

## Supplement to

### ***ELECTRICAL INDUSTRY OF BURMA/MYANMAR* (Fourth Edition)**

#### **Articles for February 2013**

This is the eleventh in a series of supplements to the fourth edition of *The Electrical Industry of Burma/Myanmar* which was published in April 2012. Approximately 350 cross-linked articles in the original cover many aspects of the industry including the development of the hydro and thermal power resources of the country, the increasing intervention of foreign and national companies in this economic sector, the production of electrical and electronic goods, government plans and regulation of the industry, the development of the national power grid and alternative and sources of electricity, among others. This supplement covers articles published in February, 2013. The fourth edition of the compendium can be accessed using the following URL:

<http://www.burmalibrary.org/docs2/ELEC-Burma-4th-edition.pdf>.

Previous supplements for April-May 2012 through to January 2013 are available at

<http://www.burmalibrary.org/docs13/Elec-Sup-April-May2012.pdf>,

<http://www.burmalibrary.org/docs13/Elec-Sup-June2012.pdf>,

<http://www.burmalibrary.org/docs13/Electricity-Sup-3July2012.pdf>

<http://www.burmalibrary.org/docs14/Elec-Sup4-August-2012.pdf>.

<http://www.burmalibrary.org/docs14/Elec-Sup5-Sept-2012-red.pdf>

<http://www.burmalibrary.org/docs14/Elec-Sup-Oct-2012-red.pdf>

<http://www.burmalibrary.org/docs14/Elec-Sup-Nov-2012-red.pdf>

<http://www.burmalibrary.org/docs14/Elec-Sup-Dec-2012-red.pdf>

<http://www.burmalibrary.org/docs15/Elec-Sup-2013-01-red.pdf>

Note that the titles of some of the articles included in the supplements have been altered to indicate with more precision the contents of the item or article. Summaries of some of the articles are included.

#### **Japan to provide Myanma electric sector with technical assistance**

Myanmar News Agency, 26/02/13. Edited and condensed. From p. 9 of the print edition of NLM on 27/02/13.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-27.pdf>

Speaker Khin Aung Myint of Myanmar's Union Parliament received former Japanese Ambassador Takashi Tajima at the hall of the Hluttaw Complex In Nay Pyi Taw today. They exchanged views on bilateral cooperation in various sectors, including technical assistance for sufficiency of electricity supply in Myanmar, progress in current political and economic reform processes in Myanmar and the positive benefits of the foreign investment law currently under review. The Speaker expressed thanks to the Japanese Government and its people for writing down Myanmar government debt.

#### **Andritz Hydro opens representative office in Yangon**

Justin Heifetz, Myanmar Times, 25/02/13. Edited.

<http://www.mmmtimes.com/index.php/business/4208-andritz-hydro-opens-representative-office-in-yangon.html>

Andritz Hydro, a subsidiary of the international technology group Andritz, has opened a representative office in Yangon. "We have followed the dynamic opening and transition process in Myanmar over the past few years and are happy to announce that we now have a representative office in Yangon," said Josef Ullmer, president of Andritz Hydro Southeast Asia, during the office's opening ceremony on February 1. "This will enable us to better analyse the market, its needs and opportunities," he added. Andritz Hydro has been working in Myanmar since 1983. It has recently been invited by local partners and the Ministry of Electric Power to work more intensively in the country in the future. "This is a huge opportunity. We are working closely with our local partners on [new] projects, which help us combine our international expertise and local knowledge," said Hydriz Hydro's regional director for Indochina, Martin Koubek, in a company press release. Andritz Hydro's goal is to work closely with government agencies to identify effective short-term modernisation projects that will meet the increasing energy needs of Myanmar, the company press statement said. Andritz Hydro supplies electromechanical equipment for hydropower stations. It holds a top position in the growing hydropower plant service, refurbishment and upgrade market. The company is working with the Ministry for Electric Power to analyse some existing power plants and examine production potential

and production safety issues, Harald Friedl, representative for Andritz Hydro Myanmar, told The Myanmar Times on February 21. The Andritz group is headquartered in Graz, Austria and has 17,700 employees worldwide

### **Master plan for the development of Yangon on the drawing boards**

Myanma Alinn, 24/02/13. Edited and condensed. From p. 9 of the print edition of NLM on 25/02/13.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-25.pdf>

A master plan is being drafted by the government with the assistance of the Japan International Cooperation Agency (JICA) for the development of Yangon in accordance with international standards. According to a YCDC official the plan will include updated arrangements for the supply of electricity for residents in the municipal area. With the assistance of Japan, plans are underway to build power stations, install power lines and implement the Thilawa special economic zone and its related infrastructures including the supply clean drinking water for the people. JICA will assist with 20 a loan of 20 [billion] yen towards implementation of the plan.

### **Installation of new gas turbines at Ywama and Ahlon underway**

New Light of Myanmar 24/02/13. Edited and condensed. From p. 16 of the print edition NLM on 25/02/13.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-25.pdf>

Installation of the first of two 120-MW gas turbines donated by Thailand is underway in the compound of Ywama gas power plant. It is being installed by engineers from the Ministry of Electric Power in cooperation with Sri U Thong Fortum Engineering (STFE) of Thailand. The second 120-MW turbine is expected in March. Also underway is the installation of a gas turbine LM-6000 PC, and construction of a switch yard that will link it with the 230-KV Ahlon main power station as well as construction of a concrete foundation to serve as the base for a second gas turbine at the Ahlon power plant. This work is being carried out by Toyo-Thai Company. The first new turbine at Ahlon which will generate 41.5 megawatts of electricity is expected to go on-line on 31 March and the second on 30 April.

### **Burma's Upper House Rejects Nuclear Energy Plan**

Nyein Nyein, The Irrawaddy, 22/02/13,

<http://www.irrawaddy.org/archives/27496>

Burma's Myohta Hluttaw has rejected a proposal to develop a nuclear power plant in the country. Most parliamentarians who participated in the debate argued that other means of energy generation, such as hydropower dams, should be developed instead. A majority of 110 lawmakers voted against a proposal to develop atomic energy by 2020 in a way that would comply with the guidelines of the International Atomic Energy Agency (IAEA), of which Burma is a member. A group of 29 MPs supported the plan by Dr. Myint Kyi of the ruling Union Solidarity and Development Party (USDP), a former lecturer of Rangoon University's Physics Department. However, most MPs who spoke to the proposal felt that the government should first generate energy from the country's resources of gas, coal and hydropower, as these are easier and safer to develop. "Even developed countries face many problems regarding nuclear power plants. Being an underdeveloped country we have not reached yet to that stage" of managing the risks of atomic energy, said Phone Myint Aung of the opposition New National Democracy Party. "There are plenty of places where we can generate electricity from hydropower instead," he added. "We think the nuclear power generation should not start yet," agreed Aye Maung, an MP of the Rakhine Nationalities Development Party. He said the high costs and risks associated with atomic energy made it an unattractive power source when compared to other forms of energy supply. Deputy Minister of Electric Power Aung Than Oo told the Upper House that Burma has no plan to build a nuclear power plant but a preliminary study into the potential construction of a plant should be conducted, state-run newspaper The New Light of Myanmar reported on Friday. The minister said Burma had access to renewable energy sources such hydropower, but might have to consider other forms of energy generation in the long term.

Burma's previous military regime has been accused in the past of seeking nuclear weapons technology. The regime denied that and said that a project to develop a 10-megawatt nuclear power plant had been stalled. In December, Burma's commander-in-chief said that the military would only "conduct studies and experiments for peaceful purposes in accordance with international standards" for medical, scientific and energy use. Burma's government announced in November that it planned to implement the International Safeguards and Additional Protocol of the IAEA, which would allow the agency to inspect Burma's facilities as part of its nuclear nonproliferation policy. The US has since said that is assisting the Burmese government in its plan to let international observers inspect atomic activities.

## **Thaukyaykhat-1 hydropower project on hold**

Myanmar News Agency, 21/02/13. Edited. Excerpt from an article on p. 13 of the print edition of NLM on 22/02/13.  
<http://www.burmalibrary.org/docsMA2013/NLM2013-02-22.pdf>

Replying to a question from U Saw Taw Pa Lae of Kayin State Constituency No. 7 in the Amyotha Hluttaw about a proposal to develop the Thaukyaykhat-1 hydropower project [east of Toungoo], Deputy Minister for Electric Power Myint Zaw reported that the ministry had no plan to implement the Thaukyaykhat-1 project at present.

## **Kyaukse gets another transformer to meet growing electricity demand**

Kyemon, 18/02/13. Edited. From p. 2 of the print edition of NLM on 19/02/13.

[http://www.myanmararchives.com/newspapers/The-New-Light-of-Myanmar/2013/02\\_Feb/19-02-2013.pdf](http://www.myanmararchives.com/newspapers/The-New-Light-of-Myanmar/2013/02_Feb/19-02-2013.pdf)

Upgrading of 33/11-KVA switch yard, construction of a control building and installation of a new 10-MVA transformer were carried out on 9 February at 33/11 KVA sub-station in Kyatminton ward which is supplying electricity to Kyaukse Township of Mandalay Region. With a rise in electricity consumption in Kyaukse where only one 10-MVA transformer is in use to supply electricity, the new transformer will provide more electricity to the local population.

## **World Bank eyes Myanmar electricity sector as ties expand**

Reuters, 15/02/13. Edited and abridged.

<http://www.reuters.com/article/2013/02/15/myanmar-worldbank-idUSL1N0BFD1V20130215>

The World Bank is discussing plans to add 120 MW of electricity in Myanmar - enough to provide power to five million people - in support of the Southeast Asian country's reforms after debt arrears were cleared, a senior bank official said on Friday. "Unfortunately only 25pc of the population have access to electricity, so clearly there is an enormous challenge and our medium-term agenda is ... to turn on the lights, particularly in the rural areas," said Axel van Trotsenburg, the bank's East Asia and Pacific Region vice president. "We would like to see that there is a much broader-based sharing of development and electricity will be important there," he told reporters in Washington, following a five-day tour of the country. The country, resource-rich but underdeveloped after decades of isolation, cleared a major hurdle to getting help from international financial institutions last month when it cleared about \$420 million in debt arrears accumulated under the military. The World Bank has approved \$165 million in interest-free, long-term International Development Association loans to expand access to electricity and other potential projects, said van Trotsenburg. Another \$440 million credit agreed last month will support macroeconomic stability and help Myanmar meet foreign exchange needs, including repaying a bridge loan Japan provided to clear the debt arrears, the bank said in a statement. Lending to support the electricity upgrade would replace outdated, 40-year-old gas turbines with new ones that were 2.5 times as efficient, helping expand rural access to power and reduce brown outs in cities. The Dutch-Austrian economist, a 25-year veteran of the World Bank, said the delegation he took to Myanmar met government officials and private sector and civil society leaders and "came away very, very encouraged. What has been very positive is that you feel the wind of change and you feel also the desire to get development (going) forward in the country," said van Trotsenburg.

## **Norwegians conduct hydropower technology training for Myanmar engineers**

Myanmar News Agency, 13/02/13. Edited and condensed. From p.16 of the print edition of NLM on 14/02/13.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-14.pdf>

Engineers of the Ministry of Electric Power are receiving a training course jointly conducted by the International Centre for Hydropower (ICH) of Norway and the Ministry of Electric Power, at the ministry offices in Nay Pyi Taw beginning today. The course centres on the joint public-private development of hydropower resources. was opened at the ministry here today. In his key-note address at the opening ceremony, Union Minister for Electric Power U Khin Maung Soe said the trainees would learn about hydropower production technology, cooperation between the public and private sectors, and initiatives related to selling electric power to neighbouring countries.

## **Sub-power station under construction in Taungpyone of Madaya Township**

Myanma Alinn, 11/02/13. Edited and abridged. From p, 10 of the print edition of NLM on 12/02/13.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-12.pdf>

Construction of the control room and switch yard of a 33/11-KV 5000-KVA sub-power station is underway in Taungpyone village in Madaya township. On completion, the sub-power station will extend the supply of electricity available in Taungpyone and its surrounding areas.

## **Delay in Thatay hydropower project sparks debate in Pyithu Hluttaw**

Soe Than Lynn, Myanmar Times, 11/02/13. Edited and abridged.

<http://mmtimes.com/index.php/national-news/4028-rakhine-dam-in-spotlight-over-delays.html>

The Thatay hydropower project involving the government and the International Group of Entrepreneurs, better known as IGE, is less than one-quarter finished after almost nine years of work, the Ministry of Electric Power has revealed. Deputy Minister U Myint Zaw told Pyithu Hluttaw legislators that the project, about 19 kilometres north of Thandwe in southern Rakhine State, would be finished by 2018-19. It will have a maximum generating capacity of more than 100 megawatts and is expected to produce up to 386 million kilowatt hours a year. He told the lawmakers on January 30 that the K45.62 billion (US\$53.4 million) budget for the project was adequate and the project had been delayed because of difficulties digging tunnels for the dam due to the "geological complexity" of the area. Speaking in response to a question from U Aye Mauk, the representative for Mahlaing, the deputy minister said IGE is working together with the Hydropower Implementation Department on two diversion tunnels and a sluice gate. IGE is owned by U Nay Aung and U Pyi Aung, the sons of former Minister for Industry-1 U Aung Thuang. After the deputy minister's response, Pyithu Hluttaw Speaker U Shwe Mann said the value of the hydropower project was "questionable" and criticised the deputy minister's overly technical response, which he said was hard for MPs to understand. "What MPs and the people want to know is not the way it is done but the result: when it will be finished or, if necessary, how much money we will have to allocate to finish it," he said. "This project started in 2004 and is only 23pc complete. If we let it continue it will last well beyond the tenure of the present government. U Shwe Mann said parliamentary committees should review government projects in progress and recommend prioritisation of those that can bring the greatest benefit "for the people and country". He contended that committees would have to assess which electricity projects should be completed or needed more funds to be completed. If funds were scattered over too many electricity projects none would be completed resulting in further delays to improved electricity generation.

## **Transformer arrives at Bhamo power station**

Myanma Alinn, 09/02/13. Edited. From p. 9 of the print edition of NLM on 10/02/13.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-10.pdf>

A 77/11-KV, 40-MVA transformer arrived at Bhamo in Kachin State on 25 January. It will be used to supply electricity to the local people in Bhamo, Momauk (Myothit), Mansi and Dawphonyan of Bhamo District on completion of repairs to the Tapein hydropower plant. ACSR 795-MCM cables have also arrived at Bhamo power station to be used in the installation of 66-KV power lines.

## **Two thermal power plants for Ywama to arrive in Yangon in February & March**

New Light of Myanmar, 08/02/13. Article available on p. 8 of the print edition of NLM on 09/02/13.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-09.pdf>

## **Thaukyekhet hydropower project in start-up phase**

Myanmar News Agency, 06/02/13. Edited. From p. of the print edition of NLM on 07/02/13.

Thaukyekhet-2 hydropower project on Thaukyekhet Creek, 14 miles east of Toungoo in Bago Region has begun operations. The plant has been built and is being operated by the Golden Energy Co Ltd under the B.O.T. system. Eventually the project will have an installed capacity of 120 megawatts. Meanwhile the first generator with a reported capacity of 40 megawatts is on a test-run basis. Commercial power generation from the first generator is to begin on 07/02/13. The power will be distributed to the national grid through Toungoo sub power station. The project is reported to be able to generate 604 million KWH on average annually.

## **Plans underway for Wa-sponsored dam project**

Shan Herald, 06/02/13. Edited and abridged.

<http://www.bnionline.net/index.php/news/shan/14730-thailand-worries-over-wa-dam-project.html>

Reports of preparations by the United Wa State Army (UWSA) to build a dam over the Kok river that flows from Burma's Shan State into Thailand have stirred up concern among Thai communities in Chiangmai and Chiangrai. "More than 100 villages comprising some 13,000 families working on 130,000 rai (48,000 acres) of farmland in Chiangmai's Mae Ai and Chiangrai's Muang and Chiang Saen districts will be affected," said an official acquainted with environmental issues. "Both farming and tourism will be crippled." According to date collected by people living in the area, the site is near Doi Pong Tawng, some 30 km north of Thai-Burmese border where the height of the mountains on both sides of the Kok is about 80 meters, the distance between them about 150-200 meters and the

width of the river 15-20 meters at the project site. Construction time for the project on which some five hundred workers from China would be involved is estimated at five years and total costs at approximately 400-500 million baht (\$US 14-17 million). Hydropower and mine projects inside Wa controlled areas have been given the green light by Naypyitaw during President's Office Minister U Aung Min's visit on 4 December, according to Sino-Burmese border sources. [Compiler's note: A map showing the location of the project is available at the indicated URL. If the cost estimate provided is correct, it is doubtful that any hydroelectric development is contemplated.

### **Electric power supply extended in rural areas of Patheingyi township**

Kyemon, 04/02/13. Edited.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-05.pdf>

Of the 140 villages in Patheingyi township in Mandalay Region, five more are now being supplied with electricity on a self-reliant basis. These include Hsinywagyi, Nyeinchanthazan, Yeyinzara, Natsein and Khemabaya villages which have been electrified since early in 2013. Six other villages in the township receive electricity fueled by diesel engine under arrangements with the regional government and 65 villages are powered on a self-reliant basis. At present, 13 other villages in the township are taking steps to get electricity supplied on a self-reliant basis. On 31 December 2012, a ceremony to launch supply of electricity was held at the hall of Hsinywagyi Village. The power supply committee tried hard to switch on the lamp posts by the July 2012 and installed electric meters at the houses for supply of electricity round the clock the end of 2012.

### **Kyaukpyu to be connected to the national electricity grid**

Ko Naing, Myanma Alinn, 05/02/13. Edited. From p.16 of the print edition of NLM on 10/02/13.

<http://www.burmalibrary.org/docsMA2013/NLM2013-02-10.pdf>

Kyaukpyu sea port in Rakhine State has 12,365 residents and 4467 households. From 1954 to 2012, it was supplied with electricity by a 55-kilowatt generator. In 2012, additional generators, one of 1000-KVAs and a second of 500-KVA generating capacity were added. Fuel costs were shared on the basis of two hours paid for by the Electricity Department and 17 hours by the local power supply committee. Since early February 2013, a Welt Man brand 1000- KVA generator, a 400/11000 volt 1000-KVA transformer and machinery have been installed. Additionally, the town has been equipped with the 19.82 miles of 11-KVA power lines, 14.77 miles of 400 volt power line and 16 transformers. Moreover, foundation work is underway as of January 2013 for the construction of 230-KV power lines from Okshitpin to Taungup and Kyaukpyu. A 230/66/11 KV 100MVA sub-power station is being built on 54 acres of land, 5.6 miles southwest of Kyaukpyu that will be linked to the national grid. Arrangements are being made to transfer electricity to the 66/11 KV, 20-MVA sub-power station in the compound of the Kyaukpyu Township Electrical Engineering Office and to install 5.6 miles of 66-KV power lines. Meanwhile, a 50-megawatt gas power plant will be built in the yard of the 230/66/11 KV power station yard that will generating electricity using natural gas supplied from the Shwe natural gas project. On completion, the gas power plant will supply electricity not only to Kyaukpyu but also to surrounding towns in Rakhine State. The construction of the power plant, sub-power station and installation of power lines is expected to be completed by the end of 2014. It is also projected to supply electricity to the whole town beginning as early as March of 2013. After 2014 when electricity can be generated from the power stations and gas power plants across the nation, those facilities will be able to supply electricity at full capacity to Rakhine State.

### **Pyuchaung hydropower plant to generate 120 million kwh a year**

Myanmar News Agency, 03/02/13. Article available on p.16 of the print edition of NLM on 04/02/13.

[http://www.myanmararchives.com/newspapers/The-New-Light-of-Myanmar/2013/02\\_Feb/04-02-2013.pdf](http://www.myanmararchives.com/newspapers/The-New-Light-of-Myanmar/2013/02_Feb/04-02-2013.pdf)