1.0 Key Issues of Follow Up

The key objective of this mission was two fold:

1. To identify any investment opportunities at the Royal Swazi Sugar Corporation
2. To establish the magnitude of the impending tariff increase by Eskom

Based on discussions with key parties in the Swaziland and South Africa, the following key issues emerged and worth following up:

Investment opportunities: RSSC appears not to be a promising cogen investment opportunity. While RSSC is a net importer of electricity, the company feels that it can meet all its electricity requirements from without having to do any immediate expansions. However, RSSC plans to get rid of using coal by recovering trash and tops. Nevertheless, the Ubombo Sugar Factory might be an opportunity worth pursuing in the near future through Illovo, its parent company.

Tariff increases: Discussions with NERSA and Eskom indicate that tariffs are likely to go up by about 10%. The impending increase is likely to rise average tariffs from USc 3.0 to about US$ 3.30. Although this increase appears to be marginal, the regulator could grant Eskom an annual tariff increase of 1% + inflation. Consequently, in 2 - 3 years' time, Eskom’s tariff is likely to be in the range USc 4 - 5. In addition, NERSA revealed that there is an internal debate as to whether or not exported electricity shouldn’t be priced based on LRMC + a premium. If this becomes the case, tariffs in countries such as Swaziland will become more attractive for cogen investments.

Eskom cogen initiative: While not directly beneficial to the Cogen for Africa Project, the 900 MW Eskom cogen initiative offers an opportunity for AfDB to either directly finance sponsors or provide line of credit to DBSA. In addition, the overall approach of the initiative could provide useful lessons the the Cogen for Africa Project could recommend to other African countries.

Contacting power utilities: One of the key conclusions of the mission is that the Cogen Project should consider contacting power utilities in the project countries. Discussions with Eskom revealed that, where the utility is convinced that cogen has an important role in the power sector, it stimulates a significant amount of interest from potential sponsors.

2.0 Summary of Swaziland Mission

The Mission Team had the opportunity of having two meetings in Swaziland: One meeting with Paul Hamilton, the General Manager-Manufacturing at Royal Swazi Sugar Corporation (RSSC). The other meeting was held jointly with representatives of the Ministry of Natural Resources and Energy (Mr. Peterson Dlamini, Moses Dlamini and Samuel Dlamini) and a representative of the GEF Focal Point in Swaziland, Dr. Jameson D. Vilakati, the Director of Environment at the Swaziland Environment Authority. The following sections summarise the key discussion points and information obtained by the Mission Team.
Meeting at RSSC with Mr. Paul Hamilton, General Manager-Manufacturing

During the meeting at the RSSC, the Mission Team learnt that new investment in cogeneration is unlikely to happen soon in any of the two factories. This is largely because the Swaziland Electricity Board (SEB) is currently enjoying very low tariffs (about US¢ 3.1) from Eskom, South Africa. Consequently, SEB is not willing to consider purchasing electricity at prices higher than Eskom’s sales price.

In the meantime, RSSC is more interested in minimising/eliminating the use of coal by burning more biomass for its internal cogen energy need. The motivation for the aforementioned interest is due to the substantial increase in the landed cost of coal in Southern Africa in the past couple of years.

In order to increase the use of biomass for cogen, RSSC has embarked on a World Bank-supported feasibility study and pilot project of using trash and tops recovery. Apparently, the other sugar factory in Swaziland - Uboombo Sugar Factory - has performed some trash and tops recovery trials with satisfactory results. The feasibility study is part of the background work being carried out for purposes of placing RSSC in the pipeline of CDM projects.

Another possibility that RSSC is considering as part of eliminating coal, is through obtaining electricity from its sister sugar factories across the border in South Africa. Being part of the TSP group of sugar companies, RSSC plans to investigate the possibility of wheeling electricity from its sister sugar factories that might have an excess.

The Mission Team also learnt that, alongside cogen development, the RSSC is interested exploring a rural electrification initiative especially for the benefit of unelectrified villages on the sugar estate. In addition, for the electrified villages, RSSC is considering the cost-effectiveness of replacing gas for cooking with electricity. Currently, it is estimated that RSSC spends ZAR 15 million (about US$ 2.1 million) per annum on supplying cooking gas to the employees living in the sugar estate villages.

To sum up, cogen investment potential at RSSC appears to be limited at the moment. However, subject to the extent of tariff increments by Eskom, the sugar company could be interested in generating excess electricity for export to the national grid. RSSC requested to receive a criteria for qualification of support from Cogen Project should an opportunity for cogen investment arise.

Meeting with Ministry of Natural Resources & Energy and GEF Focal Point Representatives

As mentioned earlier, the Ministry of Natural Resources and Energy was represented by Mr. Peterson Dlamini, Moses Dlamini and Samuel Dlamini. The GEF Focal Point in Swaziland was represented by Dr. Jameson D. Vilakati, the Director of Environment at the Swaziland Environment Authority.

The Mission Team learnt that Swaziland recently passed some laws in order to deepen power sector reforms in the country. Three (3) Acts of Parliament have already been passed, namely:

- Electric Power Act
- Electricity Regulatory Act
• Swaziland Electricity Corporation Act

One of the expected outcomes of passing of the aforementioned Acts of Parliament is promotion of private investment in the power sector, especially among Independent Power Producers (IPPs). This development can be considered as beneficial to cogen development. However, the Ministry officials gave an indication that they do not intend to move fast into implementation. This is because the Government is cautious of the reforms in Swaziland ending up in a disastrous fashion like in some other sub-Saharan Africa, notably, Uganda.

Like the sugar industry in Swaziland, the Ministry is awaiting the outcome of the anticipated tariff increases by Eskom. The general feeling at the Ministry is that the tariff increases are likely to be modest. However, should the increase be significant, the Ministry will most likely promote IPP development in the country e.g. cogen.

There appears to be no concrete plans on how to go about the aforementioned promotion of cogen. However, the Ministry showed interest in exploring the possibility of introducing standard PPAs and feed-in tariffs as ways of encouraging investment. Again, the enthusiasm of the Ministry in following up on the proposed standard PPAs and feed-in tariffs largely depends on the outcome of impending tariff increases by Eskom.

The Mission Team also learnt that the forestry industry in Swaziland has become vibrant and worth contacting in order to explore cogen investment opportunities. It is anticipated that, in future missions to Swaziland, a visit to the forestry industry will be organised.

The meeting with the representatives of the Ministry of Natural Resources & Energy and GEF Focal Point ended on positive note with the all the representatives indicating their willingness to continue supporting the ‘Cogen for Africa’ Project. In addition, the key Swaziland representatives Mr. P. Dlamini and Dr. Vilakati requested to be updated regularly on the project.

3.0 Summary of South Africa Mission

Being a neighbouring country to Swaziland as well as having significant impact on cogen development in Swaziland, the Mission Team held two meetings in South Africa. The mission to South Africa was a fact-finding one especially with regard to the trends in future tariffs of Eskom as well as the newly “New Build Programme” which has resulted in the utility’s interest in promoting cogen development in the country.

The following sections summarise the key discussion points and information obtained by the Mission Team.

Meeting at National Electricity Regulator of South Africa (NERSA) with Mr. Brian Sechothlo, Head of Department of Pricing and Tariffs and Mr. Mandla Tsikata, Analyst

During the meeting with Mr. Sechothlo and Mr. Mandla Tsikata of NERSA, the Mission Team received very useful information from the regulator’s representatives. Perhaps the most useful information received was indications of the future trends in
electricity pricing for local consumption as well as for export to neighbouring countries such as Swaziland.

At the time the meeting was being held, NERSA had received an application from Eskom requesting for a tariff increase. This confirmed the newspaper reports and information from other sources that Eskom was expected to increase its tariffs. There has been a lot of speculations that Eskom might increase its tariffs by nearly 20%, thereby sparking off protests from a wide range of electricity consumers in South Africa. However, according to Mr. Sechotlo, he could not divulge information on Eskoms applications, but he did not foresee the tariffs increasing by more than 10%.

A very important issue that Mr. Sechotlo mentioned is that a new thinking was emerging within the regulator with regard to the pricing of electricity for exports. A considerable number of experts within NERSA feel that South Africa has reached a point that it is no longer self-sufficient as far as electricity supply is concerned. Consequently, this group is promoting the idea that any electricity for export should be priced based on Long Run Marginal Cost (LRMC) of producing electricity + a premium. They rightly claim that Eskom’s extremely low tariffs could be stifling promotion of investment in some of the neighbouring countries. This is particularly true for Swaziland.

On the other hand, another group within NERSA feel that, should there be a significant increase in exported electricity, this could adversely impact on the neighbouring economies. This group is advocating for less dramatic tariff increases on exported electricity.

It is the Mission Team’s recommendation that a close watch is maintained on Eskom’s future tariffs as well as the emerging debate on the pricing of electricity for export as both issues have significant implications for the promotion of cogen investment in countries significantly relying on electricity supply from Eskom such as Swaziland.

Another useful piece of information obtained from the meeting with NERSA is that the regulator has been instrument in promoting cogen in South Africa. As part of the “New Build Programme”, NERSA requires Eskom to purchase 900 MW from privately-owned cogeneration power plants.

The Mission Team also learnt that NERSA was currently chairing AFUR and therefore could form an important collaborator in the promotion of cogen investments in Eastern and Southern Africa. Making an attempt to contact the relevant persons at NERSA will be a key follow up activity of this mission.

Meeting with Representatives of Eskom

The Mission Team deemed it necessary to have a meeting with Eskom as the utility has a significant impact on the promotion of cogen, not only in South Africa, but also in neighbouring countries e.g. Swaziland. Since the Team had discussed at length on tariff issues with NERSA representatives, the meeting at Eskom focussed on its ambitious 900 MW cogen initiative.

Led by Mr. Padraig Fleming, the Eskom representatives (including Mssrs. W. Theron and Y. Haffejee) confirmed that the cogen initiative was being pushed very hard by NERSA. The initiative had already rolled out with a Call for Expression of Interest
which ended on 29th June 2007. To date, Eskom has received expressions amounting to 2,000 MW from potential cogenerators. However, it is anticipated that there would be a significant attrition based on technical qualifications but mainly due to financing challenges. Consequently, it is anticipated that only 600 MW might be achieved - still this will be a significant success.

The Mission Team learnt that The Eskom cogen initiative is a non-subsidy one. It is expected to be developed on a fast-track basis. Qualifying cogen investors will have 4-5 years to develop their projects in order to beat the deadline of 1st January 2012. For cogenerators who beat this deadline, Eskom plans to offer a premium feed-in tariff. However, those coming online later than the aforementioned deadline will not enjoy premium tariffs.

Eskom is planning to offer a standard PPA covering a period of 15 years (regardless of generation capacity). However, Eskom appears to be averse to the concept of a standard feed-in tariff. Its argument is that a standard feed-in tariff eliminates opportunities of getting lower tariff offers from the investors. Lower tariffs, argues Eskom, could trickle down to benefit the end-users. Consequently, in order to evaluate the received Expressions of Interest, Eskom plans to use its calculated avoided cost of a new coal power plant and possibly the avoided cost of new transmission network.

What the Mission Team found interesting to learn was the fact that, while Eskom is aiming for new generation capacity, the utility is unwilling to pay for any capacity charges. While this is attractive to the utility in terms of minimising the cost of electricity bought from cogen facilities, it is likely to significantly affect the IRR of completely new investments. However, to make it attractive for the cogen investors, Eskom plans to given them the freedom to choose the time-of-day supply schedule that is most convenient and/or profitable to the investors.

With regard to the low tariffs offered by Eskom in the region, the utility’s representatives acknowledged that it was a serious issue worth addressing. However, one of the Eskom representatives indicated that he has been interested in promoting cogeneration and offered to provide links to the Southern African Power Pool (SAPP) as well as to try to slot in a presentation from the ‘Cogen for Africa’ Project at a forthcoming SAPP meeting to be held in Namibia.

In conclusion, the Mission Team recommends keeping track of developments in the Eskom cogen initiative as there could be useful lessons learnt as well as methodological approaches that could be adopted by the ‘Cogen for Africa’ Project, especially with regard to Standard PPAs as well as involving utilities in the promotion of cogen.

4.0 Key Follow-up Tasks

In summary, the following are the proposed key follow-up tasks:

**Send Letters of Appreciation:** Letters of Appreciation will be sent to all those who met the Mission Team. The Letters of Appreciation will also serve to provide and/or request for additional information or clarifications.

**Develop a criteria for qualification of support:** During the discussions with RSSC, Swaziland, Mr. Hamilton pointed out that it would be useful for them to have the
“Criteria for Qualification of Support”. The proposed criteria is expected to guide potential project sponsors in identifying whether or not their cogen initiatives qualify for support from the ‘Cogen for Africa’ Project. Upon completion, the criteria will also be sent to all sugar factories that have been contacted or have indicated interest in obtaining support from the ‘Cogen for Africa’ Project.

**Follow up with W. Theron on SAPP Meeting in Namibia:** As a follow up to the meeting at Eskom, it is proposed that Mr. W. Theron is contacted in order to pursue his suggestion of the project participating in the forthcoming SAPP Meeting in Namibia to be held in Sept 2007. According to Mr. Theron, the ‘Cogen for Africa’ Project could generate some interest in promoting cogen among Southern African utilities. The ‘Cogen for Africa’ Project could participate at the proposed meeting either during the plenary or by organising a side event.

**Inclusion of Key Stakeholders to the website update list:** The discussion with the Swazi officials from the Ministry of Natural Resource and Energy as well as the representative of the GEF Focal Point in Swaziland elicited interest from the officials to be kept abreast of key developments in the ‘Cogen for Africa’ Project. One option is to include them and other similar stakeholders in other countries in the website update list.

**Start a monthly update for the project:** Related to the above suggestion for follow up, it is proposed that the ‘Cogen for Africa’ Project establishes a monthly update for the project. While not an explicit expected output in the Project Document, it is perceived as a crucial output that could keep all relevant stakeholders abreast of key developments in the project.

**Initiate contact with power utilities, UPDEA, AFUR & RERA:** A collective lesson learnt from the project missions carried out to date is that it appears imperative to initiate contact with power utilities, regulatory agencies and other relevant regional bodies in the power sector. The motivation for this proposal is the fact that, while sugar factories are the primary target group, it is the power utilities’ willingness to either buy or wheel electricity generated from cogen that will largely contribute to the project’s success. Therefore, instead of contacting them after lining up project sponsors, it appears more prudent to approach these institutions in parallel to factory level negotiations. Proposed regional bodies to be contacted include: Union of Producers, Transporters and Distributors of Electric Power in Africa (UPDEA), African Forum for Utility Regulation (AFUR) and the Regional Electricity Regulators Association (RERA).