

ABSTRACT

PT. Indonesian Telecommunications Infrastructure is a state-owned subsidiary of PT. Telekomunikasi Indonesia, which is tasked with managing infrastructure. One of the businesses they run is a BTS tower plant to meet the needs of PT. Telkomsel. The case examined in this thesis is a case that occurred for areas that are not electrified according to Telkomsel's request data. Because there is no electricity, the regional BTS tower uses the CDC device as a tower generator source. Telkomsel asks TelkomInfra to meet the needs of the device. The existing business carried out by TelkomInfra is to use vendors as processors to meet the company's needs.

This study discusses the selection of the best alternative of the five scenarios about the CDC tools that the company will use. Each alternative considers NPV, IRR and Payback Period, and Incremental Cost to choose the best alternative. There are five alternatives available, namely alternative 1 (CDC device rental), alternative 2 (CDC Investment device), alternative 3 (investment CDC device and IT Tools application), alternative 4 (investment CDC device and device automation), and alternative 5 (device CDC investment, application of IT Tools, and device automation). If in alternative 1 CDC device rental companies must pay the fix cost and variable cost, then if the company invests the costs that need to be paid only variable costs.

The results of this study indicate that these five alternatives are feasible to run because $NPV > 0$, $IRR > MARR (10\%)$, and $PBP < 3$ years. But after an election with Incremental cost, it can be determined that alternative 5 is the alternative with the greatest benefit, namely the NPV value of. Rp.46,753,868,477.54, IRR value of 28%, and PBP for 2,671 years.

Keywords: CDC Devices, IT Tools, Automation, NPV, IRR, PBP, Incremental Cost