Chapter 8.11
Strategic Decisions for Green Electricity Marketing:
Learning from Past Experiences

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ABSTRACT

Green electricity (GE) has emerged as one of the most interesting instruments for promoting renewable electricity in liberalized markets, at least in theory. Indeed, some experiences have already been carried out, mostly in the U.S. and Europe. However, most of them have been largely unsuccessful. In this chapter, we look at previous surveys and studies carried out on customer response, and provide a review of the most relevant results achieved by GE experiences, in order to learn from them. As a result, we provide what we believe are the key strategic recommendations for green electricity retailers to launch a successful GE program. Although the green electricity market remains a difficult one, several improvements can be achieved by learning from past mistakes and carefully analysing the alternatives and the boundary conditions.

INTRODUCTION

Now that the risks of the current energy mix are being recognized and awareness of the benefits of electricity production from renewable energy sources has become widely extended, there is a general consensus on the need to stimulate technical progress and development of renewable electricity sources. However, there is still controversy about which should be the instrument chosen to achieve these objectives. Indeed, a wide array of support schemes and policies have been introduced with the aim of stimulating competition with conventional technologies, the

most used of which are feed-in tariffs, subsidies, or renewable energy quotas (see e.g., Del Río & Gual, 2004).

One of these instruments, which in principle is well suited to liberalized markets, is green electricity. This consists basically of the possibility for electricity retailers to offer a differentiated product, electricity produced from "green" sources, charge a premium for it in order to account for the extra cost of these green sources, and let the customer decide whether to accept the offer and pay this extra amount or to not accept it. It is a voluntary mechanism based on product differentiation and relying exclusively on market forces.

Green electricity may take the form of "green pricing" (Moskovitz, 1993) in regulated markets, whereby consumers may pay a premium to their electric utility in order to be supplied with electricity from renewable energy sources or increase the contribution of renewable energy into the system. In competitive markets, this is also known as "green power marketing," the difference being that customers may have a choice of different suppliers and products, and therefore switch between them. However, the concept is essentially the same, and hence we will consider both under the same "green electricity" name.

On first inspection, it seems that green electricity programs are then a quite straightforward and market-based approach to promoting renewables. The problem is, this is not as easy as it may seem.

A first problem is how to define "green." Usually, green means renewable electricity: hydro (large and small), wind, biomass, solar, and other minor ones such as geothermal, wave, or tidal energy. Of course, it would be arguable that some renewables are "green" in the sense that they do have large impacts on the environment. In fact, some programs exclude large hydro due to this reason. In addition, sometimes other non-renewable electricity is also included in "green" programs: co-generation is sometimes included because of the environmental benefits it provides

to the system (due to its higher efficiency in energy conversion). The fact is that there may be differences in customer response depending on the type of energy included in the program, but in the end, most of the analysis applies to all types described. So, for practical purposes, we will consider "green" equivalent to "renewable."

But the major problem is that, although many experiences have been carried out with green electricity retailing in different countries, none of these experiences has been truly successful, due to the complex issues lied to this option: green energy definition and certification, customer response, specificities of the electricity markets, and compatibility with other renewable electricity support policies.

Let us put as an example the green electricity programs launched in Spain during 2004. The major Spanish utilities offered their customers the possibility of consuming electricity only from renewable sources, mostly hydro and wind, at a quite small premium (around 15%). Each of them devised large publicity campaigns and built customer service centers specially devoted to this issue. Given that Spain is one of the European countries with the largest contribution of renewable electricity, and that the electricity retail market was just being liberalized, it seemed a good business opportunity. However, after some months, the real participation in the program was less than 1%, and in fact all programs were discontinued after less than 1 year. It seems that many elements in this strategy were mistaken, as has happened with many other programs around the world.

In this chapter, we aim to learn from these experiences in order to provide recommendations on how to successfully market green electricity. We first look at the most salient of the considerable number of surveys and studies carried out regarding green electricity and consumer willingness to pay for it. Second, we provide a review of the results achieved in the most relevant real green electricity programs. By looking at these

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