INSTITUTIONAL CAPACITY ASSESSMENT

A. Overview

1. **Introduction**. Energy Efficiency Services Limited (EESL) has been set up under the Indian Companies Act, 1956 (No.1 of 1956) on 10 December 2009. As per the Memorandum and Articles of Association, the main stated objects to be pursued are as follows:

- to carry on and promote the business of energy efficiency and climate change, including the manufacture and supply of energy efficiency services and products;
- to provide consultancy services in the field of Clean Development Mechanism (CDM), carbon markets, demand side management (DSM), energy efficiency, climate change, and other related areas;
- to act as a resource center in the field of energy efficiency and undertake capacity building, training, and other related activities; and
- to carry out such other activities offered by the Central Government, State Government, Bureau of Energy Efficiency (BEE) (which is a quasi-regulatory authority established by the Government of India for implementing and promoting energy efficiency initiatives in India within the regulatory framework of the Energy Conservation Act, 2001) or any other agencies related to energy efficiency and climate change.

2. Through this expressed mandate, EESL is harnessing the energy efficiency potential in various sectors (namely, municipalities, agriculture, industry, commercial buildings and domestic sectors) and partnering with private energy service companies (ESCOs), state level and city level institutions, like municipalities and distribution companies (DISCOMs), and other partners and stakeholders for achieving the energy efficiency targets and goals.

3. The Vision of EESL is to: (i) create and sustain markets for energy efficiency in India; and (ii) support private sector investments in energy efficiency.

4. The Mission of EESL is to: (i) assist central and state governments in implementing energy efficiency and realizing savings; and (ii) create market access, particularly in public sector, to capture energy efficiency potential, assessed at INR74,000 crores.

B. EESL support to the National Mission on Enhanced Energy Efficiency and BEE

5. BEE's mandate is strengthened at the national level through the Government of India's National Action Plan on Climate Change (NAPCC) in 2008 that includes the National Mission on Enhanced Energy Efficiency (NMEEE) as its one of the eight missions. The four key components of this framework related to energy efficiency and under implementation by BEE, the nodal agency for all energy efficiency activities are:

(i) **Perform, Achieve, and Trade (PAT) scheme**: promote a market based mechanism to enhance cost effectiveness of improvements in energy efficiency in energy-intensive large industries and facilities, through certification missions of energy savings that could be traded;
(ii) **Market Transformation for Energy Efficiency**: accelerate the shift to energy efficient appliances in designated sectors through innovative measures to make the products more affordable;

(iii) **Energy Efficiency Financing Platform**: create mechanisms that would help finance demand side management programs in all sectors by capturing future energy savings; and

(iv) **Framework for Energy Efficient Economic Development**: developing fiscal instruments to promote energy efficiency. The government has further declared that it would aim to reduce the emissions intensity of its gross domestic product by 20% to 25% from 2005 levels by 2020. This is included as one of the monitored targets under the environment and sustainability indicator listed in the 12th Five Year Plan (2012–2017) of the Government of India.

6. EESL acts as the implementation arm of the Ministry of Power (MOP) and BEE by overcoming the market development barriers faced by energy users in identification, design, implementation and financing of energy efficiency projects. Adequate resource allocations are made through the budget of the Government of India for energy efficiency pilots and schemes and EESL's own resources.

C. EESL's Organizational Goals and Institutional Capacities

7. EESL has been set up as a joint venture of four leading public sector undertakings (PSUs) under the MOP namely: (i) National Thermal Power Corporation Limited (NTPC), (ii) Power Grid Corporation of India Limited (PGCIL), (iii) Power Finance Corporation (PFC), and (iv) Rural Electrification Corporation (REC), with equal equity participation. EESL's management structure has representation from these PSUs with the first chairman being nominated by NTPC and followed by PFC, REC and PGCIL in order of sequence. Currently the chairmanship of the EESL Board is held by the Chairman and Managing Director (CMD) of REC. The chairman presides over the meetings of the Board of Directors and the General meetings of the company.

8. EESL, being a PSU of the MOP, is transparent in all its goals and is in line with the objectives of the relevant policies and regulatory acts of the Government of India. The project related performance targets are set annually after due deliberations at the organizational level and duly approved by the Board of Directors of EESL. Generally, there is a fair amount of involvement of the senior staff including the Managing Director in all important decision making processes and project implementation phases. There are regular staff meetings and discussions within EESL and relevant stakeholders and if any mid-course corrections are required, then, they are adopted after careful evaluation and vetting by independent agencies.

D. Relationship in Activities of BEE and EESL

9. BEE as a quasi-regulatory and policy advisory body to the central and state governments is tasked with taking such measures that are necessary in overcoming barriers for market transformation in energy efficiency. EESL has been tasked with demonstrating the business models and case for energy efficiency, creating market access particularly in the public sector, handholding energy efficiency businesses and implementing MOP and/or BEE schemes. Sufficient capital in terms of promoter equity, flexible institutional structure, and functional autonomy has been given to EESL to discharge the implementation role. However, electricity is a concurrent subject at Entry 38 in List III of the Seventh Schedule of the Constitution of India. In India's federal governance structure, this means that both the central government and state governments are involved in establishing policy and laws for its electricity sector. Hence, the enforcements of regulatory provisions and its implementation at the state levels could be challenging sometimes given the state specific priorities. The anticipated market-based energy efficiency investment could be achieved only through the enforcement of

the provisions set by the Central Electricity Regulatory Commission (CERC) are adopted by the State Electricity Regulatory Commissions. EESL is thus positioned to lead the market related action of market development and implementation functions through the ESCO business model as well as align its activities with the state level agencies and other potential partners. EESL assumes full responsibility for designing, implementing, monitoring and financing energy efficiency and conservation projects on behalf of clients in the industrial, commercial and institutional fields. The revenues are linked to the performance of the implemented projects and are leveraged by monetizing future savings of energy. Since EESL itself is a PSU of the MOP of the Government of India, the trust and confidence of the project entities is on a higher pedestal vis-a-vis a private vendor implementing an energy efficiency project.

E. Linkages to State Regulatory Authorities

10. The State Regulatory bodies in the energy domain like the Forum of Regulators now decisively support energy efficiency and DSM through competitive tariffs and better fiscal and financial incentives etc., to DISCOMs through Annual Revenue Requirements and other schemes and are further strengthened with the Amendments of the Electricity Act 2003 and the New Tariff Policy 2015. Capacities at the state level for energy efficiency project implementation are inadequate for bundling and aggregation of large number of energy efficiency projects. Outreach and awareness are limited too with the relevant project stakeholders. But with energy shortages and climate goals to reduce carbon intensity, there is growing acceptance of energy efficiency projects. Replication of successful pilots and “Best Practices” are the significant diffuse influences. EESL has within a short time acted to diffuse influences by demonstrating such practices. Targeted capacity building and training of EESL staff could further enhance timely performance and successful delivery of the projects based on realistic assessments of risks and implications.

F. Organizational Structure

11. EESL has adopted an organizational structure which clearly defines the roles and responsibilities of the teams. An organogram is attached as Appendix 1. EESL ESCO operations are managed by the Managing Director of EESL. The vertical structure of EESL includes several divisions and departments: projects and business development; technical; finance; legal and administration; corporate planning; supports services; information technology and software; and international business development etc. Recently, EESL has decided to strengthen their public relations, media and outreach instead of depending only on external media agency support. EESL has been structured to take care of the stakeholder projects in the energy efficiency market both at the regional levels and state levels and this is in line with the national goals and objectives as delineated in the NMEEE and other important policies and programs.

12. As a public entity, the operational procedures of EESL are robust and transparent and under the ambit of the Right to Information Act of the Government of India. It is mandatory for EESL to adhere to the rules and regulations approved by its shareholding companies of the government and hence there is no reason to believe any major departures or deviations in project implementation and mission performance. Although EESL is a new institution, it is heavily drawing on the expertise of its parent promoter organizations and is evolving a partnership strategy and communications and outreach policy for efficient and effective management of projects. EESL in the near future may be required to develop more in-house technical and managerial capacities to manage bigger and complex projects.

G. Management Capacity

13. The decision making authority and the program and project staff relationships are well defined. There is no ambiguity in the scope of work of the program staff and managerial responsibilities. However, the present expectations of the management seem very high considering that the energy efficiency sector is evolving and many challenges are yet to be overcome. The program and project staff though has a hierarchical structure but do enjoy the autonomy and freedom to seek guidance from the Managing Director on important matters. There are less bureaucratic hurdles with the EESL set up. Within the EESL ESCO operation, decisions are taken by the Managing Director under the overall guidance and support of the Board of Directors. All project investment decisions will have to be approved by the Board of Directors. EESL has recruited the best talents for both senior and mid-level professionals from the open market. There are a few officers from the power sector working in EESL who have demonstrated successful project results. EESL has adopted an open and participatory management style for its operations. Since it has to operate as a profit making corporate entity, it cannot be operating as a very bureaucratic agency. EESL has drafted policies related to human resources, procurement, and partnerships after careful consideration of its business objectives. The existing management capacity is leveraged and supported through a set of procedures and systems. A dedicated management information system and financial system with adequate support infrastructure is in place.

H. Technical Capacity

14. EESL has successfully completed projects in the PAT baseline work of BEE, successful pilots in agricultural DSM sector, and a few municipal street lighting projects besides the flagship national light emitting diode (LED) lighting program, UJALA, which has created history by reaching a target of 100 million of LED bulb distribution to replace incandescent bulbs in the domestic households in less than 18 months. EESL's present experience has given the staff some useful insights and in-house expertise in certain areas of its operations such as conducting Investment Grade Energy Audits and preparing Detailed Project Reports (DPRs) for all sectors, carrying out financial appraisal of projects, understanding engineering, procurement and construction through formulation of ESCO agreements and associated project monitoring and verification and overcoming payment security mechanism which is critical for ESCO operations The senior management is committed to make available the required technical and human resources for its operations. EESL maintains an inventory of relevant physical infrastructure. It has also currently acquired energy auditing equipment and possesses capacity to procure any project related equipment if required.

I. Technical Performance Targets

15. EESL adopts performance targets conservatively and in association with other relevant partners and stakeholders so that the risks are understood and shared appropriately. For projects identified by EESL, it will carry out the preliminary work of DPR preparation and financial appraisal. After implementation, monetary value of energy savings as agreed with the project owner will be passed on to the EESL. EESL carries out a comprehensive environmental and social impact assessment of its proposed investments in projects both at the planning and implementation stages. EESL is well endowed technically and organizationally to meet the targets and stated goals of the project.

J. Finance and HR Departments

16. EESL does have a well-defined and robust budgeting and accounting system in place which is in line with the public sector entity requirements. The Finance Department is well geared to handle all issues of financing of energy efficiency projects. The financial results are audited independently by the certified auditors and the results are available in public domain. In addition to the budgetary provisions by the government and EESL's promoter contributions, EESL has been approached by bilateral and multilateral agencies. These funding options could mature over a period of time. It also receives revenues from consultancies and other activities like corporate social responsibility projects besides flows from its investments in energy efficiency projects.

17. EESL implements government schemes which would cover the recurring fixed costs. Based on project viability and partnership, it would enter into different financial business models, guaranteed savings or sharing energy savings, or a combination of the two. The adopted approach for the implemented projects to date has been on guaranteed savings.

18. EESL follows the standard recruiting, reporting, performance and appraisal processes as observed in a successful and profit making public sector entity. EESL follows the service, salary structures, and performance rating conditions as followed in its four founder power sector PSUs: NTPC, PGCL, PFC, and REC which are rated as one of the best in the country by leading human resource surveys and hence there would be little room for any dissatisfaction for its employees.

K. Learning Systems and Capacities

19. EESL had prepared a business plan immediately after its establishment and has recently developed an ambitious and well thought out 5-year business plan for 2015–2020.The targets set at the beginning of the fiscal year (April to March) are evaluated internally by the staff at three and/or six monthly frequency and the Board of Directors provides necessary guidance and mentoring at regular meetings. The Management of EESL are duly informed and consulted and are appraised for any performance quality issues arising out of its operations. EESL has qualified professionals with adequate experience and have been active in institutionalising the learning so far from their project activities.

L. Organizational Culture and Management Approach

20. EESL staff is generally motivated and feel charged as they belong to a group of promoters who have Navaratna status (as given to leading profit making PSUs) among the PSUs of the Government of India. Energy efficiency and DSM being niche areas enshrined in the NMEEE and other national goals, it becomes a matter of pride for the staff members contributing to the sector. The organization's culture is one of performance and delivery driven, efficiency and result orientation, mainly due to the nature of EESL's business. However, given that the EESL's roots are in the public sector, these would not compromise on any social and other value systems.

21. EESL has a democratic and open environment and enjoys a fair amount of transparency. EESL has to continue to provide a climate conducive for innovativeness, risk taking ability in meeting the challenges and continuous learning as the sector, ESCO business model, has started growing both nationally and internationally.

22. EESL has a clear mandate to develop markets for energy efficiency interventions. As there has been limited success and impact of the energy efficiency mission and programs due to several barriers and challenges, some of which are expected to be overcome through EESL's activities, particularly investing in energy efficiency projects.

23. The success of the proposed investments by EESL, particularly in the ESCO mode, would be dependent on many factors that range from having realistic goals including setting up of realistic baselines to having sufficient technical, financial, and other capabilities (e.g. environmental impact assessment) for realizing them, technical, financial capacity to monitor and verify energy savings and other indicators and more importantly, contractual relationships and terms and conditions. Major success in implementation would be attributable to the willingness at the state level to provide favorable policy and regulatory framework towards feasible and profitable investments.

24. Energy efficiency projects implementation at the state level falls in the domain of multiple governmental stakeholders besides the State Designated Agencies. Generally, there is slow decision making at the state levels and frequent transfers of officials might pose a challenge. In spite of the above challenges, expectations, and implications, EESL is aware of the market situation and is gearing itself to deliver the expected outcomes with multipronged approaches and strategies which comprise capacity building on all aspects of project identification, development and management, monitoring and verification, partnerships, financing, etc.

25. EESL has already mustered valuable experience in a well-balanced and careful evaluation over the past 3 to 4 years and thus is in a position to achieve the outputs and outcomes. Its promoters and sponsors infuse further confidence to EESL through a shared vision and mission. The budgetary and funding support to EESL has already started to show positive results with a growing pipeline of projects and better operating results.

M. Summary and Conclusions

26. A well-structured professional team is in place at EESL with clearly defined roles and responsibilities for optimal utilization of human resources for efficient and effective project management. Transparent human resource and personnel corporate management practices are adopted to achieve the desired objectives and vision and mission of EESL. In line with the projected growth in business, EESL has been concurrently increasing its human resources from the market; and has obtained, in principle, approval of the MOP to recruit adequate and talented professionals to meet its rapid growth in both ongoing programs and projects. In addition to its staff, EESL will outsource some of the activities, as needed, to streamline project management and implementation. EESL currently has 450 regular staff and are in the process of recruiting an additional 100 over the next year. EESL appears to have the capability and capacity to successfully deliver multi stakeholder projects and business opportunities in the energy efficiency markets and this is in line with the 5-year (2015–2020) business plan developed and approved by the EESL governing board and the MOP with the national goals and objectives as delineated in the NMEEE.

EESL's Organization Structure