QIT Madagascar Minerals SA
Electrical Energy: Purchase Agreement between QMM and JIRAMA

Context
The JIRAMA company facilities in Fort Dauphin were obsolete and unreliable. Every failure of a generator, JIRAMA had to rent another to replace it. These power generators were consuming diesel and were expensive to operate and maintain.

The town needed 1.9 megawatts but JIRAMA could only produce 1.5 Megawatt. Whole areas of the town suffered daily power cuts.

On the other hand, QMM needs, within the ilmenite project, an important and regular production of energy requiring a continuous and high power supply (about 22.8 Megawatt of rated power).

The JIRAMA Company to which QMM has exposed this need said not be able to invest in a unit of electrical energy and ensure the production in terms of time, power and satisfying cost for QMM.

QMM decided to produce its own electrical energy for the entire project (mining facility, staff housing, quarry, port, etc.) in accordance with the regulations concerning the Malagasy autoproduction (Act No. 98-032 of 20 January 1999). It has built a generating unit energy consumption of heavy oil (HFO).

We granted favorable terms of sale to JIRAMA and Fort Dauphin is now one of the few areas of Madagascar to be free from load shedding.

History of the contract
Concerned about promoting quality of electrical power distribution for Fort Dauphin the JIRAMA wished to take advantage of QMM investment. They asked QMM to set up additional production capacities and to sell the production.

QMM has expressed its willingness to invest in additional powers provided that the price paid by JIRAMA for such capacity and electricity supply allows damping the investment and paying all costs of maintenance and production over 10 years.
On the other hand, the PIC wishes to promote and contribute to the implementation of agreements between QMM and JIRAMA. It has committed to support the electric grid by rehabilitating lines at low and medium voltage, all via the provision of works, goods and technical consulting services;

JIRAMA considered favorably such a scheme and QMM has set up the configuration of its energy plan to give the opportunity for the town to have supply of reliable and able energy to meet its growing energy needs.

A Memorandum of Understanding between QMM, JIRAMA and PIC was signed on 14 September 2007. This Memorandum specifies the respective commitments of the contracting parties to the production and supply of electricity in the Urban Municipality of Taolagnaro. QMM will make available to JIRAMA power production guarantee of 3.8 Megawatt from the power of electrical energy for its own consumption subject to, among others:

- a firm and definitive commitment of JIRAMA to purchase the produced energy for a period of 10 years
- an agreement of the Malagasy authorities on the terms of the contract, particularly in terms of royalty and guarantee
- a full counter guarantee from the World Bank or any other organization acceptable to QMM.

The signature of this protocol was followed by a power purchase agreement between QMM and JIRAMA on June 9, 2008. This contract defines the conditions for the provision of electricity by QMM to JIRAMA from a substation dedicated to this purpose.

The 2009 crisis has prevented the implementation of the agreement because the guarantee issued by the World Bank or any other organization acceptable to QMM could not be available. The Bank has not reopened its guarantee to this day.

The negotiations resumed between QMM and JIRAMA, with the support of the PIC, to find an agreement. A new draft memorandum was signed. This Memorandum shows the outline of the original protocol, but with developments on conditions. This Memorandum shall remain in force until the conditions stipulated in the original Memorandum are effective.

**Terms of sale**

- Buying a generator with a capacity of 3.8 Megawatt dedicated to the town
  - which can meet the needs of Fort Dauphin, for the next decade.
  - acquisition costs lend by QMM
  - selling price less than the usual market for independent power producers
  - costs of transport and installation of the generator to be borne by QMM
  - to be paid by JIRAMA over 10 years
  - fixed cost of operation, maintenance of equipment to be borne by QMM (approximately $ 20,000 per month)

- Sale of electricity by QMM to JIRAMA
  - JIRAMA just repays the fuel required for the operation of the generator depending on the required Production (no cash payment from JIRAMA)

- The HFO consumption mentioned in the contract is less than the actual consumption. QMM has not changed the contract but has been paying the additional cost incurred.

**Contributions of the World Bank through PIC**

Reinforcement of transmission and distribution network in the town:

- Provision of 86 km of bare cables and insulated cables; Medium Voltage (MV) lines hardware and accessories . Low Voltage (LV) lines, connection, 500 streetlights; security equipment - specific tools and ways for communicating a table Armored MT; MT / LV transformers and circuit breakers pole
- Creating a substation within the precincts of the JIRAMA former Thermal power
- Creation of 6 substations
- Set air lines and connections
- Creation of a transmission line transport

**Advantages for JIRAMA**

- The HFO is 20% less expensive than the LFO
- A rigorous fuel management (contract between QMM, JIRAMA and JOVENNA)
- A grant of $ 15,000 to $ 20,000 of fuel per month

**Conclusion**

Currently, JIRAMA has a reliable supply of energy to meet the growing needs of the town. The cost of production is more competitive for JIRAMA.

Securing the power supply will:

- Strengthen commercial, industrial and tourism opportunities
- Help reduce health problems through better cold chain stability for food

We facilitated the acquisition and granted favorable sale conditions for JIRAMA so that the population no longer have to suffer power cuts. We still help JIRAMA in the operation and maintenance of the generator. However, we cannot interfere in the sale conditions of energy by JIRAMA to its customers.