PAGE 1 497-00-000-20 PROJECT APPRAISAL REPORT (PAR)

497020

1. PROJECT NO.	2. DATE PAR PERIOD	3. COUNTRY	4. PAR STATUS
497-E-022	Aug. 1971 to Mar. 1977	Indonesia	[redacted]

5. PROJECT TITLE

Medan Electric Power Rehabilitation 497-00-000-20

6. PROJECT DURATION: Begins FY 71 Ends FY 77	7. DATE LATEST PROP	8. DATE LATEST IMP	9. DATE PROJECT
	N.A.	N.A.	N.A.

10. U.S. Funding	a. Cumulative Obligation Thru Prior FY: $13.8 million	b. Current FY Estimated Budget: $	c. Estimated Budget to completion After Current FY: $

11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)

a. NAME	b. CONTRACT, PASA OR VOL. AG. NO.
Government of Indonesia (GOI) acting through the State Electric Power Agency (PLN)	Loan Agreement 497-E-022
Harza Engineering Co. - Consultant to PLN	Contract PDS/CCS/TOC/71
Vinnell Corporation and Titi Kuning Power Plant	Contract PJ/CCS/TOC/74

12. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

A. ACTION (X) USAID	AID/W	HOST	B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
			1. All phases of project were completed and money disbursed by current TDD of March 1, 1977.	
			2. Original project completion dates shown in the Capital Assistance Paper (CAP) dated June 5, 1970 were Dec. 31, 1972 for the New Diesel Generating Plant and June 1, 1974 for the Rehabilitation of the Distribution System. Harza's original contract was for four years, with a terminal date of August 14, 1974.	
			3. Ref. Pg.4, Para A.1. The original purpose could not be attained due to rapid inflation and resulting cost increases and, as a result, the implementation of the distribution system rehabilitation was divided into two phases. The loan funds further provided for procurement of the required distribution material for completion of Phase I and PLN has requested 10 million dollars of financing from AID for procurement of the Phase II material.	
			4. The long delay of project completion was the cumulative result of several factors such as rapid inflation, poor performance by the US Consultant, shortage of qualified project personnel in PLN, and insufficient staff within USAID for timely project implementation.	
			5. As a result of the above outlined implementation problems and late completion dates, the borrower (GOI) has a disturbing attitude towards the project and American efficiency in general.	

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13. REPLANNING REQUIRED

REVISED OR NEW: ☐ PROP ☐ PIP ☐ PRO AG ☐ PIO/T ☐ PIO/C ☐ PIO/P

14. DATE OF MISSION REVIEW

PROJECT MANAGER: TYPED NAME, SIGNED INITIALS AND DATE	MISSION DIRECTOR: TYPED NAME, SIGNED INITIALS AND DATE
Eugene Tierney 17 March 1977	Thomas C. Niblock

Robert F. Zimmerman
Evaluation Officer

Sarah Jane Littlefield
Deputy Director

[illegible]	PROJECT NO	[illegible]	COUNTRY	[illegible]
PAGE 2 FAR	497-H-002	TO [illegible] 1977 [illegible] 1979	Indonesia	[illegible]

H. PERFORMANCE OF KEY INPUT AND ACTION AGENTS

A. INPUT OR ACTION AGENT	B. PERFORMANCE AGAINST PLAN												
CONTRACTOR, PARTICIPATING AGENCY OR VOLUNTARY AGENCY	UNSATISFACTORY		SATISFACTORY			OUTSTANDING		LOW					HIGH
	1	2	3	4	5	6	7	1	2	3	4	5	
1. PLN - GOI Electric Power Agency			X	X									X
2. Harza Engineering Co.		X											X
3. Vinnell Corporation				X									X

Comment on key factors determining rating

#2. Harza's contractual performance resulted in reducing the project impact, extending the completion date, and has caused a substantial increase in the GOI project cost. One of the many mistakes that Harza made was the error in the specified soil bearing for Titi Kuning powerplant, which resulted in an eight months contract extension and over half a million dollars additional cost to PLN.

#3. Vinnells contract was to furnish and install six (6) diesel generator sets of 4,000 KW each and all related equipment required for a complete electric generating plant. Their performance was satisfactory as they completed an acceptable plant in the specified contractual time.

	1	2	3	4	5	6	7	1	2	3	4	5
4. PARTICIPANT TRAINING			X							X		

Comment on key factors determining rating

Harza prepared and supervised the implementation of the US participant training program which was mostly the show and learn technic. During the 6 year project implementation various PLN personnel went to the US for training periods of one to three months and visited US utilities, electric manufacturing plants, line construction companies, etc. Most of the participants voiced some complaints. (Continued)

	1	2	3	4	5	6	7	1	2	3	4	5
5. COMMODITIES				X						X		

Comment on key factors determining rating

All commodities procured under this project followed the AID procurement guidelines and the loan funds were used to finance the foreign exchange cost of the (10) procurement contracts. The commodities consisted of diesel engine parts and accessories, line distribution material, communication system and other electric (Continued)

		1	2	3	4	5	6	7	1	2	3	4	5
6. COOPERATING COUNTRY	a. PERSONNEL			X								X	
	b. OTHER			X								X	

Comment on key factors determining rating

Inability of PLN personnel and the consultant's first project manager to work together reduced the overall project effectiveness. PLN does not have the qualified personnel available in Medan to fully man and conduct a program of this magnitude. Most of the PLN personnel associated with this project have tried, to the best of their ability, to learn, implement and cooperate with the consultant for a successful project completion, however their capability is rather limited as most have only technical school training and cannot assimilate modern utility engineering concepts.

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	1	2	3	4	5	6	7	1	2	3	4	5
7. OTHER GENERAL												

(See Next Page for Comments on Other Factors)

AID REPRESENTATIVE	PROJECT NO.	PAR FOR PERIOD	COUNTRY	PAR REPORT NO.
PAUL A PAR	497-11-209	Aug. '77 to Nov. '77	Indonesia	[illegible]

[illegible] Comments: Comments on key factors affecting rating of Other Planns

(2). KEY OUTPUT INDICATORS AND TARGETS

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS		TARGETS (Percentage/Rate/Amount)					
		CUMULATIVE PRIOR FY	QUARTERLY TO DATE	QUARTERLY TO END	FY ___	FY ___	END OF PROJECT
Complete installation, testing and transfer to PLN for commercial operation of the Titi Kuning Power Plant.	PLANNED		100%	100%			
	ACTUAL PERFORMANCE						
	REPLANNED						
Complete the installation of the AID financed distribution materials.	PLANNED		99%	100%			
	ACTUAL PERFORMANCE						
	REPLANNED						
Training of PLN personnel in the US and in-country to improve the PLN management and operational capability.	PLANNED		152 PA.	152 PA			
	ACTUAL PERFORMANCE						
	REPLANNED						
	PLANNED						
	ACTUAL PERFORMANCE						
	REPLANNED						

B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS	COMMENT:
1. Improved the operational efficiency of the Medan electric power system by approximately 5%.	Completion of the new diesel power plant and installation of the phase I distribution material has improved the overall operational efficiency.
2. The project training program has provided training for 152 participants, who now use that training.	COMMENT: BEST AVAILABLE COPY
3.	COMMENT: * There are some distribution materials in the PLN warehouse that will be installed at the time of the customer conversions.

AID 1020-25 (10-70)	PROJECT NO.	DATE PROJECT AUTHORIZED	COUNTRY	[illegible]
PAGE 4 OF 6	497-K-022	Aug. 71 to May. 77	Indonesia	Final

IV. PROJECT PURPOSE

a. 1. Statement of purpose as currently stated in pad.

2. Logic as in PROP? ☐ Yes ☐ No

To rehabilitate the distribution system in Medan, Binjai and Belawan; rehabilitate existing diesel generating units, provide additional generating capacity for the Medan area, and provide technical and management assistance to the PLN organization in North Sumatra.

a. 1. Conditions which will exist when above purpose is achieved.	2. Indicators or sources of proof that these conditions.
Project completion will provide the Medan area with a modern electric power distribution system and adequate power supply for 35,000 consumers.	Completion of the Titi Kuning power plant has added 24 MW of modern diesel generation to the available power supply and the overhaul of the three Mordberge (total 7.5 MW) has increased their reliability and output. The installation of the AID financed distribution material has improved the power supply to the consumer and reduced the line loss for the power company.

V. PROGRAM GOAL

A. Statement of Programming Goal

The electric power sector goal for the Government of Indonesia is to provide electric service to every existing and potential customer who desires such service. This project's goal was to provide additional reliable generating capacity and improve the distribution system so that the power sector goal may be achieved in the Medan area.

B. [illegible] project [illegible] goal, given the [illegible] of the national [illegible]

The Medan Power Rehabilitation project will provide the first phase of a modern electric system in the Medan area. PLN will expand the system using plans prepared by the US consultant and financing from other sources. Presently PLN has made application to the Asian Development Bank for 10 million dollars to finance Phase II implementation.

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Page 2 PAR	Project # 497-H-022	PAR for period Aug. 71 to Mar. 77	Country Indonesia	PAR # 77-[illegible]

Continued Relevance of Current Project Purpose

1. Are there alternative approaches to achieving this Project's Purpose or the Sector Goal? Would any other approach be more effective or appropriate for USAID?

There are no alternative approaches to that which was taken if the objective is to rehabilitate and improve the electric power system.

2. What is current priority of Project with the GOI? Evidence for or against?

The project had a high priority with the GOI as they provided all the local financing and personnel on a timely basis for project implementation.

3. How does GOI view role? Do USAID and GOI share common perception of Project Purpose?

The GOI believes that the AID project was too little, too late as project implementation required several additional years and had to be reduced in scope due to rapid inflation resulting from the oil embargo. USAID and the GOI do share a common perception of the project purpose which was to provide adequate electric generation and a modern distribution system for the Medan area.

4. Are there Adverse Side Effects to this Project?

a. Economic? None.

b. Ecological? None.

c. Social/Political? See Page 1.

d. Health? None.

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5. Do the Benefits justify the costs?

Yes, the improved efficiency of the new generating facilities and distribution system combined with the increased use of electricity will more than justify the cost. Additional benefits will result from the increased reliability and adequate supply of electric power provided under the project, such as; small scale industries and related employment.

6. Are there any unexpected benefits not directly related to project purpose?

Any project of this type and magnitude will provide additional benefits to the community through increased payroll, street aesthetics, establishment of contractual capability for line construction, trained personnel available for use in similar projects, etc.

7. Overall Assessment of Project Performance.

Unsatisfactory		Satisfactory			Outstanding	
1	2	3	4	5	6	7
		X				

The completed project provided the Medan area with adequate, reliable electric generation, the first phase of a modern distribution system and training of local PLN personnel in modern electric utility practices.

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Continuation

Page 2. #4 - Participant Training

about the program not showing them things that they could use in their daily work routine. The in-country training program worked fairly well as Harza used demonstrative techniques for lineman training and continued working with the local employees and contractor personnel for a two (2) year period.

Page 2. #6 - Commodities

power utility related items, all of which have been received in Medan. Most of the materials are in place and will be energized during the customer conversion. All remaining equipment will be incorporated with the Phase II construction.

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