Additional Information

Establishment of Rated Electricity Consumption of Reference Lamp

1. Position of this additional information

This project is intended to reduce GHG emission through improving the energy efficiency during fishing by newly installing LED or replacing existing lamps in Vietnam with LED.

This additional information identifies the rated electricity consumption of existing lamps generally used in Vietnam, which becomes necessary to calculate reference emissions.

2. Research policy

The field research was conducted from October 4th 2016 to December 23th 2016, concerning the rated electricity consumption of existing lamps in Vietnam.

This survey comprised of visual check in shops and interview to ship staffs, and covered totally 17 shops located near the major ports (from 6 provinces (Quang Tri, Da Nang, Binh Dinh, Khanh Hoa, Binh Thuan and Ba Ria-Vung Tau) which are well-known for fisheries in Vietnam), which sell fishing lamps. The nominal values stated on packages are collected through this survey.

3. Research result

The rated electricity consumption values collected in the field research are shown in Table 1. The result indicates that the fishing lamps by Asian manufacturers such as China, Taiwan, and Korea are broadly sold/used in the surveyed regions and the rated electricity consumption values of such manufacturers are totally 1,000 [W].

Table 1: Rated electricity consumption of fishing lamp manufacturers in Vietnam

| Manufacturer | Rated electricity consumption [W] |
|--------------|-----------------------------------|
| A | 1,000 |
| В | 1,000 |
| С | 1,000 |
| D | 1,000 |
| E | 1,000 |
| F | 1,000 |
| G | 1,000 |
| Н | 1,000 |
| I | 1,000 |
| J | 1,000 |
| K | 1,000 |
| L | 1,000 |
| M | 1,000 |

${\bf 4}$. Establishment of the rated electricity consumption

As the result of the survey, it can be recognized that 1,000 [W] should be adopted as the rated electricity consumption of reference fishing lamp.

Establishment of luminous flux of reference lamp

1. Position of this additional information

This additional information identifies the luminous flux of reference lamp which is necessary to calculate N_{REF} (Number of reference lamps, which has the equivalent to the design illuminance into an irradiated sea point by one project LED light of project fishing boat).

2. Research policy

The field research was conducted in October 14th 2016 at an electronic material shop in Quang Tri. This survey comprised of actual measurement of light flux.

3. Research result

The luminous flux values collected in the research are shown in Table 2. According to the research, the highest luminous flux is 97,091 [lm], while the lowest one is 25,988 [lm].

Table 2: Light flux value of lamps sold in Vietnam

| Manufacturer | Luminous flux [lm] |
|--------------|--------------------|
| a | 25,988 |
| b | 93,684 |
| С | 97,091 |

4. Establishment of light flux of reference lamp

As the result of the survey, it can be recognized that 97,091 [lm] should be adopted as the luminous flux value of reference fishing lamp. The reason why the highest luminous flux is selected is that it is required to refer the highest accessible specification in order to conservatively estimate the electricity reduction in replacing LED lamps.

<End of Note>