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c) EXECUTIVE SUMMARY, MINUTE OF MEETINGS and PROJECT SCHEDULE & S-CURVE

PROJECT REPORT

EXECUTIVE SUMMARY

(pages 8-21 in original report)

For the Month of JANUARY 2012

**Project : CONSTRUCTION SUPERVISION SERVICES OF THE NATIONWIDE ELECTRICAL
POWER GRID and POWER PLANTS and Its FACILITIES**

A) CNI22 – Power Grid (150 KV Transmission Lines , Substations , 20KV distribution lines
and Hera Facilities & Oil Tanks)

The activity of the Contractor during January 2012 has slowed down considerably , a large number of workers went back home in China to celebrate the Lunar New Year (a sacred period for them),and also many workers combined this festivity with their annual leave . It is expected that normal activity on the project will be resumed by end of February 2012.

The power grid from Liquica substation up to Lospalos substation is in commercial operation ; the system , so far , is working without major breakdown , the only one breakdown recorded has been in Dili Substation on January 10 , 2012 ,main control building , where one resistor cabinet was totally burned down because the protection device did not intervene , no casualty and no interruption of electricity were reported. The reason was given as a short circuit on 20 KV line Becora — Seioi — Aileu while was being tested.

The Contractor is constantly reminded that safety condition of the power grid now in service is not at all satisfactory , but there is no action to improve it .

The total progress achieved at the end of January 2012 by CNI22 is 82.73 % against the planned 91,27 % (this percentage is calculated on the total value of the contract as per the Amendment No. 3).

Individual segment of the project have the following progress :

1) Transmission lines	82.78%	(+ 0.90% from previous month)
2) Substations	84.05%	(+ 0.67% from previous month)
3) Hera oil tanks	100.00%	
4) 20 KV Lines	71.12%	(+ 24.02% from previous month)

Events of this month, to be highlighted:

- 20KV Line Dili – Selo – Aileu has been energized on January 13 , 2012.
- 20KV Line Selo – Gleno has been energized on January 24, 2012.

The progress of the works in the various sectors done by CNI22 during the month of January 2012 can be summarized as follow :

Dili Substation:

Substation Energized and in Commercial Operation.

Works remaining to be done :

- Sanitary system not yet in function.

- Repair of civil works defects mentioned in the punch list .
- Repair of electrical works defects mentioned in the punch list.
- Main Control Building to be made fully operational .
- Protection system instrumentation to be made efficient .
- Fire alarm system not working.
- Fire fighting system not working.
- Electrical installation inside the pump house to be completed.
- Supply of all furniture for guard house , offices , store, Meeting room and dormitory

Manatuto Substation

Substation Energized and in Commercial Operation .

Works remaining to be done :

- Sanitary system not yet in function.
- Repair of civil works defects mentioned in the punch list.
- Repair of electrical works mentioned in the punch list.
- Protection system instrumentation to be made efficient.
- Fire alarm system not working.
- Fire fighting system not working
- Works in the pump house non completed.
- Supply of all furniture for guard house , offices , store and meeting room

Liquica Substation

Substation Energized and in Commercial Operation.

Works remaining to be done.

- Sanitary system not yet in function.
- Repair of civil works defects mentioned in the punch list.
- Repair of electrical works mentioned in the punch list.
- Protection system instrumentation to be made efficient.
- Fire alarm not functioning.
- Fire fighting system not working.
- Works in the pump house not completed.
- Supply of furniture for guard house , office , store and meeting room.

Baucau Substation

Substation Energized and in Commercial Operation.

Works remaining to be done

- Repair of civil works defects mentioned in the punch list.
- Repair of electrical works mentioned in the punch list.
- Protection system instrumentation to be made efficient.
- Sanitary system not yet functioning.
- Works in the pump house not completed.
- Fire alarm system not working.
- Fire fighting system not working.
- Supply of furniture for guard house , office , store and meeting room.

Lospalos Substation

Substation Energized and in Commercial Operation.

Works remaining to be done :

- Spreading of the gravel over the area not completed.
- Internal roads 90% done. Main Control building finishing of painting and repair of defects.

- 20KV building finishing of painting and repair of defects.
- Sanitary system not yet functioning.
- Sewage system is completed up to 95 %.
- Works in the pump house not completed .
- Fire fighting system not completed .
- Fire alarm not working.
- Repair of civil works defects mentioned in the punch list.
- Repair of electrical works mentioned in the punch list.
- Supply of furniture for guard house office , store and meeting room

Viqueque Substation

The Contractor is planning to complete this substation by March 2012, but the quantity Of works still remaining to be done is a lot.

Major works remaining to be done .

- Main Control building, civil work completed up to 95 %.
- 20 KV building , civil work completed up to 95 %.
- Guard house pump house completed up to 90 %.
- Drainage System and water pipes completed up to 95 %.
- Sewage treatment system is 80 % done
- Erection of steel structures completed up to 90 %.
- Installation of grounding net- work completed up to 90 %.
- Installation of all outdoor electrical equipment.
- Installation of all indoor electrical equipment.
- Assembly of the transformer.

Maliana Substation

The Contractor is now shifting the completion of this substation from March to mid of April 2012.

Major works remaining to be done

- Construction of the bricks fencing wall , plastering done up to 70%.
- Main Control Building ,finishing work done up to 90 %
- 20 KV Building , finishing work done up to 80 %.
- Guard house , finishing work done up to 95%.
- Pump house , installation of electrical and mechanical equipment.
- Complete installation of capacitor bank
- Complete installation of 150KV equipment.
- Assembly of main transformer .
- Installation of all outdoor electrical equipment.
- Installation of all indoor electrical equipment.
- Installation of fire fighting system.
- Drainage and water supply pipes 80 % done.
- Grounding system 75 % done.
- Lighting system 60 % done.
- Leveling of the area and gravel spreading.

Suai Substation

- No activity . The situation with Land Owners in unchanged , they are waiting for the compensation for the trees to be cut . This situation is now very critical for the Contractor that cannot start its activity . **The Contractor for this delay shall ask for prices revision of the civil work construction and installation .**

Cassa Substation

The Contractor scheduled to complete this substation by April 2012, but the work progress achieved up to date is about 20 % only.

The present situation is the following :

- Main control building , concrete structure above ground is in progress .
- 20 KV building ,concrete structures above ground is in progress.
- Transformer foundation is completed.
- Foundations of the 150KV structures 30 % done.
- Construction of the retaining wall is 80 % done .
- Guard house concrete structures in progress.

Hera Power Plant (Part of CNI22 Competence)

The construction of the Oil Tanks by CNI22 is completed.

150 KV Transmission Lines

➤ **Hera – Dili: Total number of Double Circuit Towers 30 units (9.891 Km)**

This section of line is **substantially completed is now energized and in commercial operation.**

Works remaining to be done:

- Installation of anti-climbing devices ,danger plates, phase plates , number plates , name plates.
- Construction of the concrete caps on the anchor bolts in each tower's leg.
- Adjustment of the soil around the foundations.

➤ **Hera – Manatuto : Total number of Double Circuit Towers 91 units (40.902 Km).**

This section of line is **substantially completed, is now energized and in commercial operation.**

Works remaining to be done:

- Installation of anti-climbing devices ,danger plates, phase plates , number plates , name plates.
- Construction of concrete caps on the anchor bolts in each tower's leg
- Adjustment of the soil around the foundations.

➤ **Manatuto – Baucau : Total number of Single Circuit Tower 132 units (52.329 Km).**

This section of line is **substantially completed, is now energized and in commercial operation.**

Works remaining to be done :

- Installation of anti-climbing devices , danger plates , phase plates , number plates , name plates .
- Construction of concrete caps on the anchor bolts in each tower's leg.
- Adjustment of the soil around the foundations.

➤ **Baucau – Lospalos : Total number of single circuit tower 143 units (63.499 Km).**

This section of line is **substantially completed, is now energized and in commercial operation.**

Works remaining to be done:

- Installation of anti-climbing devices , danger plates , phase plates ,number plates , name plates.
- Construction of concrete caps on the anchor bolts in each tower's leg.
- Adjustment of the soil around the foundations.

➤ Baucau – Viqueque : Total number of single circuit tower	108 units	(43.125Km)
Total number of Tower Foundations Excavated	108	
Total number of Tower Foundations Concreted	108	
Total number of Towers Erected	100	
Total number of Tower-stringing of conductors	91	

➤ Dili – Liquica : Total number of single circuit tower	87 units	(38.818 Km)
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This section of line is **substantially completed, is now energized and in commercial operation.**

Works remaining to be done:

- Installation of anti-climbing devices, danger plates, phases plates ,number plates and name plates.
- Construction of concrete caps on the anchor bolts in each tower's leg.
- Adjustment of the soil around the foundations.

➤ Liquica – Maliana : Total number of single circuit tower	109 units	(44.921 Km)
Total number of Tower Foundations Excavated	105	
Total number of Tower Foundations Concreted	105	
Total number of Towers Erected	52	
Total number of Towers-Stringing of Conductors	--	

➤ - Maliana – Suai : Total number of single circuit tower	134 units	(57.621 Km)
Total number of Tower Foundations Excavated	26	
Total number of Tower Foundations Concreted	8	
Total number of Towers Erected	--	
Total number of Towers-Stringing of Conductors	--	

➤ Suai – Cassa : Total number of single circuit tower	98 units	(38.555 Km)
Total number of Tower Foundation Excavated	8	
Total number of Tower Foundation Concreted	4	
Total number of Towers erected	--	
Total number of Towers-Stringing of Conductors	--	

➤ Cassa – Betano : Total number of single circuit tower	54 units	(24.104 Km provisional)
Total number of Tower Foundation Excavated	43	
Total number of Tower Foundation Concreted	41	
Total number of Towers Erected	--	
Total number of Towers-Stringing of Conductors	--	

➤ Betano – Viqueque : Total number of single circuit tower provisional)	196 units	(83.391 Km)
Total number of Tower Foundations Excavated	181	
Total number of Tower Foundations Concreted	181	
Total number of Towers Erected	92	
Total number of Towers-Stringing of Conductors	--	

➤ Viqueque – Lospalos : Total number of single circuit tower	233 units	(103.439 Km)
Total number of Tower Foundations Excavated	220	
Total number of Tower Foundations Concreted	217	
Total number of Towers Erected	132	
Total number of Towers-Stringing of Conductors	--	

20 KV Distribution Lines

➤ Dili – Aileu – Gleno (KM 60.10)

The section of this line **Becora – Seloi – Aileu** has been energized On January 13 , 2012.

The section **between Seloi – Gleno** has been energized on January 24, 2012 .

Some interruptions along the line has happened during heavy rain Due to bad construction and bad trees cutting.

➤ Betano – Same (KM 26.20)

In this section the 20 KV line has already been built by local contractors , therefore under EDTL instruction CNI22 shall construct same length of line in Viqueque district.

➤ Cassa – Ainaro (Km 23.60) No activity along this section.

The overall performance of the Contractor CNI22 remains poor in particular for the quality of finishing works . Despite of continuous warnings done by the Consultant , the situation does not improve.

B) Puri Akraya Engineering Limited – Power Plants in Hera and Betano. Contract No. RDTL 10004115 .

The Power Plant of Hera with three Generating sets in full working conditions is in **Commercial Operation as from 01 December 2011.**

The power plant is running on High speed diesel fuel supplied to Hera with tank trucks form Tibar fuel unloading facilities.

Operation & Maintenance contract between Puri Akraya Engineering ., LTD and Government of Timor Leste has not yet been signed , but in any case the commencement date remains fixed , as previously stated , December 1st 2011 with the first 3 units in service . The O&M team consists of 20 Expatriate and 25 Timorese technicians (trainees) divided in three shifts of 8 hours each. Number of people will be increased once all 7 units are operative.

HERA Power Plant

Chronicle of all the most important events :

- Running test of Engine No.1 done on November 18 , 2011
- Running test of Engine No.2 done on November 19 , 2011
- Running test of Engine No.3 done on November 20 , 2011
- Running test of Engine No.4 done on November 22 , 2011
- Running test of Engine No.5 done on December 09 , 2011
- Running test of Engine No.6 done on December 15 , 2011
- Fuel consumption test on Engine No.1 done on December 16, 2011
- Fuel consumption test on Engine No.2 done on December 19, 2011
- Fuel consumption test on Engine No.3 done on December 19 , 2011
- Fuel oil consumption test on Engine No.4 done on December 03,2011
- Heat rate test on Engine No.4 done on January 31 , 2012
- The replacement of the damaged engine (No.7) is in process in the factory and is expected to be shipped to Timor Leste during the next month of February .

The progress on site of the various activities during the month of January give the following picture :

Progress on Foundation 88.17 %

Progress on Building Works 100.00 %

Progress on Mechanical installation 98.90 %

Progress on Electrical installation 99.16 %

Overall progress of the Power Plant 91.05 %

Progress on Switchyard civil work 100.00 %

Progress on Switchyard electrical work 99.00 %

Overall progress on the Switchyard 99.00 %

Work completed during the month of January 2012 :

Main Plant

- Cladding and insulation of piping at day tank area .
- Equipment installation at storage tanks 1-2-4-5 .
- Mechanical installation of engines 5 and 6.
- Painting of sludge tank.
- Insulation of exhaust gas ducts 4-7.
- Insulation of steam and condensate piping.
- Work shop electrification.
- Fire detection system.
- Telephone and LAN-network installation.
- Instrument cabling in storage tanks area. Energizing of auxiliary control panel of engine No.7. Storage tank area instruments cabling.

Switchyard

- Fence and Gate.
- Final backfilling leveling and compaction.
- Gravel paving.
- Transformers fire walls.
- SAS/SCADA/SCS system.
- Plant communication system.
- Pre-testing and commissioning.

Work ongoing :

Main Plant

- Rain water ditches , roads works ,street lighting.
- Gravel paving.
- Repair works according to the punch list.
- Oily water treatment unit .
- Exhaust gas boilers.

Switchyard

- Repair works according to punch list.
- Final backfilling and gravel paving.

Materials arrived at site during the month:

- Some missing and replacement parts sent by air cargo , but not affecting the running of the power plant.

Manpower deployed at site during the month of January.

- Management / Staff 51 persons (expats) .
- Management / Staff 14 persons (local)
- Workers skilled 99 persons (expats) .
- Local workers 48 persons .

BETANO Power Plant

- The local contractor <TINOLINA Lda> on January 5 , 2012 started the earth works on site , cut & Fill and compaction of the embankment based on the approved drawings .
- The progress of the work achieved at end of January was 50 %
- Basic engineering drawings are under preparation

The performance of the Main Contractor PAE and subcontractors Wartsila / Vika / ABB during the month of January 2012 in the overall was good.

C) CSI Company,Lda of Timor Leste (China Shandong International) - 24 MW Extension of Comoro Power Plant , Contract No. RDTL 100053 .

The activity at site is proceeding normally in accordance to the time schedule .

The overall progress achieved during the month of January 2012 is 98.50%

The Contractor is working on site with the following man power :

- Project Management No. 14 Chinese.
- Site works No. 133 Chinese workers and No. 36 Timorese workers .

The major works done during the month of January are as follow :

- All doors and window of the power house and pump house installed.
- Fire protection wall around the fuel tanks completed.
- Floor of the water pump house completed.
- Pipe line system for high/low temperature, for fuel and lube oil completed on engines No.1 and 2 ; for engines No 3 and 4 done 80% and for engine No.5 done 50 %.
- Firefighting piping system of the power house 90 % completed .
- Cables laying and wiring of engines No. 3 – 4 – 5 completed.
- Cables laying from power house to oil pump house and water pump house completed .
- Wiring in distribution room for Gensets No.1 and 2 completed.
- Wiring of DCS completed.
- Switch gear cabinets and high/low voltage cabinets tested.
- Lightening protection rods for fuel tanks installed .

- Grounding network of the plant 90% completed .
- Fire extinguishing devices in water pump house installed .

Drawings submitted, revised and approved by the Consultant:

- Cable trench from the new power plant and existing power plant
- Revised fire protection system
- Revise cable laying drawings.
- Revised water piping installation around the oil tanks .
- Mechanical installation revised drawings.

The performance of the Contractor CSI and the quality of the workmanship during last couple of months has deteriorated badly , no care at all is given to house keeping and environment protection , instructions given are not at all kept in consideration . Commissioning test of the first two Gen Sets scheduled by mid January 2012 have been postponed to a new date to be established because protection system is not ready.

D) Bps PT BANGUN PRIMA SEMESTA – Engineering , Procurement and Construction of the 20KV Over Head Line Connecting the new 150/20KV Dili Substation with the Existing six (6) 20KV Feeders of Comoro Power Plant

The Contractor during this month of January 2012 did not succeed , as planned, to complete the connections of feeder No. 1 and 3 from Dili substation to Comoro plant .The Contractor is complaining of the difficulties and obstacles created by the land owners. No specific date is given to complete this part.

Feeders No.4 and feeder No.5 are energized and in regular operation .

This contract in accordance to the quantity of materials effectively installed has the new value as follow :

- Contract No. RDTL 11004369	Value US \$ 1,326,900.75
- Expected revised scope of work	<u>Value US \$ 933,000.00</u>
- Expected new Total Amount	US \$ 2,259,900.75

(pages 23-31 in original)

Contract RDTL - 812931

**Construction of nation-wide electrical power grid and power plants
and its facilities project of the Democratic republic of Timor Leste**

MINUTE of MEETING

Location: HERA – CNI22 Office

Date: January 10 , 2012

Participants:

EDTL

Mr. Roberto Manuel Marcal (EDTL Project Manager).Not attending

Mr. Francisco Soares Pica (Substations Engineer). Not attending.

Mr. Faustino Andre (Substation Engineer).Not attending

Mr. Claudino Da Cruz Pereira (substation Engineer).Not attending

Mr. Denis Consencao (Substations Engineer).Not attending

Mr. Jose' Antonio Bobo (Transmission Line Engineer).Not attending

CONSULTANT

Mr. Felice Maffei (Project Manager).

Mr. Virgilio Rivera (Civil Engineer) .

Mr. Joko Siswadi (Electrical Engineer for transmission line).

Mr. Zoltan Lukacs (QA/QC Engineer).

Mr. Veton Shaipi (electrical Engineer) . Not attending

Mr. Napoleon Villanueva (Civil Engineer for Substations).

Mr. Francisco Pedigral (Safety Engineer).Not attending Mr. Giampaolo Pilia (Electrical Engineer).

CONTRACTOR CNI22

Mr. Li Tao (Project Manager).Not attending

Mr. Wu Yong Jun (Chief Engineer).

Mr. Hung Kaifu (chief engineer for Hera power plant) .

Mr. Zhang Ming Cun (Substation Manager).Not attending

Mr. Zhang Ming Ping (Transmission Line Manager). Not attending

Mr. Ye Jingxing (electrical engineer).

Mr. Li Rui (Design Institute) . Not attending

Mr. Peng Liwei (Interpreter).Not attending

Mr. Liu Jie (Electrical Engineer).Not attending

Mr. Jiang Pei Yun (Transmission Lines Dep. Manager).

Mr. Xiao Yali (Transmission line Engineer) . Not attending Mr. Jiang Yan (Transmission Line Engineer).

Mr. Zhu (Oil Tanks Engineer). Not attending

Mr. Wu Jun (Transmission line supervisor). Not attending

Mr. Liu Jian Puo (Safety Engineer). Not attending

Mrs. Dina (Interpreter).Not attending

Mr. Li Lei (Interpreter)

Mr. Zhao (Transmission Line Engineer).Not attending

Mr. Cai Hui (Safety Officer)

Mr. Li XianJian (Interpreter) Not attending.

Mr. Yan Fuan (Electrical Engineer). Not attending

Mr. Xu Jun Hua (chief engineer).Not attending

Ms. Jiang Fei (interpreter).

Mr. Hy Xyewn (Transmission Line Manager).Not attending

Mr. Cheng Ouan Wei (Electrical Engineer).

Mr. Huangwei (Electrical Engineer).

Mr. Feng Feng (Electrical Engineer).

Subject of the meeting : Coordination of the works

Agenda of the present meeting :

- 1) General Notes
- 2) Comments on the last minute of meeting dated December 06 , 2011.
- 3) Progress of works.
- 4) Delivery status of materials and equipment.
- 5) Drawings and technical specifications.
- 6) Insurance policy
- 7) Payment
- 8) Environment
- 9) Questions

1) General Notes

- a) The VETERANS ,as it was requested by the Secretary of State received each US \$ 600.00 in total 39 + 4 people.
- b) The issue of the traditional Cemetery damaged during the construction of the access roads have been solved and adequate compensation paid by the Contractor to the local community.
- c) The tower erected in front of the Government Palace shall be dismantled after the Chinese Lunar New Year festivity.
- d) The transmission line from Liquica up to Lospalos is energized and in commercial operation , but no Anti-Climbing Devices and Danger Plates have been installed in all towers .The Contractor is advised that should any accident happen (children climbing up) he will be held responsible and face all the consequences.

2) Comments on the last minute of meeting dated December 06 ,2011

EDTL remarks:

None of the staff is present on this meeting

CNI22 remarks:

None

No comments from the Presents

Everybody present in the meeting are reminded that the <no comments> it means that the content of the minute of the previous meeting is approved .

3) Progress of the works

Transmission lines .

The overall situation is summarized in the following table:

Section	excavation	concrete	Tower erection	Stringing conductors	Total number	KM
Hera-Dili	30	30	30	30	30	9.89
Hera-Manatuto.	91	91	91	91	91	40.90
Manatuto-Baucau	132	132	132	132	132	52.33
Baucau-Iospalos	143	143	143	143	143	63.50
Dili-Liquica	87	87	87	87	87	38.82
North Coast Total	483	483	483	483	483	205.44
Baucau-Viqueque	107	107	100	91	108	43.13
Liquica-Maliana	105	105	43		109	44.92
Maliana-Suai	13	7			134	57.62
East-West Total	225	219	143	91	351	145.67

Suai Cassa	2	1			98	38.56
Cassa-Betano	41	40			54 provisional	24.10
Betano-Viqueque	177	173	77		196 provisional	83.39
Viqueque-Los palos	218	214	132		233	103.44
SouthCoast Total	438	428	209		581 provisional	249.49
TOTAL	1146	1130	835	574	1415 provisional	600.60 provis.
This Period of 34 days	48	86	65	4		

From December 06, 2011 to January 10, 2012 (34 days) , the progress achieved is as follow: 1.4 excavations per day , 2.5 concrete foundations per day , 1.9 towers erected per day, 0.1 tower of stringing of conductors per day.

With the present progress the Contractor requires at least a minimum of 7 months to complete the transmission line grid .

HERA – DILI (9.891 KM - No. 30 towers)

The line is energized and in commercial operation.

Works remaining to be done after energizing : concrete caps on the Anchor bolts , installation of Anti-climbing devices , Danger plates , Phase plates , Number and Name plates , minor works of soil adjustment around foundations and adjustment of grounding wires .

DILI – LIQUICA (38.818 KM – 87 towers)

The line is energized and in commercial operation ..

Works remaining to be done after energizing: concrete caps on the Anchor bolts , installation of Anti-climbing devices, Danger plates , Phase plates , Number and Name plates, adjustment of soil around foundations, adjustment of grounding wires , some trees are still remaining to be cut.

HERA - MANATUTO (40.902 Km - 91 towers)

The line is energized and in commercial operation .

Works remaining to be done after energizing: concrete caps on the Anchor bolts , installation of Anti-climbing devices, Danger plates , Phase plates , Number and Name plates , adjustment of soil around foundations, adjustment of grounding wires , some trees are still remaining to be cut.

MANATUTO – BAUCAU (52.329 Km -132 towers)

This line is energized and in commercial operation .

Works remaining to be done after energizing : concrete caps on the Anchor bolts , installation of Anti-climbing devices, Danger plates , Phase plates , Number and Name plates , adjustment of soil around foundations , adjustment of the grounding wires , some trees are still remaining to be cut .

BAUCAU – LOS PALOS (63.499 KM – 143 towers)

This line is energized and in commercial operation .

Works remaining to be done after energizing : concrete caps on the Anchor bolts , installation of Anti-climbing devices , Danger plates, Phase plates, Number and name plates, adjustment of the soil around foundations , adjustment of the grounding wires , some trees are still remaining to be cut.

BAUCAU – VIQUEQUE (43.125 KM – 108 towers)

The excavation works and concrete works have been completed in 107 towers .

Towers erection is done in 100 towers (92.6% of the total) .

The stringing of the conductors is done in 91 towers (84.2 % of the total)

LIQUICA – MALIANA (44.921 KM – 109 towers)

Work done by the Indonesian Company THEATE .

Excavation completed is done in 105 tower foundations (96.3 % of the total).

Concrete completed is done in 105 tower foundation (96.3 % of the total) .

Tower erection has been done in 43 towers (39.4 % of the total) .

The Consultant remarked that the progress in this section of line continues to be too slow, (the Subcontractor is reporting that steel material for tower erection is not delivered on time by CNI22).

MALIANA – SUAI (57.62 KM – 134 towers)

Work done by Indonesian Company THEATE.

Excavation works is done in 13 tower foundations (9.7 % of the total)

Concrete works is done in 7 tower foundations (5.2 % of the total)

SUAI- CASSA (38.555 KM – 98 towers)

Work is done by Indonesian Company THEATE.

Excavation work is done in 2 tower foundation (2.0 % of the total)

Concrete is done in 1 tower foundation (1.0 % of the total).

CASSA- BETANO (24.104 KM – 54 towers , provisional quantity)

Excavation works is done in 41 tower foundations (about 75.9 % of the total).

Concrete works is done in 40 tower foundations (about 74.1 % of the total).

BETANO - VIQUEQUE (83.391 KM – 196 towers, provisional quantity)

The excavation work is done in 177 tower foundations (about 90.3 % of the total)

The concrete has been done in 173 tower foundations (about 88.2 % of the total).

The tower erection has been done in 77 towers (about 39.2 % of the total).

VIQUEQUE – LOSPALOS (103.439 KM - 233 towers)

The excavation works is done in 218 tower foundations (93.5 % of the total).

The concrete has been done in 214 tower foundations (91.8 % of the total).

Towers erection completed 132 towers (56,6 % of the total).

Substations

DILI SUBSTATION

The substation is energized and in commercial operation .

Works remaining to be done :

- Repairs of civil works defects mentioned in the punch list.
- Repairs of electrical works defects mentioned in the punch list.
- Dispatching Centre to be made operational.
- Electrical installation inside the Pump house.
- Protection system instrumentation to be made efficient .

MANATUTO SUBSTATION

The substation is energized and in commercial operation .

Works remaining to be done

- Repairs of civil works defects mentioned in the punch list.
- Repairs of electrical works defects mentioned in the punch list.
- Protection system instrumentation to be made efficient.

BAUCAU SUBSTATION

This substation has been energized on December 23rd , 2011 , and is now in commercial operation but many major works are remaining to be done :

- Spreading gravel over the area

- Finishing works in the main control building ..
- Finishing works in the 20 KV Building
- Pump house , electrical works .
- Sewage treatment system 95 % done.
- Guard house , finishing works
- Outdoor water supply 95% completed .
- Fire alarming system
- Repair of civil works defects mentioned in the punch list.
- Repair of electrical works defects mentioned in the punch list .
- Protection system instrumentation to be made efficient.

LOSPALOS SUBSTATION

This substation has been energized on December 24th 2011 , and is now in commercial operation , but many major works are remaining to be done

- Spreading gravel over the area .
- Finishing works in the main control building ..
- Finishing works in the 20KV building . .
- Pump house , electrical works .
- Finishing works in the guard house .
- Sewage treatment system 95 % is done .
- Internal roads 50% done .
- Repair of civil works defects mentioned in the punch list .
- Repair of electrical works mentioned in the punch list .
- Protection system instrumentation to be made efficient .

LIQUICA SUBSTATION

The substation is energized and in commercial operation . Works remaining to be done :

- Repair of civil works defects mentioned in the punch list.
- Repair of electrical works defects mentioned in the punch list.
- Protection system instrumentation to be made efficient

MALIANA SUBSTATION

The Contractor stated that this substation shall be completed in March 2012 , but at present time the Electrical & Mechanical works as well as Transformer assembly have not started yet.

Civil works is progressing at low rate .

- Main Control Building , brick walls done 95 % , internal plastering done 90%.
- 20 KV building ,brick walls done 80 % , internal plastering done 20 %
- Guard house, bricks walls and internal plastering are completed .
- Pump house , bricks walls and internal plastering are completed.
- Steel structures on 150KV area are all erected .
- Foundations of the capacitor bank are completed .
- Main cable trench 90 % done .
- Sewage treatment system is 95 % done.
- Fire fighting reservoir completed.
- Drainage pipes and water supply pipes 50 % installed.
- Drainage outside the fence is 50 % done .
- Plastering of the brick fence wall 50 % done .
- Grounding of the substation is 40 % done .
- Lighting system embedded conduit 50 % done .

SUAI SUBSTATION

- No activity is reported . Land owners are still waiting for compensation of the trees to be cut. The Contractor cannot mobilize .

CASSA SUBSTATION

The overall progress achieved is about 10 % . The Contractor stated that this substation will be completed in April 2012.

Works in progress.

- Foundation of the Main Control building is in progress at ground level .
- Foundation of 20 KV building is in progress at ground level .
- Excavation of the fencing wall is completed and placing of lean concrete done.
- Construction of the retaining wall is 50% completed .
- Main transformer foundation , lean concrete placed and installation of reinforcing steel is in progress.
- The transformer has been transported and temporarily stored on site .

VIQUEQUE SUBSTATION

The Contractor stated that this substation will be energized in March 2012 , but at present time Electrical & Mechanical works as well as the Transformer assembly have not started yet.

Works in progress :

- Main Control building , civil work completed up to 90 % .
- 20 KV building , civil work completed up to 90 %.
- Fire fighting pool , construction is completed.
- Pump house , Finishing works 80 % done
- Guard house , Finishing works 80 % done.
- Drainage pipes outdoor , 90 % installed
- Sewage treatment system is 60 % done .
- Water supply system and drainage pipes installation 90 % done .
- Main cable trench completed , supports installation 70 % done
- Capacitor bank foundations have been concreted
- Grounding network , done up to 80 %
- Grounding inside Main and 20 KV building 50 % done
- Erection of Steel structures 75 % done .

Hera Power Plant

The construction of the Oil Tanks is considered completed .

20 KV distribution lines

The work is still on going in the section Dili Substation-Seloi - Aileu-Gleno ,

The Contractor is advised that , due to the delay in completion date , liquidated damages may be applied as per contract conditions.

- Dili – Seloi , 634 poles have been installed (total quantity 634), stringing of cables done in 634 poles. This section of line is now ready to be energized (it was planned to be energized on December 20th , 2011)
- Seloi – Gleno , 440 poles have been installed (total quantity 440), stringing of cables Done in 418 poles
- Seloi – Aileu , 128 poles have been installed (total quantity 128) , stringing done in 128 poles. This section of line is now ready to be energized (it was planned to be energized on December 21st , 2011).

4) Delivery of Material and Equipment

The situation of material delivery is monitored from what it is stated in the weekly reports . All the major electrical equipment are stored in Dili and in Hera waiting to be transported on the relevant substations .

Major items which are not shipped yet from China are :

- OPGW , Hardware and Fittings for Baucau –Viqueque , Viqueque – Lospalos , Betano-Viqueque , Betano – Cassa , Suai – Cassa transmission lines .
- Steel Towers for Baucau - Viqueque , Liquica – Maliana , Lospalos – Viqueque , Betano – Viqueque transmission lines .
- Electrical Materials for Maliana , Suai , Cassa and Viqueque substations.
- The most critical items which are now urgently required are the Anti-climbing device and the Danger Plates to be installed in each tower of Liquica - Dili – Hera – Manatuto – Baucau – Lospalos transmission lines which are now energized and in operation .

5) Drawings and technical specifications

Drawings submitted recently : None

- Test reports on concrete compression strength for Baucau , Lospalos , Maliana and Viqueque substations have been submitted.

6) Insurance

Situation unchanged . All Risk Policy covering any damages which may occur on the site to materials , equipments and personnel has never been submitted . The Contractor eventually will bear all the consequences and costs.

7) Payment

The interim payment certificates No.20 for October has been paid , and No. 21 for November is in process for payment . Payment certificate No. 22 for December is under preparation

The issue of the retention money of 2% made by the Treasury in each interim payment certificate remains open .

8) Environment & Safety

The situation remains constantly the same as previous months with very little if none improvement .

9) Questions

.No questions raised by anyone of the present

The present meeting started at 14:45 and ended at 18:00 .

Next meeting is scheduled by February 3rd , 2012 in Hera at 14:30.



(pages 31-38 in original)

Minutes of Meeting

Contract Title: Hera Power Plant 120 MW 7 x W18V46
Project: P / 10045

Subject: 22th coordination meeting
Place: Hera site office
Date: January 9th 2012

Time: 14:50 — 17:10

Attendance: According to attached list

Distribution: Participants, WFI project group

1 Agenda

- Previous minutes of meeting
- Issues according to Previous minutes of meeting
- Other issues

2 Previous Minutes of Meeting

- Previous MoM, no comments, considered to be approved by all participants

3 HSE

- In order to control access to the in-operation plant it is decided that ID-card system would be adopted for the O&M team and all people directly involved with Hera power plant.
- A register will be kept logging all visitors.
- Due to dust control, noise and fire safety in Power House, EEB and fuel treatment house all doors must be closed all the times, signage placed to doors today.
- General cleaning in the plant production facility has to be kept in good condition all the times.

4 Engine #1 accident on the road on September 6th 2011

- The fallen engine has been removed from the accident site on Dec 23 and brought to Hera power plant on Dec 25.
- Currently the damaged engine is temporarily stored on pedestals for easy transport at Hera power plant.
- The loss adjuster is now bringing bidders and interested parties to inspect the engine.
- Upon the owner request for the delivery of the engine no 7 the contractor has already placed the order to the manufacturer and the delivery time is scheduled tentatively by March 4th in order to maintain the original contract schedule.

5 Factory Acceptance Test (Fat)

- FAT Betano step-down transformer proposed dates are 30th and 31st of Jan. 2012. ABB and PAE to arrange and confirm.

6 Delivery, Procurement & Manufacturing Status Remaining shipments

WFI SHIPMENT	Contents	ETA DILI	ATA SITE
Delivery 23AIR	Lightning protection material	24.11.2011	7.12.2011
Delivery 24AIR	COM600 Panel	26.11.2011	14.12.2011
Delivery 25AIR	Valve assembly for Jouka valves	29.11.2011	9.12.2011
Delivery 26AIR	Regulating valves Part 2 (Spirax) + Steel Elbows for tanks	17.12.2011	9.12.2011
Delivery 27AIR	O-Rings & Gaskets	10.12.2011	14.12.2011
Delivery 28AIR	LO Tank level switch	5.12.2011	14.12.2011
Delivery 29AIR	20 x Level Switches	17.12.2011	19.12.2011
DHL Delivery	Shaft sealing sets for Booster pumps	13.12.2011	16.12.2011
Delivery 30AIR	Pillar hydrant valves AVK part 1-2 2pc x level switch + rest of spirax	15.12.2011	20.12.2011
Delivery 31AIR	8 x Level Switches	17.12.2011	23.12.2011
Delivery 32AIR	Grating Clamps	20.12.2011	28.12.2011
DHL Delivery	Temperature sensors	TBA	?
STATION MANUALS	STATION MANUALS	27.12.2011	?
Delivery 33AIR	Paint	7.1.2012	
Delivery 34AIR	Paint	10.1.2012	
Delivery 35AIR	Miscellaneous tools	10.1.2012	
Delivery xxAIR	Air filters		
Delivery xxAIR	Pillar hydrant valves AVK part 3 + separator spares		
WID SHIPMENT	Paint	24.11.2011	
ABB SHIPMENT	SAS Equipment		22.12.2011

7 Update of site progress

MAIN PLANT CIVIL WORKS

- Concrete road 45%
- Storm drains 70%
- Gravel surfacing 40%

STEEL FRAME ERECTION & BUILDING WORKS OF MAIN PLANT

- Powerhouse
 - ◆ Steel frame 100%
 - ◆ External walls 90% (South side wall open due engine installation)

SWITCHYARD CIVIL WORKS

- Switchyard
 - ◆ Backfilling and compaction 98%
 - ◆ Excavations for oily water system 100%
 - ◆ Oily water pit 100%
 - ◆ Cable conduits 100%
- Switchyard Control room
 - ◆ Structure 100%
 - ◆ Finishing 98%
- Switchyard Cable trenches
 - ◆ Concrete covers for trenches 100%

◆ Cable trench to EEB	100%
○ Below zero level earthing	100%
○ Perimeter drainage	100%
○ Fence	98%
○ Firewall	100%
○ Gravel surfacing	95%
○ Anti-Weed application	50%

SWITCHYARD ELECTRICAL INSTALLATIONS

○ Steel structure	100%
○ High voltage equipment	100%
○ Cable pulling and connection	99%
○ Stringing overhead conductors	99%
○ Transformers (3 units)	100%
○ Testing and commissioning	90%

MECHANICAL INSTALLATIONS, MAIN PLANT, COMMON & DG SET 1-7

○ Engine Hall and its Gen Set progress	96%
○ Lube oil system	96%
○ Compressed air system	100%
○ Cooling water system	98%
○ Charge air system	99%
○ Exhaust gas system	98%
○ Fire Fighting System	100%
○ Sludge System	96%
○ Fuel system	99%
○ Boilers	95%
○ Steam distribution	98%
○ Water treatment	100%

MECHANICAL INSTALLATIONS, MAIN PLANT, COMMON & DG SET 1-3

○ Engine Hall and its Gen Set progress	100 %
○ Lube oil system	100%
○ Compressed air system	100 %
○ Cooling water system	100%
○ Charge air system	100%
○ Exhaust gas system	100%
○ Fire Fighting System	100%
○ Sludge System	100%
○ Fuel system	100%
○ Boilers	99%
○ Steam distribution	99%
○ Water treatment	100%

ELECTRICAL INSTALLATION, MAIN PLANT, COMMON & DG SET 1-3

○ Cable ladders	100%
○ Installation of panels instrumentation and equipment	100%
○ Cable pulling	100%
○ Cable termination	100%
○ Energizing panels	100%

- Electrical pre-commissioning 100%

ELECTRICAL INSTALLATION, MAIN PLANT, COMMON & DG SET 4-7

- Cable ladders 100%
- Installation of panels instrumentation and equipment 100%
- Cable pulling 96%
- Cable termination 96%
- Energizing panels 99%
- Electrical pre-commissioning 94%

COMMISSIONING, MAIN PLANT, COMMON & DG SET 1-3: 97%

COMMISSIONING, MAIN PLANT, COMMON & DG SET 4-7: 43%

8 Commissioning

- Engine start-up procedures are in operation manual which is part of station manuals which have been submitted.

9 Commercial Operation Engines no 1, 2 and 3

- The power plant came into operation officially with the ceremony of 27th November 2011
- Commencement date of Commercial Operation from O&M point of view is established as 1st of December 2011, engines no 1, 2 and 3
- Commencement date of Warranty Period is established as 1st of December 2011. The required tests shall be done in due time when sufficient load is available.

10 O&M

- O&M personnel today consists of 15 persons plus the 20 EDTL trainees.
- Shift Roster has started for 3 shift working for the continuous power feed.
- Also a transport bus has been arranged for the EDTL trainees with 3 pick up points at Dili for shift attending.

11 Technical matters

11.1 Civil

- The revised drawings for the drainage system submitted and consultants comments received. PAE will incorporate comments from the Consultant and resubmit to the Consultant. Drawings will be submitted on 13th of December 2011.
- Clearing of CNI22 areas
 - The revised layout of part 3 will be submitted to the Consultant by November 29th. The construction has been started on 1st December. Remaining areas to be cleared by CNI22.
- A joint survey was carried out for fence and drainage line at CNI22 housing area. Wika prepared a layout showing the areas to be cleared by CNI22, to be submitted to the Consultant after this meeting.
- Expansion joints on the dyke wall started and in progress by CNI22

11.2 Mechanical

- All flexible connections material at site. Steam line works on progress. Storage tanks have been calibrated by CNI22 (3PC 5000m3 and 1 PC 1000m3). Calibration results have been received by PAE, a separate meeting to understand the results is needed with PAE, O&M and the Consultant.
- 3 mass flow indicators are required to be installed at the fuel unloading station, one for each bay.
- 1 mass flow meter is required to be installed at the LFO line on feeder unit on outgoing line before the engines.
- One mass flow meter is required at the jetty of adequate size matching the design pipe flow.

- 1 portable Mass Flow Meter is to be considered for the time for the engine wise checking of the fuel consumption.

11.3 Electrical

- Regarding the double bus bar system Consultant, PAE and CMA / WFI had a meeting on 5th of September where the proposed sequence of the installation of double bus bar was discussed. The technical matter was approved. PAE is to provide detailed engineering drawings and cost to the Consultant and the Owner ASAP. On September 16th there was a follow up meeting with the Consultant.

11.4 ABB Switchyard

- The ratio test assessment of the step-down transformer was submitted by ABB to the consultant on November 25th – Some measured parameter values were found to be outside the limits. The retest indicated that the results were OK and the results will be submitted by ABB.
- The ACSR cables loaned from CNI22 by ABB have arrived and have been delivered to CNI22 on time for energizing the Lospalos substation.

11.5 Initial start-up

- Engine 1 running test done on November 18th
- Engine 2 running test done on November 19th
- Engine 3 running test done on November 20th (in the presence of the Prime Minister and Minister of Finance)
- Engine 4 running test done on November 22nd
- Engine 5 running test done on 9th of December
- Engine 6 running test on 15th of December
- Heat rate tests and lube oil tests for three engines in commercial production were completed on Dec 18th , the tests were witnessed by EDTL, PAE and the Consultant jointly. The engines passed the tests as per contractual requirements.
- ABB step-up transformer no 3 was energized on November 24th including the 150 Kv power grid Hera-Dili-Liquica
- 150 Kv power grid Hera-Manatuto line 1 energized 29th of November 2011.
- ABB Step-Up Transformer no 2 was energized on 23rd simultaneously the Baucau substation was energized on 23rd of December 2011. Lospalos substation was energized on 24rd of December 2011.
- On Jan 15th we would have the final ABB shutdown for commissioning SCADA equipment and remaining NR electric relays.
- During the Jan 15th shutdown Aileu and Gleno 20 Kv line will be also connected in Dili substation.

12 Betano

- During the kick-off meeting of June V 2011 in the time schedule is indicated that site preparations to be done during November 2011 and foundation civil work to be started in the middle of December 2011. Soil investigation has been done in accordance with the schedule. The work related to the site embankment and cut and fill has already been started by local contractor Tinolina. The job is expected to be finished in 6 weeks. According to the soil investigation piling is required. Drawings related to site preparations, boundary wall construction, drainage channels and piling requirements have t been submitted and comments of the Consultant have been incorporated in the next revision. The request of the final finishing level 500mm above ground is under study.
- WFI has submitted the basic engineering drawing package to PAE. The concerned drawing package has already been submitted to the Consultant.
- New location for the jetty has been identified as more suitable for the power plant equipment just in front of the existing access road. Semi-permanent jetty needs to be built for usage of equipment transport.

- Single line diagrams and equipment drawings submitted by ABB have been commented by the Consultant and would be rectified as required.

13 Partial handing over

- The guarantee tests for three engines have been completed and these engines have been taken into commercial production.
- For the main plant the exercise of drawing of a punch list would be started on Jan. 16th 2012.
- ABB switchyard: the work is substantially completed and on Jan 15 the final shutdown of commissioning of the complete switchyard would be taken. Acceptance certificate would be issued based on guarantee documentation of the contract and necessary punch list would be drawn out starting from Jan. 16th 2012.

14 Other issues

- The fuel stock is more than 6000m3 today.
- The supply is done on daily average rate of 120m3/day
- Construction of the jetty should be initiated ASAP as it is of imperative importance to the GOTL to maintain the economics of the operation
- Hera power plant permanent jetty. PAE has already contracted a company to make the full design including civil work and pipeline. Drawings are expected to be ready by the end of January.

Next meetings

27.01.2012 at 14:30 at site in Hera

17.02.2012 at 14:30 at site in Hera



(pages 39-xx in original)

Minutes of Meeting

Contract Title: Hera Power Plant 120 MW 7 x W18V46
Project: P / 10045

Subject: 23rd coordination meeting
Place: Hera site office
Date: January 27th 2012

Time: 14:40 — 17:55

Attendance: According to attached list

Distribution: Participants, WFI project group

1 Agenda

- Previous minutes of meeting
- Issues according to Previous minutes of meeting
- Other issues

2 Previous Minutes of Meeting

- Previous MoM, no comments, considered to be approved by all participants

3 HSE

- In order to control access to the in-operation plant it is decided that ID-card system would be adopted for the O&M team and all people directly involved with Hera power plant. Separate ID cards will be provided for construction team and for O&M latest by the end of February.
- A register will be kept logging all visitors.
- Due to dust control, noise and fire safety in Power House, EEB, fuel treatment house and switchyard control room all doors must be closed all the times, signage placed to doors today. Appropriate actions should be taken immediately.
- General cleaning in the plant production facility has to be kept in good condition at all times. Additional attention for ABB control room required.
- The south east corner of the power plant area to be cleared of scrap by February 5th
- Environmental report in progress, to be completed by February 4th

4 Engine #1 accident on the road on September 6th 2011

- Currently the damaged engine is temporarily stored on pedestals for easy transport at Hera power plant.
- The loss adjuster is now evaluating the offers received from various bidders.
- Upon the owner request for the delivery of the engine no 7 the contractor has already placed the order to the manufacturer and the delivery time is scheduled tentatively to be beginning of March in order to maintain the original contract schedule.

5 Factory Acceptance Test (Fat)

- FAT of Betano step-down transformer proposed dates 30th and 31st of Jan in Hanoi in Vietnam are requested to be shifted around 10th of February due to the visa preparation of the Owner who shall attend the test. ABB and PAE to arrange and confirm.
- Concerning the new engine 7, the manufacturer is coordinating FAT with the Consultant's head office in Milano, Italy.

6 Delivery, Procurement & Manufacturing Status

Remaining shipments

WFI SHIPMENT	Contents	ETA DILI	ATA SITE
<i>Delivery 38AIR</i>	<i>Pillar hydrant valves AVK part 3 + separator spares</i>	<i>31.1.2012</i>	
<i>Delivery 39AIR</i>	GPS receiver, antenna+antenna cable	<i>31.1.2012</i>	
WID SHIPMENT	<i>Air filters</i>		
	<i>Paint</i>	<i>31.11.2011</i>	
ABB			

Presently only one line trap has been installed to the switchyard by ABB. It was agreed that the remaining 3 line traps in accordance to the approved drawings were due to be installed during the January 15th planned shutdown. ABB to advice which day the equipment are available at site so that new shutdown for installation can be planned.

7 Update of site progress

MAIN PLANT CIVIL WORKS

- Concrete road 60%
- Storm drains 85%
- Gravel surfacing 50%

STEEL FRAME ERECTION & BUILDING WORKS OF MAIN PLANT

- Powerhouse
 - ◆ Steel frame 100%
 - ◆ External walls 100%
 - ◆ The southern wall to be removed for engine installation

SWITCHYARD CIVIL WORKS

- Switchyard
 - ◆ Backfilling and compaction 98%
 - ◆ Excavations for oily water system 100%
 - ◆ Oily water pit 100%
 - ◆ Cable conduits 100%
- Switchyard Control room
 - ◆ Structure 100%
 - ◆ Finishing 98%
- Switchyard Cable trenches
 - ◆ Concrete covers for trenches 100%
 - ◆ Cable trench to EEB 100%
- Below zero level earthing 100%
- Perimeter drainage 100%
- Fence 98%
- Firewall 100%
- Gravel surfacing 95%
- Anti-Weed application 50%

SWITCHYARD ELECTRICAL INSTALLATIONS

- Steel structure 100%
- High voltage equipment 100%
- Cable pulling and connection 99%
- Stringing overhead conductors 99%
- Transformers (3 units) 100%
- Testing and commissioning 50%
 - ◆ Testing and commissioning which has been done without the presence of the Consultant must be repeated.

MECHANICAL INSTALLATIONS, MAIN PLANT, COMMON & DG SET 1-7

- Engine Hall and its Gen Set progress 96%
- Lube oil system 96%
- Compressed air system 100%
- Cooling water system 98%
- Charge air system 99%
- Exhaust gas system 98%
- Fire Fighting System 100%
- Sludge System 98%
- Fuel system 99%
- Boilers 100%
- Steam distribution 100%
- Water treatment 100%

MECHANICAL INSTALLATIONS, MAIN PLANT, COMMON & DG SET 1-3

- Engine Hall and its Gen Set progress 100 %
- Lube oil system 100%
- Compressed air system 100 %
- Cooling water system 100%
- Charge air system 100%
- Exhaust gas system 100%
- Fire Fighting System 100%
- Sludge System 100%
- Fuel system 100%
- Boilers 100%
- Steam distribution 100%
- Water treatment 100%

ELECTRICAL INSTALLATION, MAIN PLANT, COMMON & DG SET 1-3

- Cable ladders 100%
- Installation of panels instrumentation and equipment 100%
- Cable pulling 100%
- Cable termination 100%
- Energizing panels 100%
- Electrical pre-commissioning 100%

ELECTRICAL INSTALLATION, MAIN PLANT, COMMON & DG SET 4-7

- Cable ladders 100%
- Installation of panels instrumentation and equipment 100%

- Cable pulling 98%
- Cable termination 98%
- Energizing panels 99%
- Electrical pre-commissioning 94%

COMMISSIONING, MAIN PLANT, COMMON & DG SET 1-3: 97%

COMMISSIONING, MAIN PLANT, COMMON & DG SET 4-7: 55%

8 Commissioning

- Engine start-up procedures are in operation manual which is part of station manuals which have been submitted.
- Remaining commissioning for engines 1-6 is scheduled from Jan 30th until Feb 10th which will also include other electrical plant systems

9 Commercial Operation Engines no 1, 2 and 3

- The power plant came into operation officially with the ceremony of 27th November 2011
- Commencement date of Commercial Operation from O&M point of view is established as 1st of December 2011, engines no 1, 2 and 3
- Commencement date of Warranty Period is established as 1st of December 2011. The required tests shall be done in due time when sufficient load is available.

10 O&M

- O&M personnel today consists of 20 expatriate persons plus the 20 EDTL trainees.
- Shift Roster has started for 3 shift working for the continuous power feed.
- Also a transport bus has been arranged for the EDTL trainees with 3 pick up points at Dili for shift attending.
- The 20 EDTL persons will be fully integrated in O&M activity as PAE employees from February.

11 Technical matters

11.1 Civil

- The revised drawings for the drainage system submitted and consultants comments received. PAE will incorporate comments from the Consultant and resubmit to the Consultant. Drawings which were supposed to be submitted on 13th of December 2011 still not received by the Consultant, PAE will verify the status immediately.
- Clearing of CNI22 areas
 - The revised layout of part 3 will be submitted to the Consultant by November 29th . The construction has been started on 1st December. For the remaining area around CNI22 living quarters WIKA will do the work using a small excavator starting from Jan 31st. During the execution of work on this particular area any particular difficulty shall be studied and resolved by all concerned.

11.2 Mechanical

- Steam line works on progress.
- 3 mass flow indicators are required to be installed at the fuel unloading station, one for each bay.
- 1 mass flow meter is required to be installed at the LEO line on feeder unit on outgoing line before the engines.
- One mass flow meter is required at the jetty of adequate size matching the design pipe flow.
- 1 portable Mass Flow Meter is to be considered for the time for the engine wise checking of the fuel consumption.

11.3 Electrical

- Regarding the double bus bar system Consultant, PAE and CMA / WFI had a meeting on 5th

of September where the proposed sequence of the installation of double bus bar was discussed. The technical matter was approved. PAE is to provide detailed engineering drawings and cost to the Consultant and the Owner ASAP. On September 16th there was a follow up meeting with the Consultant.

11.4 ABB Switchyard

- The ratio test assessment of the step-down transformer was submitted by ABB to the consultant on November 25th — Some measured parameter values were found to be outside the limits. The retest indicated that the results were OK and the results will be submitted by ABB.
- ABB and WFI need to provide synchronizing scheme for 150KV circuit breakers to the Consultant for review and approval.
- ABB shall provide all the necessary wiring and programming needed for full and successful integration of the switchyard and power plant with the national control centre located in Dili substation. All related documentations must be provided to the Consultant for review and approval.

11.5 Initial start-up

- Engine 1 running test done on November 18th
- Engine 2 running test done on November 19th
- Engine 3 running test done on November 20th (in the presence of the Prime Minister and Minister of Finance)
- Engine 4 running test done on November 22nd
- Engine 5 running test done on 9th of December
- Engine 6 running test on 15th of December
- Heat rate tests and lube oil tests for three engines in commercial production were completed on Dec 18th , the tests were witnessed by EDTL, PAE and the Consultant jointly. The engines passed the tests as per contractual requirements.
- ABB step-up transformer no 3 was energized on November 24th including the 150 Kv power grid Hera-Dili-Liquica
- 150 Kv power grid Hera-Manatuto line 1 energized 29th of November 2011.
- ABB Step-Up Transformer no 2 was energized on 23rd simultaneously the Baucau substation was energized on 23rd of December 2011. Lospalos substation was energized on 24rd of December 2011.
- On Jan 15th was performed the final ABB shutdown for commissioning SCADA equipment and remaining NR electric relays.

12 Betano

- During the kick-off meeting of June 3rd 2011 in the time schedule is indicated that site preparations to be done during November 2011 and foundation civil work to be started in the middle of December 2011. Soil investigation has been done in accordance with the schedule. The work related to the site embankment and cut and fill has already been started by local contractor Tinolina. The job is expected to be finished in 6 weeks. According to the soil investigation piling is not required. Drawings related to site preparations, boundary wall construction, drainage channels have been submitted and comments of the Consultant have been incorporated in the new revision. The request of the final finishing level 500mm above ground is under study. The latest comments from the Consultant are presently being incorporated to drawings and designs. The revised detailed construction drawings (soft copy) are expected to be released during the coming week.
- WFI has submitted the basic engineering drawing package to PAE. The concerned drawing package has already been submitted to the Consultant and comments received and which are now being incorporated in the new revision.

- New location for the jetty has been identified as more suitable for the power plant equipment beside the temporary CNI22 jetty. Semi-permanent jetty needs to be built for usage of equipment transport.
- Single line diagrams and equipment drawings submitted by ABB have been commented by the Consultant and would be rectified as required. ABB to submit the revised SLD and equipment drawings as soon as possible.
- So far the site activity of site grading work for main plant and switchyard has been started from Jan 5th by the local contractor. On inspection of the site work it was observed by the Consultant that the quality of the work is not acceptable and must be improved immediately.
- HSE plan for Betano shall be provided in due time
- Safety officer shall be assigned to Betano site

13 Partial handing over

- The guarantee tests for three engines have been completed and these engines have been taken into commercial production.
- For the main plant and switchyard the punch list for the civil work is almost completed. The punch list for mechanical works was started on Jan 24th and ongoing. The electrical punch list will be started during next week.

14 Other issues

- The supply is done on daily average rate of 120m3/day
- PAE O&M to submit figures of produced power and consumed fuel to the Consultant.
- Construction of the jetty should be initiated ASAP as it is of imperative importance to the GOTL to maintain the economics of the operation
- Hera power plant permanent jetty. PAE has already contracted a company to make the full design including civil work and pipeline. Design and drawings are expected to be ready by the first week of February.
- Design and drawings will be submitted to the Consultant for review and approval.

Next meetings

17.02.2012 at 14:30 at site in Hera

02.03.2012 at 14:30 at site in Hera

(pages 60-64 in original report)

MOBILIZATION OF CONSULTANT

For the month of January 2012

Construction Supervision Post and Construction Phases EXPATRIATE

Designation	Name	Mobilized on	Man-Month			
			Approved	Amendment No.1	Spent	Balance
Ex Project Manager Project Manager	Tommaso Amoruso Felice Maffei	1 Aug.30-Oct. 2009 1 Nov.-Dec. 31,2009 21 Nov. 2009	12	25	3 2 22.20	9.80
Civil Engineer 1	Virgilio R.Rivera	1 August 2009	12	25	28.80	8.20
Civil Engineer 2	Napoleon C. Villanueva	1 December 2010	-	18	12.43	5.57
Environmental Specialist	Felix Pascua Jr.	14 August 2009	7	17	8.02	15.98
TPP and Fuel Advisor	Massimiliano De Carli	14 August 2009 19 September 2009	3	6	4 days 5 days	8.70
QA/QC	Zoltan Lukacs	26 September 2009	12	23	25.80	9.20
Electrical Engineer 1	Gerardo Alberto Lopez Romero/Jaime Oswaldo Monuz	20 Oct 2009/13 Nov 2010	8	24	19.08	12.92
Electrical Engineer 2	Joko Siswadi	7 Dec 2009	10	23	23.78	9.22
Electrical Engineer 3	Verasay/Gabriele Jose Oggioni/Veton Shaipi	29 April 2010	8	27	18.40	16.60
Electrical Engineer 4	Giampaolo Pilia	07 January 2011	-	22	12.29	9.71
Electrical Engineer 5	Vicenzo Maugeri	28 September 2011	-		2.16	-
Safety Engineer	Godofredo R. Rivera/Francisco Pedrigal Jr.	12 November 2009/15 January 2011	9	21	23.18	6.82

Note:

- Man-month is based on approved temporary status.
- Mr. Massimiliano de Carli is on on-call basis.
- Mr. Felice Maffei, Mobilized on 21/11/09 to Replace Mr. Tommaso Amoruso who ended service on 30 Oct. 09, in December 22 days of presence done, in January 2010 23 days of presence done.
- Mr. Tommaso Amoruso was being instructed by Ministry of Finance to stay for another two(2) months for the period of Nov 1 – Dec 31, 2009.
- Gerardo Alberto Lopez Romero ended his contract on July 20 and returned home. A new replacement was sent to takeover his position (Mr. Jaime Oswaldo Monuz)

LOCAL SUPPORT STAFF

Designation	Name	Mobilized on	Man-Month			
			Approved	Amendment No. 1	Spent	Balance
Assistant Electrical Engineer 1	Jayjay O. Bulagnir	1 August 2009	12	23	28.58	6.42
Assistant Electrical Engineer 2	Andre Pinto/ Agostinho Pinto/Abonia De Jesus Maria	16 September 2009/ 16 October 2009/1 August 2011	10	22.50	28.5	4.00
Assistant Electrical Engineer 3	Joao Antonio Corte Real De Oliviera/Olivio Marcos Da Silva Correia	8 November 2010/ 4 August 2011		20	14.73	5.27
Assistant Electrical Engineer 4	Puhery Alvaro Costa Menezes/Cesar ma. Rego Da Silva	8 November 2010/4 August 2011		20	14.73	5.27
Assistant Electrical Engineer	Maria Fernanda da Silva Quintao/Estanislaun Soares	8 November 2010/ 8 August 2011		20	14.73	5.27
Assistant Electrical Engineer 6	Joao Bosco de Jesus/Bendito Joao Ma. F.Delima	8 November 2010/2 August 2011		20	14.73	5.27
Assistant Civil Engineer 1	Silvino Yustinus da Costa Guterres	1 August 2009	12	23	24.76	10.24
Assistant Civil Engineer 2	Abrao Guterres	1 September 2009	10	22.50	28.00	4.50
Assistant Civil Engineer 3	Domingos Dos Santos	4 August 2010	-	22	17.87	4.13
Assistant Civil Engineer 4	Nevis Trisula Da Costa	8 November 2010		20	14.31	5.69
Assistant Civil Engineer 5	Deodato Alves da Costa	8 November 2010		20	13.31	6.69
Assistant Civil Engineer 6	Manuel M. De Carvalho Saldanha	1 August 201		20	6.00	14.00
Quantity Surveyor	Myrna B. Sacramento	16 October 2009	12	23	24.70	10.30
Surveyor 1	Albenio C. Mercado/Gemmy O. Sacramento	1 August 2009/1 Sept. 2011	10	23	23.95	8.05
Surveyor 2	Reynaldo A. Sacramento	3 August 2009	10	25	20	15
Surveyor 3	Marlon P. Marzan	1 December 2010	-	20	11.33	8.67
Asst. QA/QC 1	Julio Savio	16 August 2010	12	23	29.50	5.50
Asst. QA/QC 2	Sivestre Moreira	1 September 2009	10	22	29	3.00
Asst. QA/QC 3	Melvin Rivera	15 November 2010		22	12.16	9.84
Asst. QA/QC 4	Grigorio de Menezes Amaral	8 November 2010	-	20	13.73	6.27
CAD Operator 1	Rogério Pires	15 October 2009	12	23	27.50	7.50
CAD Operator 2	Afonso Da Cruz Guterres	6 December 2010		20	13.71	6.29
Administrative Officer/CADD	Armélinda B. Cabreza	1 August 2009	12	23	26.79	8.21

Admin. Assistant/ Comp Optr. 1	Rosalia Belo/Anjelita Benedito	1 February 2010	-	29	24	5.00
Secretary	Rachel Villanueva/Elve Khadine Dimzon/Bendita Maria Jose da Costa	16 September 2009/24 May 2011	12	23	22.12	12.88
Encoder/Comp. Operator 2	Ronaldo Da Cruz Pereira	1 September 2009	10	22	29	3.00
Encoder/Comp. Operator 3	Maryanti Kota Dos Santos	1 Oct. 2009	12	23	28.00	7.00
Encoder/Comp. Operator 4	Georgina Ma. Lourenca A. md	6 Dec. 2010	-	23	13.52	9.48
Encoder/Comp. Operator 5	Graziela M. Boavida/Abonia De Jesus Maria/Lucia Da Cruz Correia/Veronica da Costa	6 Dec. 2010/24 May2011		23	13.84	9.16
Janitor/Messenger	Maximo Freitas	11 Aug. 2009	12	23	29.67	5.33
Watchman	Joao Ximenes Belo	11 Aug. 2009	12	23	29.67	5.33

Note:

- Approved man-months are based on the Consultancy Contract RDTL-92896 signed on 16 July 2009 and shall be adjusted to suit project's contract time.
- The Basic Consultancy Contract RDTL – 92896 ended in month of July 2010.

Amendment No.1 to the Consultancy Contract , covering the period from 1st August 2010 till the expected completion date of the project (31 March 2012 + 3 months), has been approved by H.E. the Prime Minister on September 10, 2010, and has been ratified by H.E. the Minister of Infrastructures on 10 December 2010.

Basic Contract Amount US \$ 1,992,200.00

Amendment No.1 US \$ 6,603,200.00

TOTAL US \$ 8,595,400.00

Total Amount invoiced up to the month of January, 2012 (included) US \$ 6,143,267.91 (71.47%)

(pages 68-79 in original report)

FINANCIAL PROJECT STATEMENT

1.) Contract with CNI22

- A.) Contract signed on 25 October 2008. The total contract value of US \$ 360,366,947.00.
- B.) Amendment No. 1 signed on 27 February 2009. Total contract value unchanged of \$360,366,947.00 split in:
- (I) US \$ 91,038,377.00 for Power Plant, and its Facilities.
 - (II) US \$ 269,328,570.00 (Equivalent to Foreign Currency RNB 1,885,300,000.00) for Power Grid and it's Facilities.
- In addition to the above
- (III) US \$ 3,000,000.00 per year per a period of 5 years, and operation of the whole Power Plant, and Power Grid and Training of owner's nominated personnel.
- C.) Amendment No. 2 signed on 21 December 2009. The contract value has been increased of US \$ 6,764,277.00 due to the adjustment of the exchange rate between US \$ and Chinese currency RNB Renminbi.

New total contract price US\$ 367,131,224.00 split in:

- (I) US \$ 91,038,377.00 for Power Plant, and it's Facilities (unchanged)
- (II) US \$ 276,092,847.00 for Power Grid and it's Facilities,
- (III) US \$ 3,000,000.00 per year per 5 year period for management and operation of the whole Power Plant, and Power Grid and Training of owner's nominated personnel.

Fixed Contract Price not subject to any variation US \$ 367,131,224.00

- D.) Amendment No3 signed on 13 May 2011. The contract is reflecting the cancellation of the two power plants and is taking into consideration the works and various activities done in Hera from the mobilization, site preparation and the construction of the Oil Tanks .

The original Contract Value reduced of US \$ 91,038,377.00 is equal to US \$ **276,092,847.00. This amount is increased as stated in the Amendment No. 3 of the value of the works executed in Hera Power Plant : Mobilization-site facilities-site preparation-civil works-Retaining wall-drainage canal-fuel tanks construction etc.etc.**

Value of Amendment No. 3 is US \$ 22,403,345,00

The new total contract price become US \$ 298,496,192.00

In addition the amount of US \$ 5,126,400.00 for Operation , maintenance and training of the Timorese personnel.

E.) Disbursement Schedule:

10% Advance Payment (on original contract value) \$ 36,713,122.00

US \$ 10,000.000.00	Paid on April 2009	Against Bank Guarantee of same amount
US \$ 10,550,000.00	Paid on December 2009	Against Bank Guarantee of US \$ Twelve Million
US \$ 1,450,000.00	Paid on February 2010	Covered by above Bank Guarantee
US \$ 14,713,122.00	Paid on August 2010 , covered by the performance security of	US \$ 36,713,122.00

The value of the PERFORMANCE SECURITY No. LGC6001000261 has been adjusted in accordance to the Contract Amount of Amendment No.3 from US \$ 36,713,122.00 to US \$ 29,849,619.00 (date of this amendment from Bank of China June 09 , 2011).

90% of the new contract price US \$ 268,646,572.80 to be paid to the Contractor in monthly installment, in accordance to the progress of the works and as per the price schedule items.

The interim payments submitted, paid /or under process are:

Interim payment No.	Gross amount US\$	Net Amount US\$
1 (March, 2010)	5,872,855.58	4,699,733.18 paid
2 (April, 2010)	4,117,847.41	3,294,319.58 paid
3 (May, 2010)	3,439,526.40	2,756,729.20 paid
4 (June, 2010)	800,321.83	640,257.46 paid
5 (July, 2010)	4,891,259.53	3,915,378.36 paid
6 (August, 2010)	5,569,325.60	4,456,218.22 paid
7 (September, 2010)	13,593,524.10	10,877,498.39 paid
8 (October, 2010)	10,454,635.75	8,374,646.12 paid
9 (November, 2010)	10,552,883.93	8,463,473.67 paid
10 (December, 2010)	9,449,125.16	7,572,389.75 Paid
11 (January, 2011)	8,723,373.58	6,993,451.33 Paid
12 (February, 2011)	3,221,828.39	2,577,562.86 paid
13 (March, 2011)	19,067,612.16	15,267,413.06 paid
14 (April, 2011)	3,996,415.36	3,197,519.17 Paid
15 (May, 2011)	45,536,799.34	36,464,812.22 Paid
16 (June, 2011)	9,976,644.27	7,993,041.62 paid
17 (July, 2011)	14,969,205.89	12,003,232.44 Paid
18 (August, 2011)	17,118,553.54	13,699,762.14 paid
19 (September, 2011)	11,349,268.85	9,079,970.24 paid
20 (October, 2011)	17,339,231.49	13,874,258.10 paid
21 (November 2011)	21,336,481.64	17,084,538.97 paid
22 (December, 2011)	5,268,293.38	4,214,634.70 paid
23 (January, 2012)	4,548,043.37	3,638,434.70 In Process
Total	251,193,056.55	201,139,275.47

(III) US \$ 3,000,000.00 per year per a period of 5 years, and operation of the whole Power Plant, and Power Grid and Training of owner's nominated personnel.

2.) **Contract with Puri Akraya Engineering Limited for Hera and Betano Power Plants**

A. Contract signed on September 15, 2010 of value US \$ 352,569,123.00 inclusive of taxes, split in:

(I) Hera power plant	US \$ 164,532,257.00
(II) Betano power plant	US \$ 188,036,866.00

B. Disbursement Schedule

25 % advance payment	US \$ 88,142,281.00
75 % by Letter of Credit	US \$ 264,426,842.00

The amount of the LC will be split and withdrawn over a period of 16 months during the length of the contract.

C. Payment done

US \$ 40,000,000.00 (portion of the advance payment) paid on 30-12-2010 (credited in the bank on January 02 ,2011) against a Bank Guarantee of same amount , this amount

is related to Hera Power Plant.

US \$ 48,142,281.00 (balance of the advance payment) paid on 07-04-2011 against a Bank Guarantee of same amount , this amount is related to Betano Power Plant.

D. Supplemental Agreement

The Supplemental Agreement is covering the Exchange Rate fluctuation between US \$ and Euro and the cost of the two Switchyards 20 KV/150 KV of Hera and Betano.
Exchange rate at contract signing was **1.2800**

For **Hera** the exchange rate has been fixed on December 31, 2010 (two working days ahead of the advance payment date) and is equal to **1.3362**

For **Betano** the exchange rate has been fixed on April 05, 2011 (two working days ahead of the advance payment date) and is equal to **1.4166**

To be noted that the price adjustment with above exchange rates is applicable only to the value of the materials and equipment imported from Europe and payable in Euro.

The supplemental agreement has been signed by the Prime Minister on April 14th, 2011.

The new Contract Amount is now as follow :

- Hera Power Plant US \$ 186,419,850.00
(Basic Contract US \$ 154,196,280.00 + Switchyard value Us \$ 14,500,000.00
+Taxes US\$ 11,410,628.00 + Exchange Rate Adjustment US \$ 6,312,942.00)
- Betano Power Plant US \$ 219,751,473.00
(Basic Contract US \$ 176,224,320.00 + Switchyard value US \$ 13,200,000.00
+Taxes US \$ 12,790,849.00 + Exchange Rate Adjustment US \$ 17,536,304.00)

E. Letter of Credit

The Letter of Credit (LC) in the format <confirmed , irrevocable , divisible , transferable> has been negotiated with ANZ Bank in Dili and HBSC in Singapore.

The LC is covering the value of equipment and services for Hera Power Plant in the total amount of US \$ 170,000,000.00 and for Betano Power Plant in the total amount of US \$ 171,609,192.00.

The LC related to Hera Power Plant is made operative from April 21,2011

The amounts of money drawn from the LC starting from the month of June 2011 are as follow:

INVOICE No.	INVOICE VALUE US \$	ADVANCE AGAINST 40 Mill.Received US \$	RETENTION US \$	NET DRAWN from LC US \$
11601	3,893,663	Nil	Nil	3,893,663
11602	9,348,634	2,223,766	532,052	6,592,816
11603	5,117,937	1,217,407	291,273	3,609,257
11604	1,315,353	312,884	74,860	927,609
11606	1,236,174	294,050	70,353	871,771
11608	9,312,709	2,215,221	530,007	6,567,481
TOTAL month of June	30,224,470	6,263,328	1,498,545	22,462,598
11605	4,333,172	1,030,735	246,610	3,055,827
11710	46,521,748	11,066,161	2,647,658	32,807,929
11607	4,697,793	972,782	Nil	3,725,010
11609	1,800,960	428,395	102,497	1,270,068
11712	1,077,300	256,258	61,312	759,730
11713	34,891,311	8,299,621	1,985,743	24,605,947
TOTAL month of July	93,322,284	22,053,952	5,043,820	66,224,511

11711	26,455,514	6,292,992	1,505,643	18,656,879
11714	6,123,811	1,456,675	348,520	4,318,616
11715	2,162,354	447,763	NIL	1,714,591
11816	1,654,602	342,622	NIL	1,311,980
11817	17,939	NIL	1,631	16,308
11819	49,987	11,890	2,845	35,251
TOTAL month of August	36,464,207	8,551,942	1,858,639	26,053,626
11818	252,264		22,933	229,331
11820	43,993	10,465	2,504	31,025
11821	1,473,305	350,456	83,849	1,039,000
11922	692,541	164,735	39,414	488,392
11923	219,749		19,977	199,772
11925	1,439,188		130,835	1,308,353
TOTAL month of September	4,121,040	525,656	299,512	3,295,873
11926	29,406		2,673	26,733
11927	88,858	21,137	5,057	62,664
111030	152,031		13,821	138,210
111031	528,071		48,007	480,065
111047	36,818	8,758	2,095	25,965
111046	124,874	29,704	7,107	88,063
111034	7,737	1,840	440	5,456
11924	3,112,495	644,511	-----	2,467,984
111035	25,742		2,340	23,402
111038	251,142		22,831	228,311
111036	269,081	-----	24,462	244,619
111042	269,081		24,462	244,619
11929	284,628		25,875	258,752
111040	269,081		24,462	244,619
111032	8,969		815	8,154
111044	217,281		19,753	197,528
11928	216,944	-----	19,722	197,222
111033	8,969		815	8,154
111041	17,939		1,631	16,308
111039	33,635		3,058	30,577
111043	34,981		3,180	31,800
111045	2,310,195		210,018	2,100,177
111048	4,053,921	839,454		3,214,467
111037	138,128		12,557	125,571
111051	13,454		1,223	12,231
111050	84,626	-----	7,693	76,933
111049	1,524,135			1,524,135
TOTAL month of October	14,112,222	1,545,404	484,097	12,082,719
111152	1,473,534	----	153,958	1,339,576
Total month of November	1,473,534	----	133,958	1,339,576
111153	825,019	170,838		654,180
111154	369,431			369,431
111155	263,990			263,990
111256	42,494	10,108	2,421	29,965
TOTAL month of December	1,500,934	180,946	2,421	1,317,566
GRAND TOTAL of 2011	181,218,691	39,121,228	9,320,992	132,776,469
111257	651,332		-----	651,332
111258	586,602	121,469	-----	465,133
120159	593,034	122,801	-----	470,233
TOTAL month of January	1,830,968	244,270		1,586,698
GRAND TOTAL	183,049,659	39,365,498	9,320,992	134,363,167

3.) Contract with CSI Company,Lda of Timor Leste for 24 MW extension of Comoro power plant

- A. Contract signed on 23 December 2010.
Value US \$ 30,900,000.00 .
- B. Disbursement schedule
 - 1) Plant and equipment supplied from abroad:
 - 10% advance payment against a Bank Guarantee of same amount.
 - 50% against presentation of shipping documents.
 - 30% upon delivery of material at site.
 - 5% upon completion certificate.
 - 5% upon Operational Acceptance Certificate.
 - 2) Design Service
 - 10% advance payment against a Bank Guarantee of same amount.
 - 90% pro rata upon presentation and approval of drawings.
 - 3) Installation and other service
 - 10% advance payment against a Bank Guarantee of same amount.
 - 80% pro rata in accordance to the monthly progress.
 - 5% upon completion certificate
 - 5% upon Operational Acceptance Certificate .

The 10 % advance payment has not been requested by the Contractor.

- The first interim payment for the months of March & April 2011 has been submitted in the Amount of US \$ 1,459,630.00 (Amount paid)
- The second interim payment covering the activity done during the month of May 2011 has been submitted in the amount of US \$ 4,792,754.00 (Amount paid).
- The third interim payment covering the activity done during the months of June & July 2011 has been submitted in the amount of US \$ 4,275,387.00 (amount paid).
- The fourth interim payment covering the activity done during the months of August 2011 has been submitted in the amount of US \$ 3,890,728.00 (amount paid).
- The fifth interim payment covering the activity done during the month of September 2011 has been submitted in the amount of US \$ 5,438,895.00 (amount paid).
- The sixth interim payment covering the activity done during the month of October 2011 has been submitted in the amount of US \$ 3,848,671.40 (amount paid).
- The seventh interim payment covering the activity done during the month of November 2011 has been submitted in the amount of US \$5,539,354.60 (amount paid).
- Interim Payment for the month of December 2011 has not been issued.
- Interim payment for the month of January 2012 has not been issued.

Total invoiced US \$ 29,245,420.00 equal to 94.65 % of the Contract value The Net Amount disbursed after deduction of the retention money (10%) is US \$ 26,320,878.00

4.) Contract with bps Pt Bangun Prima Semesta for the 20KV Connection Between Dili New Substation and existing Comoro Feeders

A. Contract Signed on 12August 2011

Value	US \$ 1,326,900.75
Revised scope of work	<u>US \$ 933,000.00</u>
Total Amount	US \$ 2,259,900.75

B. Disbursement schedule

- Fifty percent (50%) of the value of each item upon delivery to the site and certified by the Owner's representative
- Thirty percent (30%) of the value of each item upon erection work done and certified by the Owner's representative.
- Twenty percent (20%) of the value of each item after completion of the works and after successfully testing-commissioning and handing over to the Owner.

Up to the present time the Contractor has not submitted any progress payment Invoice.

The Contractor has submitted the 1st progress payment , Invoice of January 2012 in the amount of US \$ 785,133.94 which is 34.74% of the contract value.

(pages 89-98 in original report)

a) Summary of Contracts Contractual Data

- a-1 CNI22 . Contract Agreement No. RDTL 812931 effective as from October 25 , 2008.**
- a-2 CNI22 . The 1st Amendment to Contract Agreement No. RDTL 812931 effective as from February 27, 2009.**

SCOPE OF WORK

The Contractor shall provide a complete national electrical system Consisting of Power Plants and Electrical Power Grid. The electrical system shall cover the whole country , shall be reliable and produce electric power to full capacity of the installed power Plant and will be fully maintained without interruption . the power Plant and Electric power grid shall consist of the following:

- (i) One power plant will be located in Manatuto (north Timor Leste) with a capacity of 121.78MW , consisting of 4x8.82MW, 2x11MW 3x21.5 MW and 2x1MW (start up) generating sets.
- (ii) The existing power plant (Dili), Manatuto and Same Power Plant will be connected through a Power Grid system.
- (iii) Around 630 Kms length of the national Power Grid shall consist of 60 Kms double circuit, 570 Kms single circuit 110 KV transmission line and 10 substations located at Dili, Baucau, Liquica, Manatutu, Lospalos, Burburoron, Viqueque, Same, Suai and Maliana.

CONTRACT PRICE

The total Contract Price is US \$ 360,366,947 payable as follows:

- (a) US \$ 91,038,377.00 for power plant and its facilities.
- (b) US \$ 269,328,570.00 (equivalent to foreign currency RMB 1,885,300,000.00) for power grid and its facilities

In addition US \$ 3,000,000.00 per year for management and operation of the whole Power Plant and Power Grid and training of Owner's nominated personnel for a period of 5 years , computed from the issuance of the certificate of Completion of the installation of the works

- a-3 CNI22 .The 2nd Amendment to Contract Agreement No. RDTL 812931 effective as from December 21, 2009.**

SCOPE OF WORKS:

The Contractor shall provide a complete National Electrical System consisting of Power Plants and Electrical Power Grid. The electrical system shall cover the whole country, shall be reliable and produce electric power to full capacity of the installed Power Plants and will be fully maintainable without interruption. The Power Plants and Electric Power Grid consist of the following, referred to as Works;

One (1) Power Plant located at Hera (N-E of Timor-Leste) with a capacity of not less than 120MW and One Power Plant at Betano (S-W of Timor-Leste) with a capacity of not less than 60MW including the relevant step up and switching Substations which shall have 20KV Distribution capability of not less than 5MW each.

As stipulated in the Amendment, the Owner requires to change the second hand engines with a brand new one and to increase the Power Plant capacity in **Betano from 60MW to 130MW**. For this new condition, the Contractor shall submit corresponding Proposal subject to verification and negotiation wherein the price of the second hand engines as per the previous Contract will be deducted from this Proposal and the differential amount will be added to the contract signed on December 21, 2009, and;

- (i) The existing Comoro and Hera and Betano Power Plants will be connected through the Power Grid.

- (ii) Around 715 Km length of the National Power Grid shall consist of 58 Km double circuits, 657 Km single circuit 150 KV transmission lines and 9 substations located at Dili, Baucau, Liquica, Manatuto, Lospalos, Viqueque, Cassa, Suai and Maliana. The actual length of Transmission Lines measured from Gantry to Gantry of each substations shall have no effect to the Total Contract Price in case there will be variance in plus or minus compared to the distance measured in the maps.
- (iii) 120 Km of 20 KV Distribution Lines to connect Aileu, Gleno, Same, and Ainaro from the nearest 150/20KV Substations, and connection of the Substation to the 20KV Power Grid. This total length of the Lines is fixed and additional kilometers of lines, if requested will be paid as an additional amount to the Contract prices in accordance to the unit rates indicated in the Contract Agreement;
- (iv) The possible relocation of the Power Plant in Betano shall be technically negotiated with no effect the Contract Price.

CONTRACT PRICE:

The Owner hereby agrees to pay to the Contractor in consideration of the performance by the Contractor of its obligations hereunder amounting to US\$ 367,131,224.00 aggregate of:

- (a) US\$ 91,038,377.00 (Ninety One Million Thirty Eight Thousand Three Hundred Seventy Seven US Dollars) for the two (2) Power Plants and their Facilities;
- (b) US\$ 276,092,847.00 (Two Hundred Seventy Six Million Ninety Two Thousand Eight Hundred Forty Seven US Dollars) for Power Grid 150 / 20 KV and its Facilities.

In addition US\$ 3,000,000.00 (Three Million US Dollars) per year for management and operation of the whole Power Plants and Power Grid including training of Owner's nominated personnel, computed from the issuance of the Certificate of Operational Acceptance of the Works or part thereof. For the management, operation and training of Owner's nominated personnel of the complete power grid of one (1) year the cost is included and spread in above yearly amount.

The value of the Power Plants remains unchanged although the capacity of Betano has been increased;

Hera	120 MW
Betano from 60 MW to	130 MW

The increment of the Contract Price of US\$ 6,764,277.00 (Six Million Seven Hundred Sixty Four Thousand Two Hundred Seventy Seven US Dollars) due to the adjustment of the rate of exchange US\$/Renminbi has been added to the cost of the Power Grid.

a-4 CNI22 . The 3rd Amendment to Contract Agreement No. RDTL 812931 effective as from May 13 , 2011.

Following the decision of the Owner to cancel from CNI22's contract the two (2) power plants of Hera and Betano the new scope of work is summarized as below :

SCOPE OF WORK

The Contractor shall provide a complete nationalElectrical Power Grid that shall cover the whole country , shall be fully maintainable without interruption .

- (i) Power Plants Hera & Betano cancelled.
- (ii) Comoro Power Plant to be connected to the Power Grid.
- (iii) Around 715 Km length of the national Power Grid shall consist of 58 Km double circuit , 657 Km single circuit 150KV transmission lines and 9 substations located at Dili , Liquica ,Manatuto , Lospalos , Viqueque , Cassa , Suai and Maliana. The length of the

Transmission Lines is based on map's routing measurements only and will be revised with actual lengths from Substation's Gantry to Substation's Gantry in plus or minus without affecting the Contract Price.

- (iv) 120 Km of 20KV Distribution Lines to connect Aileu , Gleno , Same and Ainaro from the nearest 150/20KV Substations , and connecting of the Substations to the 20KV power Grid. This total length of the lines is fix and additional kilometers of lines , if required, will be paid as an additional amount to the contract price.
- (v) In Hera , Mobilization of the Contractor , Site Facilities , Site preparation , Civil Works , retaining Walls , drainage Canal , Fuel Tanks Construction . In Betano , Clearing and Survey.

CONTRACT PRICE

The Owner hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder . The total Contract Price for the Works is US \$ 298,496,192.00 aggregate of :

(a) US \$ 22,403,345.00 for Power Plants works executed in Hera and Betano.

(b) US \$ 276,092,847.00 for Power Grid 150 and 20 KV.

In addition US \$ 5,126,400.00 for management , training , maintenance and operation of Power Grid and training of the Owner's nominated personnel , computed from the issuance of the Certificate of Operational Acceptance of the works or part thereof.

The contract prices are fixed not subject to any variation and remain unchanged also in case of currency fluctuation and raw materials basic prices increase

a-5 PURIAKRAYA ENGINEERING LIMITED — Contract Agreement No. RDTL 10004115 , effective as from September 15 , 2010 and amended with Supplemental Agreement effective as from April 14, 2011.

SCOPE OF WORK

The Contractor shall , on Engineering - Procurement - Construction basis (EPC), provide to the Owner:

- (a) 7 x W18V46 power plant , with a total gross electrical power of 119,532 KW in Hera.
- (b) 8 x W18V46 power plant , with a total gross electrical power of 136,608 KW in Betano.
- (c) 150KV High Voltage Outdoor Switchyard and Transformers annexed to Hera power plant (supplemental agreement)
- (d) 150Kv High Voltage Outdoor Switchyard and Transformers annexed to Betano power plant (supplemental agreement)

The Contractor shall provide design , engineering , equipment procurement , construction , start-up , testing and training services for dual combustion system (oil and Natural gas) fired engine generating power plants.

The Contractor shall provide design , engineering , equipment procurement , construction , start-up , testing and training services for the 150KV switchyards.

CONTRACT PRICE

The contract prices shown are inclusive of all taxes levied in Timor Leste : Import duty 2.5% , Sale tax 2.5% , withholding tax 2.0% and in addition the prices of goods imported from Europe have been adjusted according to the fluctuation of exchange rate between US Dollar and Euro.

(i) (i) HERA POWER PLANT

- Basic Contract Price	US \$ 154,196,280.00
- Switchyard price	US \$ 14,500,000.00
- Taxes	US \$ 11,410,628.00
- Exchange rate adjustment	US \$ 6,312,942.00
TOTAL	US \$ 186,419,850.00

(ii) BETANO POWER PLANT

- Basic Contract Price	US \$ 176,224,320.00
- Switchyard price	US \$ 13,200,000.00
- Taxes	US \$ 12,790,849.00
- Exchange rate adjustment	US \$ 17,536,304.00
TOTAL	US \$ 219,751,473.00

Above Contract Prices are subject to increase when new Supplemental Agreement shall be issued upon the implementation of the extra works such as :

For Hera , jetty to offload fuel , supply of fuel , connection to the oil storage tanks, administration building , residential complex , Operation and Maintenance of the plant, various miscellaneous.

For Betano , jetty to offload fuel , supply of fuel , storage tanks , administration building, residential complex , Operation and Maintenance of the plant , various miscellaneous.

a-6 CSI Company Lda of Timor Leste — Contract Agreement No. RDTL 100053 effective as from December 23 , 2010.

SCOPE OF WORK

Engineering Design , Supply and Installation , testing and commissioning of 24 MW Extension of the Comoro Diesel Generating Power Station: 5 x 5500 KW , auxiliary , fuel tanks ,fuel system, cooling system , electrical components ,transformers , steel structures building, accessories , all requirements to put the Power Plant in full operational conditions.

CONTRACT PRICE

The Contract Price is the amount of US \$ 30,900,000.00 and is fix and not subject to any adjustment and or escalation .

a-7 bps TP Bangun Prima Semesta - Contract Agreement effective as from August 23 , 2011.

SCOPE OF WORK

Engineering ,Procurement , and Construction of the 20KV Over Head Line Connecting the New 150/20 IN Dili Substation with the existing Six (6) Feeders now connected to Comoro Power Plant.

CONTRACT PRICE

The Contract Price is in the amount of US \$1,326,900.22 , price fix for each item , and for any additional works same unit prices shall apply.

The additional work required to extend connections to the various feeders in town is in the amount of US \$ 993,000.00.

b) OPERATION AND MAINTENANCE

b-1 Hera Power Plant

The agreement with Puri Akraya Engineering LTD. for the Operation and maintenance of Hera Power Plant has been drafted and expected to be signed soon for a period of five years.

The Power Plant is in commercial operation with three engine as from 1st December 2011.

b-2 Betano Power Plant

EPC contract is in progress.

b-3 Power Grid under CNI22

- Transmmission Lines Liquica-Dili-Hera-Manatuto are in commercial operation as from 1st December 2011.
- Transmission Lines Manatutto-Baucau-Lospalos are in commercial operation as from 23rd December 2011.
- Substations of Liquica-Dili-Manatuto are in commercial operation as from 1st December 2011.
- Substations of Baucau-Lospalos-are in commercial operation as from 23rd and 24th December 2011.

b-4 Comoro Power Plant

EPC contract is in progress.



ELECTROCONSULT & BONIFICA S.p.A. JOINT VENTURE

CONSTRUCTION SUPERVISION SERVICES FOR THE BUILDING OF A NATIONWIDE
ELECTRICAL POWER SYSTEM FOR TIMOR LESTE – CONTRACT RDTL - 92896

MONTHLY PLANT PERFORMANCE FOR DECEMBER 2011

From 1st Dec 0.0 hrs to 31st Dec 24.00 hrs

Fuel Inventory 1st Dec @ 0.0 hrs (kg): 1836000

DATE	Gross Generated MWh	Net Generated MWh	Fuel Consumed Flow Meter (Kg)	SFC g/kWh	Fuel Received Litres	Density Kg/Litres	Fuel Received Kg	Inventory Kg
1	285.791	276.6	64860	226.9490642	20,000	0.847	16940	1788080
2	300.879	289.8	70540	234.4464054	0	0.847	0	1717540
3	296.083	284.6	67880	229.2600386	135,000	0.847	114345	1764005
4	295.877	284.4	66780	225.7018964	0	0.847	0	1697225
5	294.609	283.8	66110	224.3991188	205,000	0.847	173635	1804750
6	290.636	281.2	65870	226.6408841	190,000	0.847	160830	1899810
7	229.179	220.6	53820	234.8382705	175,000	0.847	148225	1994215
8	231.223	223.6	52830	228.4807307	0	0.847	0	1941385
9	284.793	274.6	62620	219.8789998	205,000	0.847	173635	2052400
10	261.619	251.1	59640	227.9650943	225,000	0.847	190575	2183335
11	241.249	230.9	55370	229.5139047	0	0.847	0	2127965
12	300.751	289.3	66190	220.0823937	260,000	0.847	220220	2281995
13	312.496	300.6	71310	228.1949209	220,000	0.847	186340	2397025
14	291.415	280.5	65530	224.8683149	60,000	0.847	50820	2382315
15	298.965	287.3	64800	216.7477798	25,000	0.847	21175	2338690
16	310.185	298.8	67760	218.4502797	0	0.847	0	2270930
17	301.265	290.4	65580	217.6821071	145,000	0.847	122815	2328165
18	182.59	176.8	42660	233.6382058	0	0.847	0	2285505
19	297.759	288.3	64090	215.241185	105,000	0.847	88935	2310350
20	303.651	292.1	66040	217.4865224	135,000	0.847	114345	2358655
21	283.168	273	61150	215.9495423	100,000	0.847	84700	2382205
22	339.254	327.8	73330	216.1507307	180,000	0.847	152460	2461335
23	451.707	440.2	95070	210.4682903	115,000	0.847	97405	2463670
24	448.179	436.2	94880	211.7011283	0	0.847	0	2368790
25	426.816	414.8	90690	212.4803194	0	0.847	0	2278100
26	441.059	428.9	93090	211.0601983	0	0.847	0	2185010
27	446.788	434.4	94220	210.8830139	0	0.847	0	2090790
28	503.074	489.6	103870	206.4706186	200,000	0.847	169400	2156320
29	476.42	461.7	98950	207.6948911	180,000	0.847	152460	2209830
30	448.4	433.4	93990	209.6119536	0	0.847	0	2115840
31	445.468	430.6	94240	211.5527939	0	0.847	0	2021600
Total	10321.348	9975.9	2253760	218.3590748	2,880,000			



ELECTROCONSULT & BONIFICA S.p.A. JOINT VENTURE

CONSTRUCTION SUPERVISION SERVICES FOR THE BUILDING OF A NATIONWIDE
ELECTRICAL POWER SYSTEM FOR TIMOR LESTE – CONTRACT RDTL - 92896

MONTHLY PLANT PERFORMANCE FOR JANUARY 2012

Fuel Inventory 1st Jan @ 0.0 hrs (Kg): 2018855.72

DATE	Gross Generated MWh	Net Generated MWh	Fuel Consumed Flow Meter (Kg)	SFC g/kWh	Fuel Received Litres	Density Kg/Litres	Fuel Received Kg	Inventory Kg
1	409.813	396.4	87550	213.63	0	0.847	0	1931306
2	424.726	412	90100	212.14	0	0.847	0	1841206
3	449.376	435.9	93570	208.22	65,000	0.847	55055	1802691
4	477.49	463.3	98460	206.20	225,000	0.847	190575	1894806
5	481.027	466.3	98860	205.52	180,000	0.847	152460	1948406
6	501.475	486.2	102330	204.06	120,000	0.847	101640	1947716
7	456.798	441.7	94830	207.60	90,000	0.847	76230	1929116
8	478.859	463.36	99080	206.91	0	0.847	0	1830036
9	508.915	493.62	103720	203.81	195,000	0.847	165165	1891481
10	481.562	466.36	99100	205.79	195,000	0.847	165165	1957546
11	516.311	494.4	104890	203.15	25,000	0.847	21175	1873831
12	503.863	493.6	103160	204.74	0	0.847	0	1770671
13	514.444	501.6	104950	204.01	100,000	0.847	84700	1750421
14	509.804	494.7	104130	204.25	185,000	0.847	156695	1802986
15	409.134	390.9	85160	208.15	0	0.847	0	1717826
16	496.963	481.8	102130	205.51	175,000	0.847	148225	1763921
17	483.164	469.4	99900	206.76	180,000	0.847	152460	1816481
18	508.154	495.5	103820	204.31	220,000	0.847	186340	1899001
19	506.962	494.1	103640	204.43	160,000	0.847	135520	1930881
20	503.26	490.5	103240	205.14	215,000	0.847	182105	2009746
21	497.421	484.2	102220	205.50	85,000	0.847	71995	1979521
22	472.685	459.4	97760	206.82	0	0.847	0	1881761
23	507.842	495	104020	204.83	205,000	0.847	173635	1951376
24	474.053	461.2	98330	207.42	75,000	0.847	63525	1916571
25	516.945	503.1	105740	204.55	65,000	0.847	55055	1865886
26	534.821	521.6	109000	203.81	0	0.847	0	1756886
27	529.732	516.5	108130	204.12	0	0.847	0	1648756
28	528.615	516.3	107940	204.19	125,000	0.847	105875	1646691
29	514.501	502.6	105300	204.66	0	0.847	0	1541391
30	513.682	501	105570	205.52	195,000	0.847	165165	1600986
31	506.016	494	104100	205.72	225,000	0.847	190575	1687461
Total	15218.413	14786.54	3130730	205.72	3,305,000			

(pages 111-112 in original report)

c-2 Contractor's Personnel

CNI22 Staff	Numbers
Chinese	
Management Personnel	76
Substation	116
Transmission Line	145
Hera Power Plant	3
Total	340
Local	
Hera Power Plant	23
Substation	38
Transmission Line	156
Total	217
Grand Total	557
PAE Staff	
Management Personnel	51 expat+14 local=65
Hera Power Plant (Workers)	99
Local	48
Total	212
CSI Staff	
Management Personnel	14
Chinese	133
Local	36
Total	183
Bps Pt Bangun Prima Semesta For the 20KV Feeders Connection in Dili	Total 30 workers (expat + local)

(pages 157-172 in original report)

a) ENVIRONMENTAL MANAGEMENT PLANS

January 2012

A. INTRODUCTION

This report presents the findings of the Environmental Monitoring and Audit conducted for Contracts RDTL-92896 for China Nuclear Industry 22nd (CNI22) and RDTL1004115 for Puri Akraya Engineering Ltd. (PAE) conducted from 19 January to 16 February 2012. The respective Environmental Management Plans (EMP's) for both Contracts have been prepared and are currently being implemented by the respective Contractors in their concerned work sites. Areas covered by this report are the following:

Puri Akraya Engineering Ltd. (PAE):

- Hera Power Plant
- Betano Power Plant

China Nuclear Industry 22nd Ltd. (CNI22):

- Dili Sub-Station
- Manatutuo Sub-Station
- Baucau Sub-Station
- Los Palos Sub-Station
- Cassa Sub-Station
- Maliana Sub-Station
- Viqueque Sub-Station
- Liquica Sub-Station
- Cassa to Betano Transmission Towers
- Maliana to Suai Transmission Towers
- Suai to Cassa Transmission Towers

B. DESCRIPTION OF PROJECT

The project involves the development of a system of electrification which will cover the whole Timor Leste, at the most cost effective manner, reliable and should be maintained without interruption. The project has the following components:

- Construction of Heavy Fuel Oil Power Plants with a total generating capacity of 250MW;
- Construction of 9 Sub-stations all over East Timor
- Laying of transmission lines — 715 kilometers
- Laying of 20kV distribution lines — 120 kilometers

C. ENVIRONMENTAL REGULATORY REQUIREMENTS FOR TIMOR LESTE

Environmental assessment requirements of the Government of Timor Leste (GoTL) are undergoing change due to the fact that Timor Leste is a newly independent country. The National Directorate of Environmental Services (DoE) under the Ministry for Economy and Development has been entrusted with the environmental impact assessment process by providing technical inputs for the regulatory framework, which is still being developed and supervising the implementation on behalf of the government. A Law on Environmental Impact Assessment (EIA) is still under review and currently the Indonesian AMDAL regulations are still being used.

The DoE carries out Environmental Assessments of public and private sector developments in order to ensure that an appropriate level of assessment is applied, commensurate with the degree of risk posed to the environment. Environmental Assessment is a generic term referring to different levels of evaluation according to apparent degree of environmental risk¹.

The DoE ensures that new developments are designed, constructed and operated in an environmentally sustainable manner. To this end, a simplified procedure for environmental assessment and pollution control has been developed, in order to address the range of activities that may occur as a result of the implementation of the proposed project. See Figure 1 for the EIA System process flow for Timor Leste.

This is embodied in Guideline No. 1 (amended March 2003): Environmental Requirements for Development Proposals. This regulation introduces the government's environmental assessment and pollution control policy and process. It also refers to applicable environmental assessment regulations under Indonesian law and structures the EIA and EMP Reports.

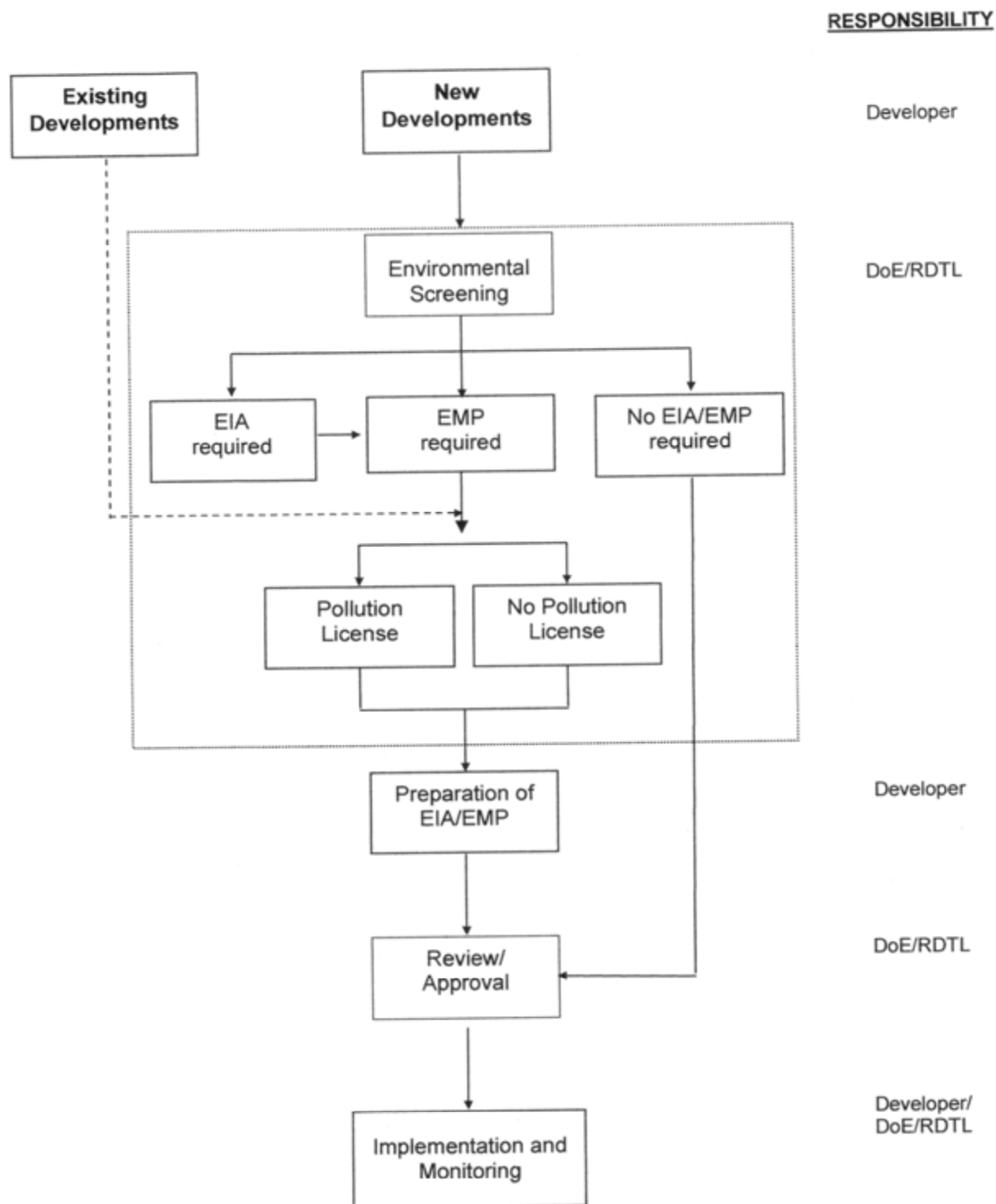
Guideline 6: Screening of Development Proposals describes the classification process for development proposals based on the general environmental impact screening criteria. The guideline then classifies projects according to the type and scale of development proposed.

D. ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

The environmental management plan and environmental monitoring program for the National Electrical Power System for the Timor Leste was designed to determine the extent of variations and changes in the levels of pollutants in the environment and other parameters and indicators considering the implementation or operation of the project. The EMP for Puri Akarya Engineering Ltd. (PAE) for the Hera Power Plant and China Nuclear Industry 22nd Ltd. (CNI22) for the Substations and Transmission Lines were prepared based on the internationally accepted environmental management and conservation practices, the existing environmental laws and regulations of the Government of Timor Leste (GoTL) and the Kyoto Protocol.

¹ The Directorate for Environment (DoE) uses the term 'Environmental Assessment' as a generic term for several different levels of evaluation. At the individual project level, it refers to: 'Category A' projects for which a full Environmental Impact Assessment (EIA) study is required; 'Category B' projects for which a basic site assessment and Environmental Management Plan (EMP) is required; and 'Category C' projects for which no specific environmental conditions are required.

FIGURE 1. ENVIRONMENTAL ASSESSMENT AND POLLUTION CONTROL POLICY AND PROCESS



DoE - Directorate for Environment
 RDTL - Responsible agency within the Timor Leste administration

E. GENERAL STATUS OF THE PROJECT

1. CHINA NUCLEAR INDUSTRY 22ND LTD. (CNI22)

As of 31 December 2012, the physical accomplishment of CNI22 is as follows:

- Total Physical Accomplishment - 81.23%
- Power Plant - 100.00%
- Transmission Towers - 45.32%
- Sub-stations - 16.80%

2. PURI AKRAYA ENGINEERING LTD. (PAE)

As of 31 December 2012, the total physical accomplishment of Puri Akraya Engineering Ltd. (PAE) is 51.39%. It should be noted that the Contract of PAE covers only the Hera and Betano Power Plants.

F. FINDINGS, ISSUES AND CONCERNS

1. Securing of the requisite environmental clearances and permits from concerned environmental agencies of GoTL

The Contractors (CNI22 and PAE) have yet to secure/present the required environmental clearances and permits from the concerned environmental agencies of the GoTL, specifically the DoE. This has been an outstanding issue since the Contractors commenced work and has been cited in previous Audit Reports. Being a government project does not provide/guarantee explicit, automatic nor imbue the Project and the Contractor immunity or exemption from the environmental regulations of GoTL. This is a Contractual Obligation of the Contractors as embodied in their respective EMP's.

2. Preparation of Monthly Environmental Management and Monitoring Reports

The Contractors (CNI22 and PAE) have not been submitting the requisite monthly environmental management and monitoring reports as stipulated in their respective EMP's.

3. Preparation of the EMP for the Operational Phase of the Hera Power Plant by PAE

As per inspections conducted, the Hera Power Plant is already operational. It has been agreed in previous discussions and coordination meetings with the Consultants and Owner, the Contractor (PAE) will prepare the necessary Environmental Management and Monitoring Plan (EMP), to include monthly measurements of Ambient Air and Water Quality and Noise, for the operational phase of the Hera Power Plant as soon as it becomes operational. To date PAE has not submitted this requirement.

4. Preparation of the EMP for the Construction Phase of the Betano Power Plant by PAE

During inspections conducted by the Consultants, it was found out that works on the Betano Power Plant have already commenced without the required EMP for the construction phase as per requirement and agreement.

5. Strict Implementation of Wearing of Personal Protective Equipment (PPE) in Work Areas

Inspections revealed that workers are not wearing proper PPE's while in the work areas. See photos below taken at Betano Power Plant Site:



See photos below taken at Maliana Sub Station:



See photos below taken at Viqueque Sub Station:



6. Proper Housekeeping and Regular Clean up of Work Areas and Completed Sub-Stations

During inspections conducted by the Consultants, it was revealed that work areas are not properly and regularly cleaned and maintained in a healthy and sanitary manner. This is specifically the situation in most of the work areas, camps and sub-stations (CNI22).

See photos below taken at Maliana Sub-station:



See photos below taken at Los Palos Sub-station:



See photos below taken at Baucau Sub-station:



See photos below taken at Manatuto Sub-station:



7. Proper Stockpiling and Disposition of Unsuitable Materials at the Betano Power Plant Site

During the inspections conducted at the Betano Power Plant Site by the Consultants, it was found that unsuitable materials excavated from the power plant site are indiscriminately dumped into areas outside of the property limits of the plant site and not properly spread after deposition. Further, the said area is owned by a private individual and no documentation regarding permission to dump/deposit the unsuitable materials was secured by the Contractor (PAE) from the Owner of the property.

8. Re-vegetation and Landscaping of Completed Sub-stations

It was revealed during inspections conducted in the completed sub-stations, specifically Liquica, Dili, Manatuto and Baucau Sub-stations that this item have not been complied with. The re-vegetation of the subject facilities are stipulated in the EMP of CNI22 and are provided in the approved drawings for the specific substations. The succeeding photos show the non-compliance of the Contractor to the EMP and the approved drawings.

Dili Sub-station:



Liquica Sub-station:



Manatuto Sub-station:





Baucau Sub-station:





The areas shown in the above photos should have been planted with grass and ornamental and flowering plants and should not have been gravel surfaced. The approved drawings designated these areas as landscape areas.

G. ACTIONS TO BE TAKEN/RECOMMENDATIONS

1. The Contractors have to secure the necessary environmental permits and clearances from the concerned environmental agency of the GoTL. This is embodied in the pertinent environmental regulations of the National Government and is stipulated in the EMP's for their respective Contracts.
2. The Contractors should comply with the tenets and stipulations of the EMP that they are committed and contractually obligated to implement. Implementation of the EMP's and adherence to internationally accepted management protocols would ensure the environmentally sound implementation of the works. Should the Contractors fail in adhering and complying with these requirements, appropriate sanctions should be imposed/levied on them.
3. The Contractors have to submit monthly environmental management and monitoring reports (EMMR's) as stipulated in the EMP's of their respective Contracts. These reports should be incorporated in the monthly reports submitted to the Consultants and Owner.
4. Deficiencies cited in this audit report, specifically tenets of the EMP's that have not been followed, should forthwith be rectified and complied with by the Contractors in their respective Contracts. The requisite certifications of acceptance/payment should be held in abeyance until the Contractors rectify/comply with the cited deficiencies.

OCCUPATIONAL SAFETY & HEALTH (OSH)

CNI22

An incident involving a truck where the load consisting of two (2) electrical equipments or cabinets fell to the ground after the lashing holding them broke. An investigation was made to determine whether damage was incurred in a joint inspection with the electrical team of the contractor. Information coming from this contractor's HSE department, the root cause of the accident came from the lashing or binder holding the package breaking up allowing the cargo to fall down to the road. It was advised that inspections should be made to all their lashing materials, i.e. cables, etc. and damaged equipments should be put out of service and replaced

with new ones so accidents similar to this can be prevented. Still, PPE noncompliance is still prevalent at substation construction work sites and CNI22 HSE department needs to be reminded to do corrective actions on these lapses.

PAE

Hera Power Plant

Having completed most of the major construction activities, the remaining work is mostly on road construction but as they go about doing the job, there are tendencies of non-compliance to the basic safety requirements such as PPEs and signages. Had to remind the contractor not to be complacent as this might lead to unwanted events to happen to their workers.

Betano Power Plant

Construction activity had been started early this month with a local contractor doing earthmoving works, i.e. grading, compaction, etc. with a handful of workers involved. As it was observed by our team members monitoring the activity, the said workers were working without the necessary Personal Protective Equipment (PPEs, i.e. Safety Shoes, and Hard Hat) which are the basic minimum requirements agreed to for this project. This non-compliance was aired during the regular bi-monthly meeting directing the main contractor to comply and ensure their workforce has to be provided with basic personal protection as construction is a hazardous workplace.

SUMMARY

Although there had been no incidents that involved injuries to workers, just at the end of the month occurred a vehicle related incident that caused equipments to have some damage to what extent(internal electronic parts), we could not determine. Upon inquisition, it was found due to negligence on the part of the transport personnel where materials used to bind the equipments atop the truck bed broke freeing the cargo sending them to the ground. This lack of procedural inspection on the part of both contractors can be cause for incidents thereby will have an adverse effect to the worker and their families. Re-emphasized to the respective safety personnel of each contractor the need to be vigilant and be on top of all situations to prevent accidents from happening again.

b) PROBLEMS AND RECOMMENDATIONS

PROBLEMS / ISSUES AND RECOMMENDATIONS

Problems/Issues Encountered mainly with CNI22.

1. Communication problems for technical staff and workers of the contractor who cannot speak nor understand the English Language . Consultant Inspectors find difficulty to give direct instructions on site to Chinese workers due to communications barrier with oftentimes no responsible supervisor present on
2. Work preparation not carefully planned to match with the existing site conditions, such as rains and landowner's interference for access.
3. Unprofessional handling of the materials during loading, unloading and transporting from the yard to the site that causes heavy damages to the materials itself.
4. Working safety practices on sites and procedures such as warning signs for incoming vehicles are not placed along the main roads to preclude accidents and PPE 's for workers is not strictly implemented.
5. Quality of the workmanship in general is very poor. A lot of unqualified Chinese workers are used as subcontractors who do not care of the quality and of the finishing up.
6. Coordination with local residents around the work sites is not properly handled.

Recommendations/Actions:

1. The Contractor must provide technical staff good in English communication to facilitate better understanding to the field instructions issued by the Owner's Representatives and Consultant.
2. The Contractor supervisors , particularly QA/QC personnel , Safety Officer must inspect always and constantly monitor the works done on sites to guarantee that all works are according to the approved plans and specifications and upholds the safety program at the construction sites. Likewise, plan in advance and study the corresponding weather situation around the areas of responsibilities to insure the work progress since different locality have different weather scenario.
3. The Contractor's Planning Engineer must coordinate, monitor the progress of the works against submitted approved time schedule, and have a close coordination with the responsible in-charge of different sites to facilitate any adjustment made to get back in track the project in general.
4. The Contractor is instructed to employ more qualified and knowledgeable staffs workers to manage , handle materials from the lay down area , unloading and loading from/to the vehicles to prevent damages and to prevent that material is rejected .
5. The Contractor should supply to all workers the Personal Protective Equipment (PPE), which must be strictly worn by everybody on the jobsite.
6. The Contractor is reminded that after one activity has been completed, the working area must be left clean and free from papers, plastic, bottles, cans, timbers and any sort of garbage to adhere to the environmental program and promote good relationship and gain respect from the local residents.

All above problems/issues do not exist or are minimal with others Contractors : PAE Wartsila , ABB , Wika and CSI.