CHAPTER III
ESTIMATING
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Construction and operation activities Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai and CNG Plant 155 MW Central Kalimantan is expected to have a significant impact on the environment. These impacts occur both physical environment of chemical , biological and socio-cultural. In determining the important impact refers to Government Regulation No. 27 Year 2012. Forecasts made a significant impact on the hypothetical identified in the process of protection. The hypothetical important impact is in the form of impact as follows :

3.1. Public Unrest

Impact in the form of social unrest occurred in the pre-construction, construction and operation phase. This form of public unrest, usually in the form of changes in attitudes and perceptions, both on the course of development activities Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai 155 MW and CNG Plant or to implementing of these activities.

3.1.1. Pre-Construction

- **Socialization of the Project**

At this stage of socialization, shape, intensity and quality of socialization delivered by the initiator / implementer become an important role in acquiring the attitudes and perceptions of the public good. Because socialization meant to clarify the existence of the company, provide information on the activities to be

undertaken as well as the aspirations of the community to support these activities. Currently, the public generally support these development activities , given the benefits that are vital in terms of providing electricity needs and the lack of job opportunities.

- **Land acquisition**

Land acquisition for land power plant location, PLTMG, CNG Plant and SUTT expected to impact public unrest. Ussualy, the process of granting compensation to the land belonging to the population that is not done by mutual agreement be causing conflict between communities and the initiator / implementer. In this case the parties who feel aggrieved will choose attitude turf when the price of land compensation agreement has not been reached. In addition, the social unrest arising from the land acquisition is a change in the pattern of their economic activity, particularly with regard to plantations or agricultural land belonging to residents. People who lose land for plantations or agriculture is likely to lose against livelihood which they do.

A. Impact Character

The impact of social unrest arising from negative perception of society towards the development plan Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai well as CNG Plant 155 MW Central Kalimantan. Based on the nature of the impact, the impact of social unrest is a negative impact (-). If the impact is not managed and handled, it can be an obstacle to the project.

B. Magnitude Of The Impact

With the dissemination activities of the project will lead to unrest around the project site in the District Lahei precisely at 9 (nine) village in the district Lahei and Lahei West, including the Mukhut village, Nihan village, Jangkang New Village, Luwe Hulu village, Muara Inu , Bengahon village, Rahaden village , Muara Pari and Karendan village.

C. Determination of Significant Impacts

1) Total humans affected

   The number of people affected is quite large covering residents in seven (7) villages namely Mukut, Niham Village, Jangkang Village, Luwe Hulu Village , Inuh Muara Village, Muara Parih and Karendan Village. (P)

2) Total area of impact distribution

   The distribution impacts of civil unrest spread across seven villages. (P)

3) The intensity and duration of the impact

   Public unrest arising out of the time that is currently dissemination activities and land acquisition projects underway. (TP)

4) The components of affected environment

   Public unrest impact on the social components of society. (TP)

5) The cumulative nature impact

   The impact of social unrest will lead to a negative perception even conflict if not managed will lead to rejection of the project . (P)

6) Turn irreversibility of the impact

   The impact of social unrest arising from less pahamnya terhadao society action plan, with clear information notices and

open the public perception can turn into support for the activities. (P)

D. Conclusion

Based on the above, the impact of good public unrest which is primary or secondary impact is the Important negative impact.

3.1.2. Construction Phase

Construction of the power plant, PLTMG and CNG Plant (manufacture of acces road, mobilization and demobilization of equipment and materials, commissioning of the power plant, PLTMG and CNG Plant) and development SUTT (cleaning tread tower and free space, construction of the foundation and the erection tower, installation and withdrawal of wires, commissioning of transmission).

Activity of making access road is needed in a development activity. For these activities will be closely related to other activities such as mobilization and demobilization of equipment and materials and construction SUTT. Such activities are expected to have an impact for the community and the surrounding environment. Access roads, mobilization and demobilization passing through or adjacent to residential areas, will be considered disruptive activity or activities of the community, so it would appear public unrest against the implementation of these activities.

The actual impact of civil unrest is the multiplier effect of the activity of making road access. So the impact will only arise if the implementation of these activities is gradually changing environmental conditions, such as changes in air quality, noise, access and mobility of people.

As well as the activity of making an access point, mobilization and demobilization that commissioning activities are also expected to generate a multiplier effect on public unrest. Examination and initial testing of power stations and network SUTT will take quite a long time and will increase air pollution, noise and vibration levels. It will make people anxious about to be impaired due to health and other impact activities.

A. Impact Character

The impact of social unrest arising from the construction activities for development Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai well as CNG Plant 155 MW Central Kalimantan. Based on the nature of the impact, the impact of social unrest is a negative impact (-). If the impact is not managed , it can be an obstacle to the project.

B. Magnitude Of The Impact

With the development activities PLTG Bangkanai 140 MW, SUTT 150 kV Bangkanai - Muara Teweh and PLTMG Bangkanai 155 MW and CNG Plant Central Kalimantan in the construction phase, it will cause public unrest around the project site in the District Lahei precisely at 7 (seven) villages namely Mukut Village, Niham Village , Jangkang Village, Luwe Hulu Village , Inuh Muara Village, Muara Parih and Karendan Village.

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected is quite large covering residents in seven (7) villages namely Mukut, Niham Village, Village Jangkang, Luwe Hulu Village, Inuh Muara Village, Muara Parih and Karendan Village. (P)

2) Total area of impact distribution

The distribution impacts of civil unrest spread across seven villages. (P)

3) The intensity and duration of the impact

Social unrest arising out of the time that the current development activities Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai and CNG Plant 155 MW Central Kalimantan underway. (TP)

4) The components of affected environment

Public unrest impact on the social components of society. (TP)

5) The cumulative nature Impact

The impact of social unrest will lead to a negative perception even conflict if not managed will lead to rejection of the project. (P)

6) Turn irreversibility of impact

The impact of social unrest arising from less pahamnya society to plan activities of the power plant Bangkanai 140 MW, SUTT 150 kV Bangkanai - Muara Teweh and PLTMG Bangkanai 155 MW and CNG Plant Central Kalimantan, with notification information clearly and openly that public perception can turn into support for activities. (P)

D. Conclusion

Based on the above, the impact of good public unrest which is primary or secondary impact is the Important negative impact.

3.1.3. Operation Phase

Gas distribution, operation and maintenance of the power plant, PLTMG and CNG Plant. In the operating phase of social unrest arising during gas distribution activities, operation and maintenance of the power plant , PLTMG and CNG Plant.

Public unrest at the stage of gas distribution and operation of a multiplier effect of the impact of a decrease in air quality, increased noise and vibration in the vicinity of the location of activities. Given these impacts, the public fear of causing health disorders and disasters caused by changes in the structure of the soil and the environment.

A. Impact Character

The impact of social unrest arising from the activities of the operation of the power plant, PLTMG and CNG Plant, the gas distribution activities, operation and maintenance of the power plant, PLTMG and CNG Plant. Based on the nature of the impact, the impact of social unrest is a negative impact (-). If the impact is not managed, it can be an obstacle to the project.

B. Magnitude Of The Impact

With the construction of the power plant activities, PLTMG and CNG Plant, it will cause unrest in the community who are in the vicinity of the site project.

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected is large enough that people residing or staying around the power plant , PLTMG and CNG Plant. (P)

2) Total area of impact distribution

The distribution of impacts of social unrest in society. (P)

3) The intensity and duration of the impact

Public unrest will appear when the operation of the power plant, and CNG Plant PLTMG cause disturbances in people who are around the area of the power plant, PLTMG and CNG Plant

due to receive the impact of increased noise and air quality deterioration. (P)

4) The components of affected environment

   Public unrest impact on the social components of society. (P)

5) The cumulative nature Impact

   The impact of social unrest will lead to a negative perception if not managed will lead to rejection of the project. (P)

6) Turn irreversibility of impact

   The impact of social unrest arising from the increased noise danpenurunan air quality around the power plant , PLTMG and CNG Plant, however, with the installation of the air filter (sprinkle) in the chimney / stack and installation of CEM, it will cause air quality emissions become better and monitored. (P)

D. Conclusion

Based on the above, the impact of good public unrest which is primary or secondary impact is the Important negative impact.

3.2. Job Opportunity

Mobilization and demobilization activities of labor will create impact the creation of employment opportunities , both in the activities and operations konsytruksi Bangkanai power plant of 140 MW , 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai and CNG Plant 155 MW Central Kalimantan.

3.2.1. Construction Phase

In the construction activities Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai and CNG Plant 155 MW Central Kalimantan necessary manpower ranging from unskilled to skilled workers with total ± 195 people. Labor recruitment in the early stages of construction and will give priority to local employment in accordance with the required

expertise. So these activities will affect the employment opportunities surrounding communities.

A. Impact Character

Impact of employment is the positive impact that needs to be maximized and to enhance project benefits for local communities.

B. Magnitude Of The Impact

With the construction of power plant activities, PLTMG and CNG Plant, it takes of ± 195 workers.

Tabel. 3.1. Estimated Employment Requirement in Construction Phase Based on Expertise

No.	Expertise	Max Requirment (people)
1	Project manager	5
2	Machine operator	10
3	Steelworkers	15
4	Mechanical Field Workers	15
5	expert Installation	15
6	Electrician	15
7	Plumber	15
8	Carpenter	15
9	Blacksmith	15
10	Painter	10
11	Labour and Manpower Rough	40
12	another worker	25
	Total	**195**

Sumber : PT PLN (Persero)

C. Determination of Significant Impacts

1) Total humans affected

The number of employment opportunities arising from the development Bangkanai power plant of 140 MW , 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai well as CNG Plant 155 MW Central Kalimantan amounts to ± 195 people. (P)

2) Total area of impact distribution

The impact of labor recruitment occurred in the District Lahei and surrounding areas. (P)

3) The intensity and duration of the impact

Employment opportunities arising from the development activities Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai well as CNG Plant 155 MW Central Kalimantan temporary and contract using the system. (TP)

4) The components of affected environment

Environmental components affected by the increase in revenue is the socio-economic component. (P)

5) The cumulative nature Impact

Employment opportunities tailored to the needs of ± 195 people and temporary. (P)

6) Turn irreversibility impact

Employment opportunities will be lost after the construction phase ends. (TP)

D. Conclusion

The impact of employment opportunity can provide positive benefits for society and to give priority to local employment, the impact can be managed even create an attitude of public support

the activities. The impact of employment opportunities is an important positive impact.

3.2.2. Operation Phase

Operations of power plant, PLTMG and CNG Plant requires manpower for operation the power plant, PLTMG and CNG Plant. Labor requirements, both administrative and operational will be determined by the PT. PLN (Persero). In order to improve the lives of local people and the economy of North Barito regency, then the recruitment would prioritize local employment according to their expertise.

A. Impact Character

Impact of employment is the positive impact that needs to be maximized to increase the benefits of the existence power plant, PLTMG and CNG Plant for the surrounding communities.

B. Magnitude Of The Impact

With the construction of the power plant activities, PLTMG and CNG Plant, it will cause a great impact for the people that are around the project site, namely the emergence of employment opportunities for the local communities that are tailored the skills or capabilities.

C. Determination of Significant Impacts

1) Total humans affected

The number of workers from surrounding community locations that are tailored to the skills or abilities and the power required by the power plant, PLTMG and CNG Plant. (P)

2) Total area of impact distribution

The impact of labor recruitment occurred in the District Lahei and surrounding areas. (P)

3) The intensity and duration of the impact

Job opportunities that arise are fixed, for the power plant, PLTMG and CNG Plant still running and operating. (P)

4) The components of affected environment

Environmental components affected by the increase in revenue is the socio-economic component. (P)

5) The cumulative nature Impact

Employment opportunities tailored to the needs of the power plant, PLTMG and CNG Plant. (P)

6) Turn irreversibility of impact

Employment opportunities will occur once in the early stages following the operation and employment opportunities will be adjusted to the need for a power plant, PLTMG and CNG Plant. (P)

D. Conclusion

The impact of employment can provide positive benefits for economy of North Barito and in particular the local community, and create an attitude of public support for the activities, the impact of employment opportunities is an important positive impact categories.

3.3. Decrease In Air Quality

3.3.1. Construction Phase

The impact of air quality on construction activity Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai and CNG Plant 155 MW Central Kalimantan is estimated to occur in several phases of activity :

- **Access Road Construction**

A decrease in air quality in these activities happen because the emergence of dust generated at the time of opening, cleaning and equalization road area.

- **Mobilization and Demobilization of Equipment and Materials**

The mobilization of heavy equipment and materials in the construction phase identified can have an impact on ambient air quality due to the onset the dust of the road that is impassable by heavy equipment that transports the material required for the construction work. Besides, the exhaust gas heavy equipment machines also have an impact on ambient air pollution.

- **Land Preparation**

In this activity, the impact of air quality deterioration that occurs as a result of the dust generated during the opening and clearing of land area as well as engine exhaust gas used heavy equipment for land preparation.

- **The Main Building Construction & Support**

This construction activity will have an impact on air quality caused by dust during land leveling, the building material is wasted dust and exhaust gases from the engine hauling heavy equipment material.

- ***Commissioning* Activity**

Preliminary testing activities, performance and reliability expected to last long enough. This activity will at least produce flue gases which are air pollutants, such as NO2, NH3, SO2 and dust. Therefore, these activities will have an impact for air quality in the surrounding.

A. Impact Character

The impact of a decrease in air quality such as increased levels of CO2 , NO2 , NH3 , SO2 and dust are negative impact.

B. Magnitude Of The Impact

The impact of a decrease in air quality resulting from the activity of making acces road, mobilization of equipment and materials, and construction of the main building and the support is a big impact because the number of vehicles that will be used for the mobilization and demobilization of equipment and material ranges between 20-40 times the carriage, but this activity is not done every day and the impact it will expire after mobilization activities and equipment and materials is completed. With the mobilization of equipment and material is assumed to be an increase of 5 % so it can be predicted air quality conditions and the amount of dust after the activity.

Tabel. 3.2. Calculation Results of Air Quality and Dust Levels in Residential Area Karendan Village

No.	Parameter	Unit	Quality Standarts	Present Condition	After Project
1	Sulfur Dioksida, SO_2	mg/Nm^3	0,9	0,0337	0,035
2	Karbon Monoksida, CO	mg/Nm^3	30	1,1814	1,240
3	Nitrogen Dioksida, NO_2	mg/Nm^3	0,4	0,1299	0,136
4	Debu, TSP	mg/Nm^3	0,23	0,0400	0,042

C. Determination of Significant Impacts

1) Total humans affected

A decrease in air quality will have an impact on communities along the access road across the project site in the village of Karendan. (P)

2) Total area of impact distribution

The impact of air quality degradation only occurs around the village Karendan. (TP)

3) The intensity and duration of the impact

A decrease in air quality lasts for access road construction activities. (TP)

4) The components of the affected environment

The impact of a decrease in air quality will have an impact on the physical components - chemical public health and social components. (P)

5) The cumulative nature Impact

The impact of air quality deterioration is caused by elevated levels of dust caused by the activities of soil stripping and passing vehicles. Pengingkatan dust levels will rise only if there is activity. (TP)

6) Turn irreversibility of impact

Impact occurred only during the manufacturing activities take place and the access road will be lost when the activity is completed. (TP)

D. Conclusion

Based on the above it is known that the impact of air quality deterioration is a negative impact that can cause an impact on the physical components - chemical, public health component and the social component. Although the impact of a decrease in air quality

during the construction phase has not long periods of time, but these activities until the continuous operation phase. Therefore, the impact of a decrease in air quality put into the category of important negative impacts.

3.3.2. Operation Phase

Ambient air environment will change or be affected by operating activities, as it will produce exhaust gases NO2, NH3, SO2 and dust that is an air pollutant. Air quality will continue to receive pollutants every day the power plant continues to operate.

A. Impact Character

When viewed in terms of environmental impact of a decrease in air quality due to the operation of the power plant activities, PLTMG and CNG Plant is negative (-), because it is very harmful for the environment.

B. Magnitude Of The Impact

The operation of the power plant PLTMG and CNG Plant, expected to impact air quality due to emissions from the power plant. Estimated gas emissions that will be generated at the power plant, and CNG Plant PLTMG nearly equal to the exhaust emissions at the power plant, PLTMG and CNG Plant Kalteng which is as follows :

Tabel. 3.3. Estimated Emission PLTG dan PLTMG

No.	Parameter	Unit	Quality Standart	Parameter Value
1	Sulfur Dioksida (SO_2)	mg/m^3	800	7
2	Nitrogen Oksida (NO_X) sebagai NO_2	mg/m^3	1000	60
3	Karbon Monoksida (CO)	mg/m^3	600	37

With the exhaust emission source from the power plant, CNG Plant PLTMG and it is estimated there will be an increase parameter value of the ambient air by 5 %. So that the ambient air quality in both the location of the power plant, PLTMG and CNG Plant as well as in residential areas after this activity can be estimated.

Here are the results of the calculation of ambient air quality after the activity, assuming a 5% increase.

Tabel. 3.4. Air Quality Calculation Result Around the Area PLTG and PLTMG

No.	Parameter	Unit	Quality Standart	Present Condition	After Project
1	Sulfur Dioksida, SO_2	mg/m³	0,9	0,0541	0,057
2	Karbon Monoksida, CO	mg/m³	30	1,6057	1,686
3	Nitrogen Dioksida, NO_2	mg/m³	0,4	0,1637	0,172
4	Debu, TSP	mg/m³	0,23	0,0617	0,065

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected is the community around the project site and the people who expected to get into ecological boundary estimates of this impact, because of a decrease in air quality due to emissions from the power plant, PLTMG and CNG Plant will be spread through the air free of bias spread to all direction. Ecological limits itself not only the project area, but the area around the project, such as Karendan village and its surroundings. Seen in the large number of human beings

affected estimate the impact this is classed a significant impact. (P)

2) Total area of impact distribution

The total area of large distribution, covering the entire project area and an area with a radius of 1 km from the power plant site, PLTMG and CNG Plant, so the impact relatively important. (P)

3) The intensity and duration of the impact

Duration of the impact is expected during the course of the operation of the power plant, PLTMG and CNG Plant for 30 years or so that this impact can be classified as significant impacts. (P)

4) The components of affected environment

Many environmental components affected quite a lot, among other things, the occurrence of health problems and comfort in the vicinity of the power plant, PLTMG and CNG Plant. The impact of significant value. (P)

5) The cumulative nature Impact

The impact of increased dust and air quality deterioration may increase if not done a good handler of the main sources of impact. Impact relatively important. (P)

6) Turn irreversibility of impact

The impact of increased dust and decrease the impact of air quality because there handlers turned to the impact of the primary. The impact is not important. (TP)

D. Conclusion

Based on the above it is known that the impact of air quality deterioration is a negative impact that can cause an impact on the physical components - chemical, public health component

and the social component. The impact of a decrease in air quality is an important negative impact.

3.4. Noise Enhancement

3.4.1. Construction Phase

The impact of increased noise during the construction phase occurs in construction activities Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai and CNG Plant 155 MW Central Kalimantan, the effect is as follows :

- **Access Road Construction**

Increased noise on this activity is caused by the emergence of sound equipment and machinery heavy equipment out of the transport of equipment or material.

- **Mobilization and Demobilization of Equipment and Materials**

The mobilization of heavy equipment and materials in the construction phase identified can making an impact on the increase in noise due to the engine sound of heavy equipment and material transport equipment.

- **Land Preparation**

In this activity, the impact of increased noise occurs as a result of the emergence of sound equipment, heavy equipment machines were out transporting equipment or materials and heavy equipment engines used in land preparation activities.

- **The Main Building Construction & Support**

This construction activity will have an impact to increase in noise caused by the emergence of sound equipment, heavy equipment machines were out transporting equipment or materials and heavy equipment machinery used in construction.

- ***Commissioning* Activity**

Preliminary testing activities, performance and reliability expected to last long enough. The impact of increased noise is caused by the sound activity generating machine that can reach the frequency of ± 85 dB (A) at the center of the engine sound generator and ± 70 dB (A) at a distance of about 200 meters from the center generating machine. In addition, the engine noise of vehicles passing during ongoing testing activities may also increase the noise level in the surrounding environment.

A. Impact Character

When reviewing the terms of environmental impact such an increase noise due to construction activities Bangkanai power plant of 140 MW, 150 kV SUTT Bangkanai - Muara Teweh and PLTMG Bangkanai and CNG Plant 155 MW Central Kalimantan is negative (-), because it harms the environment.

B. Magnitude Of The Impact

The impact of increased noise occurs due to the mobilization and demobilization of equipment and materials in the construction of 150 kV SUTT and construction of the power plant, PLTMG and CNG Plant is a major impact because of the number of vehicles used for mobilization and demobilization of equipment and materials ranging from 5- 10 times the carriage for each tower. If taken an average of 7 per tower , tower amak to 130 means there will be 910 times the carriage , but this activity is not done every day and the impact it will end after the mobilization and demobilization of equipment and materials is completed. For noise before the activity is 58 dB (A) and after the current activity to 61 dB (A).

C. Penentuan Determination of Significant Impacts

1) Total humans affected

Increased noise will impact the people who live along the road traversed by vehicles transporting equipment and materials for the construction of the power plant, PLTMG and CNG Plant and SUTT. (P)

2) Total area of impact distribution

The total area of impact is spread over the whole area along the path of vehicles carrying equipment and material. (P)

3) The intensity and duration of the impact

Increased noise will last only as long as the mobilization of equipment and materials, and construction of access road. (TP)

4) The components of affected environment

The impact of increased noise will affect the physical components - chemical, and social components. (P)

5) The cumulative nature Impact

Impact noise is not cumulative because it appears briefly. (TP)

6) Turn irreversibility of impact

The impact of increased noise will be lost if the source of the impact that access road construction activities have been completed and no activity mobilization of equipment and material. (TP)

D. Conclusion

Based on the above it can be seen that the increase in noise is an important negative impact.

3.4.2. Operation Phase

In the operating phase, the impact of increased noise is thought arise at the time of power plant operations and maintenance activities, PLTMG and CNG Plant. This increased noise arising from

the engine sound generator that can interfere and cause discomfort which cause public unrest. Activities generating machine is expected to generate sound frequencies ± 85 dB (A) at the center generating machinery and ± 70 dB (A) at a distance of about 200 meters from the center generating machine.

A. Impact Character

The impact of increased noise appears when the generator is operated so disturbing and even dangerous to health. From the nature of the impact of increased noise is a negative impact.

B. Magnitude Of The Impact

The impact of increase niose in activity caused by the operation of the power plant, PLTMG and CNG Plant a major impact due to the increase noise may be the cause of health problems, especially for workers in the power plant, PLTMG and CNG Plant. With the operation of the power plant, PLTMG and CNG Plant will be expected increase in noise by 5 %. So the noise level after the project can be estimated with the assumption of an increase of 5 %.

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected is the community around the project site and the people who expected to enter into the ecological limits of the estimates of this impact, because of the increased noise due to the power plant engines, and CNG Plant PLTMG cause to all direction. Ecological limits itself not only the project area, but the area around the project as Karendan village. (P)

2) Total area of impact distribution

The total area of large distribution, covering the entire project area and an area with a radius of 1 km from the power plant site, PLTMG and CNG Plant, so the impact of relatively important. (P)

3) The intensity and duration of the impact

Duration of the impact is expected during the course of the operation of the power plant, PLTMG and CNG Plant for 30 years or so that this impact can be classified as significant impacts. (P)

4) The components of affected environment

Many components lignkungan affected quite a lot, among other things, the occurrence of health problems and comfort in the vicinity of the power plant, PLTMG and CNG Plant. The impact of significant value. (P)

5) The cumulative nature Impact

Such as the impact of increased noise is not cumulative because of the impact this will take place during the course of the operation of the power plant, and CNG Plant, so that this impact is not important berniali. (TP)

6) Turn irreversibility of impact

The impact of increased noise is the impact turned around, because there are handlers for the primary impact. The impact is not important. (TP)

D. Conclusion

Based on the above it can be seen that the increase in noise is an important negative impact.

3.5. Disturbance of Flora And Fauna

3.5.1. Construction Phase

Disturbance of flora and fauna appear on the construction phase include activities Acess Road, Land Preparation and Cleaning Tread Tower and Free Space.

Preparing land for construction will eliminate vegetation on top of an area to be built, so that the existence of flora on the site will be down. It will also impact on the fauna.

A. Impact Character

At this stage of construction, disturbance of flora and fauna happened in the activity of making access road and land preparation.

B. Magnitude Of The Impact

The impact of disturbance flora and fauna because the activity of making acces road and land preparation, it is little impact because this activity is temporary during the activity of making acces road and land preparation.

C. Determination of Significant Impacts

1) Total humans affected

The impact of disturbance of flora and fauna directly not impact to humans. (P)

2) Total area of impact distribution

Impact of flora and fauna disturbance occurs on the construction of the power plant, PLTMG and CNG Plant of ± 20 ha. (P)

3) The intensity and duration of the impact

The impact of disturbance of flora and fauna only appear one time during the construction phase. (P)

4) The components of affected environment

The impact of disturbance of flora and fauna will have an impact on the biological components, the components of the physical - chemical and social components. (P)

5) The cumulative nature Impact

The impact of disturbance of flora and fauna are not cumulative because it is done only at the project site. (P)

6) Turn irreversibility of impact

The impact of disturbance of flora and fauna, especially on the power plant project site, PLTMG and CNG Plant is not turned away because land use has changed. (P)

D. Conclusion

From the description above, the impact of disturbance of flora and fauna is an important negative impact .

3.5.2. Operation Phase

At this operation stage will be performed SUTT maintenance activities undertaken by pruning the plants or trees are included in the free space SUTT. This pruning activities can disturb the flora and fauna in the vicinity of the tower SUTT.

A. Impact Character

The impact of disturbance flora and fauna is a negative impact.

B. Magnitude Of The Impact

The impact of disturbance flora and fauna due to maintenance activities SUTT is a small impact because these activities only to cut the branches of trees are included in the free space SUTT.

C. Determination of Significant Impacts

1) Jumlah manusia yang terkena dampak

Dampak gangguan flora dan fauna tidak berdampak langsung kepada manusia. (P)

2) Luas wilayah persebaran dampak

Dampak gangguan flora dan fauna terjadi pada tapak tower sepanjang jalur SUTT 150 kV. (P)

3) Intensitas dan lamanya dampak

Dampak gangguan flora dan fauna hanya muncul pada saat ranting pohon masuk ke dalam ruang bebas SUTT. (P)

4) Komponen lingkungan yang terkena dampak

Dampak gangguan flora dan fauna akan berdampak pada komponen biologi, komponen fisik – kimia dan komponen sosial. (P)

5) Sifat kumulatif Dampak

Dampak gangguan flora dan fauna tidak bersifat kumulatif karena dilakukan hanya pada tapak proyek. (P)

6) Berbalik tidak berbaliknya dampak

Dampak gangguan flora dan fauna terutama pada tapak tower bersifat berbalik, karena ranting pohon yang di pangkas akan kembali lagi. (P)

1) Total humans affected

The impact of disturbance flora and fauna not directly impact to humans. (P)

2) Total area of impact distribution

The impact of disturbance flora and fauna occur at the site of tower along the lines of 150 kV SUTT. (P)

3) The intensity and duration of the impact

The impact of disturbance flora and fauna only appear when a tree branch into the free space SUTT. (P)

4) The components of affected environment

The impact of disturbance flora and fauna will have an impact on the biological components, the components of the physical - chemical and social components. (P)

5) The cumulative nature Impact

The impact of disturbance flora and fauna are not cumulative because it is done only at the project site. (P)

6) Turn irreversibility of impact

The impact of disturbance of flora and fauna, especially the tower footprint is turned, because the branches of trees in the barbershop will be back again. (P)

D. Conclusion

From the description above, the impact of disturbance of flora and fauna is an important negative impact.

3.6. Income Enhancement

The impact of increased income is the impact that arises only at the stage of pre-construction due to the payment of compensation at the time of land acquisition. The payment of adequate compensation and appropriate will benefit the surrounding community land owners.

A. Impact Character

Based on the nature of the impact, income enhancement is a result that is positive (+). By optimizing this impact it is expected that the existence of the project can improve people's lives around especially the landowners.

B. Magnitude Of The Impact

Activity compensation will be made in 130 point tower and the land for construction of the power plant , PLTMG and CNG Plant , with the activities of land acquisition and plants , then

the compensation will have an impact on increasing revenues more community who have land for construction of the power plant , PLTMG and CNG Plant and SUTT.

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected is all landowners whose land is acquired for the project site . (P)

2) Total area of impact distribution

The impact of increased revenues occur in communities whose lands are used for the tower site and construction of the power plant , PLTMG and CNG Plant in the District Lahei . (P)

3) The intensity and duration of the impact

The impact of increased revenues lasted only one time at the time of payment of compensation . (TP)

4) The components of affected environment

Environmental components affected by the increase in revenue is the socio-economic component . (TP)

5) The cumulative nature Impact

Compensation is only paid once. (TP)

6) Turn irreversibility of impact

The impact of increased revenues occur one time only for a moment at the time of payment of compensation. (TP)

D. Conclusion

Based on the above it can be concluded that the impact of the increase in revenues provide benefits for people whose lands affected by the project footprint, so it is necessary to manage the impact can be maximized in order to provide benefits to the

community. The impact of increased income are important positive impact.

3.7. The emergence of Domestic Waste

The impact of waste generation appears only in the construction phase and the impact arising from the activities of labor in the operation of the base camp activities due to labor activities.

A. Impact Character

Domestic waste arises in the form of garbage and wastes from human activities, if it not managed could cause interference, especially on human health in the vicinity. By its nature, the impact of domestic incurred a negative impact.

B. Magnitude Of The Impact

With the activities of a workforce of 195 people and the rest of the construction material, it is estimated that each person would generate domestic waste as much as 1 m3 / day, so that domestic waste is generated per day ± 195 m3 / day.

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected if the domestic waste is not properly managed from the workforce on the construction of the power plant, PLTMG and CNG Plant as many as 195 people. (P)

2) Total area of impact distribution

Domestic waste arises is the impact that arises only in the power plant project site, PLTMG and CNG Plant. (TP)

3) The intensity and duration of the impact

Domestic waste arises only occur during the construction phase. (TP)

4) The components of affected environment

Domestic waste generation will have an impact on the physical components - chemical and can cause effects on the derivative component of public health and socio-economic components. (P)

5) The cumulative nature Impact

Arising out of domestic waste if not managed can continue to grow as the labor activity. (P)

6) Turn irreversibility of impact

Arising out of domestic waste also can be difficult to disentangle the garbage so that if not managed, it can pollute the environment. (P)

D. Conclusion

Based on the above, it can be seen that the impact of domestic waste generation comes from labor activity in the power plant construction activities, PLTMG and CNG Plant. With the amount of domestic waste that is big enough, so it is necessary manage to prevent the impact of other down. The impact of the increase in income is important negative impact.

3.8. Traffic Disruption

Traffic disruption arises only at the stage of construction on the power plant construction activities , PLTMG and CNG Plant due to of mobilization and demobilization of equipment and materials.

A. Impact Character

When reviewing the terms of environmental impact such disruptions and Linta caused by mobilization and demobilization of equipment and materials on the construction

of power plant , PLTMG and CNG Plant is negative (-), as harmfull to the social environment.

B. Magnitude Of The Impact

Impact of the traffic disruption caused by the mobilization of equipment and materials on the construction power plant, PLTMG and CNG Plant a great impact, because the number of vehicles used for the mobilization and demobilization equipment and material for the construction of the power plant , PLTMG and CNG Plant ranges between 10-15 times a day.

C. Determination of Significant Impacts

1) Total humans affected

The people affected are people living around the power plant, PLTMG and CNG Plant which path is used to always cross transporting equipment and materials, while the number of people who affected the impact of this activity is workforce, the driver and conductor of vehicles transporting equipment and material. The number of people affected is larger than the number of people who enjoy the impact, including the amak impact is important. (P)

2) Total area of impact distribution

Total distribution area of the impact that used to access the transport vehicle equipment and materials toward construction of the power plant, PLTMG and CNG Plant. (P)

3) Duration and intensity of the impact

Short duration of the impact, is during the mobilization of equipment and material progress. The intensity of the impact is small and takes place every day during the process of building the power plant, PLTMG and CNG Plant underway. The impact is not important. (TP)

4) The components of affected environment

Environmental component affected the social component and a physical component. Effect of the impact physical components as a result of the mobilization of equipment and materials is huge, so the impact of the mobilization of equipment and materials classified as critical. (P)

5) The cumulative nature Impact

Impact in the form of traffic disruptions can be increased if there is dissatisfaction with the handling of the main sources of impact, namely an increase in dust and noise and traffic disruption. Impact relatively unimportant. (TP)

6) Turn irreversibility of impact

The impact of traffic disruption in the form of an impact to turn around because there is the handling of the impact of primary and given an explanation and clear information, then the impact will be lost. The impact is not important. (TP)

D. Conclusion

From the description above, the impact of traffic disruption mobilization equipment and materials on the construction of the power plant, and CNG Plant PLTMG an important negative impact.

3.9. Public Health Disorder

Public health disorders occur at the construction stage, when the construction of the main building and supporting. Public health problems that occur are usually caused by contamination of water, air, noise and an increase in the density of mosquito vectors.

A. Impact Character

If viewed from characteristic, the impact of public health is a negative impact.

B. Magnitude Of The Impact

The impact of public health disorder from the construction the main building and supporting is a small impact because these activities are local only, namely at the power plant site , PLTMG and CNG Plant.

C. Determination of Significant Impacts

1) Total humans affected

Construction of the main building and supporting expected to affect the health of humans, especially morbidity respiratory infections, infections, lung disorders, etc. The effect of human health caused by dust, originating from the main building and supporting development. Due to the amount of human activity affected quite a lot, not only the driver and transport workers, but also people living around the power plant, PLTMG and CNG Plant. So the number of people negatively affected quite a lot and it is important. (P)

2) Total area of impact distribution

Construction of the main building and supporting implemented during the construction phase, as argued that the distribution of the impact is not just the driver and the transport workers, but also people around. The distribution of the impact will be more extensive if the wind speed increases. It means that the broad spread of negative impacts is quite extensive and important. Duration of the impact as a result of development activities and supporting uatam building is expected shortly during the construction phase, the impact is important. (P)

3) The intensity and duration of the impact

Impact of health problems arise during the construction phase. (TP)

4) The components of affected environment

Impact of health problems will have an impact on public health component and social component. (P)

5) The cumulative nature Impact

Impact of health problems are not cumulative. (TP)

6) Turn irreversibility of impact

Impacts arising from the construction main building and supporting, the effects are temporary and can be turned around if the development activities and supporting the main building is finished. So the impact will be turned so that its not important. (TP).

D. Conclusion

From the description above, the impact of health problems is important negative impact.

3.10. The Emergence of B3 Waste

The impact of waste generation B3 only appear at the stage such operations in the former resulting in power plant operations and maintenance activities, PLTMG and CNG Plant. Heaps of waste arising from the remnants of lubricating materials, spare parts, cleaning and other wasted or not accommodated in container camps.

A. Impact Character

B3 waste will arise if not managed properly and can cause pollution that would damage the health of humans around it. By its character, the impact of the B3 waste generation is a negative impact.

B. Magnitude Of The Impact

The amount of used oil generated during operation of the power plant, and CNG Plant PLTMG ± 150 liters per month.

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected if B3 waste is not managed are the existing workforce at the power plant, PLTMG and CNG Plant and residents around the power plant, PLTMG and CNG Plant. (P)

2) Total area of impact distribution

B3 waste generation is the arrising effects on the location of the power plant, PLTMG and CNG Plant. (TP)

3) The intensity and duration of the impact

B3 waste generation occur during the operational phase, the power plant operations and maintenance activities, PLTMG and CNG Plant. The operation of the power plant, PLTMG and CNG Plant lasted for ± 30 years, so the impact that occurs is important. (P)

4) The components of affected environment

B3 waste generation will have an impact on the physical components - chemical and will cause effects on the derivative component of public health and socio-economic components. (P)

5) The cumulative nature Impact

B3 waste generation will continue to grow as the labor activity if not managed. (P)

6) Turn irreversibility of impact

B3 waste generation is a hazardous and toxic materials are difficult to be described, so that if not managed can pollute the environment. (P)

D. Conclusion

Based on the above, it can be seen that the impact of B3 waste generation form used oil. B3 waste can pollute the environment, it is necessary manage to prevent the effects of other derivatives. B3 waste is Important negative impact.

3.11. Magnetic and Electric Field Enhancement

The impact of increased magnetic field and electric field will appear on the construction and commissioning activities and Operating activities.. Based on the Regulation of the Minister of Mines and Energy No. 01.P / 47 / MPE / 1992 dated February 7, 1992 Air Line High Voltage (SUTT) is an electric power line using bare wire (conductor) in air-voltage above 35 s / d 245 kV standards in the field of electricity (Article 1 Paragraph 3) , and the Air Line Voltage and Extra High (SUTET) is an electric power line using bare wire (conductor) in air above 245 kV voltage according to the standard in the field of electricity (Article 1, paragraph 4).

The impact of increased magnetic field and electric field much feared by public because will disturbance the health. In the scientific study, there is no helath effects from magnetic field and electric field SUTT, because compliance with quality standards and given free space as a safe distance. The experts also agreed that an electric field and a magnetic field emanating from the electrical network is classified as extreme low frequencies with consequent energy transfer capability is very small, so it is not able to influence the chemical bond-forming cells of the human body. In addition, the human body cells have a strong electric field of about 10 million volts / m which is far stronger than the external electric field. Electric field and magnetic field at extreme low frequencies generated by SUTT 150 kV is also unlikely to cause thermal effects

as can happen on the effects of electromagnetic field of microwave, radio frequency, and a higher frequency as the cell phone.

Lack of understanding the community about the impact of information magnetic fields and electric fields can cause confusion and anxiety if there is no good management.

A. Impact Character

The emergence of an increase in the magnetic field and electric field if not managed could lead to a negative perception and anxiety that will cause unrest for the community. By its character, the impact of the increase in the magnetic field and the electric field is the negative impact.

B. Magnitude Of The Impact

The impact of increased magnetic field and electric field distribution of electrical energy caused by the activities of a small impact due to the impact of the formation of magnetic and electric fields will occur along the path during operation of the transmission. The magnetic field and electric field current average is 0.01 mT and 1.00 kV / m of magnetic field simulation results that will occur will increase to 0.05 mT and electric field that will happen relatively unchanged.

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected is that people in and around SUTT 150 kV Muara Teweh - Bangkanai, so the impact of increased magnetic and electric fields of significant value. (P)

2) Total area of impact distribution

Total distribution impact area of the activity distribution electrical energy in the form increased in the magnetic field and

electric field exists only along the transmission, then the impact is significant value. (P)

3) The intensity and duration of the impact

Lasting impact during continuous operation, with the intensity of a big impact. The impact of significant value. (P)

4) The components of affected environment

Component affected quite a lot of them are: the occurrence of civil unrest, the occurrence of health problems, and comfort in the vicinity of 150 kV SUTT Muara Teweh - Bangkanai. The impact of significant value. (P)

5) The cumulative nature Impact

Impact in the form of the formation of the magnetic field and electric field are not cumulative, because if the electric energy distribution activities stopped, then the magnetic field and electric field will be reduced, then the worth of electrical energy distribution activity is not important. (TP)

6) Turn irreversibility of impact

The impact by increasing the magnetic field and the electric field is turned away due to impact only occurs when the electrical energy distribution activities took place. Impact is worth not important. (TP)

D. Conclusion

Based on the above, although the increase in magnetic and electric fields do not cause impacts to human health, but due to lack of knowledge and understanding of the public about it will cause concern and anxiety, then the impact of the increase in the magnetic field and electric field on the distribution of electrical energy is categorized as an Important negative impact

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3.12. Enhancement of Electric Energy

The impact of increased electrical energy will arise at the time of commissioning activities, operation and distribution of electrical energy. Where the power plant and PLTMG Bangkanai targeted to generate electrical energy by 140 MW and 155 MW, which will be channeled to the Muara Teweh CGI and CGI Melak. With an increase in the electrical energy will bring benefits for the supply of the electricity needs of the surrounding community.

A. Impact Character

Improved electrical energy will bring a positive perception and such great benefits for the surrounding communities . By its character , the impact of the increase in electric energy is a positive impact.

B. Magnitude Of The Impact

The impact of increased electricity through the operation of the power plant, PLTMG and SUTT a great impact because of the additional capacity of 2 (two) power plants of 140 MW and 155 MW.

C. Determination of Significant Impacts

1) Total humans affected

The number of people affected is people in North Barito, especially communities around the District and the District Teweh - Central Lahei. (P)

2) Total area of impact distribution

Total distribution area of the impact is the North Barito, especially communities around the District and the District Teweh - Central Lahei. (P)

3) The intensity and duration of the impact

This impact will long last during the power plant works and operates, with the intensity of a big impact. The impact of significant value. (P)

4) The components of affected environment

Improved electrical energy will have an impact on social, economic and cultural surrounding. Categorized impact of significant value. (P)

5) The cumulative nature Impact

The impact of increased electricity will increase the capacity of power generation and power distribution. Then the electric energy distribution activities of significant value. (P)

6) Turn irreversibility of the impact

The impact of increased electrical energy is turned away because of the impact will occur during the operation of the activity and distribution of electrical energy takes place. The impact of significant value. (P)

D. Conclusion

Based on the above it can be seen that the impact of the increase in electric energy has such great benefits for the community, so the impact is categorized as Important Positive.

Tabel. 3.5. Estimates Significant Impacts

Sources Impact	Types Impact	Character Impact	Magnitude of Impact		Estimated Impact					
			Now	After Project	Total humans affected	Size Distribution of Impact	Intensity and duration of impact	Other components Affected	Cumulative Impact Character	Turned / Not Turned Impact
Pre-Construction Phase										
socialization Project	Public Unrest	Negatif	Nothing	Exist	P	P	TP	TP	P	P
Land acquisition	Public Unrest	Negatif	Nothing	Exist	P	P	TP	TP	P	P
	Income Enhancement	Positif	Nothing	Increasing	P	P	TP	TP	TP	TP
Construction Phase										
Construction PLTG, PLTMG and CNG PLANT										
Mobilization and Demobilization of Labor	Job Opportunty	Positif	Nothing	± 195 peoples	P	P	TP	TP	P	TP
Creation and Operation of Basecamp	Domestic waste arising	Negatif	Nothing	± 195 m^3/day	P	TP	TP	P	P	P
Access Road Construction	Decreasing Air Quality	Negatif	Nothing	Exist	P	TP	TP	P	TP	TP
	Noise Enhancement	Negatif	58 db	increasing 5% become 61 dB	P	P	TP	P	TP	TP
	Public Unrest	Negatif	Nothing	Exist	P	P	TP	TP	P	P

Sources Impact	Types Impact	Character Impact	Magnitude of Impact		Estimated Impact					
			Now	After Project	Total humans affected	Size Distribution of Impact	Intensity and duration of impact	Other components Affected	Cumulative Impact Character	Turned / Not Turned Impact
	flora and fauna disturbance	Negatif	Nothing	Exist	P	P	P	P	P	P
Mobilization and Demobilization of Equipment and Materials	Decrease Air Quality	Negatif	Nothing	Exist	P	TP	TP	P	TP	TP
	Noise Enhancement	Negatif	58 db	increasing 5% become 61 dB	P	P	TP	P	TP	TP
	Traffic Disruption	Negatif	Nothing	Exist	P	P	TP	P	TP	TP
	Public Unrest	Negatif	Nothing	Exist	P	P	TP	TP	P	P
Land preparation	Decrease Air Quality	Negatif	Nothing	Exist	P	TP	TP	P	TP	TP
	Noise Enhancement	Negatif	58 db	increasing 5% become 61 dB	P	P	TP	P	TP	TP
	flora and fauna	Negatif	Nothing	Exist	P	P	P	P	P	P

Sources Impact	Types Impact	Character Impact	Magnitude of Impact		Estimated Impact					
			Now	After Project	Total humans affected	Size Distribution of Impact	Intensity and duration of impact	Other components Affected	Cumulative Impact Character	Turned / Not Turned Impact
	disturbance									
Main Building Development and Support	Decrease Air Quality	Negatif	Nothing	Exist	P	TP	TP	P	TP	TP
	Noise Enhancement	Negatif	58 db	increasing 5% become 61 dB	P	P	TP	P	TP	TP
	Public Health Disruption	Negatif	Nothing	Exist	P	P	TP	P	TP	TP
Commissioning PLTG, PLTMG and CNG *Plant*	Decrease Air Quality	Negatif	Nothing	Exist	P	TP	TP	P	TP	TP
	Noise Enhancement	Negatif	58 db	increasing 5% become 61 dB	P	P	TP	P	TP	TP
	Public Unrest	Negatif	Nothing	Exist	P	P	TP	TP	P	P
	Improved electrical energy	Positif	Nothing	140 MW and 155 MW	P	P	P	P	P	P
SUTT Construction										
Mobilization and	Job Opportunity	Positif	Positif	Nothing	± 195 people	P	P	TP	TP	P

Sources Impact	Types Impact	Character Impact	Magnitude of Impact		Estimated Impact					
			Now	After Project	Total humans affected	Size Distribution of Impact	Intensity and duration of impact	Other components Affected	Cumulative Impact Character	Turned / Not Turned Impact
Demobilization of Labor										
Mobilization and Demobilization and Materials	Decrease Air Quality	Negatif	Nothing	Exist	P	TP	TP	P	TP	TP
	Noise Enhancement	Negatif	58 db	increasing 5% become 61 dB	P	P	TP	P	TP	TP
	Public Unrest	Negatif	Nothing	Exist	P	P	TP	TP	P	P
Cleaning Tread Tower and Free Space	Public Unrest	Negatif	Nothing	Exist	P	P	TP	P	P	P
Installation and Withdrawal Conductor Wire	Noise Enhancement	Negatif	58 db	increasing 5% become 61 dB	P	P	TP	P	TP	TP
	Public Unrest	Negatif	Nothing	Exist	P	P	TP	TP	P	P
Commissioning SUTT	Public Unrest	Negatif	Nothing	Exist	P	P	TP	TP	P	P
	Improved electrical	Positif	Nothing	Exist	P	P	P	P	P	P

Sources Impact	Types Impact	Character Impact	Magnitude of Impact		Estimated Impact					
			Now	After Project	Total humans affected	Size Distribution of Impact	Intensity and duration of impact	Other components Affected	Cumulative Impact Character	Turned / Not Turned Impact
	energy									
Operation Phase										
Operation PLTG, PLTMG and CNG Plant										
Acceptance of Labor	Job Opportunity	Positif	Nothing	Exist	P	P	TP	P	P	P
Gas Distribution	Public Unrest	Negatif	Nothing	Exist	P	P	P	TP	TP	TP
Operating adn maintenance PLTG, PLTMG and CNG *Plant*	Decrease Air Quality	Negatif	Nothing	Exist	P	P	P	P	P	TP
	Noise Enhancement	Negatif	58 db	increasing 5% become 61 dB	P	P	P	P	TP	TP
	B3 waste arising	Negatif	Nothing	± 150 electric / month	P	TP	P	P	P	P
	Public Unrest	Negatif	Nothing	Exist	P	P	P	P	P	P
	Improved electrical energy	Positif	Nothing	140 MW and 155 MW	P	P	P	P	P	P

Sources Impact	Types Impact	Character Impact	Magnitude of Impact		Estimated Impact					
			Now	After Project	Total humans affected	Size Distribution of Impact	Intensity and duration of impact	Other components Affected	Cumulative Impact Character	Turned / Not Turned Impact
Operating and Maintenance Transmision										
Distribution of Electrical Energy	Magnetic field and field of electricity enhancement	Negatif	Magnetic field 0,01 mT, electric field 1,00 kV/m	Magnetic field 0,05 mT electric field relative not change	P	P	P	P	TP	TP
	Improved electrical energy	Positif	Nothing	Exist	P	P	P	P	P	P
SUTT Network Maintenance	Disturbance of flora and fauna	Negatif	Nothing	Exist	P	P	P	P	P	P