Executive Summary

Now more than ever, the public is making its preference for environmentally sensitive products clear. It's a revolution known as green consumerism. Symbolic behaviors of green consumerism include recycling, preferential buying of organic products, and implementation of energy efficiency measures among others. This customer behavior has prompted the advent of specialty companies and now it's starting to make an impact on electricity generation.

Green power technologies, such as wind or solar power, have been around for years, yet many utilities don't include them as part of their power mix. As a matter of fact, many actually see customer demand for green power as a nuisance. It means they have to build a green power generating facility, develop a green pricing program, market the benefits of this power, and develop customer service infrastructure to handle the new product. Not to mention that green power is more expensive to generate than fossil-fueled power.

In response to this growing customer demand for renewable energy, a concept called Green Tags has developed. Green Tags, also known as Green Certificates, Renewable Energy Credits (RECs), and Tradable Renewable Certificates (TRCs), among other monikers, represent the social and environmental attributes of a measured quantity of green power. They occur because while green power costs more than conventional power, it also provides environmental benefits. Utilities that offer a green power pricing option sell the power and the environmental benefits in one package at a higher price than conventional power is sold for. But that's not the only way to do it. The electricity generated from green power can be sold at that same price as conventional power in the wholesale market and the environmental attributes can be separated out. Then, the environmental attributes can be sold as green tags to make up the extra cost.

Green tags offer an innovative strategy for giving customers the opportunity to support green power instead of fossil or nuclear power regardless of whether or not their local utility offers a green pricing program. Utilities can continue selling customers their current mix of power while customers support green power on their own by purchasing green tags through a green tag marketer. Another possibility is for utilities to use the green tags as part of their green pricing programs. They can use them as a tracking and accounting tool to simplify the entire process of including green power in their mix by just purchasing the tags instead of the green power which may be produced far away and therefore be expensive to transmit to the utility's customers.

Retail electricity suppliers also benefit by using green tags. They can simplify the process of buying and selling power by making it easier to track the amount of power that's being produced by green power facilities and the total number of green power sales. Increased sales of green tags make it easier to market the leftover power in the wholesale market.

Green tags are also beneficial for residential and commercial customers. They are able to offset their own individual use of fossil fuels by tapping into green power resources and promoting the implementation of more green power facilities. Customers can also enjoy a certain peace of mind knowing that they are essentially improving the mix of

power in the grid. The more green power in the grid, the less fossil and nuclear power generated.

Corporate customers benefit by now having the ability to "aggregate" green power purchases for facilities across multiple utility service territories, states and countries. Many commercial customers have an environmentally friendly business philosophy, and green tags are a good way for them to express that philosophy. In fact, the leading motivation for small and large business purchases of green power is a concern for public image, civic responsibility, and employee and shareholder morale. Large industrial customers can actually earn financial benefits from green tags by using them to displace their own emissions.

However, many believe that none of these benefits could be possible without a neutral third party to certify the green tags. They feel that someone must ensure that every green tag represents the environmental attributes of a measure of green power that was actually created and used in the place of fossil fuel or nuclear power. Otherwise, the system loses credibility.

In the U.S. there are several different organizations that play this third party role. Most of these organizations are non-profits. One is the Green-e green power certification program. Green-e is administered by the Center for Resource Solutions and gives customers a quick and easy way to identify environmentally friendly electricity products. Green-e only certifies green power products that meet their environment and customer protection standards. Through these efforts, Green-e hopes to expand the retail market for green power products and for power from cleaner non-renewable generation.

Currently, green tags are being used in both the U.S. and overseas despite the lack of a universal standard for their creation, sale, distribution, verification and retirement. Green tags face challenges that fall into three basic categories. They include: (1) legal property rights to the intangible environmental attributes; (2) customer protection from misrepresentations and fraud; (3) the development of a trading system that will protect against double counting or double selling of the same green tag. Green tags also face many of the same challenges that other green markets have faced in the past. Namely, definitions of which renewable resources are valuable in the market and eligible for various programs.

Rules governing green tag transactions that address these challenges are currently being developed primarily through the marketplace in the U.S. There are numerous organizations venturing into the unknown green tag market, and every one of them does things a little differently. Some groups are non-profits that are primarily concerned with protecting the environment. Some are retail energy marketers working with utilities to help them implement green pricing programs. Some are utilities or marketers that sell green tags as their green program. Whatever the case, they all hold the same goal of increasing green power generation and sales.

Europe is approaching green tags from a slightly different perspective. Europeans see green tags as a way to integrate green power in the wholesale market in order to fulfill the requirements of the Kyoto Protocol. The European Union (EU) has instituted several projects to help them understand how best to incorporate green tags in their increasingly liberalized market. Also, a private group of businesses called the Renewable Energy Certificate System (RECS) has taken the lead in developing their own green tag

marketing system that they hope others will join once they are convinced how workable it is. Plus, many countries are working on their own individual markets rather than waiting for the EU to develop a system. The ultimate challenge will be uniting these individual plans into one international market.

Efforts are also being made in Australia, Canada, and Japan by both the government and businesses. The government is concerned with increasing green power as an alternative to nuclear power. They want to support power sources that allow them to be self-sufficient while helping them reach their Kyoto Protocol targets at the same time. Green power seems to be the obvious answer. Discussion still continues on the best possible method for implementing a green tag market. While the Japanese government debates the issue, a group of power companies decided to launch their own green tag market. One group called Japan Natural Energy Company regulates the entire process.

The environmental benefits embodied in each green tag don't just affect the country they are produced in, nor do they only help the country that bought them. The environmental attributes that are manifest in green tags benefit the entire world by decreasing the risk of global warming and reducing pollution on a worldwide basis. Therefore, it's easy to see why green tags are catching on all over the world.