



HELP DESK SUPPORT SYSTEM

A Major Project
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In Partial Fulfillment
Of the Requirements for the Degree of
Bachelor of Science in Information Systems

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Chapter 1

Information Systems Assessment and Framework

1. Organizational Profile

1.1 Legal Mandate

Davao Light and Power Company is the third largest privately-owned electric utility in the Philippines. It holds the franchise for distributing electric power to Davao City, the largest city in the world in terms of land area, as well as Panabo City and the municipalities of Carmen, Dujali, and Sto. Tomas in Davao del Norte. On September 29, 2000, the franchise was renewed for another 25 years by virtue of Republic Act 8960.

In 2011, the company sold 1.583 billion kilowatt-hours to 294,159 customers with a peak demand of 288 megawatts (MW). Among the country's most efficiently run power utilities, its systems loss rate of 8.44% is below the government mandated cap of 8.50%.

Davao Light & Power Company (DLPC) is the power distribution utility in Davao City, Panabo City and Carmen, Santo Tomas and Dujali municipalities in Davao del Norte.

Davao Light operates in a Geographic Information System which has the Automated Tools for Locating Assets (ATLAS) as one of its subsystems and utilizes the Supervisory Control and Data Acquisition (SCADA) Systems for the whole franchise, which allow remote control and monitoring of distribution facilities.

Davao Light has close to 295,000 customers, with 23 distribution substations and 2 sub-transmission substations strategically located throughout its franchise. On hot standby is its 54.8 MW Bunker C-fired standby plant with a rated capacity of 58.7 MW, but can provide an average of 40 MW on a sustaining basis. The standby plant is capable of supplying 19% of Davao Light's electricity requirement.

High-end computers, sophisticated software, and other devices are being used to speed up meter reading, streamline billing, provide efficient and prompt response to customer inquiries, generate management information, and analyze electrical grid information.

Special attention has been devoted to improving Davao Light's service standards. Innovative re-engineering efforts have cut down service cycle times. Outsourcing of tasks and reallocating manpower and other resources has allowed the utility to improve productivity while keeping costs relatively stable. Current efforts focus on teamwork, service excellence, and professionalism, in preparation for a deregulated and competitive environment.

Now and in the future, Davao Light is committed to deliver reliable and efficient service at reasonable rates.

1.2 Vision and Mission Statements

Mission

We aim to be the country's leader in providing electric power and related services by becoming a world-class electric distribution company.

The ultimate satisfaction of our customers is the driving purpose of our existence.

We aspire for excellence in everything we do by adhering to the highest standards of professionalism, by making integrity the foundation of all our relationships, and by focusing on the unlimited potential of our people.

We are a responsible partner on the road to progress and development, essential to our community's collective hope for a better life.

We will light the way.

Vision

We are an electric company committed to deliver, at the most reasonable cost, safe and reliable electric service to the people and the commercial and industrial establishments of the cities of Davao and Panabo, and the Municipalities of Carmen, Dujali and Sto. Tomas.

We affirm that the ultimate measure of our success is the satisfaction of our customers.

Corporate Philosophy

Corporate Social Responsibility.

1.3 Strategic Thrusts and Programs

1.3.1 Strategic Thrusts:

Special attention has been devoted to improving Davao Light's service standards. Innovative re-engineering efforts have cut down service cycle times. Outsourcing of tasks

and reallocating manpower and other resources has allowed the utility to improve productivity while keeping costs relatively stable. Current efforts focus on **teamwork, service, and professionalism**, in preparation for a deregulated and competitive environment.

Professionalism

Davao light aspire for excellence in everything they do by adhering to the highest standards of professionalism, by making integrity the foundation of all our relationships, and by focusing on the unlimited potential of their people.

DLPC is a electric company committed to deliver, at the most reasonable cost, safe and reliable electric service to the people and the commercial and industrial establishments of the cities of Davao and Panabo, and the Municipalities of Carmen, Dujali and Sto. Tomas.

Service

They affirm that the ultimate measure of their success is the satisfaction of their customers.

With 23 distribution substations and 2 transmission substations strategically located throughout its franchise, Davao Light served a customer base of 281,234 residential, commercial, and industrial users as of 2010. Of the total, roughly 87 percent were residential, 12 percent commercial, and 1 percent industrial. A small portion belonged to streetlights and government institutions. These customers consumed 1.548 billion kilowatt-hours during the same year.

The number of Davao Light's customers has been increasing at a cumulative average growth rate of 3.99 percent for the last five years with energy consumption likewise rising by 4.23 percent. Together with these growth rates, the company's level of service and responsiveness to its customers is similarly rising and considered being among the best in the country.

Teamwork

Davao Light has time and again proven itself to be a conscientious and enthusiastic partner of Davao.

The street lighting program implemented in 1996 in conjunction with local government units has made its franchise one of the highly energized urban areas in the Philippines. As of December 2010, the company has installed over 41,319 lamps, free of charge, thereby giving its citizens adequate and sufficient electrical facilities both day and night. An added factor that benefited both Davao Light and its customers is the fact that crime

indexes have noted to shot down in every barangay where the company has put up these lamps.

One major responsibility of Davao Light in its acquisition of the franchise to distribute power to its area of responsibility is to reach out to as many places as it can for it is not constrained by corporate limitations. This is in fact the guiding principle that is being followed by the company as it aims to become an ideal corporate citizen in the island of Mindanao. To date, 100% of the barangays in the franchise area have access to electricity based on Department of Energy's guideline in implementing rural electrification.

1.3.2 Programs:

Educational Support Programs

Education is likewise treated with value by Davao Light as attested by its educational support programs in association with AGFI. As of late, over 60 computers and related equipment have been donated to selected high schools within its franchise. To date, a total of 23 school buildings costing P29.9 M have been constructed in the districts of the electric firm's area of operation.

In September 2002, Davao Light spearheaded the creation of the Davao City 911, also known as the Davao City Central Communication and Emergency Response Center (DCCERC). With its launching, Davao City made the Philippines the only country after the United States and Canada to adopt the system.

Emergency Computer Aided Dispatch

911 is a new unit under the Davao City Mayor's Office composed of personnel who were trained to accept emergency calls, and accurately locate and dispatch requests to emergency service providers such as the police, fire departments, and hospitals for ambulance service. The 911 service initially supported the mobile operations of the police.

The software used by the Davao City 911 is called Emergency Computer Aided Dispatch (ECAD), a sophisticated computer program developed by Davao Light and designed to locate the caller and the emergency service providers with pinpoint accuracy anywhere within the city.

The ECAD is a customized version of the original computerized mapping system of Davao Light called "PowerOne". It was originally developed to accurately locate Davao Light's customers through its poles. Just like PowerOne, the ECAD has a detailed visual representation of Davao Light's franchise, which includes even the smallest alleys.

As a gesture of goodwill, the ECAD worth around P1M, was donated by Davao Light through its social development arm, the Aboitiz Group Foundation, Inc. (AGFI).

Other donations of Davao Light/AGFI were the PABX equipment, computer server and electrical wirings valued P600Th, P105Th and P 85Th respectively. Certain modifications were also made by Davao Light Electronic and Radio Engineers to expand the capability of the Davao City 911 communication system.

Due to the success of the Davao City 911 in immediately responding to emergency calls with the aid of ECAD, initial services of Call Center and Police Assistance have been expanded to include four other areas namely Urban Search & Rescue Services, Emergency Medical Services, Fire Auxiliary Services and the K9 Unit.

For improved Fire Auxiliary Services, Davao Light donated two (2) 45-Footer Bucket Trucks to the Davao City Government for the 911 operations last March 2005.

2. Capturing the Current System

2.1 Events List

Application

1. Customer submits requirements for new service connection application
2. Customer request for the assessment of fees
3. Customer pays the service fee

Payment

4. Customer request for allowable partial payment
5. Customer pays the electric bill

Customer Assistance

6. Disconnection
7. Change of Account Information
8. Reconnection
9. Transfer of Electric Meter