

Additional Information

“Installation of Inverter-Type Air Conditioning System for Cooling for Grocery Store”

1. Setting of Reference

2 types of air conditioning system, wall mounted type and ceiling cassette type, are used in grocery stores in Indonesia. In Indonesia, air conditioning system manufacturers, such as Company A, Company B and Company C have relatively high market share. Selection of air conditioning system and manufacturers for setting reference COP are shown in Table 1.

Table 1: Types of Air Conditioning System and Manufacturers

Type of air conditioning system	<ul style="list-style-type: none"> ● Wall mounted type ● Ceiling cassette type
Manufacturers	3 major manufacturers (Company A, B and C)

2. Setting of Reference Parameters Fixed *Ex Ante*

The values of cooling capacity and rated power consumption used in the calculation of COP are obtained from product catalogs, specification documents or website of the manufacturers. The survey was conducted in August 2020.

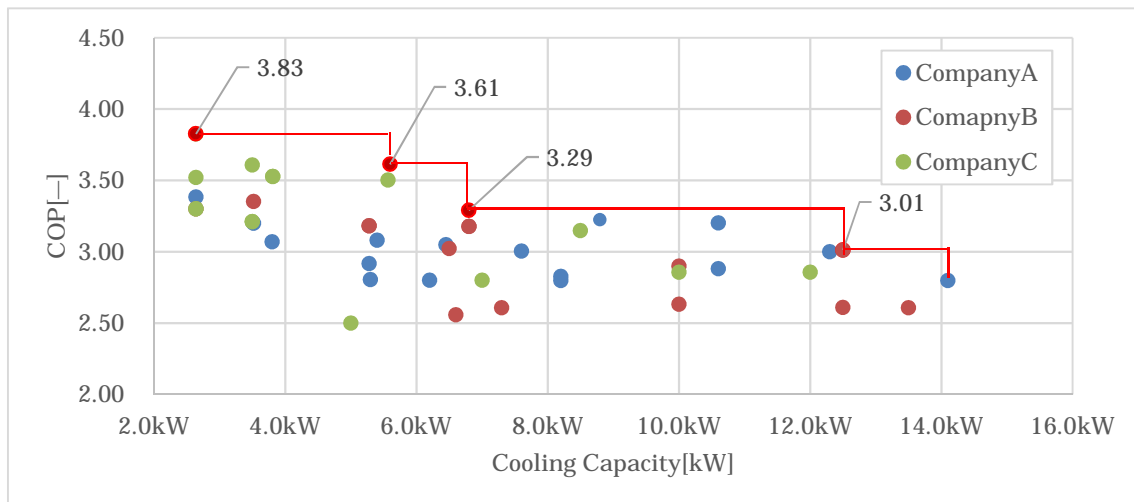


Figure1: COP of Air Conditioning Systems Available in the Indonesian Market

Source: Data quoted from official websites and compiled by the Study Team. (2020)

Based on Figure 1, the COP of reference air conditioning system is conservatively set *ex-ante* in the following manner to ensure the net emission reductions.

- 1.The COP value tends to decrease as the cooling capacity increases.
- 2.The reference COP, at a certain cooling capacity, is set at a maximum value in the

respective cooling capacity range.

3. The maximum values of COP in the respective cooling capacity ranges are defined as COP_{RE} , as indicated in Table 2.

Table 2: COP for Reference Air Conditioning System (COP_{RE})

Cooling Capacity[kW]	Reference COP
$2.6 < x \leq 5.6$	3.83
$5.6 < x \leq 6.8$	3.61
$6.8 < x \leq 12.5$	3.29
$12.5 < x \leq 14.1$	3.01