

621.319

C26

2010

*DESIGN OF ELECTRICAL TRANSMISSION LINES FOR BARANGAY
SANTA MERCEDES, MARAGONDON, CAVITE*

Design Project

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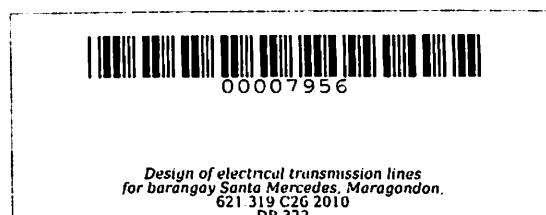
DP 621.319 C26 2010

May 2010

**DESIGN OF ELECTRICAL TRANSMISSION LINES
FOR BARANGAY SANTA MERCEDES,
MARAGONDON, CAVITE**

Undergraduate Design Project
Submitted to the Faculty of the
College of Engineering and Information Technology
Cavite State University
Indang, Cavite

In partial Fulfillment
Of the requirements for the degree of
Bachelor of Science in Electrical Engineering



March Ivan F. Cascabel
Jeff Ryan S. Dimaano

May 2010

ABSTRACT

MARCH IVAN F. CASCABEL and JEFF RYAN S. DIMAANO, Design of Electrical Transmission Lines for Barangay Santa Mercedes, Maragondon Cavite. Undergraduate Design Project. Bachelor of Science in Electrical Engineering. Cavite State University, Indang Cavite. May 2010. Adviser: Engr. Efren R. Rocillo.

The Study for the Design of Electrical Transmission Lines for Barangay Santa Mercedes, Maragondon Cavite was conducted to integrate the lessons learned in Electrical Engineering; the study aimed to propose a design of transmission line system; provide the university a reference for the future researchers; provide electrical plan design and specification on the type and kinds of materials to be used and estimate the project's cost.

The study covered the electrical design of transmission line system that can carry a voltage level supply of 33 KV and be able to deliver the 2.25 MVA power requirement of the receiving substation at a distance of 5.30559 km. The system supported by 62 steel transmission pole structures will make use of an aluminium conductor steel reinforce (ACSR) kind of wire. Sizes of wires and sag calculation were considered in preparing the design.

The output was the soft and hard copy of the design of the Electrical Transmission Lines for Barangay Santa Mercedes Maragondon Cavite plotted using Auto Cadd and blue printed.

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DESIGN OF ELECTRICAL TRANSMISSION LINES FOR BARANGAY SANTA MERCEDES, MARAGONDON, CAVITE^{1/}

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^{1/} An undergraduate design project submitted to the faculty of the Department of Computer and Electronics Engineering, College of Engineering and Information Technology, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for the degree of Bachelor of Science in Electrical Engineering (BSEE). Contribution No. BSEE-2009-10-005 prepared under the supervision of Engr. Efren R. Rocillo.

INTRODUCTION

All over the world, transmission line systems are used to deliver large amount of power from generating plants to different places. This is the reason why electricity reaches almost all parts of the globe. It is designed to cover long distances, and to withstand extreme climatic conditions.

Here in the Philippines, there is an existing transmission system. It delivers electricity throughout the country. Almost all parts of the country are reached by electricity because of the transmission lines. It brings development to every place it reaches.

One of the places where development is evident is the province of Cavite. It is because of the secure supply of electricity. It contributed largely to the industrialization and commercialization of the province. It gives way to more job and business opportunities for the Caviteños. Behind its progress, there are still areas in the province