1.3 The Objectives Of This Study

It is the intention of this paper to find ways on how to spend the budget more effectively. Specifically, this paper:-

a) examines the past and present expenditures on the maintenance budget for the department,

b) identifies the most cost effective solution on the maintenance expenditure for the department and TNB,

c) suggests recommendation for improvement.

The main strategy is to maximise the usage of the workforce, cut unnecessary spending and increase efficiency. If the expenditure is excessive, it may result in underutilization of workforce and resources. In the past five years, the method of estimating the yearly budget had been similar and no effort was made to identify ways of reducing operating cost as this has been a routine practice and standard operating procedure (SOP) of TNB. The findings of this study will provide insights into TNB’s management and show that there is a cost effective solution on maintenance expenditures and also make the department more efficient.

2.0 Literature Review

2.1 Capital Budgeting

Steve Hackett (1996) in his article about Capital Budgeting, said that in capital budgeting, marginal revenue is measured in terms of the incremental cash flows generated by the expenditure, while marginal cost is measured in terms of the cost of new investment capital. The term capital
budgeting refers to the process of a firm planning expenditures that will generate income which is expected to flow into the firm over a multi-year period. In other words, capital budgeting is a way of making long term investment planning decisions.

Budgeting is not just part of the cost-control apparatus, but it is also part of an important tool for planning. The timing of cash flows resulting from capital expenditure is extremely important for maintenance decision. Reasonable estimate is very important to ensure that it will not effect the nature of other planning budgets. In Transmission Maintenance Department, the income generated is from the sale of electricity to consumers.

Successful firms must continuously evaluate their products and services. The following is a common way in which firms classify capital expenditure projects:-

a) Replacement projects: Investments in new equipment to replace old, worn-out or damaged equipment.

b) Cost Reduction Projects: This is where cost-reducing technological innovation decisions are made - should the firm replace existing equipment with new equipment that operates more efficiently?

c) Expansion Projects: Expenditures to increase the availability of existing products and services.

These investment decisions are somewhat complex, since they require forecasts of future demand conditions. As a consequence, expansion projects are often rather complex.
At an abstract level, capital investments are similar to financial investments in things like stocks or bonds. A lump-sum payment is made to acquire the right to an income flow.

2.2 Steps In Capital Budgeting

a) Evaluation of the cost of the job. This is similar to the cost of acquiring a portfolio of stocks and bonds.

b) Cash flow estimation. This is the most important, and the most difficult, aspect of the analysis of capital budgeting.

c) Risk Analysis. This part of the analysis requires an estimate of the range of possible outcomes of the capital investment project, and an assignment of probabilities to this possible outcome.

d) Discount Rate. Given the risk characteristics of the project, and the cost of funds under riskless conditions, the company must select the appropriate discount rate, or implicit cost of capital, at which the cash flow of income from the project will be discounted to yield a present value.

e) Present Value Of Cash Flows. Future cash flows are converted to a lump-sum present value using the discount rate.

f) Cost/Benefit Analysis. Compare the present discounted value of cash flows to the cost of the investment to determine whether or not the project is feasible.

2.3 Cost Planning And Budget
A successful maintenance job is one that meets its stated objectives and is completed on time with satisfactory results and within the approved budget. A maintenance work which is delivered late is almost guaranteed to exceed its budgeted cost. The following items will have to be considered when planning the budget.

a) Labour - wages paid to staff for the time spent working on the job.

b) Materials - cost of items purchased for the job.

c) Tools & Supplies - the portion of the cost of purchased item that will be written off against the work including expendable tools, temporary power, safety equipment, and so forth.

d) Administrative Costs: cost of job management and support services such as purchasing, accounting, clerical, etc, for the time dedicated to the job.

e) Engineering: cost of design work to produce drawings, specifications and other technical documentation required for the work, either contracted our or provided on a charge-out basis.

f) Contingency - an allowance added to the estimate to cover unknown items that might arise, for example extra overtime.

In order to know whether or not costs are staying on target during the course of the work, planning on the budget expenditure must be in relation to the progress of the work. This will be applied to when the funds are committed and are due to be spent.

Welsh (1976) says that labour costs, in the broad sense, are composed of all expenditure for those employed by the firm: top executives;
middle management personnel, staff officers; supervisor; foremen; skilled workers, and manual labourers. Labour is generally classified as direct and indirect. Direct labour costs consist of the wages paid to employees who are engaged directly in specific work. As with direct material costs, labour costs that can be directly traced to specific production are defined as direct.

Indirect labour involves all other labour costs, such as supervisory and storekeepers salaries, wages paid to tool-makers, custodians, and so forth. Direct material and labour costs are frequently referred to collectively as the prime cost of a product. Careful planning of direct labour requirements can benefit a firm in a number of ways:

a) The personnel function can be more efficiently performed because there is a basis for effective planning, recruitment, training, and utilization of manpower.

b) The personnel department can be better organised as a result of knowing the volume of activities expected of it.

c) The finance function can be more efficiently planned and carried out because labour may represent one of the largest demands on cash during the year.

Knowing the direct labour cost enables the finance section to estimate by interim periods the cash requirements for labour.

The budgeted cost of the job can be developed. This cost may be an important factor in several areas of decision-making such as pricing policy and union negotiations.
2.4 Control And Reduction Of Direct Labor Costs.

Control of direct labour costs may be a major problem facing the management. Effective labour cost control depends on consistently competent supervising, direct observation, and individual contact with the workers by foremen and supervisor. However, there is a definite need for standards by which the supervisor may gauge performance.

Planning the work flow and arrangement of supplies and equipment may have a definite effect on direct labour costs. From these brief observations, we see the two primary aspects of the control of direct labour costs:

1) the day-to-day concern with such costs; and

2) the longer term in reporting and evaluation of results.

2.5 Privatization

Madsen Pirie (1988) said that the private production of services has been assessed in terms of such normal commercial criteria as profitability, efficiency and consumer satisfaction. Private undertakings are usually judged by comparing their performance with that of their rivals, public activities have often been judged by comparing the outcome with intended performance. In socialist economies this reaches its ultimate point when economic performance is assessed in terms of whether the targets of a five year plan have been attained.
Labour costs are often the key to differences in efficiency between the private and public sectors. Public sector activities appear to be more vulnerable to the pressures which increases labour costs. The key factor here seems to be the ability in the public sector to pass on the results of working agreements directly to the paymaster who finance the activity. A private business does not have the same freedom, since parties have to be kept competitive. Thus, within the private sector there is a greater propensity to negotiate working agreements with more concern for the effect on costs.

Private businesses are characterised by labour agreements which, for most part, allow flexible use of labour in terms of time and skills. It is primarily in the public sector that restrictive work practices abound, that agreements specify that only certain classes of employees shall perform certain type of tasks, and that unions are able to limit work at unpopular hours for their members. Although the unions and the administrations are on opposite sides in labour negotiations, in the public sector it is easier for each to meet the other’s needs. In the private sector, the consumer is a tacit party to such agreements. If the consumers do not accept the higher costs reflected in higher prices, they can take their trade elsewhere. In the public sector, the consumer in normally captive, and has no other option to turn to.

The consumer is able to exercise a degree of control on private firms by deciding whether to shop with them or seek satisfaction elsewhere. The goods and services have to be oriented toward consumer satisfaction in order to attract consumers and make profits. They have to be the goods and
services which consumers will choose to buy, and they have to offer a variety and the quality which is sought. Where the public has no choice but to pay and take what is provided, as is usually the case in the public sector, this degree of control is absent. Some public sector activities clearly are serving the interest of their own workforce more than the interests of their consumers. Sometimes, in the public sector, the central aim of the activity is sometimes shifted from the production of goods for consumers to the provision of jobs for workers.

Decision making in the private side of the economy is based heavily on economic factors. The choice of when to expand, which level of service to achieve, and the determination of a price - are decisions made on the basis of economic considerations. Firms have to gear their decision-making to the market. They have to deal with the level of demand and the price and availability of capital. And they have to use their knowledge in the market.

Private businesses tend to keep their equipment in top condition. To the private firm it is capital to be protected. Its condition affects both its use and the demand for it. A clean, modern and well-kept equipment is often the dramatic contrast between a private facility and a public facility.

In the private sector, a labour dispute in one firm threatens only its own consumers; a labour dispute in a public firm threatens everyone. This gives great power to the labour force. Given the many interested parties competing for the public funds, it is almost inevitable that this power will be deployed from time to time as the labour force seeks to pursue its own interests. It is too powerful a weapon not to be used in pursuit of better