

Evaluation Summary

NamPower Caprivi-Link Interconnector (CLI) project

Country: **Namibia**

Sector: **Energy**

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Date of the evaluation: **October 2014**

Key data on AFD's support

Project numbers: CNA 3001

Amount: €35 million in non-sovereign loans

Disbursement rate: 100%

Signature of financing agreement: December 2012

Completion date: October 2010

Total duration: 2 years



Context

To meet its electricity needs, **Namibia relies on imports** from thermal power stations in South Africa and Zimbabwe.

The 1998 White Paper on Energy Policy for Namibia, and the Electricity Act 2000 called for **energy diversification**, especially for importing energy from Zambia, which has abundant hydropower potentials.

The Caprivi Link Interconnector (CLI) project, a high voltage direct current transmission line, was the keystone of this diversification strategy.

Actors and operating method

The beneficiary, the national utility of Namibia (NamPower), acted as the **project's chief organizer, implementer and investor**. It contributed 65% of the total project finance, raising funds by issuing bonds.

A co-financing consortium of AFD, EIB and KfW contributed 35% of the project finance, with EIB in the lead.

Co-financing was also supported by an **interest subsidy** of €15 M by the EU-AITF.

Objectives

1. **Reliable and economic access** to electric power
2. **Diversification** and energy **independence**
3. **Substitution** of fossil fuel sources with hydropower sources
4. **Consolidation and stabilization** of interconnected networks at the regional level
5. **Contribution toward rural electrification.**

Expected outputs

The expected outputs after the third year of operation were:

- **98%** technical availability
- **1,600 GWh/a** wheeling
- **320 GWh/a** renewables-based imports

Performance assessment

Relevance

The project remained fully consistent over time with the long-term aims of national and regional energy policy and stakeholder's strategies. With regard to internal consistency, the project design is found to be coherent, even though some of the objectives proved to be too ambitious and the capacity of the project to directly influence them had been overrated (objectives on rural electrification, regional integration, well-being of the population). **Moderately satisfactory.**

Effectiveness

The project contributes to increasing the reliability of the access to electricity by **providing an infrastructure** which opens new routes for imports. It also contributes to the objective of stabilization of the regional network.

However the capacity utilization is not met and the power import volume from Zambia is still too low. **Energy independence from South Africa was not achieved as planned.** Hence, a true diversification of the sources for power imports could not yet be achieved.

Other objectives such as affordability of rates and rural electrification are conspicuous weaknesses. **Moderately unsatisfactory.**

Efficiency

The project performed strongly on cost-effectiveness, timeliness and management arrangements in the project design and construction phases. Technical implementation was managed well by NamPower. However, in the first three years, the line's capacity utilization remained below projections, resulting in **financial losses**. Considering the present utilization rate of the CLI, and from a financial point of view only, a 200 MW high voltage alternating current interconnector would have been a better choice.

However, the interconnector is still considered to have been the most cost-effective option in comparison to the alternative scenarios, taking into account impacts on regional market integration, and technical innovation rough to NamPower. **Moderately unsatisfactory.**

Impact

The project positive impacts relate to **employment effects and socio-environmental risk mitigation**, especially during construction. The technology of the high voltage direct current reduces transmission losses and costs. Weaknesses are:

- the limited impact of the CLI on electricity access in the rural areas,
- affordability,
- indirect socioeconomic benefits,
- and the financial underperformance of NamPower, which follows from under capacity utilization of the line.

The positive impact on cross-border cooperation remained below expectations. **Moderately unsatisfactory.**

Sustainability

NamPower's good managerial and technical capacities are strong points to secure the **institutional sustainability of the project**. **Technical sustainability can be considered as ensured but is uncertain** (and was not assessed here) as the line remains to be tested under conditions of full capacity utilization. Currently, the **financial sustainability of the project is not achieved** as the current under utilization of the CLI prevents it from being financially viable. **Moderately satisfactory.**

Added value of AFD's contribution

The cooperation among the involved financiers worked well overall, even though coordination was complex. NamPower judged the cooperation with the co-financiers as **efficient and helpful, especially because of technical support** provided. Co-financing was instrumental in successfully launching and implementing the project. The value added by EU-AITF through the upfront interest rate subsidy was highly appreciated by NamPower. **Satisfactory.**

Conclusions and lessons learnt

Co-financing made for a **robust project financing model**, which acted as a catalyst in effective project implementation.

The positive experience gained from CLI project financing should be applied to other projects of similar nature. **The logframe approach should be adopted as a common planning and monitoring tool** from the early stages of conceptualizing a project. It should also be applied in a more realistic way in terms of formulation of global objectives.

Project risks as well as key elements relevant to the performance of the project were **not adequately assessed** during the design phase. Risk management and control mechanisms were not sufficiently defined to allow for timely corrective action. Therefore, the development of project scenarios should be thoroughly assessed and monitored, including ancillary projects and the wider project environment.

NamPower proved to be a reliable and efficient partner. Not only did it have sufficient technical and managerial experience, but it also showed a strong commitment to implementing the project effectively. NamPower's strong sense of ownership was demonstrated by the fact that it contributed 65% to the project finance, raising those funds by issuing bonds. **NamPower highly appreciated the technical support provided by the financiers.**