

Ex post evaluation – Uganda

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Sector: Power generation/renewable sources (CRS code: 23030)
Programme: Cooperative Programme to Promote Renewables and Energy Efficiency, phases I-III (BMZ nos. 2007 65 321*, 2008 65 394, 2009 65 525*); training component (BMZ No. 1930 04 868)
Project-executing agency: Ministry of Energy and Mineral Development (MEMD)



Ex post evaluation report: 2020

	2007 65 321	2008 65 394	2009 65 525	1930 04 868
All figures in EUR million	(Plan- ned)	(Ac- tual)	(Plan- ned)	(Ac- tual)
Investment costs (total)	8.6	8.6	10.0	7.7
Counterpart contribution	0.00	0.00	0.00	0.00
Funding	8.6	8.6	10.0	7.7
of which BMZ budget funds	8.6	8.6	10.0	7.7

*) Random sample 2019

Summary: As part of the FC program "Efficient and Environmentally Friendly Energy Supply", investments in the field of renewable energies and the increase of energy efficiency in the remote region of West Nile (2.3 million inhabitants) in northern Uganda were to be promoted. In particular, projects to transition power generation in the region to renewable energy and the rehabilitation and further development of the island grid in West Nile were to be financed. This were then to increase the number of connected districts from four to seven. In addition, the completion of the Nyagak I small hydropower plant (SHPP) was to decommission the existing heavy fuel oil generator in Arua. Rehabilitation measures were to be continued on the distribution grid, with pre-payment meters installed for all customers. The individual measures required to deliver these outcomes (grid expansion, Nyagak I SHPP and pre-payment meters), which are assessed in this evaluation, were selected via an application process.

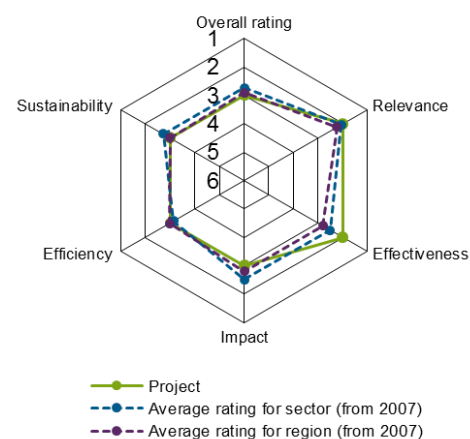
Development objectives: The outcome objective was the sustainable and broad-based improvement in the supply of modern energy to the target group or the connection of the target group. In doing so, the FC programme helped to advance economic and social development in the West Nile region as well as playing a role in global climate protection (impact objective).

Target group: The target group was the estimated 2.3 million people living in the West Nile region, whether already connected or still in need to be connected to the power grid, along with institutions and micro, small and medium-sized enterprises (MSMEs) operating in the region.

Overall rating: 3

Rationale: The micro-grid promoted access to energy in a very remote region and created a large number of new connections. The transition to pre-payment meters was effective and efficient. However, the power generation and resulting supply to the expansive grid relied exclusively on the hydropower plant, which was no longer able to provide enough electricity to meet the growing demand during the increasingly frequent low water periods (climate change and water use along the upper reaches). Security of energy supply has only been ensured again since May 2019 when diesel generators were connected to the grid. However, a reliable electricity supply is an essential prerequisite for the establishment of productive businesses and thus for the increase in economic activities in the region. We are only just beginning to see this trend unfold.

Highlights: The FC-financed infrastructure can be readily integrated. With plans in place to connect the region to the national electricity grid in 2022, the investments are sustainable.



Rating according to DAC criteria

Overall rating: 3

Since the various individual measures cannot be clearly assigned to the individual BMZ (German Federal Ministry for Economic Cooperation and Development) numbers, and these represent tranches of financing provided in the context of an anticipated appraisal, the individual activities will be evaluated and assessed together.

Ratings:

Relevance	2
Effectiveness	2
Efficiency	3
Impact	3
Sustainability	3

General conditions and classification of the project

In 2003, the Ministry of Energy and Mineral Development issued a 20-year license¹ via the regulator (ERA) to WENRECo² for the operation of the existing distribution grid in the remote West Nile region on the basis of an expanded operations and maintenance contract (including small investments in the grid). At the time, the West Nile grid was a medium-voltage distribution network that connected the three towns of Arua, Nebbi and Paidha. WENRECo invested in a heavy fuel oil generator (1.44MW), and planning began for a new World Bank-financed small hydropower plant (SHPP) – Nyagak I with a capacity of 3.5MW. The partner organisation for the construction of the hydropower plant was the state-owned electricity generation company UEGCL. Construction was delayed so much that WENRECo was threatened with insolvency in 2008, and the general contractor even became insolvent. The World Bank then withdrew from financing, which prompted the Ugandan government and Germany to incorporate Nyagak I into the open sectoral programme as one of the individual measures, with the aim of promoting renewables and energy efficiency. This was coordinated by the MEMD, financed by FC, and implemented by UEGCL and WENRECo. In addition, FC funded individual activities during the sectoral programme – some in collaboration with the EU – to facilitate the conversion to pre-payment meters, advance grid expansion and promote productive, safe, and efficient energy use.

This ex post evaluation assesses the following individual measures, which were completed with a final inspection: i) Nyagak I small hydropower plant, ii) installation of pre-payment meters, and iii) West Nile grid expansion. The project also included a training component (BMZ No. 1930 04 868). Other individual activities not based in the West Nile region have not yet been completed and will be continued during phase IV of the programme (BMZ No. 2010 66 059).

Relevance

At the time of the project appraisal (PA) in 2007, Uganda's energy sector was severely under-developed. The electricity supply was neither economically efficient nor reliable. Only 9 % of Uganda's 28 million inhabitants and 3 % of those in rural areas had access to grid-based electricity, an additional 1 % of the population was supplied with diesel generators, batteries, and paraffin. Yet, annual demand for electricity grew by about 8 % during that time (DHS, 2006).

The West Nile region, located in the north of the country, has relatively high development potential. After several conflicts in 2001, peace was restored to the region, which has a population of around 2.9 million and consists of the districts of Arua, Adjumani, Nebbi, Yumbe, Moyo and Koboko. Expanding the region's inadequate (energy) infrastructure is an important prerequisite for unleashing this potential. The project

¹ The licence has since been extended for another five years until 2028.

² Founded in 2003, the West Nile Rural Electrification Company (WENRECo) is a special purpose vehicle of Kenya-based Industrial Promotion Services (IPS) Limited, a company owned by the Aga Khan Fund for Economic Development.

region, the least developed and poorest region in Uganda after Karamoja³, was and still is not connected to the national power grid. At the time of the project appraisal, the Arua, Nebbi and Paidha areas were supplied by an unreliable micro-grid via a heavy fuel oil generator with significant losses. As a result, there was great demand for additional, eco-friendly electricity generation capacity, which was to be achieved by completing the Nyagak I SHPP. At that time, only around 1 % of the population was connected to the existing micro-grid. Power cuts and voltage fluctuations were a common occurrence. It was not economical to connect this region to the national grid, which is still significantly remote. There are a number of reasons for this – the region's population density was and still is low (except in the urban areas); household income is very low at USD 70 per month (national average: USD 394), which is reflected in a low willingness to pay for lighting and mobile phone charging (USD 3 monthly spending on electricity according to the 2012/2013 Uganda National Household Survey). Overall, there is only demand for small amounts of electricity, with households connected to the grid using 40kWh per month in 2011. Measures to rehabilitate and expand the micro-grid were necessary to improve the security and quality of supply as well as facilitating further connections.

At the time of project appraisal, Uganda's electricity sector had a comparatively progressive regulatory framework. However, this was not sufficient to overcome the lack of electric power. Due to the high risks associated with investing in electricity supply, only a few private investors ventured into the sector at the time of the PA. When it comes to generating private investment for mini-grids, there is a lack of transparency in tariff pricing and insufficient reliable information on grid expansion (and, in turn, on the potential connection of mini-grids to the national grid). As a result, there was a lack of adequate funding to satisfy the enormous need for investment.

The open programme addressed these constraints with an FC grant, promoting efficient power generation, grid expansion and individual electricity access. Individual activities eligible for promotion were to be selected based on investment proposals from private or state investors (application process). To improve quality, enhance efficiency and strengthen focus on the user in the individual projects, a participatory approach was to be taken, allowing the relevant project target group to be involved in the activities' planning processes. Capacity development measures should also be identified and implemented in the institutional segment of investors as part of TC within the cooperative programme.

By financing the grid expansion and rehabilitation, the conversion of the power connections to the prepayment technology (in order to reduce the high "collection costs") and the construction of the hydropower plant, the open programme was to achieve the sustainable and broad-based improvement of the supply of modern energy to the target groups or the first-time connection of the target group (outcome). By supplying modern energy to households, social institutions such as hospitals or schools, and productive businesses, the programme had the potential to contribute to the economic and social development in the West Nile region. Since this was to be achieved through the use of renewable energy (hydropower), the aim was to reduce CO₂ and NO_x emissions – thus contributing to global climate protection (impact). This results chain is sound from today's perspective.

A possible flaw in the initial concept was the hydropower plant's design, which was exclusively focused on the hydropower potential available during the planning stage in 1992.⁴ Aspects of climate change and, above all, aspects of utilization in the Congo water catchment area and their effects on the water availability of the Nyagak River were not sufficiently taken into account.

From today's perspective, the project can contribute to the achievement of Sustainable Development Goal 7 (energy access), National Development Plan II and Uganda's Vision 2040, which envisages energy access for all Ugandans by 2040. The project was intended to help deliver Uganda's Rural Electrification Strategy and Plan II (2013–2022), which aims for 26 % rural electrification by 2022 and 100 % by 2040. The promotion of the energy sector was in line with the BMZ's development policy priorities and Uganda's anti-poverty strategy – the Poverty Eradication Action Plan (PEAP) – as well as the Uganda Joint Assistance Strategy (UJAS), which is based on the PEAP.

³ In the 2017 Multidimensional Poverty Index (measuring deficiencies in health, education and living standards), the score for West Nile is 0.484 (Uganda: 0.367), meaning that 84.9 % of inhabitants are multi-dimensionally poor (Uganda: 69.9 %). 58.7 % live in acute poverty (Uganda: 37.2 %).

⁴ FC no longer had a significant influence on the conceptual design of the SHPP at the time of the PA, as its construction was based on the advance payment already made through WB financing.

Overall, the project was highly relevant in terms of economic efficiency, security of supply and the environmental impact of power generation, transmission, and distribution in the West Nile region.

Relevance rating: 2

Effectiveness

The objective at outcome level was to deliver a sustainable and broad-based improvement in the supply of modern energy to the target group or connect sections of the target group for the first time. Target achievement at the outcome level is summarised in the table below.

Indicator	Status PA, target PA	Ex post evaluation
(1) First-time or improved access to a modern energy supply obtained by 6,000 households, 250 companies and 90 social institutions (30 health facilities and 60 schools) by 2015.	Households: PA: 1,538 (2011). Target: 6,000 (2015). Companies: PA: 174 (2011). Target: unspecified in PA. Social institutions: Target: unspecified in PA.	Achieved. See also table below. Up-to-date numbers for 2019 still due to be submitted. (Source: Sinergi).
(2) Additional 21,000MWh ⁵ of electricity generated each year (equivalent to 70 % of full capacity and “planned annual average output”).	PA: unspecified.	Not achieved. 2018: 16,454MW/h (Source: ERA)
(3) Technical and commercial losses reduced from 31.6 % (2012) to 21 % (2018).	PA: 31.6 % (2012) Target: 21 % (2018)	Achieved 2019: 17-18 % (consisting of ~11 % technical losses and ~6 % commercial losses). (Source: WENRECo).

Indicator 1: With 412km of medium-voltage line built and rehabilitated and six districts connected to the power grid, the towns of Koboko, Oraba, Yumbe, Pakwach, Angal, Parombo, Panyimur, Nyapea, Warr, Zeu and Zombo are now connected to the expanded grid. To stimulate the reluctant connection numbers during the project, the connection costs were partly subsidised by government funds. However, since the in-house wiring activities were not subsidised, the new connections fell short of expectations. As a result, “ready boards” were introduced. These consist of a lamp and several sockets for household appliances (basic electrification). This means that households can be connected to the grid and use electricity without having to install expensive wiring within their homes. As they seek to connect to the micro-grid, one obstacle for (small) businesses in particular is the perceived unreliability of the electricity supply provided by the private licensee, WENRECo. It was evident that most new connections were added in the districts that had previously already been connected – although these are also more populated than the newly connected areas.

⁵ Assumption based on final inspection: “planned annual average output”. Full utilisation: 8,760h * 3.5MW * 0.98 = 29,635MWh.

Table 1: Connections to the micro-grid over time (sources: Sinergi, 2017; WENRECo, 2019)

	2011	2013	2015	2017
Households	1,538	1,965	4,107	7,258
Commercial users	1,595	1,866	2,987	5,481
Schools	44	48	59	125
Health stations	9	9	10	35
Large companies	174	210	236	387
Others (administrative bodies, NGOs, churches)	1,368	1,799	2,682	4,979
Industrial sector	2	6	7	11
Total	3,135	3,837	7,101	12,750

Indicator 2: The Nyagak I SHPP has been subject to limitations since September 2012 and has been in commercial operation with an installed rated capacity of 3.5MW since May 2016 (two Francis turbines and an annual average output of 21,000MWh). However, the limited water availability poses a challenge in terms of its ability to operate continuously, meaning that the output that can be generated varies greatly.

The thermal SHPP in Arua was connected in May 2019 (~4MW diesel generator, supplied by IPP Electro-Maxx, which sells the generated power to grid operator UEGCL, which in turn resells it to WENRECo). Until this point, WENRECo had to carry out load shedding on various parts of the grid, especially during the dry season (November–April) due to capacity constraints. The diesel generator in Arua provides around 800MWh of energy each month (annual volume: 9,600MWh). This means that even in the dry season, 5MW of demand can be met at peak times.

Indicator 3: WENRECo has changed its payment system from post-paid to pre-paid, recording 60 % of customers as pre-paid in 2014, 97 % in 2017 and 99 % in 2019. The switch to pre-payment has ultimately increased payment rates to 94 %. Although the payment rate is now around 99 %, there are still commercial losses of 6–7 % due to electricity theft. The technical losses were reduced to around 11 % by rehabilitating the grid. This involved replacing obsolete aluminium cables with insulated conductors and updating grid infrastructure such as transformers.

The outcome objective was only partially achieved. Despite the number of connections increasing continuously over recent years, it was not possible to supply electricity reliably from the SHPP or, in turn, to provide the desired modern energy supply reliably. This has only been made possible by the connection of the IPP in Arua, although the electricity it generates is diesel-based and may even rely more on heavy fuel oil in the future.

Effectiveness rating: 2

Efficiency

The efficiency of the individual projects is assessed separately, whereas the measures undertaken as part of the programme are assessed collectively.

Nyagak I SHPP

In Phase 2, the estimated cost of construction for the SHPP was USD 6.92 million. During a first phase, the World Bank had already invested USD 8.48 million before it withdrew from the financing. Ultimately, the cost of construction in Phase 2 was USD 8.85 million (cost increase of 27 %) due to additional tunnel, steel and concrete work. FC provided USD 8.47 million of this amount. The cost of electromechanical installations was EUR 958,000 (12 % increase), and the consulting costs increased above the planned amount to EUR 1.72 million (331 % increase). Of this, FC contributed a total of EUR 2.6 million. The insufficient project preparation, the underestimated time required (four years elapsed between the first limited operation and the final commissioning), necessary adjustments and corrections to the scope of services

and, in the end, even the insolvency of the EPC contractor and the need for a new invitation to tender were the drivers of the cost increases. The government's own contribution for compensation payments, taxes and levies was EUR 2.12 million (taxes) and UGX 45.99 million (compensation; approximately EUR 11,000). The total construction costs – EUR 15.5 million across both phases – were significantly higher than the comparable projects worldwide and in the region, in part due to the above-mentioned problems. As a result, the production efficiency is no longer rated as satisfactory.

In general, electricity generation from renewable energy sources is not only more environmentally friendly compared to diesel generators, but also generally cheaper despite higher investment costs, since no fuel costs are incurred. In micro-grids, however, power generation costs often remain higher than in the interconnected grid due to a lack of economies of scale – and electricity prices that at least cover the costs are usually unaffordable for the population. In this case, this is only true to a limited extent due to investment costs being covered by WB and FC grants. The prime costs⁶ in West Nile have dropped to about UGX 800 in contrast with the operation of the original diesel generator, which is in line with the ERA-approved, cost-recovering tariff for WENRECo. This is at a similar level to the interconnected grid, although an additional monthly service fee of approximately UGX 3,500 (including VAT) must be paid to WENRECo regardless of consumption. The allocation efficiency is only just satisfactory.

West Nile rehabilitation and grid expansion

Of the planned total cost of rehabilitation and network expansion of EUR 16,863,969.71, EUR 11,002,856.74 was financed from FC (planned EUR 8.91 million). Additional financing was provided by an EU mandate in the amount of EUR 3.2 million. The FC financing helped to reach more than 13,000 new customers from 2013. We rate the production efficiency as good.

WENRECo is more interested in connecting industrial customers than private households, as they are more solvent and have significantly greater electricity consumption, resulting in higher profits with less administrative overheads and risk. In view of this situation, it would make sense for WENRECo to conclude off-take agreements with commercial “anchor clients”, which guarantee the ongoing purchase of larger quantities of electricity. Although these customers are usually able to negotiate more favorable electricity prices due to their stronger bargaining position, they nonetheless help to safeguard the micro-grid operator's business by purchasing in bulk and would strengthen the allocation efficiency, which otherwise remains weak. The still unreliable nature of the electricity supply means that – at least to date – not many of these anchor clients are setting up in West Nile. It remains to be seen whether the installation of the IPP diesel generators in Arua will change this situation. However, in that case, the effect would only be partly attributable to the FC financing. In 2017, 41 % of businesses – including small businesses and cumulatively accounting for just under 50 % of customers – purchase less than 30.4kWh/month.

Private consumer groups purchase a particularly small amount of electricity (63 % of household customers less than 30.4kWh/month), either due to them not requiring any more or being unable to afford more electricity (2017 figures). This fact further weakens the allocation efficiency, as these households could have been supplied by SHS or similar pico-systems, which some of them already use of their own accord.

Switch to pre-payment technology

EUR 600,000 was earmarked for this measure. At the final inspection, the costs amounted to EUR 734,414.97 (plus EUR 475,000 in costs for a personnel support measure). Between the commercial launch of the pre-payment system in 2014 and the final inspection in May 2017, saving of operational costs in the amount of EUR 573,840 (23.3 %) was achieved. Both production and allocation efficiency of this investment can be rated as good since the system has reduced commercial losses. (in turn, increasing WENRECo's commercial efficiency), and customers are now better equipped to plan their energy use and to control expenses.

Efficiency rating: 3

⁶ For PV-based micro-grids, the prime costs are EUR 0.25–0.35/kWh. Without grant funding, the prime costs for PV-based micro-grids range from EUR 0.45 to 1.7/kWh, with the high-end figure stemming from projects in China 10 to 15 years ago.

Impact

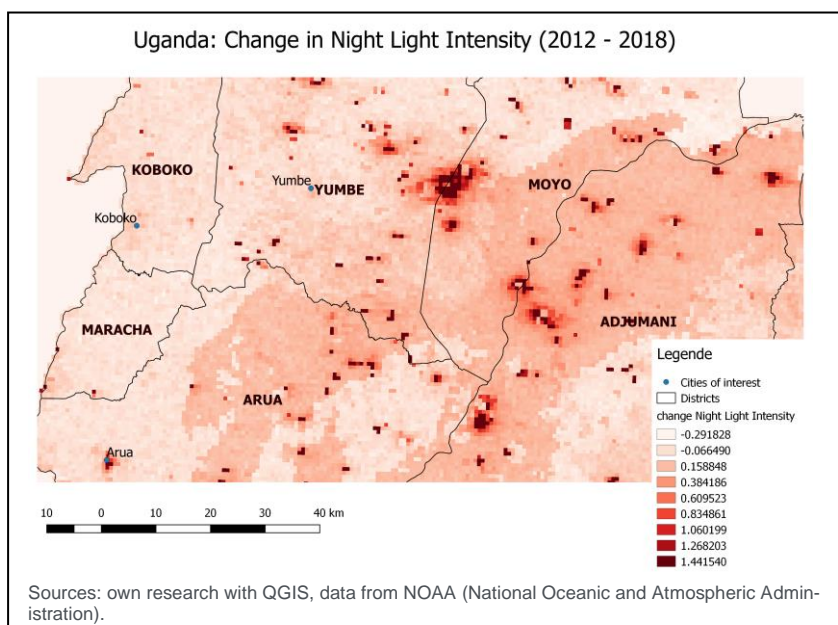
The impact objective was to help advance economic and social development in the West Nile region as well as playing a role in global climate protection. The target's achievement is assessed using the following indicators:

Indicator	Status PA, target PA	Ex post evaluation
(1) 25 % of CO ₂ (-equivalent) emissions prevented by the project.	25 % reduction	<p>Achieved</p> <p>Since Nyagak I was put into commercial operation in September 2012, the grid's energy generation was initially 100 % from renewable sources. This had reduced generation costs in a context of poorer electricity availability and led to a roughly 3,500t CO₂e reduction in annual greenhouse gas emissions.⁷</p> <p>However, water levels have been low since 2016, and many companies use diesel generators for back-up.</p> <p>Since May 2019 when IPP Arua (diesel) was also put into operation, CO₂ emissions have increased by 450t CO₂e/month.</p>
(2) Increase in productive and income-generating investments in the areas electrified.		<p>Micro, small and medium-sized enterprises are setting up operations, and new equipment is being used (e.g. saws, drills and welding machines). Growing productive use of electricity in the region, increasing private sector investment, especially in the processing of agricultural products.</p>
(3) In electrified areas, there has been an increase in: i) the percentage of schools providing electricity-dependent education, ii) the percentage of health stations providing electricity-dependent services, and iii) the reliability of the water supply.		<p>Schools and hospitals can offer a wider range of services. However, the equipment needed for these applications is often lacking.</p>

Overall, the impacts of the FC measures in the West Nile region are limited but visible. After Nyagak I was commissioned in 2012, the region had enough electricity to provide a secure supply with few interruptions – until the onset of drought at the end of 2016. This benefited not only the households that had been connected, but also productive businesses. Specifically, on account of the improved power supply, various businesses set up shop between 2012 and 2016. Beneficiaries have been using new equipment such as welding machines since they were connected to the West Nile electricity grid, while a recent increase in electric mills has also been observable. Figure 1 illustrates this development, highlighting the increase in night-time light intensity in the project region – especially in the urban centers. Schools offer significantly more computer classes and science lessons, while hospitals have expanded their range of services. However, in addition to the electricity supply, the facilities' budgets for procuring new equipment and a lack of skilled and qualified staff are always limiting factors in this context.

⁷ Based on actual electricity generation between 2015 and 2019, assuming an alternative scenario with electricity generated by the existing heavy fuel oil generator.

Figure 1: Slight increase in night-time light intensity in the project region



In addition, it should be noted that a decrease in the use of diesel can also be observed outside the West Nile Electrification Corridor. This development is due to the increasing spread of photovoltaics and solar power systems, although it makes it causal attribution difficult in project areas. The number of households using biomass remained constant, as they cannot afford expensive electric stoves or the cost of electricity for cooking.

Initial positive developments can already be seen in manufacturing and public service delivery. The strengthening of commercial activity depends crucially on being able to maintain a constant power supply, which has now been restored – albeit at the cost of increasing emissions. As a result, the impact is just about satisfactory.

Impact rating: 3

Sustainability

The electricity generated by Nyagak I on the micro-grid has not been able to meet demand since 2017, especially during peak hours. Incrementally connecting new customers as part of the grid expansion has continuously increased demand since the power plant was commissioned in 2012. This demand was originally to be met by building the Nyagak III SHPP. However, as of today, its construction is still only at the tendering stage. The supply shortage continues to be exacerbated by increasing water withdrawals from the upper reaches of the river in the Democratic Republic of the Congo as well as prolonged droughts in the dry season (November–March), which have limited operations to 12 hours a day. According to the MEMD, there have been initial bilateral talks on water use, but the prospects of reaching an agreement are considered slim.

Given this situation, WENRECo repeatedly had to cut off parts of the grid from the supply at short notice for load shedding purposes until April 2019. To close the supply gap, an IPP-operated 4MW diesel generator was installed in Arua in May 2019, feeding eight hours of electricity into the West Nile grid per day. As a result, the reliability of the electricity supply is once again only ensured by non-renewable energy production at present. In parallel operation, however, the hydropower plant is no longer operated at full load, meaning that the proportion of renewables in the electricity supply actually decreases.

The uncertainty surrounding the prospects for an uninterrupted power supply is causing resentment among the population and results in a lack of planning certainty for manufacturing industries. Despite the now sufficient capacity levels, there are technical limitations in the grid infrastructure that pose a risk to

the long-term supply. In particular, defective transformers and untrimmed vegetation in the line corridors still lead to two or three power cuts per day on average (around 45–60 minutes). In addition, some of the construction components of the power plant and grid technology was not properly completed. This could jeopardise the sustainable operation of the infrastructure, as the necessary levels of redundancy have not been fully incorporated to minimise risks regarding the evacuation of electric power from the SHPP. The grid operator and the national regulatory authority are working to resolve these technical problems. A further risk is imposed by the partly insufficient maintenance of systems and equipment. This is in part a result of WENRECo's difficulties in finding sufficiently skilled and qualified staff in this remote region, as well as the fact that the network is large and widely distributed while simultaneously lacking modern communication methods on the high-voltage grid. As a result, it is not possible for a control station to ensure efficient hydropower plant, diesel and grid management. Furthermore, outstanding compensation payments present difficulties in areas such as line maintenance.

From a financial perspective, this is also compounded by the tension between electricity prices based on generation cost and a regulator focused on ensuring an affordable electricity supply. The operator's financial sustainability is uncertain. Reasons for this include, among other things, the low average electricity consumption relative to operating costs and the lack of opportunity for cross-subsidisation via urban centers and industrial customers. Although the pre-payment meters installed can partially compensate for this effect by increasing the collection rate, WENRECo remains dependent on increasing demand while maintaining sufficient generation capacity.

Given the current situation, the region's connection to the interconnected grid – intended to take place in 2021 – is essential for the sustainability of the electricity supply. This integration into the interconnected grid does not threaten the continued existence of the FC-financed infrastructure (SHPP⁸, grid, and pre-payment meters), as the infrastructure is readily compatible.

Sustainability rating: 3

⁸ According to the regulator, the Nyagak I SHPP will continue to operate regardless of whether or not the micro-grid is connected to the national grid – despite existing off-take agreements with IPP on the interconnected grid.

Notes on the methods used to evaluate project success (project rating)

Projects (and programmes) are evaluated on a six-point scale, the criteria being **relevance, effectiveness, efficiency** and **overarching developmental impact**. The ratings are also used to arrive at a **final assessment** of a project's overall developmental efficacy. The scale is as follows:

Level 1	Very good result that clearly exceeds expectations
Level 2	Good result, fully in line with expectations and without any significant shortcomings
Level 3	Satisfactory result – project falls short of expectations but the positive results dominate
Level 4	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
Level 5	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
Level 6	The project has no impact or the situation has actually deteriorated

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative assessment.

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability): The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The **overall rating** on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (level 3).