

# RESETTLEMENT DUE DILIGENCE REPORT

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Project Number: 46391 - 001

January 2018

VIE: Ha Noi and Ho Chi Minh City Power Grid  
Development Sector Project

Prepared by Hanoi City Power Corporation, Electricity of Vietnam for Asian Development Bank

# **Resettlement Due Diligence Report**

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Stage of the document: Consultation

Loan number: 3161/8286

January 2018

## **VIE: Hanoi and Ho Chi Minh City Power Grid Development Sector Project**

### **EVN HANOI: Upgrading of the 110 kV E.13 Phuong Liet Substation Subproject**

Prepared by the Hanoi City Power Corporation (EVN HANOI) for the Asian Development Bank (ADB)

## CURRENCY EQUIVALENTS

(as of December 2017)

USD \$ 1 = VND 22,680

## ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AH	Affected Household
B.O.O	Built. Operation. Own
DCC	District Compensation Committee
EVN	Vietnam Electricity
EVN HCMC	Ho Chi Minh City Power Corporation
JSC	Joint Stock Company
GoV	Government of Vietnam
NH	National Highway
SS	Substation
PC	People's Committee
PMB	Project Management Board

## ELECTRICAL TERMINOLOGY

kV	(kilovolt)	-	1,000 volts
MW	(Megawatt)	-	1,000 kW
MVA	(Megavolt-ampere)	-	1,000 kVA
Transmission System		-	500 kV, 220 kV, 110 kV lines
Medium Voltage Distribution (MV)		-	35 kV, 22 kV or 10 kV lines supplying distribution substations
Low Voltage Distribution (LV)		-	400/230 V distribution and service lines
Load Factor		-	Ratio of average power demand to maximum power demand
Electrical Losses		-	Difference between energy delivered and energy sent out

## REMARKS

In this report, "\$" refers to US dollars.

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## **A. Executive Summary**

1. The 110 kV E.13 Phuong Liet Substation (SS) is among the core subprojects requested by the EVN HANOI and Hanoi Power Development Project Management Board (Hanoi DPMB) to be financed under the Hanoi-Ho Chi Minh Power Grid Development Sector Project. The development of the 110 kV E.13 Phuong Liet SS aims to replace the outdated and unsafe 110kV equipment with new equipment (GIS equipment) to ensure reliability and safety and to meet the demand of load growth of Dong Da district and the neighboring area. The substation is upgraded to meet increased load development, replace old and unsafe equipment by new equipment, thereby ensuring operational safety, raising the capacity of power feeders and quality of power supply, reducing power losses and voltage drop, and improving the operation of the existing grid.
2. The subproject requires no additional land acquisition for the upgrading of the 110 kV E.13 Phuong Liet Substation located in Phuong Mai Ward, Dong Da District, Ha Noi City. The rehabilitation activities shall be carried out within the boundary of the existing 110 kV Phuong Liet SS. Therefore, the subproject will not acquire land of local people and not cause additional social safeguard impacts.
3. During project preparation, the Hanoi DPMB has conducted public consultation meeting with Phuong Mai Ward People's Committee and relevant parties. The result shows that there is no household whose land is permanently acquired by the subproject.
4. According to the requirements of the ADB's SPS 2009, the project does not cause land acquisition of any household as well as any organization, therefore, it is not required to prepare a Resettlement Plan. To ensure the impact of the project is well managed, a Resettlement Due Diligence Document is prepared as a safeguard document of the project.

## **B. Description of the Subproject**

### **1. Objectives of the Subproject**

5. The upgrading of the 110 kV E.13 Phuong Liet Substation aims to:
  - Install T3-63MVA transformers;
  - Replace outdated and unsafe 110kV equipment with new equipment (GIS equipment) to ensure reliability and safety;
  - Install additional equipment (cutter, isolator, ...) to ensure reliable operation, safety, electricity supply during construction of the substation; and
  - Meet the demand of load growth of Hoan Kiem and Hai Ba Trung districts, load sharing for the neighboring substations including 110 kV Bo Ho substation, 110kV Giam substation, 110kV Thanh Nhan substation, 110 Mai Dong substation, and 110kV Phuong Liet substation.

### **2. Salient Features of the Subproject**

6. **The 110 kV E.13 Phuong Liet substation** is located in Phuong Mai Ward, Dong Da District, Ha Noi city. The rehabilitation and upgrading of the 110 kV Phuong Liet Substation to become a GIS substation in order to improve the reliability of electricity supply will entirely locate

within the boundary of the existing substation. The proposed work within the current substation property boundary is summarized below:

- 110 kV section:
  - Replace the existing 110kV distribution system from the bridge circuit diagram into a two-bus bar system, using 110 kV GIS switchgear and outdoor type.
- 22kV:
  - Install 32 new 22kV distribution cubicles, including two incoming cubicles, a communications cubicle, a withdrawable disconnector section cubicle, two voltage transformer cubicles, two auxiliary cubicles and 24 outgoing cubicles.
  - Install two auxiliary transformers 160kVA-23 / 0.4kV.
  - Install the AC/DC system for the substation.
  - Install the control and protection system for the substation. The substation will be equipped with a new computer control system.
- Construction work:
  - Build a new control and distribution house with the area of 25.1x8.5m including 3 floors.
  - Renovate existing two-storey control house into offices and meeting rooms.
  - Renovate the substation gate, cable ditch system, and inner road of the substation.
  - Replace the existing concrete beams with steel beams.
  - Equip new water supply and drainage system for the substation
  - Arrange new fire prevention and fighting equipment.

***All of construction component is carried out entirely within the substation area and do not require additional land acquisition.***



**Figure 1. Location of the 110 kV E.13 Phuong Liet SS**

### **C. Methodology for DDR Preparation**

7. A number of research methods were utilized for the purpose of the due diligence review, including:

- Desk study method was utilized to review the Feasibility Study Report of 110 kV E.13 Phuong Liet SS subproject.
- A consultation meeting was conducted to collect information and data related to the project from the stakeholders about the rehabilitation of the 110 kV E.13 Phuong Liet SS.

8. Field visits were organized to the project area in order to observe and assess the project impacts.

### **D. Scope of Impacts of the Subproject**

9. The rehabilitation of the 110 kV E.13 Phuong Liet Substation Subproject will be implemented within the boundary of the existing substation. The renovation work will be carried out entirely on the existing area, thus does not require additional land acquisition and not cause any social impacts on any household and/or organization.

10. In addition, the substation location is relatively close to the public roads to avoid land acquisition for access roads and thus minimize the cost during construction, operation and maintenance. The rehabilitation of the existing SS is envisaged to not cause impacts on the local infrastructure.

## **E. Status of Land for the Rehabilitation of the Substation**

11. The renovation of the 110 kV E.13 Phuong Liet Substation is within the boundary of the existing substation which is located in Phuong Mai Ward, Dong Da District of Ha Noi City. The current substation is sufficient to implement renovation and install new equipment without conducting land acquisition.

12. The current 110 kV E.13 Phuong Liet Substation is bordered by Luong Dinh Cua Road to the Northwest, by the residential building of the Ministry of Agriculture and Rural Development to the Northeast, by the residential building of the Power Company 1 to the Southeast, and by residential area to the Southwest.

13. In November 2013, the EVN HANOI and Hanoi DPMB have organized a public meeting to disclose the project information with Phuong Mai Ward People's Committee and other relevant parties. The consultation results show that the local authorities totally support the subproject implementation within the boundary of the existing substation.

## **F. Compensation Cost and Implementation Schedule**

14. As the substation rehabilitation only requires the replacement of outdated equipment and thus does not cause any additional social impacts, no compensation cost is envisaged for the subproject.

15. The rehabilitation of the 110 kV SS is commenced in November, 2017 and expected to be completed in May 2018. EVN HANOI will inform ADB all activities of the project during the implementation process through internal monitoring report bi-annually and annually.

## **G. Conclusions and Recommendations**

### **1. Conclusion**

16. The rehabilitation of the 110 kV E.13 Phuong Liet Substation subproject involves no land acquisition of households. No house, structure or public infrastructure is affected by the subproject.

### **2. Recommendations**

17. Contractor should apply mitigation measures to ensure no negative impact on local people during the rehabilitation of the substation. If there is any impact on land or livelihood of local people, a resettlement plan (RP) is required based on social impact assessment and compensation will be implemented as per the RP and the updated Resettlement Framework of the Project.

18. EVN HANOI will conduct regularly internal monitoring on the safeguards issues during construction and prepare semiannual internal monitoring reports to ADB.



## ANNEX. MINUTES OF PUBLIC CONSULTATION MEETING

### A. List of Participants

Date: 23 November 2013

Location: Phuong Mai Ward, Dong Da District, Hanoi City

No.	Name	Male	Female	Position	Organization/ Address	Signature
1				Secretary	Phuong Mai Ward	
2			X	Chairman's Council	Phuong Mai Ward	
3				Chairman	Phuong Mai Ward	
4			X	Vice-Chairman	Phuong Mai Ward	
5				Secretary of Ward Fatherland Front	Phuong Mai Ward	
6				Vice Secretary Ward Fatherland Front	Phuong Mai Ward	
7				Chief inspector People	Phuong Mai Ward	
8			X	Women's union of Phuong Mai	Phuong Mai Ward	
9			X	Staff	Phuong Mai Ward	
10			X	Staff	Phuong Mai Ward	
11				Secretary of population group	Phuong Mai Ward	
12				Secretary of population group	Phuong Mai Ward	
13				Head of population group 65B	Phuong Mai Ward	
14			X	Head of population group 65A	Phuong Mai Ward	
15				Head of population group 62	Phuong Mai Ward	
16			X	Head of population group 61	Phuong Mai Ward	
17				Household	Phuong Mai Ward	
18				Household	Phuong Mai Ward	
19			X	Household	Phuong Mai Ward	
20			X	Household	Phuong Mai Ward	
21				Household	Phuong Mai Ward	

22				Household	Phuong Mai Ward	
23			X	ADB Resettlement Consultant		
24			X	ADB Environmental Consultant		
25				Vice manager of the Planning department	HNPMB-EVNHANOI	
26				Staff	HNPMB-EVNHANOI	
27				Staff	PECC1	

## B. Minutes of Meeting

Hanoi and Ho Chi Minh City Power Transmission Development Sector Project  
DỰ ÁN NGÀNH PHÁT TRIỂN ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN THÀNH PHỐ HÀ NỘI VÀ HỒ CHÍ MINH

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM  
Độc lập - Tự Do - Hạnh phúc

Phường Mai, Ngày 23 tháng 11 năm 2013

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG,  
TÁI ĐỊNH CƯ VÀ PHÁT TRIỂN DÂN TỘC THIỂU SỐ**

Tiêu đề án: Cải tạo đường cấp điện HQ.XV.E13 - Phường Lật  
Phường/Xã: Phường Mai Quận/Huyện: Đống Đa Thành phố: Hà Nội

**I. Thành phần tham dự**

- Ông/Bà: Ngô Hải Hưng Chức vụ: Hiệu trưởng
- Ông/Bà: Nguyễn Thị Liên Chức vụ: Chủ tịch UBND
- Ông/Bà: Lê Kế Việt Chức vụ: Chủ tịch UBND
- Ông/Bà: Đặng Tuấn Anh Chức vụ: EVN Hà Nội
- Ông/Bà: Trần Văn Tuấn Chức vụ: Đo lường kỹ thuật
- Ông/Bà: Đặng Thị Mỹ Chức vụ: Tổ trưởng
- Đại diện những người bị ảnh hưởng: ..... người (chỉ tiết xem danh sách đính kèm)

**I. Nội dung tham vấn**

- *Tư vấn thiết kế giới thiệu dự án:* Vị trí trạm, tuyến đường; vị trí và chiều dài tuyến đường dây trên địa bàn phường, xã.
- *Tư vấn môi trường trình bày về:* Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE); Cơ chế khiếu nại khi có các vấn đề môi trường xảy ra
- *Tư vấn xã hội tái định cư trình bày về:* Kế hoạch tái định cư của ADB; Những tác động khi thu hồi đất và các tài sản trên đất; Những chính sách của Chính phủ nước Cộng hòa xã hội chủ nghĩa Việt Nam và địa phương, chính sách của dự án trong vấn đề bồi thường thiệt hại khi Nhà nước thu hồi đất đai và các tài sản trên đất; Các tác động thu hồi đất/tái định cư dự kiến trên địa bàn; Các phương án bồi thường đề xuất (theo khung chính sách của dự án đã được phê duyệt); Tổ chức thực hiện, kế hoạch thực hiện kế hoạch tái định cư.

Hanoi and Ho Chi Minh City Power Transmission Development Sector Project  
DỰ ÁN NGÀNH PHÁT TRIỂN ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN THÀNH PHỐ HÀ NỘI  
VÀ HỒ CHÍ MINH

- III. Ý kiến thảo luận

III.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

- + Cần có biện pháp giảm thiểu tiếng ồn hoạt động quá tải xây dựng, và vận hành máy
- + Cần chú ý đến cây cối PCCC, do địa điểm TBA hẹp
- + Cần ý đến diện tích rừng và rừng đầu nguồn dân cư, tránh bị lấn chiếm đất và phá rừng

III.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- Cây nứa cây cây bị hủy do quá tải khi xây dựng sẽ được khai thác, và dọn
- Gia cố lại tổng bao dân cư

IV. Kết luận

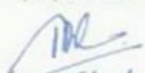
UBND phường Phường Mai và các hộ dân bị ảnh hưởng đồng ý với chủ trương cải tạo nâng cấp tải trạm biến áp 110KV Phường Liệt. Đề nghị chủ đầu tư làm đúng các quy định của nhà nước

Đại diện Chủ đầu tư

Đại diện cộng đồng

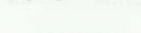
Đại diện tư vấn

Đại diện UBND xã

  
Đại diện Chủ đầu tư: Đặng Thị Mỹ

  
Đại diện cộng đồng: Nguyễn Thị Lan

  
Đại diện tư vấn: Hoàng Văn

  
Đại diện UBND xã: Nguyễn Thị Lan



CHỦ TỊCH  
Đỗ Hồ Việt

Opinions/Questions	Responses
- Fire prevention by CO2 fire extinguishing powder is reliable or not?	- Use fire extinguishing powder inhalers for the function of the room control and distribution. The transformer fire extinguishing system with water.
- Construction waste has been collected, but domestic waste is to work with sanitation enterprises to pay sanitation fee collection.	- Investor and Construction contractor will work with sanitation enterprises to pay for garbage collection.
- Investor is requested to clearly describe how the construction activities affect people	- The project to renovate and upgrade the existing fence located in the Phuong Liet 110kV substation, but also causes environmental impacts during construction and operation of the project such as: Increased dust, causing the sound noise, explosion hazard, obstructing traffic, road damage. When performing renovation project will upgrade electrical capacity, reducing power losses, bringing the social and economic benefits in the region.
Normally no power station could be located in residential areas because noise affects people living at surrounding area	- Phuong Liet 110kV Substation completed and energized in 1991 while the population in the project area is not much.
Has the Investor defended the project with the Ministry of Natural Resources and Environment and other agencies or not?	The "environmental protection plan" for Phuong Liet 110kV substation was approved in 2012.
Electromagnetic fields affect people or not?	- The new installation of substation equipment is designed according to international standards and in accordance with electricity regulations of Vietnam.
- Noise must comply with regulations?	- The noise of the equipment in the building process to ensure that noise standards allow - Developing mainly in the daytime, at night if construction must inform the people surrounding the project said. - The new equipment installation projects were built according to the regulations on the permitted noise level.
Environmental problems in the construction process does not significantly impact during operation.	Agree
- The project should assess the environmental impact, the new station's noise level compared to that of the old station. If the new substation can not change the noise level need not to replace it	The scope of the project implementation equipment 110kV outdoor will be replaced by the GIS equipment (SF6 insulation) and 22kV and 10kV distribution cabinet is placed in the distribution of building control the new. So greatly reduced noise during operation of the station.

The fire prevention measures involve only the station. When the fire occurs in the station, could it spread to surrounding neighborhoods? Because fire truck can not go to the area.	- Investor commits to implement fully fire protection regulations during the project implementation period.
Local people need full commitments of investor/constructor in the construction process. When fire is happening, what is the level of safety for the people? Investor/constructor need to ensure no fire and explosion occurred	- Investor commits to implement fully environmental regulations, fire during project implementation.
Agree with the upgrading but investor needs to ensure safety for people.	
The renovation and upgrading to ensure reduced noise, accidents, fires and explosions. Lane 30, Alley 2 no way out when the explosion.	
110 kV substation is too close to residential areas, the distance is only about 1m to ensure the safety of the power grid?	- The project will replace the old equipment, which has been operated long time, by the new equipment in accordance with international standards. At the same time the equipment is installed according to the layout as well as international standards of Vietnam to ensure electrical safety.
There was an explosion, big noise. Roads into the renovated station frequently for damage, noise at night.	- Substation was designed in fire prevention regulations.
The construction activity needs to be approved by the competent authority in order to assess it is appropriate or not	Electricity Corporation Hanoi has approved on the basis of planning. Ministry of Natural Resources and Environment has approved.
- The solid walls need to be built around the substation	Reinforced fence of the station are being constructed
Phuong Mai Ward People's Committee asked to provide information, technical specifications on noise, power grid safety corridors, fire safety for the substation.	Investor will provide "environmental protection report" of 110kV station to Phuong Mai Ward People's Committee
The further meetings to get people's opinions on construction permits would be organized.	

### C. Consultation Pictures

	
<p>Project owner presented of scope of project</p>	<p>The representative of the local community presented their opinions</p>
	
<p>The representative of the local community presented their opinions</p>	<p>The representative of the local community presented their opinions</p>