

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

United Nations

The State of Eritrea

Ministry of Energy, Mines and Water Resources

Department of Energy

**Human Resource Development Strategy
for the Department of Energy**

and

**Recommendations for the Institutional Development
of the Department of Energy and its Branches**

December 1996



**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

LIST OF CONTENTS

1. EXECUTIVE SUMMARY	3
2. METHODOLOGY	3
3. DESCRIPTION OF THE TASKS	3
3.1. DIFFERENT UNDERSTANDING ABOUT THE TASK HRD STRATEGY	3
3.2. DEVELOPMENT OF A COMMON UNDERSTANDING	
3.3. TASKS CARRIED OUT	4
3.3.1. Management training for EEA personnel	4
3.3.1.1. Training Implementation	4
3.3.1.2. Further investigations during the training assignment	5
3.3.2. Support of DoE concerning institutional development	5
3.3.3. Interviews made	5
4. PRESENT INSTITUTIONAL SET-UP OF THE ENERGY SECTOR OF ERITREA	6
5. FUTURE TASKS, AUTHORITIES AND RESPONSIBILITIES	8
5.1. THE STRATEGIC PLANNING APPROACH	10
5.2. PLANNING APPROACH FOR THE UTILITIES (EEA AND PCE)	10
5.2.1. The tasks of the planning process	11
5.2.2. The utilities' and DoE's role In the strategic planning exercise	12
5.2.3. Flow of information	12
6. HUMAN RESOURCE DEVELOPMENT (HRD) STRATEGY FOR THE ENTIRE ENERGY SECTOR	14
6.1. THE INTEGRATED HRD STRATEGY	14
6.2. THE ROLE OF THE DOE AS A CO-ORDINATOR OF THE IMPLEMENTATION	14
6.3. STAFF PLANNING AND STAFF DEVELOPMENT	14
7. TRAINING STRATEGY FOR THE ENERGY SECTOR	15
7.1. BASIC TRAINING FOR NEWLY RECRUITED STAFF	15
7.2. FURTHER TRAINING MEASURES FOR EXISTING STAFF	15
7.3. INTRODUCTION OF ADEQUATE TRAINING METHODS	16
7.4. TRAINING STRATEGY FOR DOE STAFF	16
7.5. TRAINING STRATEGY FOR EEA	17
7.6. TRAINING STRATEGY FOR PCE	17

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

1. Executive summary**2. Methodology**

The fact that the Consultant has also to cover the institutional development issue requires a different methodology than it would be appropriate for the development of a human resource development strategy. The gathered information set the Consultant into a position to provide adequate suggestions for both, the set-up of the DoE, and its further human resource development. The necessary top-down approach therefore has to start with an overview about the energy policy of Eritrea. The Consultant had to consider a draft, which was not yet finally approved, when the investigation took place. The draft predicts the following policy:

- To provide an efficient, economic, reliable, and sustainable supply of affordable energy throughout Eritrea, with due regard to the preservation and improvement of the environment.
- The energy supply industry should, in total, be financially self sufficient with each consumer paying the economic price for energy products. Cross subsidies should be transparent and kept to a minimum, only being considered when known to complement Eritrea's social policy.
- Private investment should be promoted, with developers, producers, and operators being encouraged to run efficiently, being regulated so as not to make excessive profits.
- To exploit the potential of non-carbon renewable energy sources when the development is economic or when it complements the government's social policy.
- Major capital investment in the energy supply industry should be sensitive to the current and future economic development of any indigenous source of fuel and energy.
- To increase refined energy's share of the energy market, particularly in the urban and accessible rural areas.
- Any shortfall in the supply of refined oil products can be imported and any excess can be exported.
- The electricity transmission and distribution networks will remain in public ownership for the foreseeable future.

Due to the short assignment (1 week) a comprehensive Human Resource Development Strategy for the DoE and its branches cannot be obtained by the Consultant. Nevertheless the gathered information reveal that DoE has already prepared a framework for its further mandate. The report therefore concentrates on general suggestions how the HRD strategy should be implemented. The recommendations how the DoE should be staffed rather depends on the final determination of the mandates to be approved by the Ministry of Energy and Mines.

3. Description of the tasks

The tasks of the HRD expert consist of two different assignments. First a management training for EEA management was carried out, and second a HRD strategy has to be developed.

3.1. Different understanding about the task HRD strategy

The DoE does not only expect from this project a broaden human resource development strategy (HRD strategy) for the department itself, but also an institutional development exercise, and adequate recommendations for its further institutional set-up. According to the minutes of meeting (Oct. 8th, 1996) the consulting services, performed during the second assignment of the HRD expert (Dec. 7th 1996 until Dec.

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

14th 1996), should focus on the DoE and will not cover the two utilities Eritrea Electric Authority (EEA), and Petrol Corporation of Eritrea (PCE).

Also the recommendations for an institutional set-up could only be provide in general. The provided information from the energy sector allows to give a general idea, how the energy sector should be organised in the near future. Any implementation of the provided recommendations has to be done by the DoE itself.

3.2. Tasks carried out

3.2.1. Management training for EEA personnel

According to Lahmeyer International proposal (3.3.2 *Training of EEA personnel*) the consultant proposed a specific management training for EEA's key personnel. A list of content had been delivered in advance to the client. Internal discussion of the client led to a modification of the intended seminar contents. Of particular importance has been the request for adding the items **quality assurance** and **team work**. Based on the Consultant's intention and the additionally requests of the client the seminar was developed. Unfortunately the Consultant has had no detailed information about the composition of the target group to be assigned for the seminar. However, the Consultant has put the emphasis on overall managerial items which could be useful for both technical and economical management staff.

3.2.1.1. Training Implementation

The assigned trainer of the Consultant arrived at 20th April 1996 in Asmara. The first contact to EEA took place at 22nd April 1996. The personnel sub division (Mr. Haptessasse) informed the Consultant about the **composition of the participants** and the facilities the training will take place. The training target group represented in the Consultant's view the middle and lower management of EEA's organisation (section members and below). The prepared facilities have met the Consultant's demands. The originally assigned group of twelve participants has been increased up to fifteen participants. During the first day some preparation meeting were organised by EEA (General Manager Mr. Abraham Waldemicael, Project Manager Mr. Habtu G/Amlak).

It has been mutually agreed between the Consultant and EEA representatives that the **training sessions** will be conducted during the morning time (9.00 - 12.00). The afternoon should give the participants the opportunity to handle their daily tasks and duties. The trainer offered to visit several participants at their workplace. So the trainer has had the opportunity to consider the real circumstances of EEA's working environment for possible modifications of his seminar concept.

The **conducted seminar** followed the prepared manual, which has been handed over to the participants before the training started (Attachment 3). The training conditions have been supportive for both the trainer and the participants. Despite the trainer's proposal to carry out an interactive workshop the conducted seminar has been almost a pure frontal lesson. Anyhow, both the participation and the attention of the participants must be stated as excellent. The selected and

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

provide training environment also has to be described as supportive for the training success. The trainer could not notice any language problems among the participants which could have a negative influence on the desired training result.

The **training duration** has been in summary five days as originally planned. The desired volume of seminar item has been almost covered, some modification made it necessary to dispense with some planned items. This modification however did not influence the entire seminar strategy.

The trainer suggested to the General Manager to present **certificates** to the participants. EEA agreed upon this recommendation and the participants received at the end of the seminar the particularly prepared certificates (Attachment 4). These certificates should serve as an additional motivation to the participants to encourage their readiness for further training participation.

3.2.1.2. Further investigations during the training assignment

The **visits at the workplaces** of several participants contributed very much to the trainer's understanding of the participants' tasks and duties. The participants themselves and their subordinated management supported very much the trainer's investigation at and assessment of the workplaces. Additionally the trainer receives the **organisational manual** form EEA. This manual also serves as supportive information to adapt the originally seminar concept to EEA's real needs.

3.2.2. Support of DoE concerning institutional development**3.2.3. Interviews made**

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

4. Present institutional set-up of the energy sector of Eritrea

The Ministry of Energy and Mines (MoEM) is controlling the entire energy sector of Eritrea. The main corporations are the *Eritrea Electric Authority* (EEA) and the *Petrol Corporation of Eritrea* (PCE). Although the two utilities EEA and PCE are acting rather independently, both are closely linked to the Ministry of Energy and Mines. EEA is a semi-autonomous public enterprise with a capital entirely owned by the Government of the State of Eritrea. The Minister himself is a member of both utility boards. The present organisational set-up of the Ministry is shown in **figure 4.1**. The MoEM consist of two departments, the *Department of Energy* (DoE) and the *Department of Mines* (DoM). It must be mentioned that the ministry originally was called Ministry of Energy, Mines and Water Resources. However the Consultant was informed that this change has been set-up.

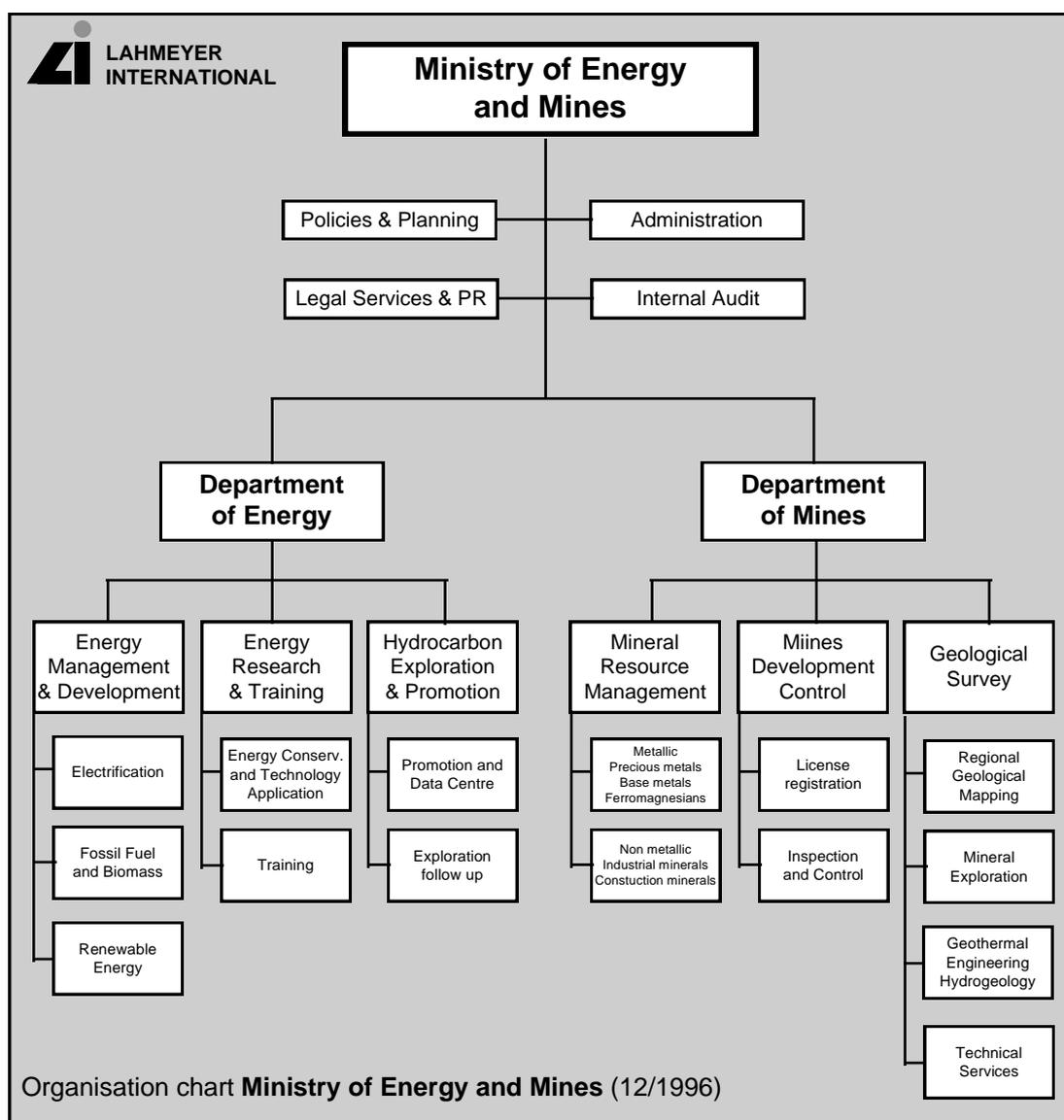


Figure 4.1 The actual organisation of the Ministry of Energy and Mines (12/1996)

The department of energy (DoE) itself is subdivided into three divisions, the *Energy Management Development Division*, the *Energy Research and Training Division*, and the

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

Hydrocarbon Exploration and Promotion Division (see figure 4.2). Each division consist of two or more sections. The staffing of the departments is not yet finalised and depends on the final mandates and tasks of the departments.

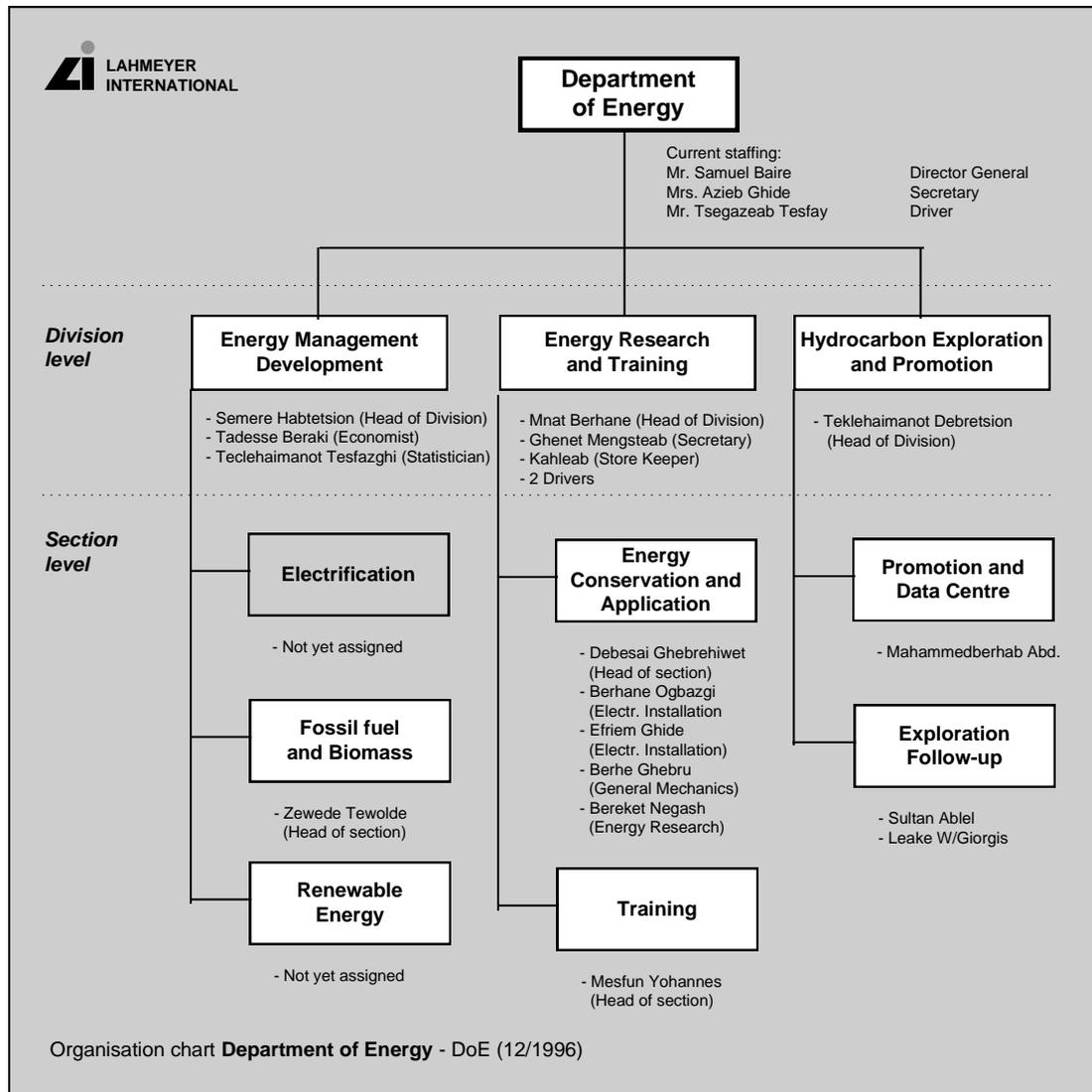


Figure 4.2 The present organisation of the Department of Energy (12/1996)

During the assignment of the HRD expert the head of the Energy Management Development Division provided the necessary documents concerning the drafted objectives of all three divisions of the DoE. Each division defined their own objectives and their subordinated sections. The documents also express the present staffing and future staff requirements.

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

5. Future tasks, authorities and responsibilities

The energy sector of each country needs a precise definition which prevents any misunderstanding. To create a clear formation it is advisable to launch a **level definition** according to the tasks and responsibilities to be carried out by the units of these different levels. **Figure 5.1** shows the recommended levels.

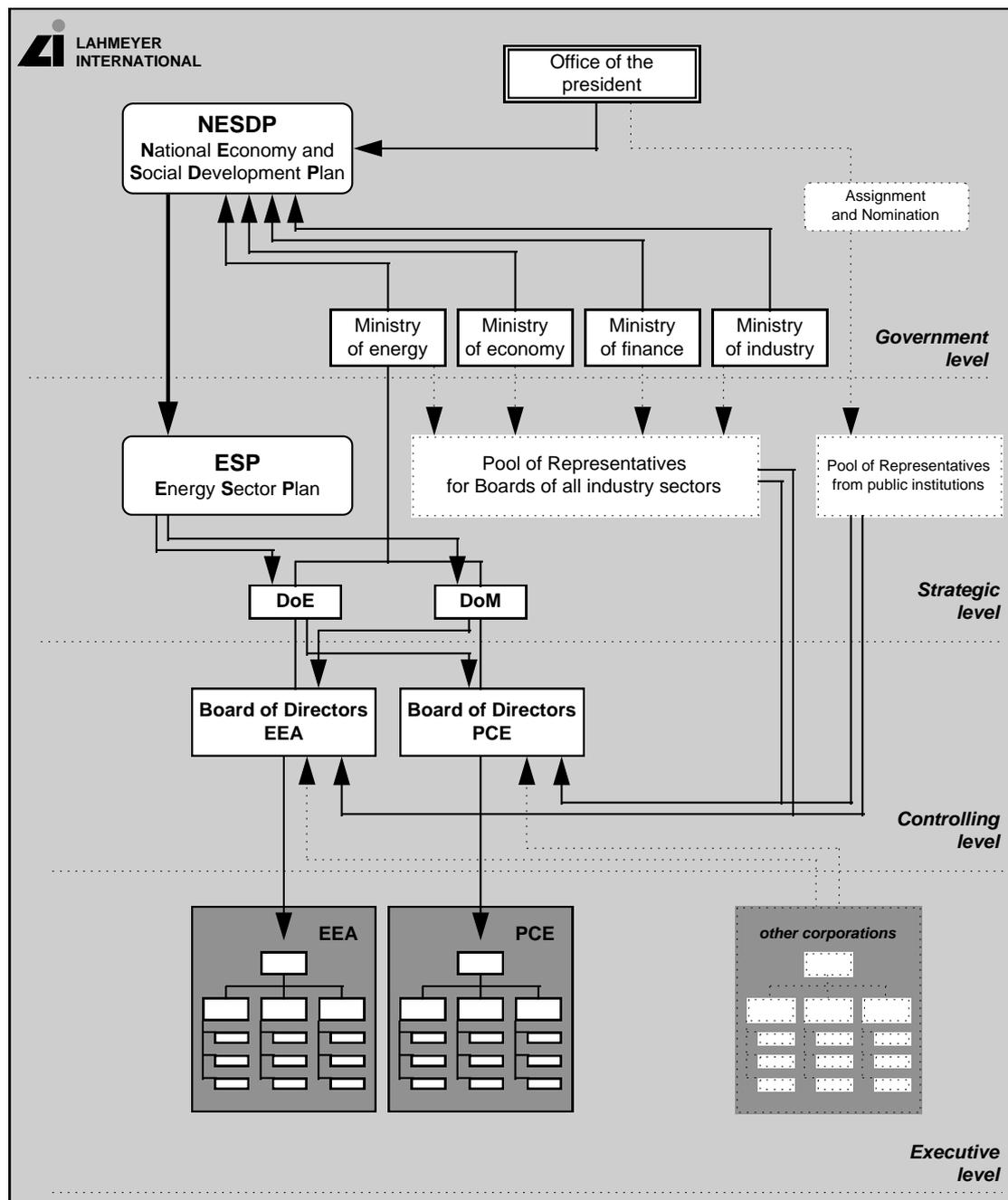


Figure 5.1 The recommended levels of an energy sector

Another target of this definition of levels is to prevent overlapping activities concerning the performance of tasks. It is not part of this report to recommend in detail the exact nomination of all defined levels and participating units. Hence the recommendations will exclusively focus on the definition of tasks, responsibilities, and the flow of information. Also the implementation

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

of the provided recommendations has to be carried out by the Eritrean side. All following suggestions concentrate on the electric sector but they are also transferable to the concerned petrol sector. The approach to be introduced in the following chapters should serve as an example, and enable the Department of Energy to play its actual role within this course.

The Governmental Level

The office of the President should continue to formulate the overall layout for economic development of Eritrea. The energy sector will play a major role for Eritrea's intended economic development. **The National Economic and Social Development Plan** therefore will be the major orientation for the energy sector. The departments of the Ministry of Energy and Mines must be enabled to formulate all further development figures concerning the energy sector.

According to the overall intentions of the Government of Eritrea concerning the development of Eritrea's industry and their future independence, the Governmental Level should also nominate public representatives who will assume member of boards of all public enterprises within the entire industry sector (including the energy sector). These representatives will ensure that the defined boards of EEA and PCE (and others) consider all aspects of social and economic development of the country.

The Strategic Level

The major task of the strategic level is to formulate the **Electric Sector Plan** (ESP). This plan should focus on

- network extension,
- power plant extension,
- energy availability for the public,
- energy availability for the industry and agriculture,
- energy efficiency,
- energy mix (including renewable energy),
- tariffs.

The strategic level should be represented by the departments of the Ministry of Energy and Mines. The NESDP provides the figures for the Ministry's departments to derive the ESP planning figures. It is not desirable that the department build up own resources for all planning activities. Technical planning elements should be delegated to and implemented in close co-operation with the utilities, which already have broaden expertise to carry out those planning tasks.

Controlling Level

Although the two utilities EEA and PCE act rather independently control boards are necessary. This is in line with Eritrea's macro policy and five-year indicative energy programme. EEA and PCE shall be supervised by a board of directors as a public enterprise. The Department of Energy (DoE) should be represented within this boards. Other representatives should be: the ministry of trade and industry, the ministry of finance and development, members of the business community, nominated by the governmental level. Only such a composition ensures the indispensable cross-sectoral considerations, which are necessary for Eritrea's overall development.

Executive Level

The two enterprises EEA and PCE should keep their present status and be able to act independently. The controlling board should not interfere in the day-to-day business. A **strategic plan** implemented by the utilities and approved by the board of directors should provide the necessary framework for a business oriented decision making philosophy within the two enterprises.

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

5.1. The strategic planning approach

The strategic planning must start in the existing utilities of the Eritrean energy sector (*the executive level*). Within these utilities the necessary expertise is already developed and practised over many years. It makes no sense to build up the expertise a second time on the ministry level. To enable the utilities to formulate their strategic plans the *governmental level* must provide **key performance indicators** the utilities have to fulfil. As shown in the figure above the National Economy and Social Development Plan (NESDP) will be the main source to any further planning model. Out of the NESDP an Energy Sector Plan (ESP) will be formulated. Both plans will focus on key performance indicators. The NESDP delivers the framework, the ESP provide in more details these indicators form the governmental level. Table 5.1 show some indicators, without in any way implying that the list is complete.

Cost efficiency		
1	Fuel rates	kJ/kWh or gram/kWh sent out
		Coal Fired, or Oil Fired Steam Plants
		Gas Turbines
		Combined Cycle Plants
		Diesel Plants
2	Reserve margin, or ratio of available capacity (percentage or hours/year)	
3	Availability of plant (percent of year or hours/year)	
4	Total system losses (energy sent out less energy billed)	
Service to the public		
1	Loss of load probability, or outage rate	
2	Coverage; percentage of population with access to electricity	
3	Impact on the environment	
Price efficiency		
1	Real finance rate of return	
2	Self financing ratio	
3	Billing and collection efficiency	
4	Debt to equity ratio	
5	Demand management	
	Time-of-day tariffs and penalties to cover actual cost of service	
	Incentives to contain peak loads	

Table 5.1 Measures of efficiency adapted from Anderson, July 1994, World Bank FPD Note No 15

5.2. Planning Approach for the Utilities (EEA and PCE)

The strategic planning exercise should mainly be carried out by the utilities themselves with considerable contribution of the DoE. The planning process itself has to start with the development and definition of the **corporate mission** of EEA and PCE. In diversified corporations, there are two levels of such strategies:

- Corporate-level** strategy addresses the following issues:

What business the corporation should be in?
 What form should the corporation's investment take in each business?
 What linkages between the corporation's business units should be fostered to create added value?

- Business unit** strategy addresses the following issues:

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

What markets/market segments should be served?
 What products should be offered in these markets?
 What strategic direction in each market? Grow? Maintain?
 What core competencies does the corporation need?
 How should the business functions be configured/operated to support the business strategy?

The corporate-level strategy establishes what business the organisation should be in (the business scope), and how it can manage the collection of business units to create synergy. The business unit strategy is concerned with how to create competitive advantage in each of the organisation's businesses. The two levels of strategy have to be addressed through a process of matching the opportunities and threats in the environment to the strength and weakness of EEA and PCE as a whole (see also figure 5.2).

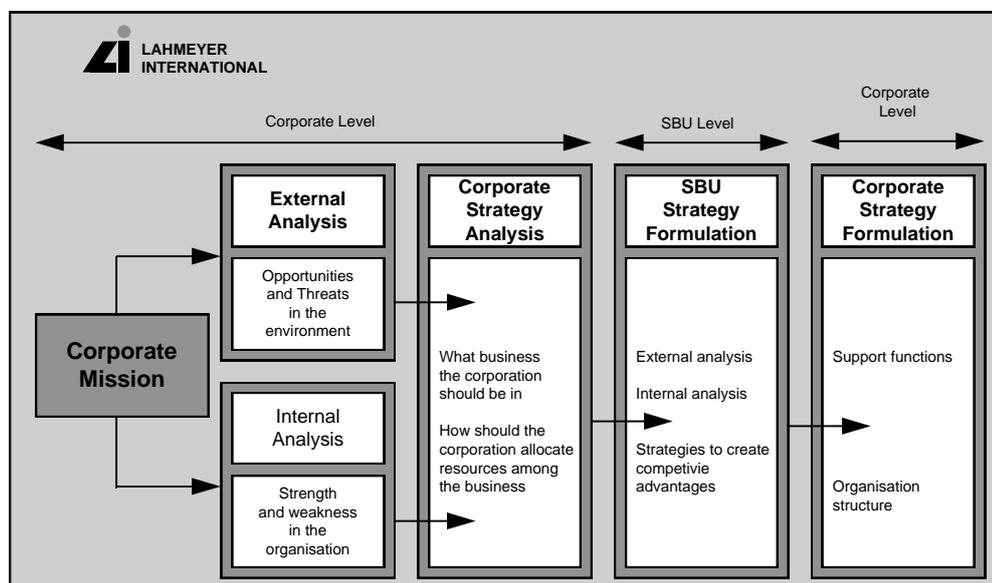


Figure 5.2 The strategic planning process

5.2.1. The tasks of the planning process

The strategic planning exercise consist of nine different tasks as shown in figure 5.3.

- Task 1 Formulate Mission and Vision
- Task 2 Conduct SBU analysis
- Task 3 Identification of Planning Issues and Guidelines
- Task 4 Formulate SBU Strategies
- Task 5 Formulate Corporate Level Strategies
- Task 6 Review Strategies
- Task 7 Prepare Corporate Level Action Plan
- Task 8 Prepare SBU Action Plans
- Task 9 Consolidation of SBU and Corporate Level Plans

The implementation of the planning process should be processed under the responsibility of a **Management Consultant**. Both, his independence and experience, will lead the main representatives of the Eritrean energy sector to

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

formulation of the ESP. The strategic planning process has to be carried out once; the ESP has to be continuously reviewed and updated yearly.

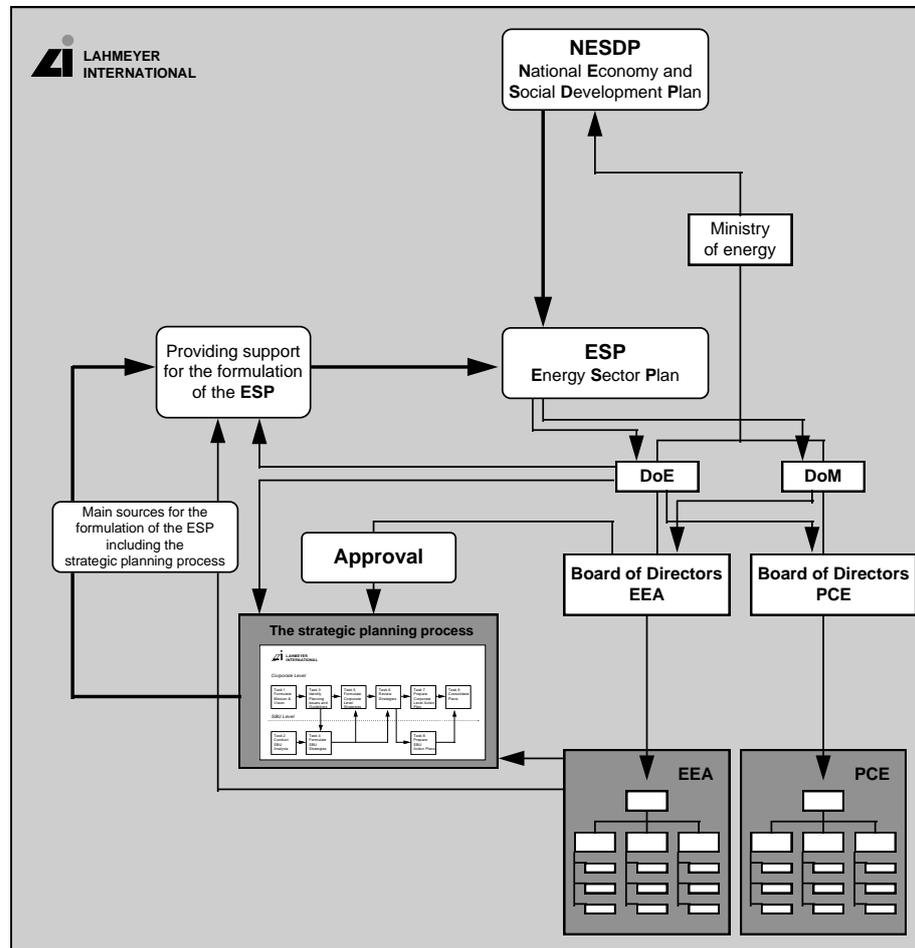


Figure 5.4 Flow of information concerning the formulation of the ESP

The DoE plays a key role within this complex planning process. The Director General of the DoE should be a member of the board of directors of both utilities. The second obligation is to provide the actual information about the performance of the utilities to the Governmental Level, to enable them, to adjust their overall planning activities concerning the NESDP formulation. A third responsibility of the DoE is the participation in the strategic planning exercise of the two utilities.

6. Human Resource Development (HRD) strategy for the energy sector

6.1. *The integrated HRD strategy*

In many discussions with representatives of the Ministry of Energy and Mines it revealed that the energy sector of Eritrea has to start at 'point zero'. Other interviews however have shown that within the existing utilities EEA and PCE there is a considerable expertise available. Considering these facts it is of great importance to implement an integrated HRD strategy for the entire sector. This integrated approach will prevent that necessary human resources will be developed several times in different institutions. Also an overall human resource analysis will contribute to both an effective and economic development of expertise and know-how.

6.2. *The role of the DoE as a co-ordinator of the implementation*

Within this integrated approach the DoE could serve as an overall co-ordinator of the implementation of the HRD strategy, but the utilities EEA and PCE should keep their independence concerning the HRD. This seemed to be a contradiction, but co-ordination does not mean to take over the actual responsibility for staff recruitment and staff development. The main task of the DoE co-ordination role is to avoid a parallel building up of expertise and know-how within the energy sector. To set the DoE in a position to serve as a co-ordinator of the overall HRD strategy all concerned units (utilities and departments) of the entire energy sector have to announce their actual staff needs and the specific requirements (tasks) for the jobs to be filled.

6.3. *Staff planning and staff development*

Staffing problems can and should be handled by proper planning and implementation of a staff management programme. These programmes need clear objectives whether linked to short- or long-term goals. Also a clear definition of procedures is necessary. A comprehensive staff planning and development programme can show where the needs are and how to address them. The essential part, however, is to implement the programme. The planning process has to start with a comparison of the present situation with **achievable goals**. The assessment of the present situation involves the evaluation of existing qualifications and performance of individuals. This must be done in a fair manner, and it must be perceived as fair among the assessed employees. Defining the utilities' goals requires assessing the organisational structure, work practices, productivity, and appropriateness of the technology. These tasks require persons with experience and understanding of the **local needs** and conditions. After this a decision has to be made concerning the skills that are missing in the corporations; whether it is reasonable to hire people from the outside; or whether it can be effective to invest in upgrading and training existing staff. The general rule is not to attempt too fundamental a change but rather to work towards the ideal situation gradually in small but feasible steps. The essential part is to define a programme that is capable of being implemented rather than striving for something conceptually perfect from the very beginning¹

¹ Staffing, Career and Training Issues, Gregory Fazzari, Paper sponsored by Deutsche Gesellschaft für Technische Zusammenarbeit, gtz, Germany.

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

7. Training strategy for the energy sector

The entire energy sector of Eritrea needs a tremendous amount of training to fulfil the future tasks to be carried out, necessary for the development of the entire sector. The training to be implemented has to consider both, the existing know-how within in the different institutions, and the necessary improvement of the staff concerned. The provided recommendations will sufficiently consider the existing training institutions of Eritrea, but additional training possibilities must be developed to cover all training needs of the sector. If training measures should be successful and cost-effective, training needs have to be seriously assessed. A training need analysis (TNA) could provide this information about training objectives to be achieved by the training programmes.

7.1. Basic training for newly recruited staff

The number of training facilities in Eritrea is still behind a desired standard. However, there are institutes, which can supply the energy sector with graduates. The **University of Asmara** offers an engineering programme, which can partly meet the demand of Eritrea's utilities, however, a lack of qualified graduates still exists. The curriculum is developed with extensive contribution of DoE and EEA, and further adaptations to the real needs of the industry sector of Eritrea also happens with their additional support.

7.2. Further training measures for existing staff

Training plans for existing employees of the energy sector must consider both, the present capabilities, and future requirements according to the jobs to be carried out. Two sorts of training should be introduced to employees of the utilities EEA and PCE: (1) on-the-job training, and (2) training courses according to the assessed objectives.

On-the-job training must be provided by every future Contractor to be assigned for any new erection or rehabilitation of equipment (plants, networks, grid, and power plants). The concerned Terms of Reference for those Contractors must cover these training elements. To avoid unsatisfying training results, the Contractor should carry out a **training need analysis** (TNA) in advance. The elaborated objectives, and the assessed lacks of know-how, should serve as indicators for the training to be developed. Standard training modules, often offered by Contractors, in many cases do not fulfil the expectations and real needs for utilities of developing countries. They often do not consider a lack of basic qualification, no matter if the participants come from university, or high schools. Especially on-the-job training measures for skilled or unskilled workers revealed these lacks of sufficient consideration concerning the basic education of the participants.

Similar experiences often have been made concerning training measures, carried out abroad, by Contractors. In many cases the conducted standard training courses only followed so-called Western learning behaviour, and did not consider the origin of the participants, and their common learning style. To tackle these problems it is recommendable to involve an **independent training consultant**. He should assume the position of a training project manager. His main tasks should be:

- (1) to carry out a training need analysis,
- (2) approve the proposed training, concerning
 - (2a) the training objectives,
 - (2b) the training methods, and
 - (2c) the training contents.

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

Finally the training consultant should carry out a **training evaluation**. The evaluation will provide a comprehensive overview about the training results, and will further more determine, if there is additional training necessary, to prepare the participants for their job requirements.

7.3. Introduction of adequate training methods

Training success is very much dependent on the methods applied during the training sessions. The preparation of utility employees for their tasks cannot be achieved by providing them theoretical frontal lessons. A mix of different training methods is indispensable. The participants should meet comparable circumstances as they are confronted during job performance. An adequate approach is the implementation of case studies within the training measures.

7.4. Training strategy for DoE staff

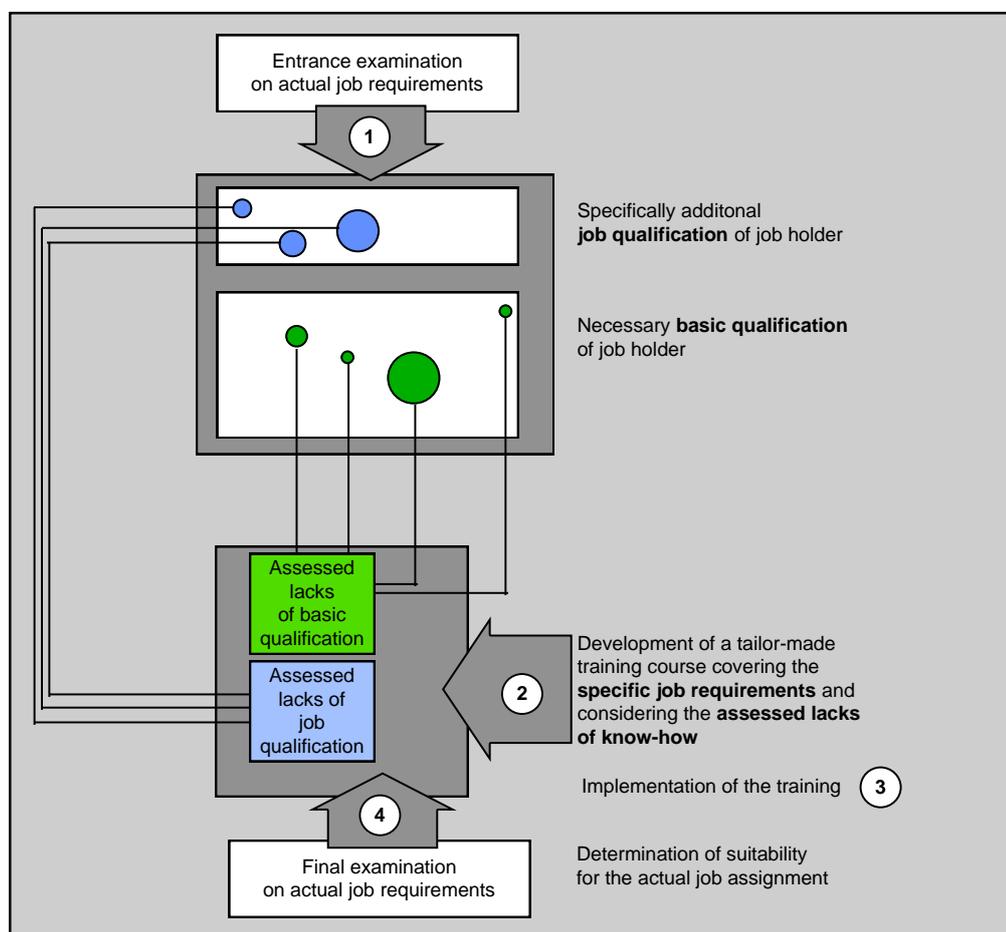


Figure 7.1: Different training approach for the DoE

The DoE predominantly needs **high** qualified staff with precisely defined capabilities. Such circumstances require a deviating approach to enable the assigned staff for their future tasks and responsibilities. The approach is shown in **figure 7.1**. Within this approach the implementation of a training need analysis is replaced by two examinations to assess the real needs of both, basic qualification, and job related qualification. The result of the examination allows the development of tailor-made training courses, which precisely cover the training needs of the intended job holder.

**Report on
Human Resource Development Strategy
for the Energy Sector of Eritrea**

A first step to develop qualifications for the positions to be assumed, could be a more **close co-operation with** hired **Consultants**. These consultancy services should provide a suitable know-how transfer, which enables the members of the DoE, to contribute adequately to these services. The experiences, gained out of these co-operations, should enable the DoE members to cause further services required, and to evaluate the delivered results of those services. The DoE should not try to achieve a position of independence from consulting services, because also in future, their implementation must be carried out by **independent** Consultants.

Self Study Materials for the DoE

Within the DoE a high awareness is developed also to make intensive use of auto-didactic training measures. As a first source a training series of EDI could serve for this kind of self-conducted training. This series of eight modules contains a selection of readings for the **Energy Policy and Planning** Seminars conducted in Sub-Saharan Africa by EDI. Each module includes a curriculum description, a summary of each of the training modules, and a partial listing of the readings for the whole seminar. These seminars emphasise discussion of policy issues and measures designed to encourage efficient consumption, production options, and development plans in the energy sector.

251/015

Module 1: **Introductory Concepts**

1990 * 216 pages * Shelf No. E9098 * Languages: E *

251/017

Module 2: **Basic Economic and Cost-Benefit Analysis Concepts**. Parts 1 + 2

1990 * 474 pages * Shelf No. E9109 * Languages: E *

251/018

Module 3: **Energy Demand and Supply Issues**. Parts 1, 2, and 3

1990 * 909 pages * Shelf No. E9118 * Languages: E *

251/019

Module 4: **Planning Models**

1991 * 256 pages * Shelf No. E9121 * Languages: E *

251/020

Module 5: **Pricing and Conservation Issues**. Parts 1 and 2

1991 * 517 pages * Shelf No. E9122 * Languages: E *

251/026

Module 6: **Energy Supply Strategy Issues**.

Parts 1 and 2

1991 * 689 pages * Shelf No. E9147 * Languages: E *

251/027

Module 7: **Renewable, the Environment, and Planning**

1991 * 152 pages * Shelf No. E9148 * Languages: E *

251/028

Module 8: **Energy Planning and Policy Formulation**

1991 * 89 pages * Shelf No. E9149 * Languages: E *

7.5. Training Strategy for EEA

7.6. Training Strategy for PCE