pattern of the users also has changed with technological advancement leading to unprecedented demand for new ranges of motors.. Private sector companies have the advantage of responding to the market and are in a position to adjust to such changing conditions Aggressive marketing and offering competitive prices, discounts, prompt after sale services without loss of time, by competitors have resulted in users' gradual switch over from NGEF products to other brands. Some competitors have been misinforming users and giving an impression that NGEF has closed its operations altogether.
3	What measures need to be taken to improve the Balance sheet of the Company?	There is need to take immediate steps for its revival through series of measures such as (i) Enhance infrastructure/plant machinery and equipments to produce higher ranges, in

		required numbers to meet the changing demand. (ii) Add new product lines like transformer manufacture since there is huge demand for them. Tap markets within the state and outside (with electricity Companies and other bulk users. Consider appealing GOK to take a policy decision under which all the government Department and undertaking should be advised to use NGEF products instead of buying from open markets under Tendering system. (iii) Take aggressive marketing through a young team of field force. In addition, provide motivation to the dealers, in monetary and non-monetary terms to cope up with competitors. (iv) Consider outsourcing in some activities since the present facilities are not adequate to augment motor production / transformer manufacture; (v) Formulate a plan for reduction of surplus workforce through Golden Handshake or deputation to other GOK agencies/departments where there need for such workforce Introduce cost/management accounting and cost control system in addition to the present MIS, to facilitate close monitoring of the performance of the company and taking corrective steps; A clear cut Costing system should be put in place. It is recommended to have a strong inventory policy focusing on ordering, issuing and managing the stocks. Presently there is no systematic inventory policy and there is no proper ordering policy as well Computation of Cost of product is not adequate

		and there is no basis on which standards are fixed. There is urgent need to see to it that proper cost data are gathered and used to arrive at cost of production. There is lot of demand but, there is huge supply shortfall which is resulting in not catering to market demand. The firm should bring an effective machine management policy and address this issue on top priority. MIS (Management Information system) reporting system should be developed in a robust manner.
4	Is there any correlation between financial performances with the achievements/non-achievements of the objectives for which the company was set up?	Social objective can be met only through sustained growth and generation of financial surpluses without which it is not possible for the company to meet its obligations. The company has been operating within available financial resources and negative cash flow generation. This has hindered the growth and expansion of the company in tune with market demand. Vicious Circle has affected company not achieving the level of business required.
5	Are the prescribed quality standards of deliverables maintained?	Yes the company has successfully retained its quality standards and has earned goodwill and brand image for its products across the markets. Except for isolated cases of breakages and packaging deficiencies, there are no complaints about the company's products.
6	How satisfied are the consumers with the products of the Company	A market study conducted across all four regions of the country gave very encouraging feedback about the Company's products.

		All the dealers indicated that the users are fully satisfied with the products. It was also understood through one to one interactions with dealers and Regional managers of NGEF that there are very few cases and incidences of products requiring repairs in comparison with other brands. As far as quality goes, there is overwhelming positive opinion among dealers and users.
7	What are the steps taken by management to address sickness issues? Are they effective?	During the last two–three years, the Management of the company has been making efforts to improve working of the factory. Small additions to its activities are being taken up such as (i) Transformer Repairs (ii) Transformer manufacture (partly-outsourced). Small incidental income is being earned from these activities. It was reported that the Management has been striving to bring about financial and cost disciplines in the working and reducing avoidable costs without affecting the working. The Management is pursuing this policy in respect of wage bills also. The second measure being contemplated is to outsource production of its main product, i.e., motors and transformers to private company/companies.
8	Whether the rehabilitation measure taken by the Government effective? What are they?	It was reported that the Management has been striving to bring about financial and cost disciplines in the working and reducing avoidable costs without affecting the working. The Management is pursuing this policy in

		respect of wage bills also. The second measure being contemplated is to outsource production of its main product, i.e., motors and transformers to private company/companies. The Management also is in the process of identifying surplus work force that can be spared and exploring an arrangement under which some of the spare workforce could be deputed to other Govt Agencies/departments where there is shortage of skilled workers. The other measures being initiated are (a) reduction of maintenance cost (b) power consumption (c) economizing of consumables etc. Cumulative impact of these measures would be seen in the years.
9	What are the key factors impacting the bottom-line of the Organization?	Major problems faced by the company include both internal and external. External factors relate to fast changing market demand trends in terms of required ranges, committed supply and after sale services. Internal factors include (i) older plant and machinery (ii) inability to meet bulk orders (iii) positioning of stocks and repairs / centres at major market outlets (iv) lack of marketing strategies to retain clientele.
10	What areas of the Organization needs restructuring? What measures need to be taken for restructuring?	There is need to (i) add to the existing machinery (ii) introduce a system of cost and budgetary control system (iii) addition of qualified young technical staff iv) revamping marketing division.
11	Is there any scope for technical	Yes, it is an era of outsourcing which has

	collaboration or marketing tie-ups with other suitable organizations in the private sector?	proved to be advantageous to the companies/ Corporates in order to reduce heavy overheads. There are a number of areas where collaborations can work to the advantage of the NGEF. In fact, the company has already initiated some steps of outsourcing production of some parts under strict quality control. NGEF would be well advised to enter into collaboration with smaller manufacturing units around or go for bigger collaborations with companies having modern and good infrastructure facilities. The company has very good brand image which could be cashed on with collaboration arrangements in addition to outsourcing which is presently in vogue.
12	What are the possible consequences of revival & restructuring on the stakeholders including employees?	The likely consequences of revival and restructuring would be both negative and positive in the following areas (i) Pumping in additional resources by the State or facilitating NGEF to go for long term loan. (ii) Replacement of older machines and purchase of new ones. (iii) Dispensing with the services of some workforce under VRS/Golden Hand shake and adding new and technically qualified personnel which may entail additional financial burden in the initial stages. Besides, there could be resistance among the workforce if their services are dispensed without adequate

		compensation and rehabilitation ; (iv) Among positive impacts, the company's operative efficiency would enhance significantly (v) The company would be in a better position to service clients and enhance its brand image and regain original status (vi) The company would be in a position to offer its products at competitive prices.
13	What is the roadmap for revival and the timeline involved?	The company is in a difficult position and is facing a range of problems. For revival of the company following steps would be useful. **i. Enhance production capacity of Motors** The Company has a present Designed capacity to produce motors with a cumulative capacity of 90,000 HP. But the actual utilization is around 40-45 % (or 40,000 HP) leaving a balance of around 50,000 HP of designed capacity unutilized. Hitherto the company is manufacturing G-1 types of motors for which there is huge competition particularly in pricing and discounts. There is scope to go for G-2 and G-3 ranges where the competition is comparatively less since limited number of companies are in this business. There is adequate work force on the rolls of the factory which is presently under-utilized due to various reasons. This idle capacity work-force can be used to reach 100% designed capacity level. However, there would be need to improve

		facilities/add to the present facility if this objective is to be fulfilled. A request by NGEF Hubballi for transfer of available plant and machinery from Bangalore to Hubballi is presently pending with official liquidator. The GOK may consider this request and take a favourable decision in this matter so that additional plant and machinery are available at Hubballi. Simultaneously, it is also necessary make an assessment of need for replacement of some of the older machines/facilities with new and improved versions so as to meet quality and quantity requirements of motors production section. **ii. Design Modification:** Castings in particulars are produced with multi core patterns which are complicated to produce. Hence casting suppliers are reluctant to give priority to supplies which are low yielding causing less return. This results in improper and delayed supplies, ultimately resulting in lower productivity. Alternatively switching over to aluminium bodies and end covers which results in productivity and gives aesthetic look Change/Improvement in painting process is needed by modernizing entire painting process. The existing internal infrastructure for above activities should be sparingly used wherever too many specialties are required to be met. Winding and stator, assembly, testing, painting and packing are the only activities NGEF is needed to be performed.

		By outsourcing all other activities as mentioned above at the component and sub-assembly levels, the problems due to old machineries and frequent maintenance can be overcome. All these activities reduce the cycle time of the production, increases the productivity there by enabling NGEF to meet market demand at lower cost which helps NGEF Hubli Ltd to regain its market share which is already lost, As early as 1999-2000 line viability was drawn by a project team of NGEF Bangalore for the possibility of developing the in plant and external infrastructure locally available for the production of G-2 range motors. However, since NGEF Bangalore is liquidated the entire range of 8000 motors in G-2 range is open for development at Hubballi. The viability was drawn considering the spare capacity available on some of the existing machineries available in plant which are meant for G-1 range of production, requirement of additional new machineries and local external infrastructure This viability was drawn as long back as 15 years, when the plant and machineries were already outlived their lives. . Since the market has dropped for G-1 range of motors and due to increase in demand for G-2 & G-3 range motors in Northern and Eastern Region, restricting the production of G-1 range of motors further development of G-3 range motors along with partially developed G-2 range motors has to be taken up for which a detailed market survey has to be made.

		iii. Diversification: The company has already initiated some steps for diversification**.** This new step is most desirable since the present day market dynamics are quite complex and one has to be constantly on the lookout of newer area that have emerging markets. The Company has conducted a Feasibility study of production of Transformers to cater to the emerging needs of power sector. In the first phase, transformers up to 1600 KVA are proposed and in second phase higher capacity transformers. Major market for the products are Electricity Boards, Private sector users, Housing colonies, Agriculture users and other small scale users. While this proposal deserves to be considered, there is need to carry out a Detailed Project Report preparation exercise with details on technical, financial, economic, marketing and legal aspects. As per NGEF estimates, in Karnataka itself, the demand for Transformers is estimated at around 100,000 units by various ESCOMs over a period of time. This itself provides opportunity for the company to take up transformer production. This of course, calls for fulfilment of the following conditions. Firm commitment by ESCOMs to place orders for the supply of transformers to NGEF with time-line supported by payment of some advance (a) Addition of facilities for transformer production in terms of machinery and skilled and trained man power. b) The NGEF has strength of 139 technical and

		non-technical man powers which are under-utilized at present. The Company has to take up a staff restructuring programme including skill up gradation through some structured training programmes. **iv. Streamlining Repairs/Servicing:** Presently NGEF is engaged in carrying out repairs to transformers for HESCOM and other ESCOMs may also avail such service in future. The company has been earning some small income from this service and at the same time, the under-utilized workforce is being used for this purpose. The company should focus on this activity and pursue on a more commercial line so that eventually, it can provide wide ranging repair-servicing facility. There is need to focus on finding ways and means of utilizing the idle capacity. The changing market demand and competitive environment is key factor which if not considered would lead to a situation of perpetual losses. **v. Human Resources:** The company has on its pay roll, 139 staff comprising technically qualified (2 Degree and 15 Diploma holders) and highly skilled workers with long years of experience. In addition there is 12 support staff in Sales, Marketing, Administration and Accounts departments. In addition as many as 27 contractual and casual workforces also are also working in the factory. To be able to implement revival plan, it isnecessary to go for man-power planning for

		the next five-seven years when over 50% of the skilled staff would superannuate from the services. If the Management is unable to utilize the services of any of the skilled/ semi-skilled workforce, it is desirable that a mutually-agreed and acceptable Golden Handshake scheme may be thought off under which willing workers are covered under Voluntary Retirement Scheme. Since the company is hard-pressed of resources, any additional financial burden at this stage could put additional stress on financial status of the company. Hence, an amicable settlement between the willing workforce for VRS on the mode and method of payment of VRS compensation to them will be necessary.

TYPE-WISE COST ARRIVED FOR FINISHED GOODS IN FACTORY FINISHED GOODS STORE

Rates / percentage			12				1.93		129.74		53.05				0		0		0		
Description	Direct hrs.	Direct material	X's &75 Mat	Prodn Mat	Pack Mat	Sub Total	Mat OH	**Mat Cost**	Direct Wages	**PRIME COST**	Prod OH	MNFG COST	OTH EXPN	**Mnfg. Cost**	Adm OH	**Factory Cost**	Sell Dist	Cost of Sale	Risk Misc	**Cost Price**	**List Price**
1	2	3	4	5	6	(6)+(7)	8	9	10	11	12	13	14							14	
AM63K2	7.00	876.22	105	981	62	1043	20	1063	908.18	1971	482	2453	0	2453	0	2453	0	2453	0	2453	8015
AM63N2	7.10	952.62	114	1067	62	1128	22	1150	921.15	2071	489	2560	0	2560	0	2560	0	2560	0	2560	8205
AM63N4	5.90	964.98	116	1081	62	1142	22	1164	765.47	1930	406	2336	0	2336	0	2336	0	2336	0	2336	8775
AM71N2	7.20	1297.00	156	1453	62	1514	29	1543	934.13	2477	496	2973	0	2973	0	2973	0	2973	0	2973	8710
AM71K2	7.20	1172.05	141	1313	62	1374	27	1401	934.13	2335	496	2830	0	2830	0	2830	0	2830	0	2830	8590
AM71K4	5.50	1151.84	138	1290	62	1352	26	1378	713.57	2091	379	2470	0	2470	0	2470	0	2470	0	2470	8945
AM71K6	5.65	1250.11	150	1400	62	1462	28	1490	733.03	2223	389	2612	0	2612	0	2612	0	2612	0	2612	9160
AM71NF2	7.20	1365.38	164	1529	62	1591	31	1621	934.13	2556	496	3051	0	3051	0	3051	0	3051	0	3051	9580
AM71N4	5.60	1293.65	155	1449	62	1510	29	1540	726.54	2266	385	2652	0	2652	0	2652	0	2652	0	2652	9270
AM71N6	7.75	1386.90	166	1553	62	1615	31	1646	1005.49	2651	533	3185	0	3185	0	3185	0	3185	0	3185	10095
AM80K2	5.80	1724.79	207	1932	70	2002	39	2041	752.49	2793	399	3192	0	3192	0	3192	0	3192	0	3192	8960
AM80K4	6.60	1629.59	196	1825	70	1896	37	1932	856.28	2788	454	3243	0	3243	0	3243	0	3243	0	3243	10295
AM80K6	7.65	1701.43	204	1906	70	1976	38	2014	992.51	3007	527	3533	0	3533	0	3533	0	3533	0	3533	10950
AM80F2	8.30	2125.60	255	2381	70	2451	47	2498	1076.84	3575	571	4146	0	4146	0	4146	0	4146	0	4146	11010
AM80N2	5.80	1935.03	232	2167	70	2238	43	2281	752.49	3033	399	3433	0	3433	0	3433	0	3433	0	3433	10000
AM80N4	6.70	1868.05	224	2092	70	2163	42	2204	869.26	3074	461	3535	0	3535	0	3535	0	3535	0	3535	10385
AM80N6	7.65	1896.70	228	2124	70	2195	42	2237	992.51	3230	527	3756	0	3756	0	3756	0	3756	0	3756	11150
AM80K8	8.45	1747.76	210	1957	70	2028	39	2067	1096.30	3163	582	3745	0	3745	0	3745	0	3745	0	3745	11105
AM80N8	8.45	1896.70	228	2124	70	2195	42	2237	1096.30	3333	582	3915	0	3915	0	3915	0	3915	0	3915	11545
AM90S2	7.35	2491.33	299	2790	83	2873	55	2929	953.59	3882	506	4388	0	4388	0	4388	0	4388	0	4388	11300
AM90S4	7.25	2163.45	260	2423	83	2506	48	2554	940.62	3495	499	3994	0	3994	0	3994	0	3994	0	3994	11375
AM90S6	7.80	2167.85	260	2428	83	2511	48	2559	1011.97	3571	537	4108	0	4108	0	4108	0	4108	0	4108	12090
AM90S8	8.35	2221.44	267	2488	83	2571	50	2621	1083.33	3704	575	4279	0	4279	0	4279	0	4279	0	4279	12085
AM90L2	6.85	2966.63	356	3323	83	3406	66	3471	888.72	4360	471	4831	0	4831	0	4831	0	4831	0	4831	14750
AM90L4	7.60	2597.49	312	2909	83	2992	58	3050	986.02	4036	523	4559	0	4559	0	4559	0	4559	0	4559	12415
AM90L6	8.30	2534.41	304	2839	83	2921	56	2978	1076.84	4055	571	4626	0	4626	0	4626	0	4626	0	4626	13265
AM90L8	8.25	2370.92	285	2655	83	2738	53	2791	1070.36	3862	568	4429	0	4429	0	4429	0	4429	0	4429	13230
AM90SFZ2	7.35	2641.69	317	2959	83	3042	59	3100	953.59	4054	506	4560	0	4560	0	4560	0	4560	0	4560	12150
AM90LFZ2	7.35	2939.68	353	3292	83	3375	65	3440	953.59	4394	506	4900	0	4900	0	4900	0	4900	0	4900	15510
AM100L2	7.85	3944.10	473	4417	134	4552	88	4640	1018.46	5658	540	6198	0	6198	0	6198	0	6198	0	6198	17895
AM 100LF2	7.85	4767.85	572	5340	134	5474	106	5580	1018.46	6599	540	7139	0	7139	0	7139	0	7139	0	7139	18250
AM100LV2	7.85	4459.62	535	4995	134	5129	99	5228	1018.46	6247	540	6787	0	6787	0	6787	0	6787	0	6787	19220
AM100LK4	8.75	3988.03	479	4467	134	4601	89	4690	1135.23	5825	602	6427	0	6427	0	6427	0	6427	0	6427	16420
AM100L4	8.95	4390.50	527	4917	134	5052	97	5149	1161.17	6310	616	6926	0	6926	0	6926	0	6926	0	6926	18040
AM100L6	8.95	3982.67	478	4461	134	4595	89	4684	1161.17	5845	616	6461	0	6461	0	6461	0	6461	0	6461	17780
AM100LK8	9.30	3851.42	462	4314	134	4448	86	4534	1206.58	5740	640	6381	0	6381	0	6381	0	6381	0	6381	16280
AM100L8	9.35	4389.04	527	4916	134	5050	97	5148	1213.07	6361	644	7004	0	7004	0	7004	0	7004	0	7004	19820
AM112MV2	8.80	5690.94	683	6374	156	6529	126	6655	1141.71	7797	606	8403	0	8403	0	8403	0	8403	0	8403	29575
AM112M2	8.80	5460.81	655	6116	156	6272	121	6393	1141.71	7534	606	8140	0	8140	0	8140	0	8140	0	8140	23825

AM112MF2	8.80	5618.75	674	6293	156	6449	124	6573	1141.71	7715	606	8320	0	8320	0	8320	0	8320	0	8320	25825
AM 112MF4	9.25	5664.45	680	6344	156	6500	125	6625	1200.10	7825	637	8462	0	8462	0	8462	0	8462	0	8462	21180
AM112M4	9.25	5193.87	623	5817	156	5973	115	6088	1200.10	7288	637	7925	0	7925	0	7925	0	7925	0	7925	21010
AM112M6	9.60	5322.95	639	5962	156	6117	118	6235	1245.50	7481	661	8142	0	8142	0	8142	0	8142	0	8142	21125
AM112M8	9.60	5033.69	604	5638	156	5793	112	5905	1245.50	7151	661	7811	0	7811		7811	0	7811	0	7811	23090
AGL112SK6	9.80	4165.99	500	4666	156	4821	93	4915	1271.45	6186	675	6860	0	6860	0	6860	0	6860	0	6860	17440
AM132 SF2	9.90	8484.98	1018	9503	299	9802	189	9991	1284.43	11275	681	11957	0	11957	0	11957	0	11957	0	11957	32330
AM132 MF2	9.90	10021.91	1203	11225	299	11523	222	11745	1284.43	13030	681	13711	0	13711	0	13711	0	13711	0	13711	52780
AM132SZ2	9.90	8053.35	966	9020	299	9318	180	9498	1284.43	10783	681	11464	0	11464	0	11464	0	11464	0	11464	29425
AM132SZ4	9.80	7074.23	849	7923	299	8222	159	8380	1271.45	9652	675	10326	0	10326	0	10326	0	10326	0	10326	28950
AM132SZ8	9.65	7183.40	862	8045	299	8344	161	8505	1251.99	9757	664	10421	0	10421	0	10421	0	10421	0	10421	30430
AM132MZ2	9.90	9135.21	1096	10231	299	10530	203	10733	1284.43	12018	681	12699	0	12699	0	12699	0	12699	0	12699	37820
AM132MZ4	9.60	8430.75	1012	9442	299	9741	188	9929	1245.50	11174	661	11835	0	11835	0	11835	0	11835	0	11835	33790
AM132MF4	9.60	9350.16	1122	10472	299	10771	208	10979	1245.50	12224	661	12885	0	12885	0	12885	0	12885	0	12885	31980
AM132SZ6	9.65	7257.89	871	8129	299	8427	163	8590	1251.99	9842	664	10506	0	10506	0	10506	0	10506	0	10506	30940
AM132MZ6	10.40	7862.26	943	8806	299	9104	176	9280	1349.30	10629	716	11345	0	11345	0	11345	0	11345	0	11345	34470
AM132MZ8	10.80	8689.91	1043	9733	299	10031	194	10225	1401.19	11626	743	12369	0	12369	0	12369	0	12369	0	12369	38695
AM132SZ8	9.65	7230.36	868	8098	299	8397	162	8559	1251.99	9811	664	10475	0	10475	0	10475	0	10475	0	10475	30430
AM160 M2	17.80	14359.73	1723	16083	632	16715	323	17038	2309.372	19347	1225	20572	0	20572	0	20572	0	20572	0	20572	56570
AM160 M4	17.50	13586.88	1630	15217	632	15850	306	16155	2270.45	18426	1204	19630	0	19630	0	19630	0	19630	0	19630	52745
AM160 M6	17.50	13224.70	1587	14812	632	15444	298	15742	2270.45	18012	1204	19217	0	19217	0	19217	0	19217	0	19217	55730
AM160 M8	17.40	13293.79	1595	14889	632	15521	300	15821	2257.476	18078	1198	19276	0	19276	0	19276	0	19276	0	19276	55710
AM160 L2	18.50	15099.71	1812	16912	632	17544	339	17882	2400.19	20283	1273	21556	0	21556	0	21556	0	21556	0	21556	88630
AM160 L4	18.00	15857.86	1903	17761	632	18393	355	18748	2335.32	21083	1239	22322	0	22322	0	22322	0	22322	0	22322	66970
AM160 L6	18.00	16856.37	2023	18879	632	19511	377	19888	2335.32	22223	1239	23462	0	23462	0	23462	0	23462	0	23462	65765
AM160 L8	17.75	16615.64	1994	18610	632	19242	371	19613	2302.885	21916	1222	23138	0	23138	0	23138	0	23138	0	23138	70545
AM160 MF2	17.80	15763.11	1892	17655	632	18287	353	18640	2309.372	20949	1225	22174	0	22174	0	22174	0	22174	0	22174	66260
AM160 LF2	18.50	18137.76	2177	20314	632	20946	404	21351	2400.19	23751	1273	25024	0	25024	0	25024	0	25024	0	25024	89780
AM160MF4	17.50	14699.42	1764	16463	632	17096	330	17425	2270.45	19696	1204	20900	0	20900	0	20900	0	20900	0	20900	53510
AM180M4	23.00	19320.67	2318	21639	632	22271	430	22701	2984.02	25685	1583	27268	0	27268	0	27268	0	27268	0	27268	95085
AM180L4	23.00	19162.67	2300	21462	632	22094	426	22521	2984.02	25505	1583	27088	0	27088	0	27088	0	27088	0	27088	101275

Annexure VI

READI-INDIA EVALUATION TEAM

Sl. No.	Name	Designation
1	Sri P. A. Patil	Project Coordinator
2	Sri D. V. Jhagiradhar	M & E Consultant
3	Sri R. Kaushik	CA & Cost Accountant
4	Sri Arvind C. Patil	Industrial Production Engineer
5	Sri B. M. Hanasi	Electrical Engineer
6	Sri M. V. Wandkar	Industrial Engineer, (Rtd NGEF)
7	Sri G. N. Ramachandran	Field Investigator
8	Sri Murali M. Mulgund	Field Investigator
9	Sri Gururaj A. Ganadavar	Documentation

Annexure-7

PENDING ORDER OF ALL BRANCHES AS ON 22-06-2015

DATE		CUSTOMER		TYPE	MTG	QTY	W.O.No	C/Set	Specalities	Remarks
1.5.15	3	H L ENGG	K	90 S8/4	B5	9	650305	8497	D S E	
28.2.15	119	H L ENGG	K	100 LK4	B5	20	651312	5669	D S E	
			K	112 M4	B5	10	651314	8350	D S E	
			K	132 M4	B5	35	651306	8068	D S E	
			K	112 M4	B5	5	641340	8350	D S E	
5.11.14	70	H L ENGG	K	132 MF4	B5	1	641337	D S E	READY	
			K	132 MF4	B5	10	651321		D S E	
25.4.15	10	H L ENGG	W	100 LK4	B5	5	STOCK			
			W	112 M4	B5	5	STOCK			
16.5.15	18	H L ENGG	K	100 LK4	B5	20		5669	D S E	
			K	112 M4	B5	20		8350	D S E	
			W	112 M4	B5	15			S S E	
20.5.15	21	H L ENGG	K	90 L4	B5	11	650307		3 HP	
			K	100 L4	B5	10	651325		5 HP	
25.5.15	22	H L ENGG	K	90 S4	B5	7	650308		1.5 HP	
15.6.15	30	H L ENGG	K	132 S4	B5	47	651327		S S E	
19.6.15	31	H L ENGG	K	90 S8/4	B5	6	640304		READY	
19.6.15	32	H L ENGG	K	132 S4	B5	5	641339		READY	
14.5.15	16	SEARVO	W	100 LV2	B5	1	STOCK			
	19		W	90 LF2	B5	7	STOCK			
23.3.15	126	SINGHEE	K	132 S4	B3	2	651316	4776	EPOXY	
			K	132 S4	B3	3	651317	425	10 HP	
25.2.15	121	AMBIKA ENT	W	112 M8	B5	7	651313	375	3 HP	
17.1.15	104		K	132 M8	B5	6	651310	8621	DSE CL H	
9.7.14	40	DAS ENT	AG	132 M8	B3	3	641334		1 READY	
5.12.14	85	S G T	K	90 S4	B3	6	650304		DSE CL H	
17.6.14	37	S G IND	AG	132 M8	B3	2	641323	561		
31.1.15	106	S G IND	AG	132 M8	B3	60	651303	561	3 HP	
16.9.14	60	S G IND	AG	132 M8	B3	3	641332	561		
20.9.14	63	BRITISH ELE	W	160 M4	V1	1	642528		10 HP	
27.10.14	65	BRITISH ELE	W	160 L2	B3	2			S-MUM	
25.5.15	23	SURYA UDOG	W	200 L2	B3	1	652503		S-MUM	
25.4.15	7	BRITISH ELE	W	180 MF2	B3	1			S-MUM	
2.12.14	82	BRITISH ELE	W	80 K4	B5	1			READY	
25.3.15	130	BRITISH ELE	W	112 M6	B3	2	STOCK			
26.11.14	80	DHARMENDRA	W	132 M4	V1	1		AL FAN	7.5 HP	
			W	90 LF2	B3	1		AL FAN		
20.12.14	89	DHARMENDRA	W	100 LK4	B5	1		AL FAN		
17.1.15	102	SUNNY ENGG	K	132 S6	B3	8	651330		READY	
17.1.15	104	AMBIKA ENT	K	132 M8	B5	6	651310		D S E	
5.2.15	110	GLOSTER	AG	132 M8	B3	5	651303	561		
12.5.15	12	GLOSTER	E	80 N4	B3	6	650306			
6.2.15	113	VARDHAMAN	W	160 L12	V6	4	625501		CL-H	
24.3.15	129	VARDHAMAN	W	100 LK4	B5	2	STOCK			
			W	132 S6	B3	2	STOCK			
28.2.15	116	INDIA FAN	W	132 MK6	B3	3	651311	7582	D S E	
13.2.14	115	INDIA FAN	W	112 M6	B3	19	STOCK			
6.3.15	123	ASIAN ELECT	W	160 M4	B3	2	652502		12.5 HP	
26.5.15	24	ASIAN ELECT	W	71 N2	B3	4	STOCK			
11.3.15	124	SARVAMANGAL	W	160 L4	B3	3	642536			
4.4.15	132	JEEN ENGG	W	160 L4	B3	2	642536			
23.4.15	6	VARDHAMAN	W	112 MF2	B3	4	651319			
			E	132 M6	B3	3	STOCK			
6.6.15	26	VARDHAMAN	E	112 M4	B3	2	STOCK		READY	
6.6.15	27	VARDHAMAN	W	100 L6	B3	1	STOCK		READY	
			W	112M6	B3	1	STOCK			

Working Capital Utilisation

	2010-11	2011-12	2012-13	2013-14	2014-15
Stock	825.60	542.59	770.17	621.00	604.91
Book Debts	317.29	114.65	140.21	358.66	423.09
	1142.89	657.24	910.38	979.66	1028.00
Less: Sundry Creditors	471.46	323.94	121.69	199.5	142.23
	671.43	333.30	788.69	780.16	885.77
Less: Margin @ 25%	167.86	83.33	197.17	195.04	221.44
	503.57	249.98	591.52	585.12	664.33
Utilisation of CC Limit	450.00	450.00	450.00	450.00	450.00
Working Capital Gap	53.57		141.52	135.12	214.33

Annexure – 9

TERMS AND CONDITIONS FOR INDUCTION MOTORS

1. The prices are exclusive of ED& Taxes.
2. Motor should be as per NGEF Design & Table of Dimension 3499100092 for B3 & 3499100093 for B5 Mounting.
3. The complete specification, indicative quantity of 9800 Nos and unit selling price is as per annexure – I
4. Price include packing & forwarding FOR NGEF (Hubli) Ltd., Depot.
5. Motor should be painted with light grey as per IS: 5 shade 631.
6. Packing should be as per our Drawing/Design.
7. Motors are Guaranteed for ONE YEAR against manufacturing defect OR 18 months from the date of invoice.
8. Test certificates should be provided for each motor.
9. Transit Damage if any to vendors account.
10. The unit selling prices quoted are indicative.
11. **Option 1:-**
    a. Motors can be produced in our works utilizing our existing production facilities/building and infrastructure.
    b. Required raw materials as per NGEF standards to be procured by vendor.
    c. Inspection at every stage by NGEF(Hubli) Ltd.,

Option 2:-

Motors can be produced in your work, the required raw materials as per NGEF standards to be procured by vendor. Inspection report at every stage to be submitted to NGEF (Hubli) Ltd., along with motors.

Tender No.NGEF(H)/MPS/086/I
Date : 23/07/2015

SECTION III: Price Bid Format 1/5

STANDARD SQUIRREL CAGE, TEFC(IP-55) TYPE AMW MOTORS.

Motors are suitable for 415 V +/- 10%, 50Hz +/- 5%, combined variation +/- 10%, 3 phase AC Supply,

Insulation Class-F,S1 Continuous Duty, Degree of Protection IP-55 & Ambient Temperature 50° C, confirms to IS-325.

Output		Frame Size	LP/15/13 Dt5.11.13	Unit selling price	B3	B5	QTY	**Maximum % of margen that can be shared to NGEF (Hubli)Ltd on unit selling price**	
KW	HP							**Option A**	**Option B**
0.18	0.25	63 K2	8670	2341	10		10		
0.25	0.33	63 N2	8940	2414	10		10		
0.18	0.25	63 N4	9525	2572	200	80	280		
			Sub Total:		**220**	**80**	**300**		
0.37	0.5	71 N 2	9500	2565	100	30	130		
0.55	0.75	71 NF2	10490	2832	40	30	70		
0.25	0.33	71 K 4	9715	2623	30	20	50		
0.37	0.5	71 N 4	10030	2708	200	200	400		
0.18	0.25	71 K 6	10990	2967	15	10	25		
0.25	0.33	71 N 6	11000	2970	15	10	25		
			Sub Total:		400	300	**700**		
0.75	1.0	80 N2	10870	2935	150	100	250		
1.1	1.5	80 P2	11890	3210	100	50	150		
0.55	0.75	80 K4	11160	3013	50	30	80		
0.75	1.0	80 N4	11270	3043	580	500	1080		
0.37	0.5	80 K6	11815	3190	40	20	60		
0.55	0.75	80 N6	12110	3270	25	15	40		
0.18	0.25	80 K8	12465	3366	10	10	20		
0.25	0.33	80 N8	12925	3490	10	10	20		
			Sub Total:		965	735	**1700**		
1.5	2.0	90 SF2	13770	3718	30	20	50		
2.2	3.0	90 LF2	17590	4749	50	30	80		
1.1	1.5	90 S4	12830	3464	100	50	150		
1.5	2.0	90 L4	14050	3794	1200	1000	2200		
0.75	1.0	90 S6	13640	3683	100	50	150		
1.1	1.5	90 L6	15070	4069	200	100	300		
0.37	0.5	90 S8	13085	3533	30	10	40		
0.55	0.75	90 L8	14335	3870	20	10	30		
			Sub Total:		1730	1270	**3000**		

STANDARD SQUIRREL CAGE, TEFC(IP-55) TYPE AMW MOTORS.

Motors are suitable for 415 V +/- 10%, 50Hz +/- 5%, combined variation +/- 10%.
3 phase AC Supply,

Insulation Class-F,S1 Continuous Duty, Degree of Protection IP-55 & Ambient Temperature 50° C, confirms to IS-325.

Output				Unit selling price				Maximum % of margen that can be shared to NCEF (Hubli)Ltd on unit selling price	
KW	HP	Frame Size	LP/15/13 Dt5.11.13		B3	B5	QTY	Option A	Option B
3.00	4.0	100 LF2	20820	5621	25	10	35		
3.70	5.0	100 LV2	21620	5837	300	200	500		
2.20	3.0	100 LK4	18565	5013	1415	1000	2415		
3.00	4.0	100 L4	21640	5843	100	150	250		
1.50	2.0	100 L6	19175	5177	500	200	700		
0.75	1.0	100 LK8	17630	4760	100	10	110		
1.10	1.5	100 L8	21535	5814	30		30		
			Sub Total:		2470	1570	4040		
3.70	5.0	112 M2	26755	7224	25		25		
4.00	5.5	112 MF2	28990	7827	10		10		
5.50	7.5	112 MV2	33200	8964	50	10	60		
3.70	5.0	112 M4	23770	6418	1100	1070	2170		
2.20	3.0	112 M6	22945	6195	200	25	225		
1.50	2.0	112 M8	24875	6716	10		10		
			Sub Total:		1395	1105	2500		
5.50	7.5	132 S2	35540	9596	100	10	110		
7.50	10.0	132 SF2	36760	9925	100	10	110		
9.30	12.5	132 MF2	56900	15363	10		10		
5.50	7.5	132 S4	32710	8832	1000	710	1710		
7.50	10.0	132 M4	38210	10317	500	300	800		
3.70	5.0	132 S6	35050	9464	100		100		
5.50	7.5	132 M6	39040	10541	100		100		
2.20	3.0	132 S8	32960	8899	50		50		
3.00	4.0	132 M8	43440	11729	10		10		
			Sub Total:		1970	1030	3000		
11.0	15.0	160 M2	63800	17226	10		10		
15.0	20.0	160 MF2	74810	20199	5		5		
18.5	25.0	160 LF2	96970	26182	2		2		
9.3	12.5	160 M4	60500	16335	50	25	75		
11.0	15.0	160 M4	61160	16513	125	70	195		
15.0	20.0	160 L4	76000	20520	100	10	110		
7.5	10.0	160 M6	62980	17005	41		41		

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STANDARD SQUIRREL CAGE, TEFC(IP-55) TYPE AMW MOTORS.

Motors are suitable for 415 V +/- 10%, 50Hz +/- 5%, combined variation +/- 10%, 3 phase AC Supply,

Insulation Class-F, S1 Continuous Duty, Degree of Protection IP-55 & Ambient Temperature 50° C, confirms to IS-325.

Output								Maximum % of margen that can be shared to NGEF (Hubli)Ltd on unit selling price	
KW	HP	Frame Size	LP/15/13 Dt5.11.13	Unit selling price	B3	B5	QTY	Option A	Option B
9.3	12.5	160 L6	74490	20112	20		20		
11.0	15.0	160 L6	78415	21172	30		30		
3.7	5.0	160 MK8	51820	13991	2		2		
5.0	7.5	160 M8	62940	16994	5		5		
7.5	10.0	160 L8	79875	21566	5		5		
			Sub Total:		395	105	500		
22.0	30.00	180 MF2	108090	29184	2		2		
18.50	25.00	180 M4	102385	27644	54		54		
22.0	30.00	180 L4	114155	30822	55		55		
15.0	20.00	180 L6	107050	28904	10		10		
9.3	12.50	180 M8	103835	28035	2		2		
11.0	15.00	180 L8	109370	29530	2		2		
			Sub Total:		125		125		
30.00	40.00	200L2	168590	45519	10		10		
37.00	50.00	200LF2	205730	55547	10		10		
30.00	40.00	200L4	161700	43659	60		60		
18.50	25.00	200L6	146310	39504					
22.00	30.00	200L6	158970	42922	20		20		
15.00	20.00	200L8	162225	43801					
			Sub Total:		100		100		
45.00	60.00	225M2	264740	71480	10		10		
37.00	50.00	225S4	202810	54759	25		25		
45.00	60.00	225M4	240750	65003	25		25		
30.00	40.00	225M6	247800	66906	10		10		
18.50	25.00	225S8	209310	56514	5		5		
22.00	30.00	225M8	252620	68207					
30.00	40.00	225M8	339730	91727	5		5		
			Sub Total:		80		80		
55.00	75.00	250M2	356370	96220	2		2		
55.00	75.00	250M4	330610	89265	10		10		
37.00	50.00	250M6	333850	90140	8		8		
			Sub Total:		20		20		

STANDARD SQUIRREL CAGE, TEFC(IP-55) TYPE AMW MOTORS.									
Motors are suitable for 415 V +/- 10%, 50Hz +/- 5%, combined variation +/- 10%, 3 phase AC Supply,									
Insulation Class-F.S1 Continuous Duty, Degree of Protection IP-55 & Ambient Temperature 50° C confirms to IS-325.									
Output				Unit				Maximum % of margen that c	
KW	HP	Frame Size	LP/15/13 Dt5.11.13	selling price	B3	B5	QTY	be shared to NGEF (Hubli)Ltd unit selling price	
								Option A	Option B
90.00	120.00	280M2	537780	145201	1		1		
75.00	100.00	280S4	423200	114264	6		6		
90.00	120.00	280M4	491000	132570	6		6		
45.00	60.00	280S6	425380	114853	2		2		
55.00	75.00	280M6	482570	130294	2		2		
37.00	50.00	280S8	434175	117227					
45.00	60.00	280M8	503740	136010	2		2		
			Sub Total:		19		**19**		
110.00	150.0	315S2	704970	190342	1		1		
125.00	170.0	315M2	827510	223428					
132.00	180.0	315M2	867155	234132	1		1		
150.00	200.0	315L2	916760	247525					
160.00	215.0	315L2	949940	256484					
180.00	240.0	315L2	999570	269884					
200.00	270.0	315L2	1113880	300748	3		3		
110.00	150.0	315S4	618230	166922	2		2		
125.00	170.0	315M4	707260	190960					
132.00	180.0	315M4	725250	195818	2		3		
150.00	200.0	315L4	783850	211640					
160.00	215.0	315L4	851575	229925					
180.00	240.0	315L4	907725	245086					
200.00	270.0	315L4	1036110	279750	4		4		
75.00	100.0	315S6	592750	160043	1		1		
90.00	120.0	315M6	745680	201334					
110.00	150.0	315M6	830670	224281	1		1		
125.00	170.0	315L6	905260	244420					
132.00	180.0	315L6	965070	260569					
150.00	200.0	315L6	996600	269082					
160.00	215.0	315L6	1004580	271237	2		2		
55.00	75.0	315S8	609095	164456	1		1		
75.00	100.0	315M8	762230	205802					
90.00	120.0	315M8	856380	231223	1		1		
110.00	150.0	315L8	904575	244235					
125.00	170.0	315L8	1004410	271191					
132.00	180.0	315L8	1064140	287318	1		1		
			Sub Total:		20		**21**		

STANDARD SQUIRREL CAGE, TEFC(IP-55) TYPE AMW MOTORS.

Motors are suitable for 415 V +/- 10%, 50Hz +/- 5%, combined variation +/- 10%,

Insulation Class-F,S1 Continuous Duty, Degree of Protection IP-55 & Ambient Temperature 50° C,

Output				Unit selling price				Maximum % of margen that can be shared to NGEF (Hubli)Ltd on unit selling price	
KW	HP	Frame Size	LP/15/13 Dt5.11.13		B3	B5	QTY	Option A	Option B
250.00	335.0	355L2	1241679	335251					
315.00	425.0	355L2	1352720	365234	2		2		
250.00	335.0	355L4	1147500	309825					
315.00	425.0	355L4	1313450	354632	10		10		
180.00	240.0	355L6	1113470	300637					
200.00	270.0	355L6	1156160	312163					
250.00	335.0	355L6	1246080	336442	6		6		
150.00	200.0	355L8	1112060	300264					
160.00	215.0	355L8	1223040	330221					
180.00	240.0	355L8	1251900	338013					
200.00	270.0	355L8	1339800	361746	2		2		
			Sub Total:		20		20		
			Grand Total:				16125		

1. Transit Insurance: To your account.
2. Quantity/Supply : As per monthly schedule.
3. In case of failure to deliver as per the purchase order/ schedule, we have option as under
   a) To levy liquidated damages at the rate of 1% per week for each week delay subject to maximum of 5% of the total value of the order / contract.
   b) And or the cancel the order and procure from the alternate sources at the sole risk and cost to the vendor.
4. The E.M.D. shall be forfeited if the successful tenderer fails to supply on three consecutive occasions as per the P.O./schedule/release order
5. Indemnity bond in Rs. 50/- non-judicial stamp paper is to be executed as per prior to issue of purchase/service order.
6. Material : As per the Drawing / Specification.
7. Payment : 60 days credit from the date of receipt of material.
8. Quantity is approximate and indicative only. Actual procurement will be as per our schedules.
9. Please note the motors are to be delivered at our Hubli unit/depot.

Signature of Tenderer with seal