

# **Technical Report:**

## Review of the Southern African Development Community (SADC) Energy Sector Activity Plan

Gloria Magombo – Energy Advisor

Submitted by: AECOM International Development

> Submitted to: USAID/Southern Africa

Gaborone, Botswana

December 2009

USAID Contract No. 690-M-00-04-00309-00 (GS 10F-0277P)

P.O. Box 602090 ▲ Unit 4, Lot 40 ▲ Gaborone Commerce Park ▲ Gaborone, Botswana ▲ Phone (267) 390 0884 ▲ Fax (267) 390 1027 E-mail: info@satradehub.org



#### 1 Background

The Southern African Development Community (SADC) Energy activity plan was prepared by a taskforce which comprised independent consultants from the region appointed at the end of 1999. This was after the approval of the SADC Energy Sector Action Plan in Arusha, Tanzania in 1997 by the Energy Ministers as a framework for elaboration of a more detailed and operational plan.

The rationale for the Activity Plan was a common desire to position the energy sector such that the region can derive maximum benefits from a *rationalisation of resources and facilities in the region*, and to develop initiatives that contribute to building the capacity of energy institutions in the region to participate effectively in future liberalisation of the energy sector, as well as in the regional economy.

The Activity Plan indicates the activity to be undertaken, the responsible body and the time frame (i.e. indicating the start and completion dates). Where possible, it also gives an estimate of the financial resources required to implement each activity.

The Activity Plan is time bound, clearly indicating activities to be undertaken within a five year period. The activities are prioritised, taking account of criticality/importance as well as timing needs. However, it was assumed that the Activity Plan will be a 'living' document to be updated on a regular basis in order to reflect any changes in SADC's policies, strategies and priorities. This has not been done in the last nine years.

#### 2 The Composition of the Plan

The present Plan was prepared on the basis of a review of the following documents:

- SADC Treaty;
- SADC Energy Protocol;
- SADC Energy Corporation Policy and Strategy (1996); and
- SADC Energy Action Plan (1997).

The Plan was finalised in 2000 and used at the SADC Energy Sector Round table held in October 2000. It was also supposed to form basis for the foreseen SADC Energy Commission and Technical Unit transition from SADC TAU in Luanda. However, SADC was restructured and all the technical units were downsized and brought to Gaborone, Botswana.

The SADC Energy Activity Plan is a comprehensive document listing a high number of activities spread over four focus areas.

## 2.1 Energy Trading

Regional energy trade remains a high priority. The SADC countries are generally rich in a variety of energy resources, although the specific resource base differs considerably from country to country. The features of energy consumption are also far from uniform across the region – reflecting considerable differences in economic strength and structure, as well as demographic and geographic characteristics. The disparities in energy resources and consumption provide a strong rationale for the integration of the sector and for the promotion of regional energy trade. On the other hand, it should be recognised that the same disparities may constrain certain SADC Member States in their ability to engage vigorously in regional energy trade. To enhance the development of regional electricity and energy trade, the proposed Activity Plan included the following initiatives:

- Formation of RERA;
- Harmonization of petroleum sector policies and regulations (REPGA);
- Southern Africa Power Pool (SAPP) Pool Plan;
- Energy Wheeling on the SAPP System- study to review wheeling charges;
- Short term energy market (Stem); and
- Capacity building of SAPP.

#### 2.2 Investment and Finance

The SADC energy sector requires large investments in the next decade or so. At the time of developing the plan, the private sector was increasingly being approached to provide finance and skills - primarily linked to new capacity, but also in terms of financing rehabilitation of existing energy infrastructure and to expand delivery of energy services in an efficient manner. Most countries still had low rates of commercial energy availability and, consequently, policies and programmes were being put in place to remedy this, framed within the following objectives:

- Investments in the energy sector should be the vehicle for promoting economic growth and social well-being in the region;
- Energy developments compete with other investments aimed at contributing to this overall objective and should be executed only if they prove beneficial in terms of inter-sectoral allocation of scarce funds;
- Investments in the sector should demonstrate advantages against competing initiatives that provide the same services, and result in the lowest life-cycle cost solution;
- Wherever possible, investments should be assessed using a total system approach (e.g. integrated energy planning/integrated resource planning – IEP/IRP). This requires a comprehensive definition and valuation of the alternatives for the sector, both in terms of supply side expansion and demand side initiatives and interventions; and
- While application of IEP/IRP methodologies was promoted, pursuit of market liberalisation and private participation implied that investment decisions should increasingly be decentralised and left to the investors and financiers. The role of governments will be to facilitate private sector investments and to establish the necessary legal, regulatory, institutional and financial frameworks to provide sufficient comfort to investors, financiers and energy end-users.

A multitude of potential sources for investment and financing of energy development programmes existed at the time – both in the SADC Member States and internationally. These included private commercial financing, private non-commercial financing and public financing as indicated below:

|   | Commercial Private  | NGO and Non-<br>Commercial<br>Private   | Public  |  |  |  |
|---|---|---|---|--|--|--|
| Domestic<br>(i.e. in the<br>SADC<br>Member<br>States) | <ul> <li>Direct investment<br/>(upstream and<br/>downstream by<br/>energy<br/>companies)</li> <li>Formal lending<br/>agencies (e.g.<br/>banks, leasing<br/>companies)</li> <li>Venture capital</li> <li>Informal credit<br/>entities</li> <li>Individual<br/>investors</li> </ul> | <ul> <li>Energy NGOs</li> <li>Community<br/>based<br/>organisations<br/>and<br/>communities<br/>themselves</li> <li>Charitable<br/>trust funds,<br/>foundations<br/>and<br/>endowments</li> </ul> | <ul> <li>Government<br/>Departments/<br/>agencies/<br/>enterprises/<br/>national utilities<br/>responsible for<br/>energy</li> <li>Development<br/>banks (state-<br/>owned)</li> <li>Government<br/>energy funds</li> </ul> |  |  |  |
| Foreign   | <ul> <li>Formal lending<br/>institutions (e.g.<br/>banks)</li> <li>Direct investment<br/>by international<br/>energy<br/>companies and<br/>agencies</li> <li>International<br/>venture capital</li> </ul>   | <ul> <li>International<br/>NGOs</li> <li>International<br/>benefactors</li> <li>International<br/>trust funds,<br/>endowments</li> </ul>  | <ul> <li>Bilateral donor<br/>agencies</li> <li>Multilateral<br/>agencies</li> <li>Special funds<br/>established by<br/>bilateral or<br/>multilateral<br/>agencies</li> </ul>  |  |  |  |

SADC looked into the rationalisation of funding resources and adopted an approach to donors that would secure funding on the basis that the projects or programmes in question would be most cost-effectively undertaken on a regional basis.

The report highlighted that for the regional strategy to work the Activity Plan for investment and financing would focus on the following key issues, namely:

Facilitation of financing of commercially viable regional investments projects. These relate mainly to the electricity, oil, natural gas, and possibly coal and new renewable sources of energy sub-sectors. The projects are predominantly focused on establishing infrastructure to facilitate and enhance regional energy trade. With investors perceiving high risks, risk reduction measures and credit enhancement facilities should be given considerable attention. Commercial financing could be applied to management contracts for regional energy facilities and initiatives. The regional and international energy industry could also be approached to cofinance management training and organisation capacity buildina programmes, and applied research and demonstration/pilot projects. Donorfunding and soft financing from multilateral development financing institutions should be used strategically to supplement the commercial

financing (equity and loans) obtained for regional investment projects. Hence, a key issue will be to promote an attractive investment climate for energy projects in the SADC region.

- *Mobilisation of finance for the biomass energy sector* through appropriate valuation of the existing biomass resource base (i.e. forest stocks) and leveraging finance on the basis of such valuation.
- The financing of priority pre-investment programmes, task force activities, expert assistance and studies as defined in the Action Plan. Funds for these activities should be sourced by SADC Energy Technical Unit from SADC governments, contributions from the regional and international energy industry, and from donor agencies. Increased emphasis should be given to the mobilising of private sector contributions for these leading activities, but without compromising the necessary monitoring and control to be undertaken by the SADC energy sector.
- *Mobilisation of climate change funding* to address the environmental concerns and challenges facing the SADC energy sector, to raise additional finance for sector developments, and to bring the energy sector's development in line with best international practises.

The activities which were listed for inclusion in this area were:

- Investment and finance taskforce;
- Joint SADC Petroleum Exploration program;
- Joint Hydro Development on Cunene River;
- Interconnection Angola-Namibia grids;
- Interconnection Mozambique Malawi (220kV);
- Interconnection Zambia Tanzania (330kV);
- Interconnection Zambia Malawi;
- Strengthening of DRC Zambia interconnection;
- Barrier removal for Renewable Energy Projects;
- Coal bed Methane Investigation and promotion not done;
- SADC Energy Investment forum; and
- Regional program for Traditional Energy Sector (RPTES).

#### 2.3 Training and Organisational Capacity Building

Training and capacity building were identified as important prerequisites for any organisation (regional and national) to succeed in achieving its mission. The high priority attached to human resource development derives from a realisation and conviction that the effectiveness and capacity of organisations in the energy sector need to be significantly enhanced for SADC to meet the challenges that it faces. Thus, the Energy Co-operation Policy and Strategy Document (1996) states that SADC needs well trained human resources to realise its objectives and to implement strategies for energy development. On this basis, the document proposes "... that a strategically based training programme with a long-term perspective should be included as a critical part of the overall SADC Energy Policy and Strategy." Such a programme would target key aspects of organisational capacity that SADC recognises as vital to the development of the energy sector and to successful cooperation between and among Member States.

The Strategy Document cites the following specific needs, amongst others:

- Professional managerial training at executive and middle management levels;
- Organisation development, including development of skills related to organisation efficiency, implementation of organisational change processes, implications of cultural factors and human resource development;
- Strategy development and strategic management;
- Energy policy, analysis and advocacy;
- Energy economic analysis;
- Finance mobilisation through climate change and clean development mechanisms;
- Administrative skills and financial control;
- Project planning and project management; and
- Procurement and negotiation skills.

These needs are found throughout the various energy sub-sectors. Consultation with the SADC Member States confirmed the above general priority areas, and it is proposed to include seven initiatives in the Activity Plan. Six of these build on a number of earlier approved energy sector projects, but combine these into a limited number of more focused activities as follows:

- Regional Petroleum Sector Training;
- Power utility capacity enhancement program;
- Kafue Gorge Regional Training centre;
- Rural Energy Planning and environmental training programme;
- Program for Biomass Energy Conversation (ProBEC);
- SADC Energy Management and Efficiency Programme; and
- Regional Integrated Energy Planning (RIEP).

## 2.4 Information and Experience Exchange

The overall goal for the SADC energy sector is to stimulate economic growth and development through efficient and rational use of the region's energy resources. The mandate of the sector is to secure energy supplies to Member States through regional co-operation. It also aims to develop appropriate energy technologies, rehabilitate energy facilities and increase efforts to conserve energy. In addition, at the policy level the sector aims to achieve harmonisation of energy polices, ensuring the provision of sustainable energy efficiently and cost effectively, promoting the development of human resources in the sector, promoting intra-regional trade in energy and ensuring that environmentally sound energy strategies are adopted.

As clearly stated in the Co-operation Policy and Strategy (1996) and the Action Plan (1997), systematic exchange of information and experience is a prerequisite to achieve the above aims and reap the benefits of regional energy co-operation.

Based on consultations with SADC Member States the areas that can benefit strongly from exchange of information and experience among stakeholders of the SADC energy sector are the following:

• Co-operation in energy sub-sectors that are characterised by a high degree of commonalties, e.g. biomass/woodfuel and NRSE;

- Co-operation to utilise synergies, e.g. standardisation, joint policies and strategies;)
- Co-operation to utilise economies of scale, e.g. provision of electric power and joint procurement of petroleum products;
- Co-operation to share resources, e.g. research and training; and
- Co-operation to strengthen the political impact of the SADC region in international bodies, e.g. joint representation in climate change fora.

Basically all initiatives described in this Activity Plan contain to a certain extent a component of information and experience exchange. However, those activities included in the table below are specifically designed to assist the SEC-TU, in facilitating effective exchange of information and experience in priority areas of energy co-operation were identified as follows:

- Information exchange on regional training activities;
- Information management centre for the energy sector;
- Regional energy planning network in the SADC region;
- Regional Rural Electrification Initiative; and
- Establishment of regional petroleum and gas association (REPGA).

The Plan had a five year perspective, and the activities had typically an end date before 2005, with some investment projects running up to 2006/7 and to current (2009). However, the status of many of the activities, in particular the Investment and Finance projects are much the same as when the Plan was prepared, nine years ago. Progress has been most visible on Energy Trading activities, and to some extent also on Capacity Building and Information Exchange a summary update on each project is attached in the Annex 1 below.

#### 3. Conclusion and Way Forward

As a conclusion, based on the interviews with various stakeholders in the region, mainly SADC secretariat and its subsidiary institutions SAPP and Regional Electricity Regulators Association of Southern Africa (RERA), it was agreed that there is a need to:

- Review and strengthen the SADC Energy Protocol;
- Review SADC Energy cooperation policy and strategy;
- Develop a new SADC Energy Policy and Strategy; and
- Develop Strategy implementation plan.

The need for and value of an update of the various guiding documents was discussed. It was generally agreed that to enhance regional projects it was necessary to promote a firmer legal status of the Energy Protocol. However, as this will be a time consuming process, it was argued that there is a more urgent need for simple statements and information to the higher political level. It was therefore suggested to encourage the SADC Secretariat to invite an international expert to give a presentation in the next Energy Ministers' meeting over the issue "See what happens if you do things right?"

# At the SADC Donors meeting these issues were discussed and it was agreed that the following action be taken as a way forward:

- Propose to the SADC Secretariat to invite an internationally acknowledged expert to present regional energy development options and consequences for the Energy Ministers at their next meeting.
- Encourage the SADC Secretariat to update and redesign the Energy Activity plan into a brief and more targeted policy document that also embraces more recent developments and priorities, and hence puts more emphasis on climate change, energy access, renewable energy and energy efficiency.

#### ANNEX 1: SADC ENERGY ACTIVITY PLAN 2000-2005: DECEMBER 2009 STATUS REPORT

The following table is a representation of SADC Energy Activity Plan 2000-2005. The last column illustrates updates since the original report.

| No.   | Activity<br>Name   | Start<br>Date | End<br>Date                         | Linkage                               | Priority | Primary<br>Responsib<br>Ie             | Others  | Role of<br>SEC – TU                         | Estimated<br>Costs<br>(mid-2000<br>value)               | Financing<br>Source                              | Update   |
|-------|--|---------------|-------------------------------------|---------------------------------------|----------|--|---|---|---|--|--|
| ET-01 | Regional<br>Electricity<br>Regulatory<br>Association<br>(RERA)                               | Jul-01        | None                                | Link to<br>ET-04 &<br>ET-05           | High     | SADC<br>Plenary<br>Committee           | Steering<br>Committee &<br>Technical<br>Secretariat | Member of<br>Steering<br>Committee          | N/A   | Membership<br>fees + initial<br>donor<br>support | RERA is in place and fully functioning.  |
| ET-02 | Harmonisatio<br>n of<br>Petroleum<br>Sector<br>Policies,<br>Regulation<br>and<br>Legislation | On-going      | Mid-<br>2004                        | Link to IF-<br>11 & IE-05             | High     | SADC<br>Petroleum<br>Sub-<br>Committee | SADC<br>Petroleum<br>Working<br>Committee           | Initiator,<br>Facilitator,<br>Monitoring    | N/A   | NORAD<br>(TBD)                                   | A study to explore the setting<br>up of a Regional Petroleum<br>and Gas Association, which<br>will look at the harmonization,<br>was completed in Nov 2008. A<br>constitution has been drafted<br>and will be finalized by the<br>SADC Petroleum<br>Subcommittee which will meet<br>in Nov 2009. |
| ET-03 | SAPP Pool<br>Plan  | On-going      | First<br>versio<br>n<br>02/200<br>1 | Link to<br>ET-04 &<br>ET-05           |          | SAPP<br>Managemen<br>t Committee       | Planning<br>and<br>Operating<br>Sub-<br>Committees  | Member of<br>SAPP<br>Executive<br>Committee | US\$1.0 –<br>2.0 mill<br>(estimate)                     | SAPP<br>Members +<br>World<br>Bank/DFID          | Second Pool Plan issued<br>August 2009. Pool Plan launch<br>planned for Apr 2010   |
| ET-04 | Energy<br>Wheeling on<br>SAPP<br>System  | On-going      | Mid-<br>2001                        | Link to<br>ET-01 &<br>ET-06           |          | SAPP<br>Planning<br>Sub-<br>Committee  | SAPP<br>Managemen<br>t Committee                    | Member of<br>SAPP<br>Executive<br>Committee | US\$ 0.35<br>mill                                       | DFID   | Revised through Sida funding.<br>Implementation under review.  |
| ET-05 | Capacity<br>Building at<br>the SAPP<br>Co-ordination<br>Centre (CC)                          | On-going      | None                                | Link to<br>ET-01,<br>ET-04 &<br>ET-06 |          | SAPP Co-<br>ordination<br>Centre       | SAPP<br>Operating<br>Sub-<br>Committee              | Member of<br>SAPP<br>Executive<br>Committee | US\$ 0.8 mill<br>(1st year +<br>project<br>preparation) | SAPP<br>Members +<br>USAID                       | Expired. New SAPP –EU<br>Capacity Building program<br>launched Aug 2009  |

| No.   | Activity<br>Name   | Start<br>Date | End<br>Date | Linkage                     | Priority | Primary<br>Responsib<br>Ie             | Others  | Role of<br>SEC – TU                          | Estimated<br>Costs<br>(mid-2000<br>value)                         | Financing<br>Source   | Update   |
|-------|--|---------------|-------------|-----------------------------|----------|--|---|--|---|---|--|
| ET-06 | SAPP Short-<br>Term Energy<br>Market<br>(STEM)                       | Jan-01        | None        | Link to<br>ET-04 &<br>ET-05 | High     | SAPP<br>Operating<br>Sub-<br>Committee | SAPP Co-<br>ordination<br>Centre                      | Member of<br>SAPP<br>Executive<br>Committee  | US\$0.135<br>for<br>development<br>, plus<br>subscription<br>fees | SAPP<br>Members +<br>other market<br>participants                   | The Short term energy market<br>last traded June 2007. Day<br>Ahead Market (DAM) being<br>introduced by December 2009  |
| IF-01 | Investment<br>and Finance<br>Coordination<br>Task Force              | Jan-01        | Jul-02      | Link to IF-<br>12           | High     | SEC – TU                               | SADC<br>Finance and<br>Investment<br>Sector           | Initiator,<br>Monitoring                     | US\$ 0.25<br>million  | Donor<br>support +<br>Member<br>States                              | No information available from SADC on this activity  |
| IF-02 | Joint SADC<br>Petroleum<br>Exploration<br>Programme                  | Jan-01        | Dec-<br>04  |                             |          | SEC – TU &<br>Member<br>States         | Petroleum<br>Sub-<br>Committee                        | Initiator,<br>Finance<br>Mob.,<br>Monitoring | US\$62.0 mill<br>(US\$19.0<br>mill under<br>negotiation)          | Member<br>States +<br>ADB,<br>Norway,<br>Canada,<br>Denmark         | The project was halted during<br>the SADC Restructuring. The<br>newly revamped<br>Subcommittee on Petroleum<br>and Gas will review the project<br>and ascertain the need.      |
| IF-03 | Joint<br>Hydropower<br>Development<br>on Cunene<br>River             | N/A           | N/A         |                             |          | Member<br>States<br>Angola/Nami<br>bia | National<br>power<br>utilities (ENE<br>&<br>NamPower) | Monitoring                                   | N/A   | Norway<br>(part-<br>financing,<br>pending<br>security<br>situation) | Still outstanding not much has been done on the project.   |
| IF-04 | Interconnecti<br>on of the<br>Angolan and<br>Namibian<br>Power Grids | N/A           | N/A         |                             |          | Member<br>States                       | SAPP  | Monitoring                                   | N/A   | Namibia +<br>Angola,<br>Commercial<br>sources                       | Discussion underway to develop the interconnection.  |
| IF-05 | Mozambique<br>– Malawi 220<br>kV<br>Interconnecti<br>on              | Jan-01        | Jun-04      |                             | High     | Member<br>States                       | SAPP<br>Planning<br>Sub-<br>Committee                 | Monitoring                                   | US\$35.8 mill   | Member<br>States +<br>ADB, SIDA,<br>NORAD                           | World Bank agreed to fund the<br>project on both sides.<br>Mozambique has signed a<br>Financing Agreement with the<br>Bank. However there are<br>delays on the Malawi side due |

| No.   | Activity<br>Name   | Start<br>Date | End<br>Date | Linkage                 | Priority | Primary<br>Responsib<br>Ie | Others                                | Role of<br>SEC – TU | Estimated<br>Costs<br>(mid-2000<br>value)            | Financing<br>Source   | Update   |
|-------|--|---------------|-------------|-------------------------|----------|----------------------------|---------------------------------------|---------------------|--|---|--|
|       |  |               |             |                         |          |                            |                                       |                     |  |   | to political reasons. There is<br>need to confirm whether the<br>new Government in Malawi is<br>committed to this project.   |
| IF-06 | Zambia –<br>Tanzania<br>330 kV<br>Interconnecti<br>on (private<br>ITC)   | Jan-01        | Dec-<br>04  |                         | High     | Member<br>States           | SAPP<br>Planning<br>Sub-<br>Committee | Monitoring          | US\$ 160.8<br>mill                                   | DFID (for<br>project<br>preparation);<br>private<br>investors | This is part of the Zambia-<br>Tanzania-Kenya<br>Interconnection. The project<br>was presented at the SADC<br>Investors Roundtable held in<br>August 2009. Parameters of<br>the project have changed due<br>to the time lag. The member<br>states have agreed to set up a<br>vehicle (Project<br>Implementation Unit) to<br>accelerate the implementation<br>of the project. A number of<br>partners have agreed to fund<br>the setting up of the PIU<br>through PPFs. |
| IF-07 | Strengthenin<br>g of<br>Interconnecti<br>on between<br>DRC and<br>Zambia | Jul-01        | Jul-04      |                         | High     | Member<br>States           | SAPP<br>Planning<br>Sub-<br>Committee | Monitoring          | US\$21.7 mill<br>(Ph 1),<br>US\$72.3 mill<br>(Ph 2)  | SNEL +<br>CEC; Private<br>investors &<br>financiers           | Under consideration  |
| IF-08 | Zambia –<br>Malawi<br>Interconnecti<br>on                                | N/A           | N/A         | Subseque<br>nt to IF-05 |          | Member<br>States           | SAPP                                  | Monitoring          | US\$58.5 mill<br>(220kV)<br>US\$99.9 mill<br>(330kV) | No indication   | Under consideration. Radial feed to Malawi.  |

| No.   | Activity<br>Name   | Start<br>Date | End<br>Date | Linkage   | Priority | Primary<br>Responsib<br>Ie  | Others   | Role of<br>SEC – TU                          | Estimated<br>Costs<br>(mid-2000<br>value) | Financing<br>Source                       | Update  |
|-------|--|---------------|-------------|---|----------|---|--|--|---|---|---|
| IF-09 | Barrier<br>Removal for<br>New and<br>Renewable<br>Energy (RE)<br>Projects      | Jan-01        | Dec-<br>06  | Link to IF-<br>10                                       | High     | SADC<br>NRSE Sub-<br>Committee                                      | UNDP –<br>GEF,<br>Member<br>States                             | Initiator,<br>Finance<br>Mob.,<br>Monitoring | US\$0.65 mill<br>(1st year<br>only)       | UNDP –<br>GEF Project<br>Dev. Fund        | The Subcommittee will be<br>revamped and will look at the<br>possibility of reviving this<br>project. The project might have<br>been overtaken by events.<br>SADC is currently exploring<br>the development of the RE<br>Policy and Strategy with the<br>help of REEEP and Finnish<br>Government who will be<br>implementing a project in this<br>sector. |
| IF-10 | Regional<br>Programme<br>for the<br>Traditional<br>Energy<br>Sector<br>(RPTES) | Ongoing       | Dec-<br>05  | Support<br>offered to<br>various<br>other<br>activities | High     | RPTES<br>Prog.<br>Managemen<br>t<br>(Zimbabwe),<br>Member<br>States | World Bank,<br>SADC<br>NRSE/<br>Woodfuel<br>Sub-<br>Committee  | Initiator,<br>Finance<br>Mob.,<br>Monitoring | N/A                                       | World Bank,<br>Gov. of the<br>Netherlands | Information of this project not available.  |
| IF-11 | Coal-Bed<br>Methane<br>Investigation<br>and<br>Promotion                       | Jul-01        | Jun-03      |   |          | SADC<br>Petroleum<br>Sub-<br>Committee                              | SEC-TU,<br>Member<br>States                                    | Initiator,<br>Finance<br>Mob.,<br>Monitoring | N/A                                       | Member<br>States +<br>donor<br>support    | Information not available   |
| IF-12 | SADC<br>Energy<br>Investment<br>Forum  | Ongoing       | Jun-01      | Link to IF-<br>01                                       | High     | Energy<br>Investors'<br>Forum Prep.<br>Committee<br>(EIF PC)        | SEC-TU,<br>new Sub-<br>Committee<br>on Planning<br>and Finance | Monitoring,<br>Organiser                     | N/A                                       | Member<br>States +<br>donors/spon<br>sors | This subcommittee was<br>dissolved during restructuring<br>of SADC. However the DBSA<br>is assisting SADC in facilitating<br>and identifying financing,<br>particularly for the power<br>sector.  |

| No.       | Activity<br>Name  | Start<br>Date | End<br>Date                        | Linkage           | Priority | Primary<br>Responsib<br>Ie                                   | Others  | Role of<br>SEC – TU                          | Estimated<br>Costs<br>(mid-2000<br>value)                                  | Financing<br>Source                                       | Update   |
|-----------|---|---------------|------------------------------------|-------------------|----------|--|---|--|--|---|--|
| СВ-<br>01 | Regional<br>Petroleum<br>Sector<br>Training                                       | Jan-01        | Dec-<br>05                         |                   |          | Petroleum<br>Training<br>Centre<br>(Angola                   | Petroleum<br>Sub-<br>Committee                              | Initiator,<br>Finance<br>Mob.,<br>Monitoring | N/A  | Member<br>States +<br>NORAD &<br>EU                       | To be considered under REPGA .   |
| СВ-<br>02 | Power Utility<br>Capacity<br>Enhancemen<br>t Programme<br>(UCEP) –<br>Pilot Phase | Jan-01        | Dec-<br>02                         |                   | High     | SADC HRF<br>Steering<br>Committee,<br>Implementin<br>g Agent | Electricity<br>Sub-<br>Committee,<br>SAPP                   | Promotion,<br>Programme<br>Co-<br>ordination | US\$4.8 mill<br>(Pilot Phase<br>only)                                      | SADC<br>Utilities +<br>donor<br>support                   | No feedback was given by SAPP ion this activity  |
| СВ-<br>03 | Kafue Gorge<br>Regional<br>Training<br>Centre                                     | Ongoing       | None                               | Link to<br>CB-02  |          | KGRTC  | ZESCO,<br>SADC HRF,<br>SAPP                                 | Promotion,<br>Monitoring                     | N/A  | Member<br>States +<br>donor<br>support                    | The Centre was set up and is up and running  |
| СВ-<br>04 | Rural Energy<br>Planning and<br>Environment<br>al Training<br>Programme           | Jul-00        | Jun-03                             | Link to IF-<br>10 | High     | NRSE/<br>Woodfuel<br>Sub-<br>Committee                       | ESAMI<br>(Arusha)   | Promotion,<br>Monitoring                     | US\$3.4 mill   | Member<br>States +<br>Government<br>of the<br>Netherlands | The 3 <sup>rd</sup> Phase of the<br>Programme ended in February<br>2008. A proposal for phase 4<br>was drafted which tries to<br>focus on capacity building for<br>the rural poor. The Dutch<br>Government co-fund 25% of<br>the budget. No other partner<br>has been identified to date.  |
| СВ-<br>05 | Programme<br>for Biomass<br>Energy<br>Conservation<br>(ProBEC)                    | Ongoing       | 12/200<br>1+<br>2002<br>to<br>2007 |                   | High     | ProBEC<br>Project<br>Managemen<br>t (in<br>Zimbabwe)         | NRSE/<br>Woodfuel<br>Sub-<br>Committee,<br>Member<br>States | Promotion,<br>Monitoring                     | ECU 2.3 mill<br>for 1st<br>implementati<br>on phase NA<br>for 2nd<br>Phase | EC +<br>Government<br>of Germany                          | The German Government<br>provided technical support to<br>the project for regional and<br>national coordination in the 7<br>countries they are operating in.<br>They have announced that<br>come 2010, they will pull out of<br>the project. An Exit strategy<br>was developed with liaison<br>with member states and is<br>being implemented. EU<br>funding available |

| No.       | Activity<br>Name   | Start<br>Date | End<br>Date | Linkage   | Priority | Primary<br>Responsib<br>Ie                                   | Others  | Role of<br>SEC – TU  | Estimated<br>Costs<br>(mid-2000<br>value) | Financing<br>Source                               | Update   |
|-----------|--|---------------|-------------|---|----------|--|---|--|---|---|--|
| CB-<br>06 | SADC<br>Energy<br>Management<br>and<br>Efficiency<br>Programme     | Jul-01        | Jun-05      |   |          | SEC – TU,<br>Member<br>States                                | Energy<br>Conservatio<br>n Sub-<br>Committee                                      | Initiator,<br>Finance<br>Mob.,<br>Monitoring                 | N/A                                       | Member<br>States +<br>donors<br>(CIDA?)           | Energy auditing equipment<br>was donated to a number of<br>Universities and industries in<br>the region but sustainability<br>has been a major challenge   |
| CB-<br>07 | Regional<br>Integrated<br>Energy<br>Planning<br>(RIEP)             | Jul-01        | Jun-03      | Link to IE-<br>03 & IE-02                         |          | SEC – TU,<br>Planning<br>Sub-<br>Committee                   | Electricity<br>Sub-<br>Committee,<br>SAPP   | Initiator,<br>Finance<br>Mob.,<br>Monitoring                 | N/A                                       | Member<br>States,<br>SAPP,<br>donors<br>(DANCED?) | Information n/a  |
| IE-01     | Information<br>Exchange on<br>Regional<br>Training<br>Activities   | Jul-01        | None        | Link to<br>CB-01,<br>CB-02,<br>CB-03 and<br>CB-04 | High     | Regional<br>training<br>institution (to<br>be<br>contracted) | Academic<br>advisory<br>board,<br>training<br>institutions                        | Initiator,<br>Facilitator,<br>Monitoring                     | N/A                                       | Member<br>States                                  | This project never<br>commenced. But it might be<br>necessary to review and<br>assess whether it can add any<br>value  |
| IE-02     | Information<br>Management<br>Centre for<br>the Energy<br>Sector    | Jan-02        | None        | Link to IE-<br>03                                 |          | SEC – TU   | SADC<br>Steering<br>Committee<br>on Libraries<br>and<br>Documentati<br>on Centres | Initiator,<br>Facilitator,<br>Finance<br>Mob.,<br>Monitoring | N/A                                       | Member<br>States                                  | No information available   |
| IE-03     | Regional<br>Energy<br>Planning<br>Network in<br>the SADC<br>Region | Ongoing       | Jun-03      | Link to<br>CB-07 &<br>IE-02                       |          | Planning<br>Sub-<br>Committee                                | Project<br>Office<br>AAA.0.8  | Facilitator,<br>Monitoring                                   | US\$2.5 mill<br>(TBD)                     | Member<br>States +<br>BTC                         | The BTC supported<br>programme ended in 2006.<br>SADC revived the network<br>activities and has since<br>produced the Energy Bulletin<br>for 2004/5 and 2007. A<br>regional training for energy<br>planners was carried out in<br>Nov 2008 with assistance of<br>USAID Trade Hub |

| No.   | Activity<br>Name   | Start<br>Date | End<br>Date | Linkage          | Priority | Primary<br>Responsib<br>le       | Others  | Role of<br>SEC – TU                    | Estimated<br>Costs<br>(mid-2000<br>value) | Financing<br>Source                              | Update   |
|-------|--|---------------|-------------|------------------|----------|----------------------------------|---|--|---|--|--|
| IE-04 | Regional<br>Rural<br>Electrification<br>Initiative                   | Jan-01        | Dec-<br>03  |                  |          | Electricity<br>Sub-<br>Committee | Power<br>Institute of<br>Eastern and<br>Southern<br>Africa<br>(PIESA) | Promotion,<br>Monitoring               | N/A                                       | Member<br>States +<br>PIESA                      | No further information on this project. It never commenced   |
| IE-05 | Establishmen<br>t of Regional<br>Petroleum<br>and Gas<br>Association | Jul-01        | Jun-02      | Link to<br>ET-02 |          | Petroleum<br>Sub-<br>Committee   | Petroleum<br>industry<br>representativ<br>es                          | Initiator,<br>Promotion,<br>Monitoring | N/A                                       | Membership<br>fees + initial<br>donor<br>support | Study undertaken. Energy<br>Ministers directed that further<br>work on the establishment of<br>REPGA be carried out by the<br>Petroleum and Gas<br>Subcommittee. |