



**PECC4**  
ISO 9001:2000

**SOCIALIST REPUBLIC OF VIET NAM**  
**ELECTRICITY OF VIET NAM**  
**POWER ENGINEERING CONSULTING COMPANY 4**

Project: 13-02

**E208**  
VOL.14

**QUY NHON - TUY HOA 220kV TRANSMISSION LINE**

**FEASIBILITY STUDY**

**ENVIRONMENTAL MANAGEMENT PLAN (EMP)**



*Khanh Hoa Province, 04/2005*



**PECC4**  
ISO 9001:2000

**SOCIALIST REPUBLIC OF VIET NAM**  
**ELECTRICITY OF VIET NAM**  
**POWER ENGINEERING CONSULTING COMPANY 4**

**PROJECT No. :13 - 02**

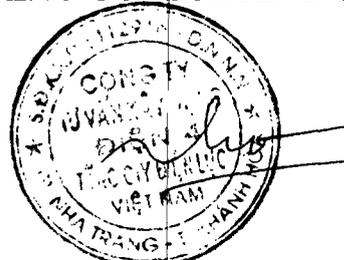
**QUY NHON – TUY HOA 220kV TRANSMISSION LINE**  
**FEASIBILITY STUDY**  
**ENVIRONMENTAL MANAGEMENT PLAN**  
**(EMP)**

Head of department : Nguyen Kim Dong

Chief engineer of project : Nguyen Thanh Hai

*Khánh Hòa Province, 2005*

**FOR AND ON BEHALF OF**  
**POWER ENGINEERING CONSULTING COMPANY 4**



**TRAN VAN THO**  
**DEPUTY DIRECTOR**

## PROJECT FORMING CONTRIBUTION

No.	Full-name	Content prepared	Signature
1	Tran Van Luyen	Presiding EMP establishment	
2	Mai Thi Hop	Establishing EMP report	
3	Dang Phuong Hao	Establishing the map of line route	

## TABLE OF CONTENTS

<i>ABBREVIATIONS</i>	3
<b>I. PROJECT DETAILS</b>	4
<b>II. ENVIRONMENTAL SCREENING</b>	12
<b>III. PUBLIC CONSULTATION</b>	17
<b>IV. MITIGATION PLAN</b>	20
<b>V. MONITORING PLAN</b>	26
<b>VI. INSTITUTIONAL DEVELOPMENT ACTIVITIES</b>	32
<b>VII. IMPLEMENTATION ARRANGEMENT</b>	33
<b>VIII. MONITORING AND REPORTING SYSTEM</b>	35
<i>APPENDICES</i>	39

## ABBREVIATIONS

EVN	: Electricity of Vietnam .
PECC4	: Power Engineering Consulting Company 4
CPPMB	: Central Power Projects Management Board
EMP	: Environmental Management Plan
WB	: World Bank
VND	: Vietnam dong
PTC3	: Power Transmission Company No.3
WHO	: World Health Organization
PC	: People's Committee
LC	: Land Clearance
S/s	: Substation
SMIC	: Safeguard Monitoring Independent Consultant
USD	: United States Dollar
ROW	: Right-of-way
RC	: Resettlement Committee
T/L	: Transmission Line
PAHs	: Project Affected Households

## I. PROJECT DETAILS

### *1. Location of project*

Quy Nhon – Tuy Hoa 220kV transmission line project goes through territory of two wards of Tran Quang Dieu and Bui Thi Xuan, Quy Nhon City, Binh Dinh Province; through four districts (towns) namely: Song Cau district (communes of Xuan Loc, Xuan Binh, Xuan Phuong, Song Cau townlet, Xuan Tho 1, Xuan Tho 2); Tuy An district (communes of An Dan, Chi Thanh townlet, An Dinh, An Cu, An Hiep, An Hoa, An My, An Chan, An Phu); Tuy Hoa Town (communes of Binh Kien and Hoa Kien) and Phu Hoa District (Hoa Quang Bac Commune), Phu Yen province.

Total route length is 88,704m in which the line route goes through Binh Dinh province is of 13,318m length and Phu Yen province is of 75,386m length.

### *2. Main characteristics of the project:*

- Voltage level : 220kV
- Number of circuit : 01 circuit
- Starting point: 220kV busbar of 220kV Quy Nhon substation (existing) belonging to Quy Nhon City – Binh Dinh Province.
- End-point: 220kV busbar of 220 kV Tuy Hoa substation (design) belonging to Phu Hoa District – Phu Yen Province.
- Conductor: Aluminum steel reinforced conductor, symbol ACSR-330/43 with grease layer for anti-erosion.
- Ground-wire: Composite optical fiber overhead ground wire OPGW-70 on line route is used, for incoming and outgoing sections of 220kV substation suspended another ground wire GSW-70, length of each section is about 2.5km.
- Insulators and accessories: Glass insulators or equivalent are used
- Tower : Steel tower with hot dip galvanizing, linked by bolts
- Arms : Arms with towers all-in one block are manufactured
- Foundation : Pier foundation, raft foundation (cast in place), pile foundation
- Width of ROW: 21.2m.

+ Route length: 88,704m (excluding the distance from the ending tower into the busbar of the substation)

+ Turning angle	: 57 angles
+ Number of houses in the ROW	: 58 houses
+ Crossing rivers	: 03 times
+ Crossing the transport roads	: 20 times
+ Crossing the railway	: once
+ Inter-crossing with lower voltage power line	: 27 times
+ Inter-crossing with communication line	: 04 times
+ Permanent land acquisition	: 21,762m <sup>2</sup>
+ Land area in the ROW	
- Paddy	: 68,300m <sup>2</sup>
- Crops	: 522,686m <sup>2</sup>
- Planted forest	: 200,789m <sup>2</sup>
- Fruit trees	: 64,808m <sup>2</sup>
- Industrial trees	: 117,897m <sup>2</sup>
- Clearing forest	: 207,463m <sup>2</sup>
- Residential land	: 20,553m <sup>2</sup>
- Other land	: 35,086m <sup>2</sup>

### ***3. Project construction topography***

The line route of Quy Nhon – Tuy Hoa 220kV T/L project is chosen to implement technical investigation and described as follows:

\* **Section 1**: From the starting point to G8 in 7,059 m length.

Beginning from the existing 220kV Quy Nhon substation, the line crosses cemetery land and stoneyard of Central Granite Company to G1 on crops land. From G1, the line turns left and goes parallel to Quy Nhon – Tuy Hoa 110kV OHL. To keep off the Industrial Zone, the stone quarry, the City Cemetery and the residential area, the route line makes many turning angles and arrives at G8 at the foot of Cu Mong pass. In this section, the topography is rather complex, high hills and rocky mountains, many thick brambles and cultivated land is mainly of

eucalyptus. The line route passes through the area of Tran Quang Dieu and Bui Thi Xuan Wards- Quy Nhon City – Binh Dinh Province.

Topography and special ground object on the route section:

- + Crossing the inter-commune roads : twice
- + Houses in the right-of-way : 15 houses
- + Crossing 22kV and 35kV lines : 4 times

\* **Section 2:** From G8 to G15 in 10,494m length

From G8, the route turns left and runs parallel to the right of Quy Nhon – Tuy Hoa 110kV T/L. With the distance of 50m, the route in turn makes turning angles and arrives at G11 on the top of Cu Mong pass. From G11, the route continuously makes turning angles to G15 at the foot of Cu Mong pass. The topography the route passes through mainly comprising of high hills and mountains with blockstone, vegetation is mainly of eucalyptus and crops land. The altitude varies from 20 ÷ 250m. The territory the route crosses through belongs to Bui Thi Xuan Ward, Quy Nhon City and Xuan Loc Commune, Song Cau District.

- + Houses in the right-of-way : 02 houses

\* **Section 3:** From G15 to G27 in 20,176m length

From G15, the route line turns right and goes parallels to Quy Nhon – Tuy Hoa 110kV OHL with distance of 50m, making turning angles and arrives at G17. From G17, it turns right and not goes parallel in order to avoid high mountains and residential area of Chanh Loc village, Xuan Loc commune and arrives at G19. Due to the topography condition, at G19, the route turns right far away from National Road No.1A, along 110kV T/L and the road No. 439 to avoid the residential area of Xuan Phuong Commune, Song Cau District, making many turning angles to arrive at G27 close to National Road No.1A. The area topography is mainly hills, mountains with blockstone, the vegetation is mainly of eucalyptus, cashew, crop land and fruit trees. The altitude varies from 20 ÷ 250m. The area belongs to Xuan Loc, Xuan Binh, Xuan Phuong Communes, Song Cau District.

Topography and special ground object on the route section:

- + Crossing the road No.439 and the inter-commune roads: twice
- + Houses in the right-of-way : 11 houses
- + Crossing 0.4kV line : once

**\* Section 4: From G27 to G39 in 16,944m length**

From G27, the route is about 500m averagely away from Quy Nhon – Tuy Hoa 110kV T/L to avoid the residential area of Song Cau townlet, with many turning angles to G34 close to 110kV T/L. From G34, the route turns right and goes parallel to Quy Nhon – Tuy Hoa 110kV T/L making many turning angles to G39 near Ky Lo river. The topography the route passes through mainly comprised of high hills and mountains with blockstone; the vegetation is mainly of eucalyptus, cashew, crops land and fruit trees. The topography altitude varies within 20 – 250m. This section of route line passes Song Cau Townlet; Nhan Tho 1 and Nhan Tho 2 communes of Song Cau District; An Dan commune of Tuy An district.

Topography and special ground object on the route section:

+ Crossing the road No.642	: twice
+ Crossing 22kV line	: once
+ Houses in the right-of-way	: 5 houses

**\* Section 5: From G39 to G44 in 3,704m length**

From G39, the route line turns left, crossing Ky Lo river branch and arrives at G40 on the crop land. At G40, the route turns right, directly crossing Ky Lo river and residential area, arrives at G41 on eucalyptus hill and then making turning angles to G43 on the hill. From G43, the route turns left crossing the Provincial Road 641, NorthSouth Railways and cemetery land to G44 on a hill of eucalyptus. In this section, the topography is very complex with high and steep mountains; altitude varies from 20 ÷ 250m. The cultivated land is mainly hills of eucalyptus, fruit trees and crop land. The territory the route passes through belongs to An Dan, An Dinh Communes and Chi Thanh Townlet, Phu Yen Province.

Topography and special ground object on the route section:

+ Crossing 35kV line	: twice
+ Houses in the right-of-way	: 14 houses
+ Crossing the NorthSouth railway	: once
+ Crossing Ky Lo river	: once

**\* Section 6: From G44 to G52 in 17,802m length**

From G44, the route follows to the right of Quy Nhon – Tuy Hoa 110kV T/L and makes turning angles through eucalyptus hill. This route section is mainly parallel to Quy Nhon – Tuy Hoa 110kV T/L, crossing the provincial road 643 to set

angle G51, then turns right to G52. The topography is high steep mountains, the altitude at some section varies highly from 20 ÷ 250m. The cultivated land is mainly hills of eucalyptus, fruit trees, sugar cane and crop land. The territory the route passes through belongs to Chi Thanh Townlet and An Cu, An Hiep, An Chan, An Phu Communes – Tuy An district - Phu Yen Province.

Topography and special ground object on the route section:

+ Crossing 22kV and 0.4kV lines	: 5 times
+ Crossing the provincial road No.643 and inter-district, inter-commune roads	: 5 times
+ Houses in the right-of-way	: 5 houses

\* **Section 7:** From G52 to ending point in 12,525m length

From G52, the route turns right far gradually away from National Road 1A, through the ricefield and crops cultivated by people, crossing the provincial road 643 to set angle G55 on the hill area. From G55, the route turns left and through rather flat area, planting mainly of rice and crops to the ending point (220kV Tuy Hoa substation as per design). The topography is rather flat, cultivated land is mainly ricefields, fruit trees alternately with hills of eucalyptus. The territory the route passes through belongs to Hoa Kien, Hoa Quang Bac Communes – Phu Hoa District – Phu Yen Province.

Topography and special ground object on the route section:

+ Crossing 22kV and 0.4kV lines	: 13 times
+ Crossing the inter-district, inter-commune roads	: 5 times
+ Houses in the right-of-way	: 6 houses

#### **4. Total investment cost**

Construction cost	:111,580,342,244 VND
Cost for installed equipment	: 11,703,083,248 VND
Other costs	: 25,367,522,240 VND
Reserved cost	: 14,865,094,773 VND
<b>Total Investment Cost</b>	<b>:163,516,042,505 VND</b>

**5. Time schedule**

- + Ask for land supply, compensation and land clearance: 01/09/2004-01/06/2005
- + Establish and submit the bidding document : 01/10/2004-01/02/2005
- + Establish construction drawings : 10/03/2005-01/08/2005
- + Construction, revision, testing, handing-over: 30/10/2005-30/04/2007
- + Commissioning, energizing, put the project into operation: Quarter II /2007

**TABLE OF PROJECT DETAILS**

1. Project Name	<b>Quy Nhon – Tuy Hoa 220kV Transmission Line</b>	
2. Program Name	<b>3034-VN</b>	
3. New project or rehabilitation project	New <input checked="" type="checkbox"/>	Rehabilitation <input type="checkbox"/>
4. Project Location i. Commune(s) ii. District(s), towns, cities iii. Province	<ul style="list-style-type: none"> <li>• <b>Tran Quang Dieu Precinct, Bui Thi Xuan Precinct – Quy Nhon City – Binh Dinh Province</b></li> <li>• <b>Xuan Loc, Xuan Binh, Xuan Phuong, TT.Song Cau, Xuan Thi 1, Xuan Tho 2 - Song Cau District– Phu Yen Province.</b></li> <li>• <b>An Dan, Chi Thanh town, An Dinh, An Cu , An Hiep, An Hoa, An My, An Chan, An Phu - Tuy An District- Phu Yen Province.</b></li> <li>• <b>Binh Kien, Hoa Kien - Tuy Hoa Provincial Town - Phu Yen Province.</b></li> <li>• <b>Hoa Quang Bac - Phu Hoa District – Phu Yen Province.</b></li> </ul>	
5. Length and voltage of HV line	Length= <b>88.7 04</b> km	Voltage= <b>220 kV</b>
6. Width of ROW	Width= <b>21.2</b>	metres
7. Approximate number and height of support poles	Number= <b>252</b>	Height = <b>29.6m – 69m</b>
8. Number of project affected households (PAHs)	<b>58</b>	
9. Construction commencement and completion date (month/year)	Commencement <b>November 2005</b>	Completion <b>April 2007</b>
10. Construction in wet season	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
11. Total area land acquired	<b>Temporary: 123.7582 ha</b>	<b>Permanent: 2.3012 ha</b>
Cultivated land required	Temporary= 59.0986 ha whereas: Paddy: 6.83 ha Crops: 52.2686 ha	Permanent= <b>0.9067</b> ha
Clearing Forestry land required	Temporary= <b>20.7463</b> ha	Permanent= <b>0.125ha</b>

Planting Forestry land required	Temporary= <b>20.0328 ha</b>	Permanent= <b>1.1776 ha</b>
Industrial land required	Temporary= 11.7897 ha	Permanent= 0 ha
Fruit tree land acquired	Temporary= 6.4808 ha	Permanent= 0 ha
Residential land required	Temporary= 1.9764 ha	Permanent= 0.0919ha
Other land required	Temporary= 3.5086 ha	Permanent= 0 ha
12. Total project cost (VND & USD)	<b>163,516,043,000 VND (equiv. of 10,415,034.59 USD)</b>	

## II. ENVIRONMENTAL SCREENING

IMPACT	POTENTIAL IMPACT		COMMENTS <i>(Comment on scale and level of impact)</i>
	YES	NO	
<b>CONSTRUCTION STAGE</b>			
<p><b>1. Effects on the vegetation cover:</b> - Decreasing the vegetation cover on the land area within ROW.</p>	<b>X</b>		<p><b>The effects are in average level:</b> - Affected area Cultivated land: 60 ha Hill land with bush and grass-plot: 20.87ha Planted forest (eucalyptus): 21.21ha Land for industrial trees (cashew): 11.79ha Land for planting fruit trees: 6.48ha Residential land: 2.07 ha Other land: 3.51ha - Number of trees cut down in the ROW is 54,387 trees. Whereas: Eucalyptus: 52,701 trees Cashew: 1,038 trees Fruit trees: 648 trees Hill land with bush and grass-plot: 208,713m<sup>2</sup>. These areas belong to route sections of G2-G3, G20-G22, G28-G30A; territory of Tran Quang Dieu ward, Quy Nhon city, Binh Dinh province; Xuan Binh and Xuan Phuong communes, Song Cau district, Chi Thanh Townlet, An Hiep commune, Tuy An district, Phu Yen province). These hill land areas are under the management of local authority. Crop land: 522,686m<sup>2</sup> Rice land: 8,300m<sup>2</sup></p>
<p><b>2. Effects on animals</b> - Effects on the displacement movement of cattle</p>		<b>X</b>  <b>X</b>	<p><b>No effects</b> - The whole route line is neither close to nor through preservation area of animals. - The line route is not through the residential areas. As a result, the tree-cutting within ROW and conductor-pulling not affect to the displacement of cattle reared in households (such as buffalo, ox, etc...)</p>

<p><b>3. Effects on land environment</b></p> <ul style="list-style-type: none"> <li>- Decreasing the land area for planting agricultural trees, industrial trees, fruit trees, bushes and grass-plot, etc...</li> <li>- Erosion or sediment generation caused by earth excavation and filling for tower foundation construction.</li> <li>- Effects on the land environment due to the oil leakage when renewing oil and grease for machines during construction.</li> </ul>	<p>X</p> <p>X</p> <p>X</p>	<p><b>The effects are in average level:</b></p> <ul style="list-style-type: none"> <li>- Perpetual land acquisition for tower foundation construction including of: Cultivated land: 9,067m<sup>2</sup> Residential land: 919m<sup>2</sup> Forestry land: 11,776m<sup>2</sup></li> <li>- Volume of filling and excavation land for tower foundation construction including of: Excavation land of grade II &amp; IV: Binh Dinh province: 8,585m<sup>3</sup> Phu Yen province: 54,266m<sup>3</sup> Filling land of grade II &amp; IV: Binh Dinh province: 7,515m<sup>3</sup> Phu Yen province: 47,220m<sup>3</sup></li> <li>- Due to the geological characteristic of the foundation pit at some tower foundation positions such as the pier foundation 4T27-29, 4T27-31, etc...during the construction, it is compulsory to destroy the underground rock by manual. The volume of rock to be destroyed as follows: Binh Dinh province: 1,049m<sup>3</sup> Phu Yen province: 5,835m<sup>3</sup>.</li> </ul> <p><b>The affected extent is too low:</b></p> <ul style="list-style-type: none"> <li>- The equipment, machines for construction are replaced and maintained at maintenance workshops so the oil leakage is unremarkable.</li> </ul>
<p><b>4. Effects on air quality:</b></p> <ul style="list-style-type: none"> <li>- Effects on air quality (increase dust, noise, exhausted gas, etc...) from vehicle and equipment use and construction activities.</li> </ul>	<p>X</p>	<p><b>The affected extent is low:</b></p> <ul style="list-style-type: none"> <li>- There are three (3) trucks (bought in local region) transporting land, sand and rock on the 25km route length to the construction site of road grade II; two (2) trucks (bought in Da Nang province) transporting other materials (steel tower, porcelain insulator, conductor) to the construction site on the national road and road grade II with 293 km route</li> </ul>

<p>- Increase noise at construction areas.</p> <p>- Increasing waste to the environment (waste from daily life activities of workers)</p>	<p>X</p> <p>X</p>	<p>length and other 22 construction machines dispersedly construct on the whole route served for tower foundation filling, transformer installation with time for construction on the whole route is about 18 months.</p> <p><b>The affected extent is too low:</b></p> <p>- The construction area of tower foundation positions are far away from the residential area, the nearest section is 300m far away. In addition, the construction is in the day-time so the noise effect during construction is too low.</p> <p><b>The affected extent is low:</b></p> <p>- Number of participation workers is about 264 people divided in 3 teams (one team work in Binh Dinh province; two remaining teams work in Phu Yen province and make construction of foundation pits, dispersedly pulling and laying conductor on the whole route). Workers live in the camps or in the hostel. Besides, there are living houses and working houses for engineers; the dining-room, the bathroom and the toilet. The waste from daily life activities is gathered and treated before discarding outside.</p>
<p><b>5. Effects on water environment:</b></p> <p>- Increase the turbidity of water in rainy season (due to excavation and filling for tower foundation construction).</p> <p>- Waste water from daily life activities of workers and during construction.</p>	<p>X</p>	<p><b>The affected extent is low:</b></p> <p>- Land for tower foundation construction is acquired on the agricultural land. So it only makes the turbidity increased on the cultivated land.</p> <p>- There are 264 workers divided into 3 teams working on the whole route so the affected extent only occurs at areas of workers' houses during construction.</p>

<p><b>6. Effects on cultural property, historical heritage</b> (affect to their architecture and scenery)</p>		<p>X</p>	<p><b>No effects:</b></p> <ul style="list-style-type: none"> <li>- The line route is away from area of cultural and historical heritage.</li> <li>- During the construction of excavation and filling land and rock, if the civil contractor discovers the valuable cultural and historical heritage, the Owner and the civil contractor will be responsible for informing to the local Culture &amp; Communication authority.</li> </ul>
<p><b>7. Damage to property, architectural works, etc...</b></p>	<p>X</p>		<p><b>The effects are in average level:</b></p> <ul style="list-style-type: none"> <li>- Permanent land acquisition for tower foundation and temporary land acquisition for works construction (See the part of Project Details). Number of Project Affected households: 58 households (1,596m<sup>2</sup> of houses and works affected).</li> <li>- Among 58 affected households, there are 29 households (625m<sup>2</sup>) have to move and make new houses on the remaining area of residential land of those households.</li> <li>- The remaining (29 households) do not need to be moved, and they are provided with connection equipment for safety ensuring.</li> </ul>
<p><b>8. Living environment of workers</b></p> <p>Effects on health of workers.</p>	<p>X</p>		<p><b>The affected extent is low:</b></p> <ul style="list-style-type: none"> <li>- 264 participation workers are divided into 3 teams and live in areas of workers' houses may create condition for spreading diseases in community such as digest, etc... However, methods of diseases prevention are applied.</li> </ul>

<p><b>9. Effects caused by explosives left after war</b></p>		<p>X</p>	<p><b>No effects:</b>  Discovering and destroying bombs and mines where left after war:  + 0.3m depth: 131.32 ha  (Binh Dinh province: 19.8 ha and Phu Yen province: 111.52 ha)  + 0.3m to 5m depth: 2.17 ha  (Binh Dinh province: 0.33ha and Phu Yen province: 1.84 ha)</p>
<p><b>10. Affect to public transport:</b>  - Disruption to traffic movements</p> <p>- Road foundation settlement</p>	<p>X</p>		<p><b>The affected extent is low:</b>  - Disruption to traffic movements occurs during pulling conductor at sections crossing the traffic roads 20 times, crossing the railway once. However, the scaffolds have been made during construction and prenotification made to local authority and people. As a result, the effects are unremarkable.  - Trucks for transporting land and rock have 8-ton load. Trucks for transporting other materials have 5-12 ton load. So it not make road surface settlement of grade II on the whole route length.</p>
<p><b>OPERATION STAGE</b></p>			
<p><b>11. Effects on vegetative cover and animals</b>  - Effects due to tree - cutting during ROW clearance in T/L maintenance activities.</p>	<p>X</p>		<p><b>The affected extent is low:</b>  - Some small effects (ROW area) due to clearing for maintenance activities.</p>
<p><b>12. Effect of electromagnetic field</b></p>		<p>X</p>	<p><b>No effects</b>  - The line route is far away and not cross the residential area and the intensity of electromagnetic field is within allowed limit according to Vietnamese standards. The conductor suspension level designed on the whole route gets distance of 29.6m-69m at allowable limit.</p>
<p><b>13. Interference with radio, TV or other communications.</b></p>		<p>X</p>	<p><b>No effects</b> because the line route only crosses the railway once, far from residential area and mitigation measures have been applied.</p>

### III. PUBLIC CONSULTATION

#### 1. Public consultation

The consultation method applied in this project is Public Notice at local area in combination with Public Announcement/radio (where the commune has broadcast system).

#### Results of reference to public consultation activities

CONSULTATION METHOD	DETAILS OF ACTIVITIES		CONSULTATION OUTCOMES
Public Notice	Date(s) of notice	05/07/2004-22/07/2004	- Content of public notice (See the appendix II for details) - Result: No feedback from community.
	Location of notice	At PCs of Project affected communes.	
Public announcement/radio	Date(s) of announcement	05/07/2004 to 14/07/2004	Including: Bui Thi Xuan Ward, Tran Quang Dieu Ward, Communes of An Hoa, An Chan and Hoa Quang Bac.
	Time(s) of announcement	6AM and 5PM everyday	

#### 2. Public disclosure

Forms of public consultation are used by this project: posting public notice at local section and announcing its content on radio of some communes: (*Bui Thi Xuan Ward, Tran Quang Dieu Ward, Communes of An Hoa, An Chan, Hoa Quang Bac*). The purpose of public consultation work is to inform to people the general characteristics of project (Objective and meaning of project investment, main characteristics of project, construction schedule, etc...) and impacts on environment when constructing the project. During announcement the content of public notice at local section, we will summarize opinions of affected people (if any) and supplementing to the content of EMP and submit it to EVN and WB.

Draft EMP (Vietnamese) will be disclosed at Industrial Services of Binh Dinh and Phu Yen provinces for receiving comments from local people and interested parties (See Appendix IV for details).

Draft EMP (English) will be sent to VIDC (Vietnam Information Development Center) at WB building - 63 Ly Thai To Street, Ha Noi City for disclosure.

Draft EMP (English) will be sent to WB Information shop in W.D for disclosure

#### IV. MITIGATION PLAN

Phase	Impact	Mitigating measure	Cost	Responsibility
Construction	1. <i>Decreasing the vegetative cover layer on the land area within ROW.</i>	<ul style="list-style-type: none"> <li>- Trees outside ROW are not allowed to be cut.</li> <li>- Ideological education for workers in cooking to avoid forest firing and forest resource's injuring.</li> </ul>	Included in contractor bidding price	Contractor
	2. <i>Effects on animals</i> Effects on the displacement of the cattle.	<ul style="list-style-type: none"> <li>- No effects</li> <li>- No effects</li> </ul>		



Phase	Impact	Mitigating measure	Cost	Responsibility
	<p><b>4. Effects on air quality:</b></p> <ul style="list-style-type: none"> <li>- Increasing dust, noise, exhausted gas, etc... from vehicle and equipment use and construction activities.</li> <li>- Increase noise at construction areas.</li> <li>- Increase waste to the environment (waste from daily life activities of workers).</li> </ul>	<ul style="list-style-type: none"> <li>- Checking machines and equipment periodically as per standards, ensuring the exhausted gas must be in permissible limit.</li> <li>- Trucks transporting construction materials must get cover plate. Spraying water at dusty locations on temporary roads in dry and sunny days, etc...</li> <li>- Ensure all machinery is under good operation to reduce the waste gas into environment and noise during machinery operation.</li> <li>- No evening construction near residential areas. If evening construction is required, prenotification and approval by local affected groups required.</li> <li>- Waste is gathered before discarding to the environment. Waste is classified before gathering. Using waste can be re-processed.</li> <li>- Ideological education for workers in environmental protection.</li> </ul>	<p>Included in contractor bidding price</p>	<p>Contractor</p>

Phase	Impact	Mitigating measure	Cost	Responsibility
	<p><b>5. Water environment</b></p> <ul style="list-style-type: none"> <li>- Increase the turbidity of water in rainy season (due to excavation and filling for tower foundation construction).</li> <li>- Waste water from daily life activities of workers and waste during construction.</li> </ul>	<ul style="list-style-type: none"> <li>- Construction of high slope areas, erosion and runoff prone areas during dry season.</li> <li>- Toilet arrangement for workers and having logical method of water treatment (at vacant land, far away from the houses, hiring local employment so as to decrease the waste from daily life activities to the environment, etc...).</li> </ul>	Included in contractor bidding price	Contractor
	<p><b>6. Effects on cultural relics and historical heritage (affect to their architecture and scenery)</b></p>	<p>No effects so having no mitigation measures. It must be informed to the local culture &amp; communication authority when cultural and historical heritage discovered.</p>	Included in contractor bidding price	Contractor

Phase	Impact	Mitigating measure	Cost	Responsibility
	7. Damages on assets and architectural works	Compensation policy of the project to mitigate the above-mentioned impacts as follows: - Households with damaged houses, assets, crops: compensation policy as per regulations of WB applied. - Households with affected houses have to displace and households with permanent land acquisition area more than 25% of productive land area, further get subsidy such as displace allowance, production stabilization, rehabilitation allowance, relocation bonus, etc... in order to stabilize activities for affected people at the soonest ( <i>Details in RAP report</i> ).	Included in contractor bidding price	Contractor
	8. Living condition of workers Effects on health of people.	To ensure the construction safety, keep strictly to procedures and norms of construction, details as follows: - Machine and equipment must be checked periodically before operation. - Make frequent health inspection for workers. Checking labor tools, safety belt before working at height; the tools must be neat, light and easy to operate. - When loading and unloading material and equipment by crane, take	Included in contractor bidding price	Contractor
		careful inspection of tying shrouds, cable hook. - Having medical measures to help workers avoid diseases such as malaria, digestion and respiration ( <i>provide preventing medicine for workers</i> ).		

Phase	Impact	Mitigating measure	Cost	Responsibility
	9. <i>Effects caused by explosives left after war.</i>	- Hire a standing agency for bomb and mine destroying and this work must be completed before construction. So during construction, no effects caused by explosives after war.	Included in contractor bidding price	Contractor
	10. <i>Effects on public transport</i> - Disruption to traffic movements - Road foundation settlement	- Having warning post system at inter-crossing positions and construction site. - Make scaffold when pulling conductor through provincial traffic roads 439, 642, 643, inter-commune roads of Bui Thi Xuan ward, Xuan Phuong, An Cu, An Hiep and An Chan communes. - Arrange and regulate works in a logical way during construction. - For oversized and overweighted machine and equipment, having separate transport truck to avoid damage and settlement for road surface.		
<b>Operation</b>	11. <i>Vegetative cover (due to tree cutting within ROW during maintenance).</i>	- For land area where high trees are cut, after cutting trees in ROW, it needs to sustain other trees impossible to reach allowable height limit in order to keep land and exclude the ability of becoming desert. Newly-planting of trees with allowable height limit at temporary affected locations ( <i>re-planting in agricultural land...</i> ). - Cutting trees within ROW in accordance with the instructions.	Operation cost	Operator
	12. <i>Effects of electromagnetic field</i>	No effects		
	13. <i>Effects on other communication means.</i>	No effects		

## V. MONITORING PLAN

Phase/ Environmental Issue	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	When is the parameter to be monitored?	Cost	Responsibility
<b>Construction</b>						
1. Decrease vegetative cover layer on the land area within ROW.	- Situation of vegetative cover after cutting. - Form of waste gathering and treatment after cutting.	Along ROW  At disposal site	Assessment by visual observation	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC
2. Effects on animals Effects on the displacement of cattle.	No effects	None	None	None		
3. Soil environment - Decrease land area for planting agricultural trees, industrial trees, fruit trees, bushes and grass-plot, etc...	Affected land area.	On the whole ROW	Assessment by visual observation and measuring by the tape.	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC

<b>Phase/ Environmental Issue</b>	<b>What parameter is to be monitored?</b>	<b>Where is the parameter to be monitored?</b>	<b>How is the parameter to be monitored?</b>	<b>When is the parameter to be monitored?</b>	<b>Cost</b>	<b>Responsibility</b>
- Erosion or sediment generation caused by soil and rock excavation and filling for tower foundation construction.	Current situation of soil at construction areas.	Erosion prone positions and areas of excavation & filling the underground rock (as stated in the environment screening).	Assessment by visual observation	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC
- Effects on the soil environment due to the oil leakage when renewing oil and grease for machines during construction.	No effects	None	None	None		

<b>Phase/ Environmental Issue</b>	<b>What parameter is to be monitored?</b>	<b>Where is the parameter to be monitored?</b>	<b>How is the parameter to be monitored?</b>	<b>When is the parameter to be monitored?</b>	<b>Cost</b>	<b>Responsibility</b>
4. <i>Effects on air quality</i> - Increase dust, exhausted gas, etc... from vehicle and equipment use and construction activities.	Operation of equipment and machines for construction.	At construction site	Assessment by visual observation	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC
- Increase noise at construction areas.	Noise at construction site	At construction site	Assessment by visual observation, hearing by ears.	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC
- Increase waste to the environment (waste from daily life activities of workers)	Quantity of waste, air environment around the disposal area.	The disposal area of workers' houses.	Assessment by visual observation and sense.	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC
5. <i>Water environment</i> - Increase the turbidity of water in rainy season (due to excavation and filling for tower foundation construction).	Water turbidity	At tower foundation positions and drainage trench behind the workers houses.	Assessment by visual observation	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC

<b>Phase/ Environmental Issue</b>	<b>What parameter is to be monitored?</b>	<b>Where is the parameter to be monitored?</b>	<b>How is the parameter to be monitored?</b>	<b>When is the parameter to be monitored?</b>	<b>Cost</b>	<b>Responsibility</b>
- Waste water from daily life activities of workers and waste during construction.						
6. <i>Effects on cultural relics and historical heritage</i> (affect to their architecture and scenery)	No effects	None	None	None		
7. <i>Damages on assets, architectural works</i>	Process of compensation and resettlement implementation	On the whole ROW	Assessment by visual observation	Once/week during compensation and resettlement stage.	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC
8. <i>Living condition of workers</i> Effects on health of workers.	Labor safety equipment of construction workers, living condition of workers.	At construction site and the area of workers' houses	Assessment by visual observation	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC
9. <i>Effects caused by explosives left after war.</i>	No effects	None	None	None		

<b>Phase/ Environmental Issue</b>	<b>What parameter is to be monitored?</b>	<b>Where is the parameter to be monitored?</b>	<b>How is the parameter to be monitored?</b>	<b>When is the parameter to be monitored?</b>	<b>Cost</b>	<b>Responsibility</b>
<i>10. Effects on public transport</i> - Disruption to traffic movements - Road foundation settlement	The road surface on road route of grade II when transport.	On the transport road	Assessment by visual observation	Once/month	Included in Contractor bidding price	- Contractor - Technical Supervisors of CPPMB. - SIMC
<b>Operation</b>						
<i>11. Vegetative cover (due to tree cutting within ROW during maintenance)</i>	- Situation of vegetative cover after cutting. - Form of waste gathering and treatment after cutting.	Along ROW  At disposal site	Assessment by visual observation	Once/month	Included in operation cost	- Operator - Technical Supervisors of CPPMB. - SIMC
<i>12. Effects of electromagnetic field</i>	No effects					
<i>13. Effects on other communication means.</i>	No effects					

**Monitoring cost**

No.	Item	Construction	Operation (25 years of life cycle)
1	Monitoring cost (By technical supervisor consultant of CPPMB)	The cost is covered in running cost of CPPMB	The cost is covered in running cost of Project owner
2	Monitoring cost for SIMC	1 man-month/ transmission line x 1 T/L x 10,000,000 = 10,000,00 VND	12 days/year x 100.000x 25 years = 30,000,000VND
<b>Total: (1+2)</b>		<b>10,000,000VND</b>	<b>30,000,000VND</b>
<b>Total monitoring cost of project</b>		<b>40,000,000VND</b>	

## VI. INSTITUTIONAL DEVELOPMENT ACTIVITIES

### 1. Equipment Purchases

No equipment purchases included in project.

### 2. Training/Study Tours

<i>Type of Training</i>	<i>Number of Students</i>	<i>Duration of Training (days)</i>	<i>Start Date/End Date (for each student)</i>	<i>Venue of Training (Domestic or Abroad)</i>	<i>Institute or Organization to Provide Training</i>	<i>Cost (Local and Foreign)</i>
Environmental management training course	1	2	EVN or CPPMB (confirmed later)	Domestic	EVN or CPPMB	Account in cost of EVN or CPPMB

### 3. Training cost

Cost for course organizing to improve environmental management and monitoring capacity included:

- Cost for learner	: VND 200,000
- Subsistence cost for learner (temporarily counted)	: VND 500,000
- Other cost	: VND 200,000
<b>TOTAL:</b>	<b>VND 900,000</b>

**(All these costs will be born by EVN)**

## VII. IMPLEMENTATION ARRANGEMENTS

ROLE	RESPONSIBILITIES	ORGANIZATION
Project Owner	<ul style="list-style-type: none"> <li>• Ultimately responsible for overall project management including environmental management.</li> </ul>	EVN
Overall Project Management Agency	<ul style="list-style-type: none"> <li>• Responsible for coordination and management of overall project implementation including guiding and supervising implementation of the EMP.</li> <li>•</li> </ul>	CPPMB
Environmental Consultant	<ul style="list-style-type: none"> <li>• Help the owner to prepare EMP .</li> </ul>	Selected by CPPMB
Environmental Officer	<ul style="list-style-type: none"> <li>• Specific responsibility and point of contact for environmental issues and EMP.</li> </ul>	Belongs to Compensation Department of CPPMB
Project Implementation Agency	<ul style="list-style-type: none"> <li>• Responsible for day-to-day project implementation. Activities include:               <ol style="list-style-type: none"> <li>i. Planning and implementation of environmental management activities during construction</li> <li>ii. Coordinating with other parties in relation to environmental management activities.</li> <li>iii. Carrying out internal monitoring and supervising independent monitoring</li> <li>iv. Supervising and providing budget for monitoring activities.</li> <li>v. Reporting on environmental information to concerned parties</li> </ol> </li> </ul>	Planning Department of CPPMB
Project Operator	<ul style="list-style-type: none"> <li>• Responsible for operation of the project including operation stage environmental management and monitoring activities.</li> </ul>	PTC3
Consultant	<ul style="list-style-type: none"> <li>• Responsible for preparation of EMP documentation.</li> </ul>	PECC4

ROLE	RESPONSIBILITIES	ORGANIZATION
Contractor Technical Supervision	<ul style="list-style-type: none"> <li>• Responsible for supervision of civil works contractors during construction, including implementation of environmental management activities under the EMP</li> </ul>	CPPMB PECC4
Civil Works Contractor	<ul style="list-style-type: none"> <li>• Responsible for construction works and following contractor specifications outlined in the EMP. This includes:               <ol style="list-style-type: none"> <li>i. Applying construction-phase mitigation measures.</li> <li>ii. Ensuring safety of construction workers and local people during construction.</li> <li>iii. Following Vietnam and World Bank policies on environmental protection during construction.</li> </ol> </li> </ul>	Contractor selected
Safeguard Independent Monitor (SIMC)	<ul style="list-style-type: none"> <li>• Responsible for independent monitoring of EMP implementation</li> </ul>	Consultant selected

## VIII. MONITORING AND REPORTING SYSTEM

REPORT TYPE	PRIMARY REPORTING LEVEL			SECONDARY REPORTING LEVEL			TERTIARY REPORTING LEVEL <sup>1</sup>		
	BY	TO	FREQUENCY	BY	TO	FREQUENCY	BY	TO	FREQUENCY
SITE ENVIRONMENTAL MANAGEMENT	Contractor	CPPMB	Once before construction commences & monthly thereafter	-	-	-	-	-	-
ENVIRONMENTAL PERFORMANCE MONITORING: CONSTRUCTION	Technical supervisor of CPPMB	CPPMB	Monthly	CPPMB	EVN	Quarterly	EVN	World Bank	Quarterly
	SIMC	CPPMB EVN WB	Half-yearly						
ENVIRONMENTAL PERFORMANCE MONITORING: OPERATION	PTC3	CPPMB	Half-yearly	CPPMB	EVN	Annually	EVN	World Bank	Annually
	SIMC	CPPMB EVN WB	Half-yearly						

**TABLE VIII.1**  
**Example of Site Environmental Management Monitoring Report**

Project Name:

Project Location:

Name of Contractor:

Commencement of project report or monthly report:

Date of report:

No.	Impact	Mitigation measures implemented		Comment
<b>Construction stage</b>				
1	Tree-cutting within ROW and access roads management.			
2	Turbidity of surface water and the soil erosion			
3	Noise level around the construction site and the residential area.			
4	Dust from vehicle and machines and construction activities on the transport roads and the construction on the route.			
5	Waste from construction and trees clearance within ROW after construction.			
6	Waste (waste water, waste from daily life activities of workers) and safety measures during construction.			
7	Damage to the existing road system			
8	Solid waste from soil excavation			
9	Environmental impacts caused by construction workers.			
10	Health and safety for construction workers.			

Name of person prepared this Report:

Title:

Address:

Telephone:

**TABLE VIII.2 Example of Environmental performance Monitoring Report**  
(this Example can be used for environmental monitoring report of Technical supervisor consultant, SMIC)

Project Name: \_\_\_\_\_ Project Location: \_\_\_\_\_ Province: \_\_\_\_\_  
 District: \_\_\_\_\_  
 Commune: \_\_\_\_\_

Type of Report:  
 Monthly report (Yes/No): \_\_\_\_\_  
 Quarterly report to EVN (Yes/No): \_\_\_\_\_  
 Quarterly report to WB (Yes/No): \_\_\_\_\_  
 SMIC report(Yes/No): \_\_\_\_\_  
 Date of Report: \_\_\_\_\_

No.	Parameter	Assessment of Consultant/ community complaints	Comments/ Recommendations
<b>Construction stage</b>			
1	Tree-cutting within ROW and access roads management		
2	Turbidity of surface water and soil erosion		
3	Noise level around the construction site and the residential area		
4	Dust from vehicle and machines use and construction activities on the transport roads and route construction sections		
5	Construction waste and trees clearance within ROW after construction		
6	Waste matter (waste water, waste from daily life activities of workers and safety measures during construction)		
7	Damage to the existing roads system		
8	Solid waste matter from soil excavation		
9	Environmental impacts caused by construction workers		
10	Health and safety of construction workers		
<b>Operation stage</b>			
11	Protection and clearance of ROW		
12	Safety issues of the voltage system		

Reporter prepared by: \_\_\_\_\_ Position: \_\_\_\_\_

**Table VIII.3 Cost for EMP implementation of the whole project**

No.	Content	Construction stage	Operation stage (Project lifetime of 25 years )
1	Cost for mitigation measures	The Contractor will be responsible for implementing the mitigation measures during construction.	Included in the operation cost of the project. The Operator will be responsible for implementing the mitigation measures.
2	Cost for environment monitoring plan	VND 10,000,000	VND 30,000,000
3	Cost for environmental management training course	VND 900,000	
Total (1+2+3)		VND 10,900,000	VND 30,000,000
<b>Total cost for EMP implementation of project</b>		<b>VND 40,900,000</b>	

## APPENDICES

1. License of environmental standards
2. Contents of Public Notice (Examples at two locations: Tran Quang Dieu Ward and Bui Thi Xuan Ward, Quy Nhon City, Binh Dinh Province).
3. Confirmation of local authority (Confirming that the Public Notice has been posted at Tran Quang Dieu ward, Quy Nhon city, Binh Dinh province and An Dan commune, Tuy An district, Phu Yen province).
4. Confirmation for public disclosure at local region.
5. Map of the line route

Số: 4452 /BTNMT-ĐT

Hà Nội, ngày 06 tháng 12 năm 2004

**PHIẾU XÁC NHẬN**  
**BẢN ĐĂNG KÝ ĐẠT TIÊU CHUẨN MÔI TRƯỜNG**  
Dự án “Đường dây 220 kV Quy Nhơn – Tuy Hoà - Nha Trang”

**BỘ TÀI NGUYÊN VÀ MÔI TRƯỜNG**  
**XÁC NHẬN**

**Điều 1.** Tổng Công ty Điện lực Việt Nam (dưới đây gọi là Chủ dự án) đã trình Bản đăng ký đạt tiêu chuẩn môi trường Dự án “Đường dây 220 kV Quy Nhơn – Tuy Hoà - Nha Trang” kèm theo Công văn số 5523/CV-EVN-KHCNMT&VT ngày 04 tháng 11 năm 2004.

**Điều 2.** Chủ dự án có trách nhiệm thực hiện đúng những nội dung được nêu trong Bản đăng ký đạt tiêu chuẩn môi trường, thực hiện đầy đủ các quy định của pháp luật về đất đai, di dân, tái định cư, đền bù, giải phóng mặt bằng, khoáng sản, bảo vệ môi trường và các quy phạm kỹ thuật khác có liên quan.

**Điều 3.** Bản đăng ký đạt tiêu chuẩn môi trường của Dự án là cơ sở để các cơ quan quản lý nhà nước về bảo vệ môi trường kiểm tra việc thực hiện bảo vệ môi trường của Dự án.

**Điều 4.** Sau khi hoàn thành các hạng mục công trình của Dự án, Chủ dự án phải có báo cáo bằng văn bản gửi Cơ quan quản lý nhà nước về bảo vệ môi trường để kiểm tra.

**Điều 5.** Ủy nhiệm Sở Tài nguyên và Môi trường các tỉnh Bình Định, Phú Yên và Khánh Hoà theo dõi, giám sát và kiểm tra việc thực hiện các nội dung bảo vệ môi trường đã được đề xuất trong Bản đăng ký đạt tiêu chuẩn môi trường này và định kỳ 06 tháng một lần có báo cáo về công tác trên gửi về Vụ Thẩm định và Đánh giá tác động môi trường để theo dõi.

**Nơi nhận:**

- Chủ dự án,
- UBND các tỉnh Bình Định, Phú Yên, Khánh Hoà,
- Sở TN&MT các tỉnh Bình Định, Phú Yên, Khánh Hoà (để phối hợp).
- Lưu HS, VT, Vụ ĐT.

**TL. BỘ TRƯỞNG**  
**BỘ TÀI NGUYÊN VÀ MÔI TRƯỜNG**  
**VỤ TRƯỞNG**  
**VỤ THẨM ĐỊNH VÀ**  
**ĐÁNH GIÁ TÁC ĐỘNG MÔI TRƯỜNG**



**Nguyễn Khắc Kinh**

**LIST OF LOCAL AUTHORITIES WHERE PUBLIC CONSULTATION MADE**  
(with confirmation of the local authority)

No.	Local authority	By Public Notice		By Radio	
		Location	Period	Times of broadcasting	Schedule
1	Trần Quang Diệu ward	Ward People's Committee	5/7/2004 – 20/7/2004	twice a day	5/7/2004-12/7/2004
2	Bùi Thị Xuân ward	Ward People's Committee	5/7/2004 – 20/7/2004	twice a day	5/7/2004-12/7/2004
3	Xuân Lộc commune	Commune People's Committee	6/7/2004-21/7/2004		
4	Xuân Bình commune	Commune People's Committee	6/7/2004-21/7/2004		
5	Xuân Phương commune	Commune People's Committee	6/7/2004-21/7/2004		
6	Sông Cầu Townlet	Townlet People's Committee	6/7/2004-21/7/2004		
7	Xuân Thọ 1 commune	Commune People's Committee	6/7/2004-21/7/2004		
8	Xuân Thọ 2 commune	Commune People's Committee	6/7/2004-21/7/2004		
9	An Dân commune	Commune People's Committee	6/7/2004-21/7/2004		
10	Chí Thạnh Townlet	Townlet People's Committee	6/7/2004-21/7/2004		
11	An Hiệp commune	Commune People's Committee	6/7/2004-21/7/2004		
12	An Hoà commune	Commune People's Committee	7/7/2004-22/7/2004	twice a day	7/7/2004-14/7/2004
13	An Mỹ commune	Commune People's Committee	7/7/2004-22/7/2004		
14	An Chân commune	Commune People's Committee	7/7/2004-22/7/2004	twice a day	7/7/2004-14/7/2004
15	An Phú commune	Commune People's Committee	7/7/2004-22/7/2004		
16	Hoà Kiến commune	Commune People's Committee	7/7/2004-22/7/2004		
17	Hoà Quang Bắc commune	Commune People's Committee	7/7/2004-22/7/2004	twice a day	7/7/2004-14/7/2004

**YẾT THỊ CÔNG CHỨNG**  
**ĐƯỜNG DÂY 220 kV QUY NHƠN – TUY HOÀ**

**Tên Dự án:** Đường dây 220 kV Quy Nhơn - Tuy Hoà

**Địa điểm đi qua:** phường Trần Quang Diệu, thành phố Quy Nhơn, tỉnh Bình Định

**1. Mục đích Dự án.**

- Tạo ra nguồn điện cung cấp đáng tin cậy, ổn định trong khu vực nhằm tăng cường cung cấp điện cho tỉnh Bình Định – Phú Yên trong tương lai.

- Góp phần phát triển cơ sở hạ tầng, kinh tế - xã hội tại địa phương và mang nguồn điện đến với các hộ dân nằm xa lưới điện hiện có.

**2. Giới thiệu Dự án.**

- Cấp điện áp: 220kV
- Tổng chiều dài tuyến : 88.704 m
- Tổng số cột trên tuyến: 252 cột
- Hành lang an toàn tuyến: 21,2m
- Xây lắp, hiệu chỉnh, thí nghiệm, bàn giao: 30/10/2005 - 30/4/2007
- Nghiệm thu đóng điện đưa công trình vào sử dụng: Quý 2 năm 2007

**3. Ảnh hưởng của Dự án qua địa bàn xã:**

- Đất nông nghiệp	:	0,27	Ha
- Đất lâm nghiệp (Bạch đàn)	:	1,67	Ha
- Đất công nghiệp	:	0	Ha
- Đất rừng	:	1,49	Ha
- Đất khác	:	0,06	Ha
- Đất thổ cư	:	0,42	Ha
- Số hộ dân bị ảnh hưởng	:	14	Hộ
- Số hộ dân phải di dời	:	0	Hộ
- Số hộ dân cần tái định cư	:	0	Hộ
- Chiều dài tuyến qua địa bàn xã	:	2.400	(m)
- Số cột trên địa bàn xã	:	7	(cột)

**4. Các vấn đề môi trường và kế hoạch giảm thiểu.**

- **Giải toả hành lang tuyến:** Chặt hạ cây cối và di dời nhà cửa trong hành lang an toàn tuyến đường dây.

**Biện pháp giảm thiểu:** Ban giải phóng mặt bằng sẽ thông báo thời gian và địa điểm khi tiến hành giải toả trong phạm vi hành lang an toàn tuyến đường dây, các biện pháp giải phóng mặt bằng được áp dụng chủ yếu bằng phương pháp thủ công và có biện pháp thu gom cây cỏ hợp lý.

- **Giảm diện tích đất, rửa trôi, bồi lắng và xói mòn đất:**

- **Biện pháp giảm thiểu:** Làm tốt công tác đền bù và giải phóng mặt bằng, hỗ trợ sản xuất và đời sống không làm giảm diện tích đất ngoài hành lang tuyến Đồi với những khu vực dễ rửa trôi, xói mòn đất sẽ tổ chức thi công vào mùa khô.

- **Chất lượng không khí:** Lượng bụi, của các hoạt động xây dựng tiếng ồn của xe máy phục vụ thi công.

**Biện pháp giảm thiểu:** Bảo đảm tất cả các phương tiện, máy móc khi vận hành phải có giấy phép hoạt động hợp lệ, các xe chuyên chở vật liệu đều được che phủ khi vận chuyển, tưới nước tại những khu vực có nhiều bụi, trong điều kiện thời tiết nắng nóng, khô và gió.

Tất cả các hoạt động xây dựng được thực hiện vào ban ngày, nếu thực hiện vào ban đêm phải thông báo trước và được sự đồng ý của người dân địa phương.

- **Lán trại xây dựng và khu nhà ở của công nhân:** Các lán trại tạm khi thi công (nếu có) sẽ được lắp ghép trên đất thuê tại địa phương và các khu đất trống.

**Biện pháp giảm thiểu:** Khu nhà ở và lán trại đảm bảo vệ sinh không gây ảnh hưởng đến môi trường xung quanh, không là môi trường trung gian cho việc lây lan dịch bệnh, khu vệ sinh bố trí hợp lý, rác thải được tập trung để đổ tại các nơi quy định.

- **Bom mìn:** Trước khi tiến hành thi công có công tác rà phá bom mìn. Công tác rà phá bom mìn do đơn vị chuyên ngành thực hiện.

**-Sức khoẻ của công nhân:**

**Biện pháp giảm thiểu:** Thường xuyên được trang bị đầy đủ những kiến thức về an toàn lao động và chấp hành nghiêm chỉnh các nội quy về an toàn lao động khi làm việc tại công trường.

**Đường tạm thi công:** Sử dụng hệ thống đường giao thông hiện có và thực hiện bắc giàn giáo khi kéo căng rải dây ngang qua đường giao thông, điều tiết, bố trí công việc hợp lý trong qua trình xây dựng.

## 5. Cam kết thực hiện.

Các kế hoạch giảm thiểu tác động môi trường sẽ được các đơn vị thi công và vận hành thực hiện trong từng giai đoạn của Dự án.

## 6. Các ý kiến phản hồi.

Trong trường hợp người dân có bất kỳ ý kiến góp ý hoặc cần tìm hiểu thêm thông tin về các vấn đề môi trường của Dự án xin liên hệ với Phòng Thủy văn – Môi trường, Công ty Tư vấn Xây dựng Điện 4 trong khoảng thời gian từ ngày 5 đến ngày 20 tháng 7 năm 2004.

**Địa chỉ liên hệ:** **Phòng Thủy văn Môi trường**  
**Công ty Tư vấn Xây dựng Điện 4**  
**137 Thống Nhất - Nha Trang - Khánh Hoà**  
**Điện thoại số: 058.810.990**  
**Fax: 058.824.208**

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM  
Độc lập - Tự do - Hạnh phúc  
.....oOo.....

GIẤY XÁC NHẬN

.....UBND....., xã: p. Trần Hưng Đạo huyện T. Quỳnh Lưu tỉnh Bình Định.....

Xác nhận đoàn công tác tham vấn cộng đồng của Công ty Tư vấn Xây dựng Điện 4 đã đến địa phương tham vấn cộng đồng về công trình:.....

.....Đường dây 22KV Quỳnh Lưu - Tây Hoa.....

Thời gian tham vấn:.....5/7/09.....

Hình thức tham vấn cộng đồng:.....Danh ý kiến thị trường chung tại.....

UBND p. Quỳnh Lưu và thành phố Quỳnh Lưu; danh ý kiến thị trường  
phường Tiến Xuân thành phố Quỳnh Lưu; Sĩ Cấn phát thanh.....

(Có nội dung ý kiến đính kèm) 2 lần / ngày (Sáng + chiều) từ  
ngày 5/6/09 đến 12/7/09

p. Trần Hưng Đạo ngày 5 tháng 7 năm 2004

Xác nhận của địa phương



CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM

Độc lập - Tự do - Hạnh phúc

.....o0o.....

GIẤY XÁC NHẬN

.....L.Đ.Đ.Đ....., xã: *An Dân*.....huyện.....*Tây A*.....tỉnh.....*Phước Yên*.....

Xác nhận đoàn công tác tham vấn cộng đồng của Công ty Tư vấn Xây dựng Điện 4 đã đến địa phương tham vấn cộng đồng về công trình:.....

.....*Địa điểm: 22.000. Công suất: 100 MW - Tây Hoa*.....

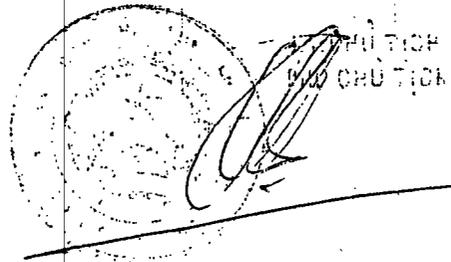
Thời gian tham vấn:.....*6/7/2004*.....

Hình thức tham vấn cộng đồng:.....*Đại diện tại Công chúng tại UBND xã và phi 'biên' công cộng tại Trung tâm các cuộc họp dân*.....

(Có nội dung yết thị đính kèm)

.....*An Dân*....., ngày.....*6*.....tháng.....*7*.....năm 2004

Xác nhận của địa phương



*Trần Quốc Bình*

ỦY BAN NHÂN DÂN  
TỈNH BÌNH ĐỊNH

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM  
Độc lập - Tự do - Hạnh phúc

TB. 5

Số: 2911 /UB - CN

Quy Nhơn, ngày 07 tháng 11 năm 2004

V/v tuyên truyền các thông tin có liên quan về kế hoạch quản lý môi trường của dự án đường dây 220 kV Quy Nhơn - Tuy Hoà.

Kính gửi: - Sở Công nghiệp  
- UBND thành phố Quy Nhơn  
- Công ty Tư vấn xây dựng Điện 4

Mê đề nghị của Công ty Tư vấn xây dựng Điện 4 tại Công văn số 881/EVN-TCĐ4 ngày 27/10/2004 về việc công bố kế hoạch quản lý môi trường dự án lưới điện miền Trung, Chủ tịch UBND tỉnh có ý kiến như sau:

Giao Sở Công nghiệp chủ trì, phối hợp với UBND thành phố Quy Nhơn lựa chọn địa điểm thích hợp, nhất là tại các địa phương có dự án đường dây 220 kV Quy Nhơn- Tuy Hoà đi qua nhằm tuyên truyền, công bố các nội dung thông tin có liên quan về kế hoạch quản lý môi trường của dự án này (có kế hoạch quản lý môi trường kèm theo) và kịp thời thông báo kết quả tuyên truyền cho Công ty Tư vấn xây dựng Điện 4 để tổng hợp báo cáo Ngân hàng Thế giới (WB) cho vay vốn thực hiện dự án theo quy định.

Sở Công nghiệp và các cơ quan liên quan phối hợp triển khai thực hiện./.

KT. CHỦ TỊCH UBND TỈNH BÌNH ĐỊNH  
PHÓ CHỦ TỊCH

Nơi nhận:

- Như trên
- Lưu VP, K6.

Bolv



Trịnh Hồng Anh

UBND TỈNH BÌNH ĐỊNH  
SỞ CÔNG NGHIỆP

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM  
Độc lập - Tự do - Hạnh phúc

Số 678 /CV-SCN  
V/v công bố thông tin về quản lý  
môi trường của Dự án đường  
dây 220KV Quy Nhơn -Tuy Hòa.

Quy Nhơn, ngày 16 tháng 11 năm 2004

**Kính gửi: Công ty Tư Vấn Xây Dựng điện 4.**

Thực hiện ý kiến chỉ đạo của UBND tỉnh tại Công văn số 2911/UB-CN, ngày 04/11/2004 về việc trưng bày và công bố các thông tin có liên quan về Kế hoạch quản lý môi trường của Dự án đường dây 220KV Quy Nhơn-Tuy Hòa. Sở Công nghiệp Bình Định đã tiếp nhận và chọn địa điểm tổ chức trưng bày, công bố thông tin Dự án trên như sau:

1. Địa điểm trưng bày: Chọn Văn phòng Sở Công nghiệp Bình Định làm địa điểm trưng bày Dự án để những người cần tham vấn dễ dàng tiếp cận với tài liệu.

2. Địa điểm phổ biến thông tin: Chọn phường Trần Quang Diệu và Phường Bùi Thị Xuân thành phố Quy Nhơn là hai địa phương có Dự án đường dây 220 KV Quy Nhơn-Tuy Hòa đi qua để công bố thông tin cho chính quyền địa phương và người dân trong vùng Dự án biết.

Sở Công nghiệp Bình Định thông báo kết quả triển khai thực hiện những vấn đề có liên quan để Công ty Tư vấn xây dựng điện lực 4 biết làm thủ tục trình WB./.

**GIÁM ĐỐC SỞ CÔNG NGHIỆP BÌNH ĐỊNH**

*Nơi nhận:*

- Như trên;
- UBND tỉnh (để báo cáo);
- UBND thành phố Quy Nhơn (phối hợp);
- Truyền tải điện Bình Định-Quảng Ngãi;
- Điện lực Bình Định;
- UBND phường: Trần Quang Diệu,  
Bùi Thị Xuân (phối hợp);
- Lưu VT, PKT & QLĐN,  
TR.10



*Handwritten initials/signature*

# MAP OF 220KV QUY NHON - TUY HOA - NHA TRANG TRANSMISSION LINES

