

PD-AN-156

ISN=31416

4970232 / 53
4970215 / 53

PERUSAHAAN UMUM LISTRIK NEGARA
JAKARTA, INDONESIA

WEST JAVA
ELECTRIC TRANSMISSION PROJEC

MONTHLY REPORT

JANUARY 1979

WEST JAVA I AND II PROJECTS
CONTRACTS

Pj. 013/PST/74 and Pj. 023/PST/75

USAID LOANS 497-H-028 & 497-W-032



CHAS. T. MAIN INTERNATIONAL, INC.

BOSTON MASSACHUSETTS U.S.A.

BANDUNG, INDONESIA

MAIN
Engineers

PERUSAHAAN UMUM LISTRIK NEGARA CONSULTANT
CHAS. T. MAIN INTERNATIONAL, INC.
BANDUNG - TROMOLPOS 88, TEL. 88888, JL. PROGO 88
JAKARTA - P.O. BOX 100, KBT KEBAYORAN TIMUR, TEL. 778888 JL. WIJAYA 1/81
SEMARANG - P.O. BOX 28, TEL. 211702 JL. BLAMET 1

9 April 1979

Letter No. B - 9570

Ir. Semiawan

PERUSAHAAN UMUM LISTRIK NEGARA

Proyek Induk Jaringan Jawa Barat & Jakarta Raya

Jl. Cililitan Besar 1

Jakarta.

Subject : West Java I and II Projects
Monthly Reports

Dear Ir. Semiawan :

In accordance with Article 7.2 of the West Java I Contract No. Pj.013/PST/74 and Appendix V of the West Java II Contract No. Pj.023/PST/75, enclosed are six (6) copies of our Report for the month of January 1979.

Very truly yours,
CHAS. T. MAIN INTERNATIONAL INC.

R.W. Malchow

R.W. Malchow

Project Manager

CJW/ns.-

cc. : DIRBANG/PLN PST - (Encl.1)

→ USAID/JKT - (Encl.4)

MAIN/BSN - (Encl.1)

WEST JAVA I AND II PROJECTS

MONTHLY REPORT

JANUARY, 1979

A. PERSONNEL

1. ENGINEER

- a. During the month of January, there were no changes in personnel.
- b. End of the month strength was as follows :

<u>NAME</u>	<u>TITLE</u>	<u>ARRIVAL DATE</u>
<u>West Java I and II</u>		
R.W. Malchow	Project Manager	24 Oct. 1978
C.J. Whitby	Manager of Admin..	10 Sep. 1974
J.C. Harkey	Substation Engineer	15 Oct. 1977
D.L. Frye	Transmission Engineer	3 Jan. 1978
W.A. Villegas	Supervisor of Stores	25 Jul. 1977
J.P. Radda	Administrative Assistant	19 Jun. 1978
J.R. Knowles	Supervisor of Equip. Maint.	2 Aug. 1978
<u>West Java I</u>		
R.C. Van Nest	Superintendent of Constr.	17 Feb. 1977
W.A. Arnold	Construction Supervisor	1 Sep. 1977
Zainal Saur	Construction Supervisor	16 Mar. 1978
C.V. Silman	Construction Supervisor	1 Jun. 1978
P.V. Wilson	Construction Supervisor	15 Dec. 1978
<u>West Java II</u>		
J.F. Christensen	Construction Inspector	6 Sep. 1977
D.L. Hawks	Construction Inspector	10 Apr. 1978

2. PLN

a. End of the month strength was as follows :

<u>JOB TITLE</u>	<u>NUMBER</u>
Transmission Liaison Engineer	1
Logistics Coordinator	1
Secretaries	5
Draftsmen	6
Accounting Clerks	2
Drivers	16

b. In addition to the above Staff, PLN has assigned numerous Counterpart and field personnel to the Projects.

B. ADMINISTRATION AND GENERAL

1. ADMINISTRATION

a. West Java I Contract Data

(1)	No. Pj.013/PST/74	16 February 1974	US \$ 1,366,452.00
			Rp. 81.308.525,-
	Amendment No. 1	2 September 1975	US \$ -
			Rp. 14.575.975,-
	Amendment No. 2	12 March 1977	US \$ 1,589,996.00
			Rp. 49.916.408,-
	Amendment No. 3	10 January 1979	US \$ 867,561.00
	C.T. Main Engineering Services		Rp. 92.358.466,-
(2)	No.Pj.153/PST/77	5 September 1977	US \$ 2,531,335.58
	Amendment No. 1	10 July 1978	
	Amendment No. 2	In Process	
	Irby Construction Company		
	Tower Steel, Insulators and Accessories		

(3)	No. Pj.202/PST/77	28 November 1977	US \$	284,289.50
	Amendment No. 1		US \$	10,449.56
	Copperweld Industries			
	Shield Wire			
(4)	No. Pj. 203/PST/77	28 November 1977	US \$	1,906,391.70
	Amendment No. 1	10 July 1978	US \$	54,615.55
	Amendment No. 2	In Process		
	South Wire Company			
	Conductor			
(5)	No. Pj.050/PST/78	10 March 1978	US \$	369,473.98
	Amendment No. 1		US \$	35,669.44
	Tension Stringing Equipment Co.			
	Wire Stringing Equipment			
(6)	No. Pj.051/PST/78	10 March 1978	US \$	87,852.00
	Ohio Brass Company			
	Lightning Arrestors			
(7)	No. Pj.052/PST/78	11 March 1978	US \$	4,499,800.74
	Amendment No. 1	In Process		
	Irby Construction Company			
	Substation Equipment			
	Maintenance Tools and Equipment			
(8)	No. Pj.053/PST/78	11 March 1978	US \$	2,452,391.40
	General Electric Company			
	Substation Equipment			
(9)	No. Pj.087/PST/78	11 May 1978	US \$	395,819.20
	Motorola			
	Radio Equipment			

- (10) No. Spj.022/PLN/PI RING/77 27 October 1977 Rp. 199.278.000,
Tikon Abadi
Foundations - Section I
- (11) No. Spj.023/PLN/PI RING/77 27 October 1977 Rp. 153.445.000,
Gunung Kencana
Foundations - Section IIA
- (12) No. Spj.024/PLN/PI RING/77 27 October 1977 Rp. 164.789.000,
Dharma Niaga
Foundations - Section IIB
- (13) No. Spj.010/PLN/PI RING/78-79 8 December 1978 Rp. 132.894.300,
P.T. Perfect Circle
Tower Erection

b. West Jaya II Contract Data

- (1) Pj.023/PST/75 25 January 1975 US \$ 1,541,729.00
Rp. 90.598.149,-
Amendment No. 1 12 May 1975 US \$ -
Rp. -
Amendment No. 2 12 March 1977 US \$ 856,064.00
Rp. 15.129.504,-
Amendment No. 3 10 January 1979 US \$ 112,000.00
C.T. Main Engineering Services Rp. 97.708.072,-
- (2) No. Pj.152/PST/77 5 September 1977 Rp. 452.526.908,-
US \$ 7,744,165.78
Amendment No. 1 & 2 10 July 1978 Rp. 13.137.605,-
US \$ 311,400.72
Amendment No. 3 In Process
Irby Construction Company
Transmission Line Construction

(3)	No. Pj.051/PST/78 Ohio Brass Company Lightning Arrestors	10 March	1978	US \$	87,852.00
(4)	No. Pj.052/PST/78 Amendment No. 1 Irby Construction Company Substation Equipment	11 March	1978	JS \$	4,981.321.52 In Process
(5)	No. Pj.053/PST/78 General Electric Company Substation Equipment	11 March	1978	US \$	3,974,100.16
(6)	No. Spj.001/PLN/PI RING/77 Citac Ltd.	25 April	1977	Rp.	329.553.000,-

c. West Java I and II Contract Data

(1)	No. Spj.016/PLN/PI RING/77 Sumber Jaya Grounding Material	4 July	1977	Rp.	54.245.000,- For Both Projects
(2)	No. Spj.017/PLN/PI RING/77 P.T. Arcon Stub Angles	13 August	1977	Rp.	40.100.000,- For Both Projects

C. CONFERENCES AND EVENTS

1. Project Meeting No. 17 was held on 25 January in PLN's Cawang office. Construction progress and Projects status reports were presented and discussed.
2. Mr. J. Lyman Davis, Vice - President of Irby Construction Co., arrived in Indonesia. The main purpose of his visit is to discuss the Substation and Transmission Contracts.

D. PROBLEM AREAS

1. West Java I

- a. Foundations Contractors are still having financial difficulties.
- b. PLN and ENGINEER are insisting that the Foundation Contractors utilize more equipment in order to speed up progress.
- c. Some of the insulators on Barge GC - 140 were shipped to the United States by Irby for testing in Lapp Laboratories. No word as to the results of the test. It was decided between PLN, C.T. Main and Irby to switch the submerged insulators for West Java I with the non-submerged insulators for West Java II. This would keep all the submerged insulators on one location.
- d. Tower steel - During this period three representatives from Teststeels Ltd. came to Indonesia to see and discuss the damage and galvanizing problems with the steel supplied. The discoloration of some of the steel was explained by Teststeels as being "White Rust" caused by heavy exposure to sea air while being transhipped from Singapore to Cirebon. They also presented statements with passages from a book entitled Atmospheric Corrosion Resistance Zinc published in 1965 by the Zinc Development Association, describing "White Rust". The phenomenon referred to as "White Rust" is the oxidizing of the outer layer of zinc of the galvanized coating. This outer layer of zinc will deteriorate in time even in a good environment. However, over exposing the galvanized steel to sea air and sea water accelerated the deterioration of the outer layer of zinc, which in turn shortens the life expectancy of the galvanizing. C.T. Main instructed Irby where "White Rust" exists to cover the outer zinc with Galvanox.

2. West Java II

- a. Property acquisition remains critical. There are presently three (3) tower locations where the Contractor cannot construct foundations.

E. DESIGN AND FIELD PROGRESS - WEST JAVA I

1. TRANSMISSION DESIGN

- a. Span length check on line section Ujungberung - Bandung Utara was completed during this period.
- b. The review of Foundation as-builts and concrete cylinder breaks for acceptance of foundations continued during the period.
- c. Foundation Repair work is being done where inadequate concrete and as-builts exist.
- d. Still waiting aquisition of property for line section Ujungberung- to Bandung Utara.

2. TRANSMISSION CONSTRUCTION

- a. Section I Foundations - Contractors : Tikon Abadi / Dharma Niaga
 - (1) Contractors poured foundations for 1 tower during the period, making a total of 166 Towers poured to date. There are 167 towers in this Section.
- b. Section IIA Foundations - Contractor : Gunung Kencana
 - (1) Contractor poured foundations for 2 towers during this period, making a total of 133 to date. There are 154 towers in this Section.
 - (2) It appears Gunung Kencana does not want to complete the work in the Teak Forest. Steps are being taken to get another contractor to complete the work. PLN is presently having negotiations with Citac Ltd. to complete the remaining 21 locations.
 - (3) To date Gunung Kencana has not started any Foundation repair work.
- c. Section IIB Foundations - Contractor : Dharma Niaga.
 - (1) Contractor poured foundations for 3 towers during the

month, making a total of 88 towers poured to date.
There are 139 towers in this Section.

A total of 88 towers have been poured to date in Section IIB which completes the Foundations to Ujungberung Substation. The remaining 51 tower locations requiring construction are in line Section Ujungberung - Bandung Utara. Property, to date, has not been procured.

- d. Tower Erection. During the period, PLN and P.T. Perfect Circle crews erected 70 towers, making a total of 168 towers erected to date. PLN has erected 103 and P.T. Perfect Circle 65.

F. DESIGN AND FIELD PROGRESS - WEST JAVA II

1. TRANSMISSION DESIGN

- a. Stub angle fabrication for bundle conductor tower type S1 was completed. Stub angle fabrication is still required for Bundle Conductor tower types S2, D1 and D2.
- b. Foundation IFB for Ujungberung - Cigereleng is complete. Will issue for bids when stub angle fabrication is completed.

2. TRANSMISSION CONSTRUCTION

- a. Section II Foundation - Contractor : Citac Ltd.
 - (1) Contractor poured foundations for 7 towers during the month, making a total of 264 towers poured to date. There are 269 towers in this Section.
- b. Section III Foundation - Contractor : Citac Ltd.
 - (1) Contractor poured foundations for 6 towers during the month, in this section, making a total of 53 towers poured to date. There are 60 towers in this Section.

c. Section II and III Tower Erection - Contractor :
Irby Construction Company.

- (1) Tower erection will begin as soon as the tower steel arrives approximately the middle of March. Irby is scheduling to erect on the average 70 to 100 towers per month.

G. SUBSTATIONS

1. A meeting was held at the PLN offices in Bandung to discuss the IFB's for Substation Construction and to revise the IFB's accordingly.
2. Wave trap frequencies have still not been submitted by Cogalex. Until these are submitted, fabrication of the wave traps for the Substations cannot be completed.
3. The IFB's and drawings for the construction of the Tegal Substation additions were submitted to PLN.
4. Work continues on the drawings for all substations.
5. Material for the Tegal Substation addition and one power transformer arrive in Indonesia.

H. MOBILE RADIO

1. Permits to operate and import Mobile Radio equipment were approved by Telekomunikasi.
2. The first shipment was shipped by the Contractor

I. TRAINING

1. On-the-job Training in connection with tower erection is going well.