

ABSTRACT

Electric vehicles are vehicles that run on hybrid electric energy or hydrogen cells. The growth of conventional vehicles has an impact on the increasing air population. There are several types of public vehicles in Indonesia based on Internal Combustion Engine, Hybrid Electric Vehicle, Plug-in Hybrid Electric Vehicle, and Electric Vehicle. In accordance with Presidential Regulation Number 55 of 2019 concerning the acceleration of battery-based electric motor vehicle (Battery Electric Vehicle) programs for road transportation. Acceleration in the development of electric vehicles and their infrastructure is a solution to deal with air emissions towards net zero emissions.

EVCS is one of the public facilities whose existence is needed for people who have electric vehicles. EVCS has a function to recharge the battery power of electric vehicles. Bandung City has 30 sub-districts with an area of 167.67 km², has built 21 EVCS available in 15 sub-districts of the Bandung City area by 2023. In determining the location criteria, candidates have significant activity potential. In determining the location there are criteria listed in the Government Regulation regulations for facility location selection. Based on the Regulation of the Minister of Energy and Mineral Resources article 16 paragraph 1 and 2 of 2023 concerning Refueling Facilities.

The purpose of this problem is to determine the location of SPKLU facilities. This problem can be solved using the location set covering problem method. Based on the results of the set covering problem model with the objective function of minimizing the number of candidate locations of selected SPKLU facilities. The results obtained are that there are 6 candidate locations for the selected SPKLU facility. The selected locations are at miko mall (Babakan Ciparay sub-district), grand cordela hotel Bandung (Cinambo sub-district), public parking lot (Lengkong sub-district), borma department store pasirimpun (Mandalajati sub-district), bumi bandhawa hotel (Cibeunying Kaler sub-district), Dago suites apartment (Coblong sub-district).

Keyword: EVCS, LSCP, Electric Vehicle