

# Engineering Consulting Specialist Studies



## Tariff Studies & Analysis

Tariff analysis studies are done for a spectrum of businesses from small utilities and industries through to large utilities and industries. The impact of changes in both purchase and selling tariff structures are evaluated. Existing tariff levels and structures for electricity are tested against applicable regulatory and /or governmental requirements and recommendations are made accordingly.

All modern day tariffs, including customized tariffs, Real Time Pricing (RTP) and Time of Use (TOU) are included in our range of tariff analysis studies. An additional service for logging electricity usage data and collecting critical data, necessary for tariff studies is also offered.

### Products & Tools used:

Microsoft Access based software as well as specialized Visual Basic applications to calculate cost reflective tariffs, have been developed in-house. This software together with another locally developed program called PMax, is used for most of the tariff studies.

### Methodology:

A typical basic investigation involves applying different tariffs to measured load profile data in order to compare the resulting cost implications.

More advanced studies involve, analysing the impact of selling tariff structure changes on both utility income levels and cross subsidization levels between customer groups.

A program for changing tariffs to comply with regulatory requirements can then be compiled and tested for financial viability.

RTP (Real Time Pricing) tariffs are evaluated by creating CBL (customer base load) profiles and applying real time pricing principles.

When designing cost reflective tariffs the following process is followed:

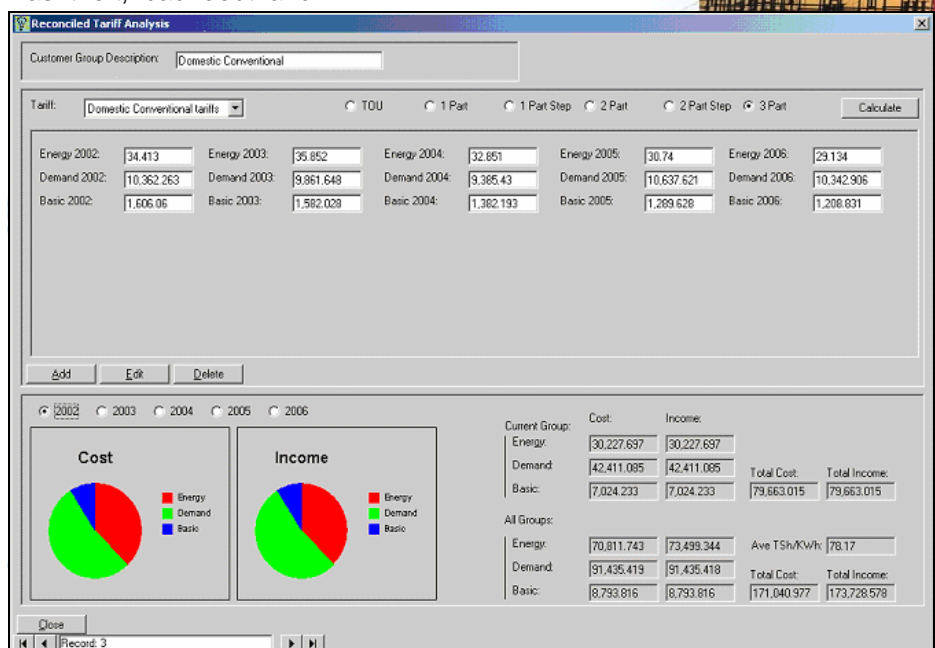
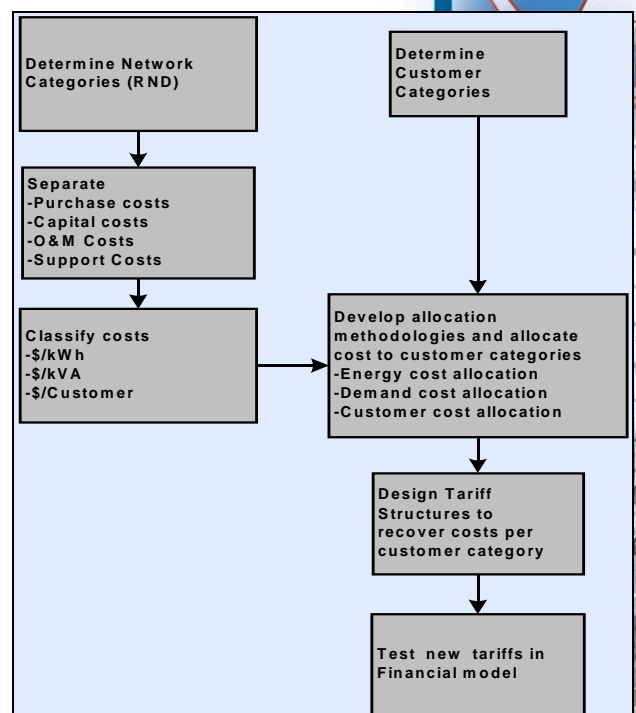
**Phase 1:** The allocation of all the direct costs of electricity supply and the calculation of pure cost reflective tariffs, which is the main focus of the methodology.

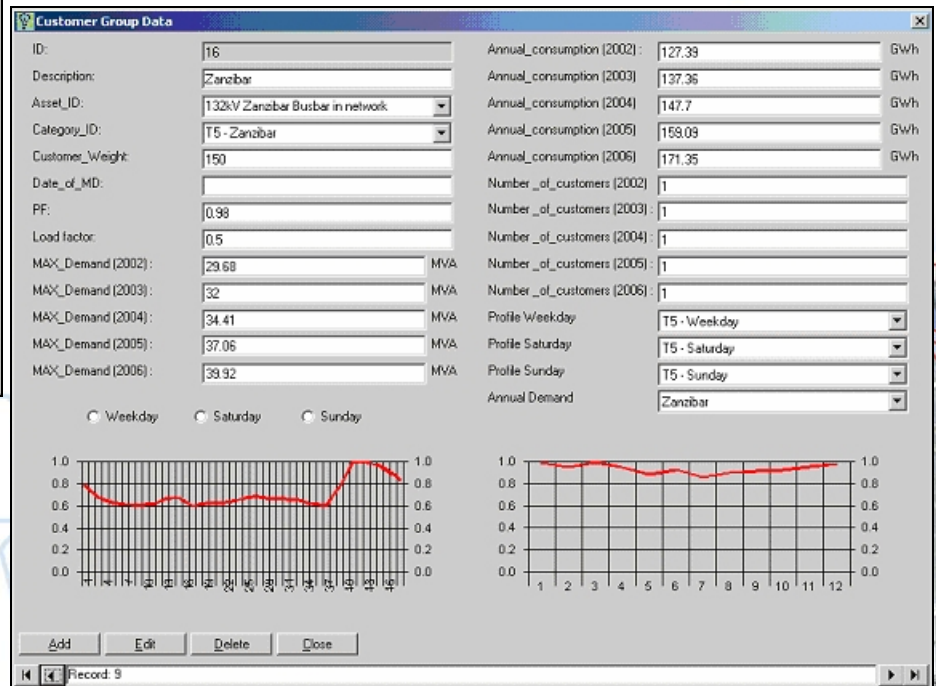
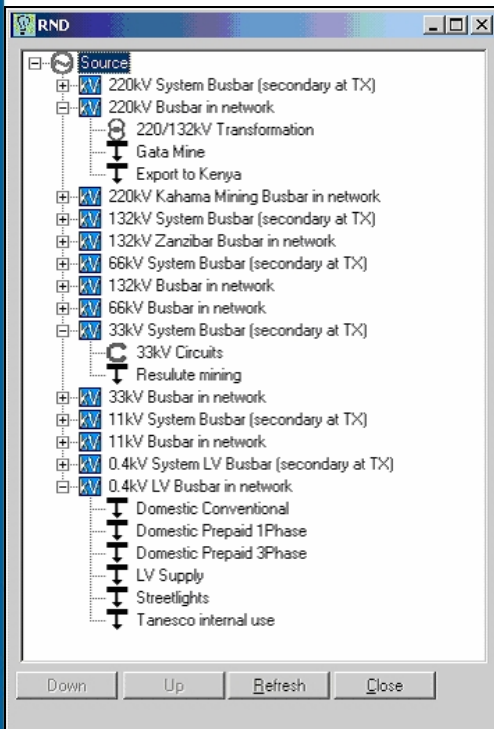
**Phase 2:** The pure costs are adjusted to account for any costs relating to non-technical losses such as theft, bad debt and revenue protection.

**Phase 3:** In this phase, the results of phase two are adjusted to include any returns that stakeholders demand and that the utility is allowed to recover.

**Phase 4:** This phase of the methodology includes adding costs for taxes such as contributions to a rates fund or levies imposed on the electricity distribution industry by the government.

**Phase 5:** In this phase the pricing policy of the utility is used to formulate prices from costs. Issues such as capital contribution and socio-economic subsidies are built into the costs according to the pricing policy of the utility.





## Major Projects Completed:

In the recent past, tariff related studies were conducted for the following clients:

- Tanesco (National Utility Tanzania)
- SFPC (National Utility Zanzibar)
- Krugersdorp Municipality
- Rustenburg Municipality
- City Power
- Manguang Municipality
- Various smaller Municipalities
- Samancor
- Middelburg Ferro Chrome
- Sapref

