

# **Carmen Incumbent Council For water System**

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# ABSTRACT

The "Carmen Incumbent council for water billing" System is an application for maintaining a person's billing in a water. In this project I tried to show the working of a water billing system and cover the basic functionality of a water billing System. To develop a project for solving time consuming applications of a customer in Employee environment in order to nurture the needs of an end water Board user by providing various ways to perform billing tasks. Also to enable the user's workspace to have additional functionalities which are not provided under a conventional water billing project. The water billing System undertaken as a project is based on relevant technologies. The main aim of this project is to develop software for online water billing System. This project has been developed to carry out the processes easily and quickly, which is not possible with the manuals systems, which are overcome by this software. This project is developed using visual studio, HTML language and MYSQL use for database connection. Creating and managing requirements is a challenge of IT, systems and product development projects or indeed for any activity where you have to manage a contractual relationship. The project analyses the system requirements and then comes up with the requirements specifications. It studies other related systems and then come up with system specifications. The system design is then implemented with MYSQL, visual studio and HTML. The system is designed as an interactive and content management system. The content Billing system deals with data entry, validation confirm and updating whiles the interactive system deals with system interaction with the administration and users Keywords : Consumption Evaluation, Efficiency, Household, Water Consumption

### I. INTRODUCTION

In current cities, households have a significant fraction of total water production [1]. To control this situation, the Spanish Public Administration has run several campaigns to promote the responsible use of water, thanks to which the consumption in Spain has been reduced. Some of those awareness campaigns are: The objective of this program was to reorient water policies towards ensuring the sustainability of use, in terms of quantity and quality, raising the efficiency in water use and minimizing the cost of supplying it, saving water resources amounting to 1,100,000 m<sup>3</sup> annually by fostering demand management, recycling water and encouraging efficiency in water consumption [2]; The current

National Plan for Water Quality (2007–2015) was created to accomplish the environmental objectives that were established in the Directive 91/271/EEC by 2015. This plan is focused on collecting, treating and discharging urban waste water [3]. Although the previous campaigns have had good results, the reduction is not enough. For instance, the current policy from Melbourne [4] expects a 40% reduction in water consumption per resident by 2020 from 2000 levels. Analyzing the data of Figure 1, which shows the evolution of water consumption in Spain, the reduction reached from 2000 to 2010 was only 14%. The main problem is that customers do not know if they are making good use of this resource in full.



Figure 1. Evolution of water consumption in residential buildings [5].

Water consumption can be divided into two different types of use: cold water and domestic hot water. It should be noticed that domestic hot water involves extra electricity consumption, which is important to be taken into account when using this resource, due to this consumption representing 18.9% of the final energy consumption of households [6].

The aim of this paper is to propose a new way to improve the contents in water bills by adding a new water label that allows for checking the efficiency of water use. Furthermore, this information is compared to the average consumption value of city from the same province. To go further in city awareness about this subject, some recommendations should also be included, which will help to reduce water consumption.

This paper is organized into several sections. Firstly, Section 2 presents the literature review related to this work. Section 3 describes studies about Spanish housing water consumption, water use distribution, a survey together with collecting data and the reasons for incorporating a section with recommendations. After that, it describes the water labels and how they should be incorporated in the bill. Finally the paper finishes with the conclusion.

First of all, before starting to develop improvements in water bills, reviewing the existing system for pricing urban water is necessary.

The urban residential water pricing has some costs that are usually jointly funded by the State and the water company. These costs cover a substantial part of the investment costs, a substantial part of the opportunity costs and a part of the environmental costs. To cover those cost, water companies have three different methods

- A uniform rate (UR) price, where households pay a single volumetric marginal price at all levels of consumption;
- Increasing block-rate (IBR), where higher marginal prices are charged for higher quantities consumed;
- Decreasing block-rate (SBR), which are stacked in the opposite direction than the IBR case.

Energy management and water efficiency have to be proven. To reduce the consumption of potable water for sanitary use in new buildings through the use of water-efficient components and water recycling systems

## II. RELATED WORK

[1] To complete the study, giving information about the distribution of consumption was considered advisable. The research carried out by the Water Technology Institute of the Polytechnic University of Valencia [24]consisted of a study of a sample composed of 64 building apartments without a garden, located in four different villages on the east coast of Spain, and the measurements were performed during 807 days. The final distribution of water use obtained in this study is the following: faucets (38.6%), toilets (22.2%), showers (19.9%), clothes washers (9.7%), leaks (8.9%) and, finally, dishwashers (0.6%). The average water consumption considered per property and day was 334.1 liters.

[2] After analyzing the previous studies, it was considered appropriate to check the previous values and to obtain more data. To validate the data of total water consumption, it was decided to carry out a survey where the information was collected through a webpage [31]. To fill out the survey, users were asked about the main characteristics of the house, such as the size, number of tenants, province, water billings of the last few months, and so on.



**Figure 4.** Water label in a bill. (**a**) Historical consumption, your historical daily water consumption; (**b**) water label for the last month.

## III. Methodology

CIC-Water System is a web-based application. It will design for better interaction between customers, Water department. The main purpose of building this application is, Now a day's peoples are very busy, so they can't properly collect their water bill information, so using this website customer can easily track Water bill information in online only in properly and regularly.

The main purpose of this project is aimed at developing a system which reduces work burden of employees of the organization. Every Organization has some maintenance and budget planning's. Some times in manual process there is a possibility to get errors. To overcome these difficulties and time being best to use this type of application. In this the employees in the organization submit the bills to their managers. The bills could of various types and also of various amounts. The water bill will post through a user and the owner can view the status of the water bill at any time. An email will be sent to the people to let them know about the status of the bill.

### Advantages :

The development of the new system contains the following activities, which try to automate the entire process keeping in view of the database integration approach.

- User friendliness is provided in the application with various controls.
- The system makes the overall project management much easier and flexible.
- It can be accessed over the Internet.
- Various classes have been used to provide file upload and mail features.
- There is no risk of data mismanagement at any level while the project development is under process.
- Report generation feature is provided using Crystal Reports to generate different kinds of reports like bar graphs, pie charts and table type charts etc.

#### IV. CONCLUSION

This was my project of System Design about "CARMEN INCUMBENT COUNCIL OF WATER" Development of this System takes a lot of efforts, I think this System gave a lot of Satisfaction, though every task is never said to be perfect in this development field even more improvement field even more improvement may be possible in this System. I learnt so many things & gained a lot of knowledge about development field I will prove truth faithfully

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