

SEGMENTING THE MARKET FOR BROADBAND OVER POWERLINE TECHNOLOGY

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The prospect of offering broadband service over power lines (BPL) is one which is not only intuitively attractive and generally well received; it seems to represent a tremendous marketing opportunity. For the user, the concept is simple, convenient and appealing, turning every outlet into an Internet connection. For utilities, it seemingly represents an alternative use for an existing network and a new business opportunity with a recurring revenue stream; and the opportunities extend beyond these considerations. This concept would initially seem to open up possibilities to offer high-speed Internet service in areas currently not highly penetrated by cable or DSL – those areas typically served by more aggressive rural electric cooperatives and municipal utilities. Also, important ancillary benefits are frequently not discussed such as outage detection, automated meter reading and other remote monitoring capabilities and opportunities. However, the reality is that technical and equipment/infrastructure considerations make very low density markets less attractive.

The challenge of all these considerations is that while opportunities abound, numerous questions about strategy and marketing issues are not easily resolved. As Cinergy Ventures and Current Communications began their efforts to market this technology to the cooperative and municipal markets, this apparent wealth of opportunity also made initial strategy development challenging. In light of this, research was conducted among Municipals and REC's around the country to understand their approach, interest, and potential.

The targeting of rural electric cooperatives and municipals for BPL has several logical appeals. The most straightforward of these is that broadband has lower penetration in these areas – as such, an alternative ought to have greater potential. DSL and cable have gained enormous penetration, but this has predominantly been in more densely populated areas. Secondly, these somewhat smaller utilities tend to be decidedly less bureaucratic than the typical IOU. With respect to both these assumptions, the findings of this research are supportive.

First, with respect to broadband and Internet penetration, to date, areas outside major metropolitan areas have been lagging in their connectivity. Our own research with cooperatives indicates total Internet penetration to be between 50 and 60% - with high-speed connections representing about 20% of that total. Nationally, total connectivity is now around 70% of households, with over one-third of that being broadband. Surprisingly, when we asked these utility managers to estimate their Internet penetration, they gave numbers which looked more like the national norms. This suggests that non-urban penetration is experiencing tremendous growth, or that these managers don't really know and are reporting what they have heard nationally, which seems most likely.

Of course, regardless of broadband penetration, BPL can compete on speed, convenience and price. The fact remains that cooperatives and municipals are less bureaucratic, as evidenced, in part, by the extent to which these utilities offer other products and services. The vast majority (85% of those interviewed) currently offer something besides electricity. Those few who don't offer other products or services are most likely to be smaller municipals. Only in the case of Mississippi was it suggested that the law does not allow them to sell other products and services. In most cases, for those who don't see themselves expanding beyond energy, it is a conscious management focus upon a core competency. They feel "this industry is littered with failures."

Given this, it should not be particularly surprising that the inventory of other products and services offered tends to skew toward energy-related choices. Of the six products/services currently being offered by 20% or more of those interviewed, five of these are energy-related. The other two services, long distance and dial-up Internet, can be seamlessly and effortlessly offered, and generate recurring revenue. Those offerings with low levels of penetration are conversely not energy-related or they require physical equipment or infrastructure – propane, security systems, satellite, etc. In other words, penetration has been driven by proximity to core competencies and ease of entry. (Products Currently Offered)

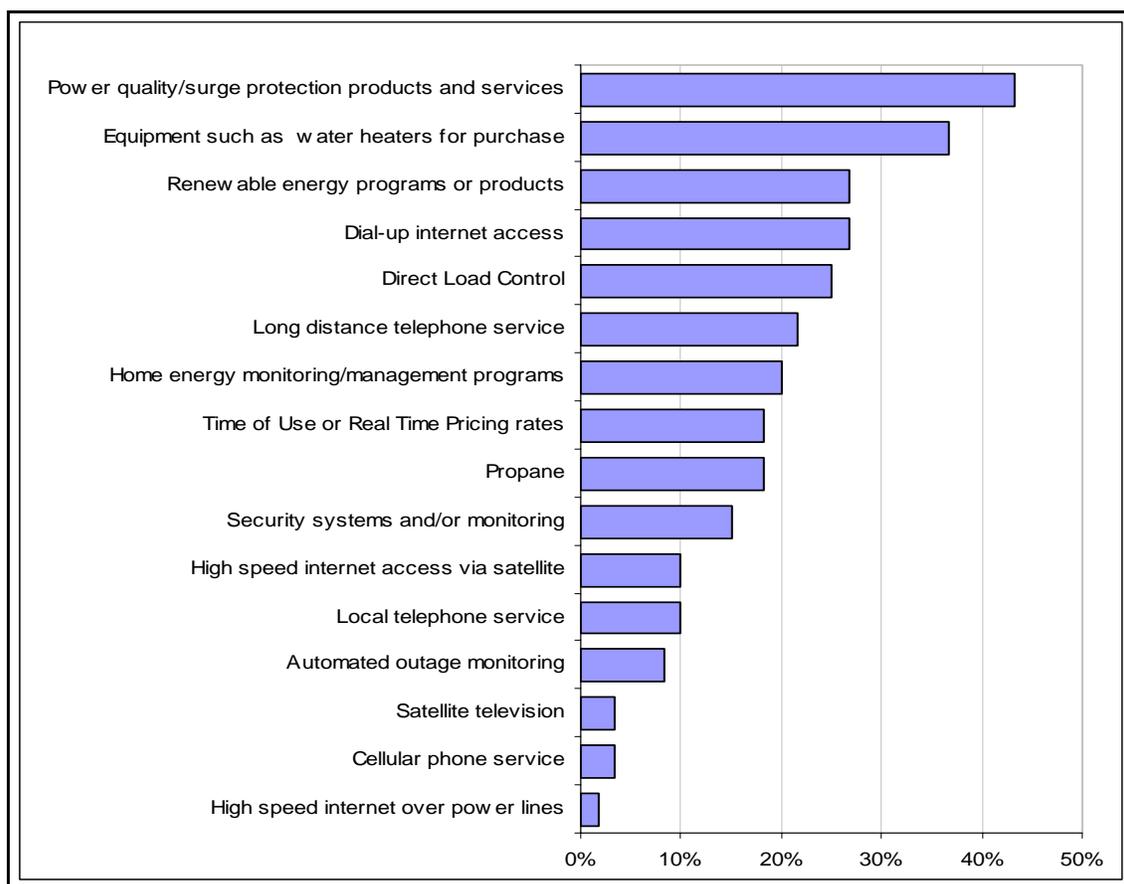


Figure 1

Not only is alternative product penetration reasonably high (and other product likelihood even higher), the decision process generally seems to be fairly expeditious. The fact is, of those making decisions to offer products or services, 80% of these business decisions were made in less than a year. Compared to the process which many IOU's have endured over similar issues, this is lightning fast.

By most any measure of entering into a new business, doing so in a year or less must be regarded as a fairly fast pace. However, if one reflects upon the products we are discussing residing in their core competencies and having great ease of entry, perhaps this speed is less surprising. If these utilities are just branding or endorsing another telephone network, there is little in the way of commitment or risk, time or resources. And for most businesses, the risk of time and money can serve as a barrier.

Interestingly, however, these organizations are fundamentally more customer-oriented than fiscally predisposed. Respondents were asked to evaluate a variety of criteria relative to their importance in the utility’s evaluation. They used a 3-point scale, where the higher the number the more important the criterion. The criteria, which as a group received the highest importance rating, were the Customer Considerations. Given the nature of cooperatives and municipals, this should not come as a surprise. These organizations exist to meet the needs of their members or customers. They are not typically as financially driven as for-profit public companies. Rather, they make decisions in light of their customers. This orientation can be seen in their ratings of statements surrounding the needs and interests of their customers.

Table 1

Customer Considerations	
Filling a customer need for the product or service	2.8
The reputation of the company offering the product/service	2.7
Creating a stronger customer relationship	2.7
Offering customers a product or service they cannot currently get	2.6

This is not to say that financial issues are unimportant. Nonetheless, as we discussed relative to ease of entry into a product or service business, it is the initial investment that matters most.

Table 2

Financial Considerations	
The initial investment required	2.6
The payback time for the upfront investment	2.4
The return on investment	2.3
Developing a recurring revenue stream	2.2

It’s not about making money – it’s about meeting customer needs in an affordable fashion. In this context, it is interesting to consider the perceived source of funding for new products or services. Consistent with their concern about the initial investment and their interest in the customer, the majority of those responding envision funding their investment out of cash flow. They do not want to burden the customer with charges and are less likely to borrow than make do with existing monies.

In fact, in the spirit of ease of entry, 30% of those interviewed have allowed third parties to connect equipment to their systems – and, in total, 80% either has already done so or would allow third-party connections. Their interest is in the customer and meeting customer needs, assuming the initial investment can be funded.

Surprisingly, community issues were not as highly weighted in decisions about new products and services. This seems surprising given the inclusion of municipals and the general interest in the common good of cooperatives. However, in both cases, it may be likely that the community is viewed in concert with the customers.

Table 3

Community Considerations	
Economic development	2.4
Being able to offer the product to all customers in the service area	2.4
Regulatory issues	2.3
Ability to offer customers a better deal or lower price	2.3
Maintain/increase tax base	1.6

Having reviewed current behavior among these organizations in terms of offering products and services, we can turn to consideration of interest in broadband over power lines. Given that these organizations are already offering a number of products and services, the prospects for interest in BPL seem good.

The first step toward interest is familiarity with the technology - and familiarity is high. Over 90% of the respondents indicated some level of knowledge. While less than one-third is “very familiar,” these findings suggest that there is already information about the product available and that these target utilities are taking note. Yet, an initial review of the level of interest in BPL indicates that almost one-half of the respondents had no interest, and just 13% were “very interested.”

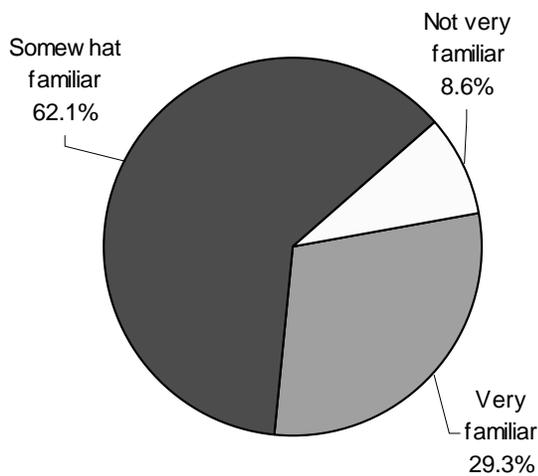


Figure 2

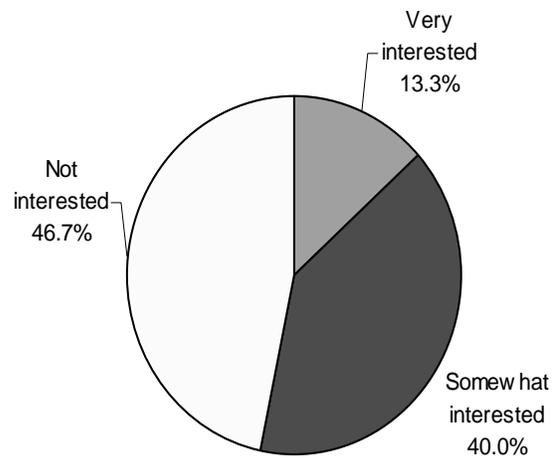


Figure 3

Of course, this finding needs to be considered in the context of how these cooperatives and municipals react in general to offering additional products and services. While the initial finding may seem to indicate weak interest, high-speed Internet over power lines garnered *more* interest than any product or service except for automated outage monitoring. Additionally, it garnered far more interest than other Internet-related options.

Interestingly, these findings suggest that BPL is viewed more in terms of a core competency product than many others offered. The other products that generated high levels of interest are all related to these core competencies and included real time pricing, renewable energy programs and home energy monitoring. It seems that because BPL uses the utility lines, it is viewed differently from other types of Internet services. As a result, only 25% showed any interest in offering Internet over satellite, and 12% were interested in offering dial-up Internet service. (Interest in Offering Specific Products/Services)

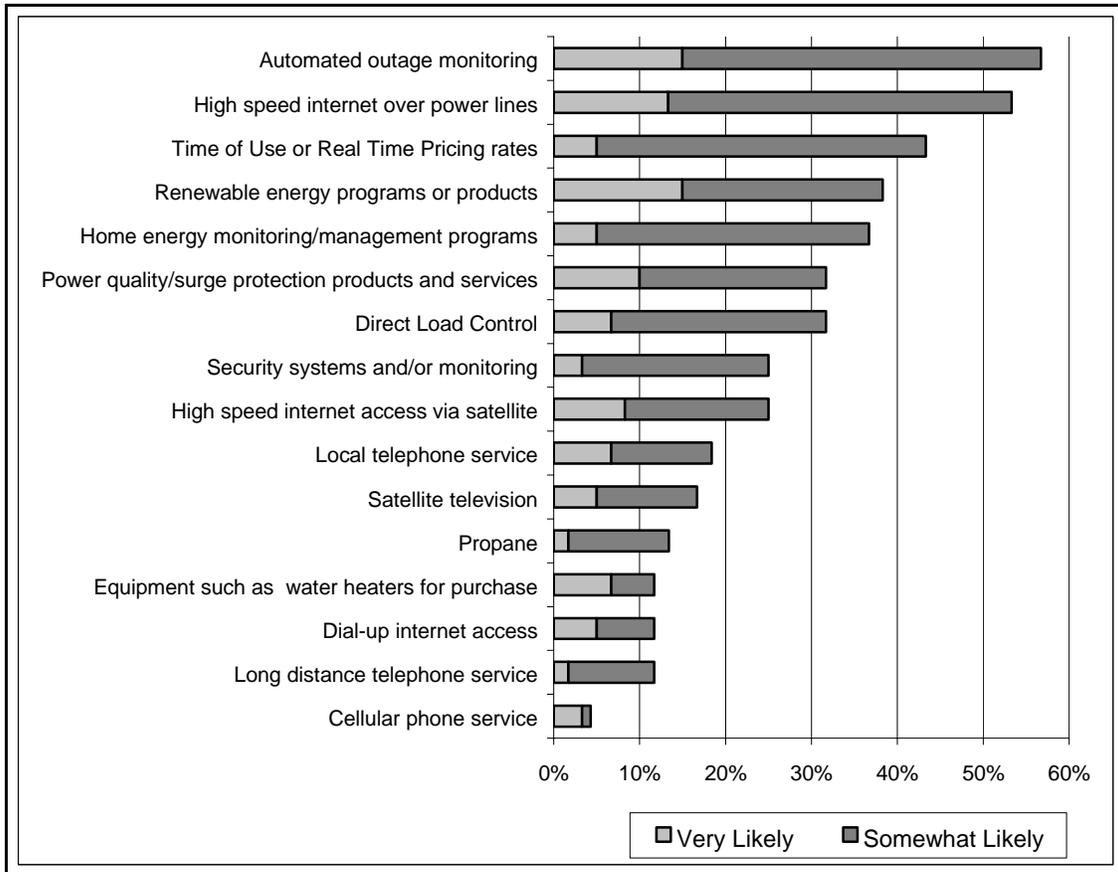


Figure 4

While the percentage of respondents that indicated being very likely to offer BPL is not high, in part this seems to be a function of the fact that familiarity with the product is fairly cursory. The likelihood to offer increases with familiarity, suggesting that once potential customers learn more about the product their interest levels will increase further. (% Very Likely to Offer BPL by Familiarity)

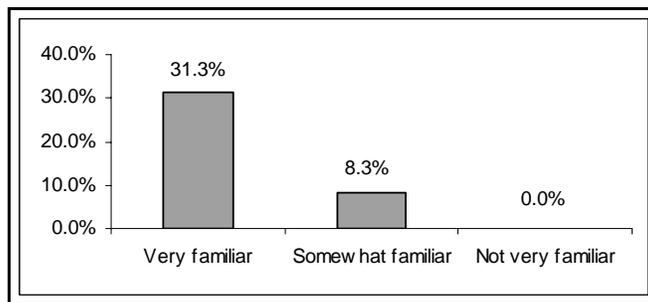


Figure 5

These initial findings regarding the viability of marketing BPL to this audience are encouraging. There is even more reason to be encouraged based on how these organizations react to the new technologies and services they would be able to take advantage of through BPL. Given the fact that past product offerings have tended to focus on core competencies, it's not surprising that there is great interest in services like automated meter reading, outage detection and more efficient demand side management programs.

Nonetheless, the strength of interest is still a bit surprising. At least 50% of the respondents indicated being *very interested* in each of these offerings, and when those who are “somewhat interested” are included, interest is almost universal. The fact that BPL will enable cooperatives and municipals to take advantage of these programs should be a strong selling point in generating a great deal of consideration. In fact, given the strength of the response to these programs, marketing these benefits may be a good way to “get in the door” and create interest in the BPL product. (Interest in Additional Services/New Technologies)

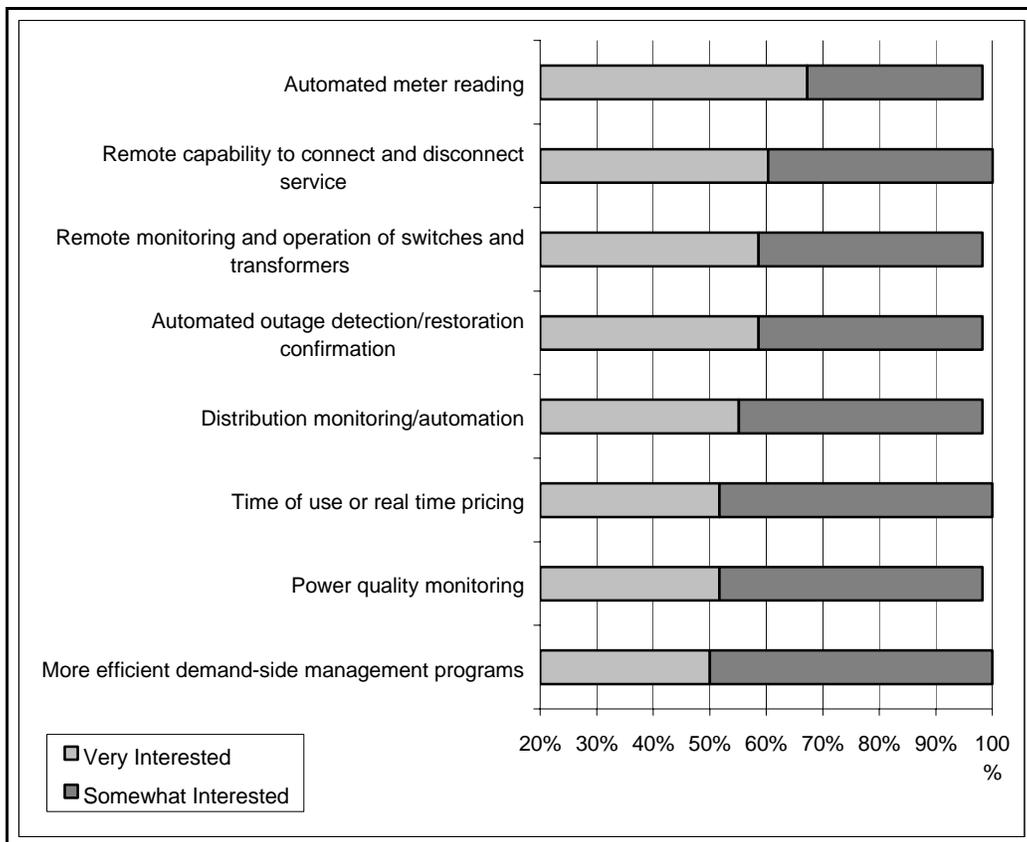


Figure 6

The research indicates that in terms of their consideration of products and services the differentiating factors are not size or population type. Almost everyone is offering products and services, and the key driver seems to be customer focus. At the same time, three distinct dimensions of the decision process were identified – customer issues, financial issues and community issues. These attitudinal differences toward product development seem to offer a potentially viable way to segment the potential audience – and perhaps to position the product.

Customer Focused

First consider the Customer Focused Segment. About one-third of the companies (33%), indicate that customer issues are paramount. These companies give high priority to filling customer needs and creating a stronger customer relationship. As a result, they also value the reputation of the company that offers the product.

This group expresses little concern regarding financial or community issues. The return on investment or ability to create a revenue stream is just not valued. It is also worth noting that these companies are not especially concerned about offering customers the lowest price. They are more interested in offering products and services that are high quality rather than low price.

The products they currently offer relate more closely to core competencies, or things that meet a customer need such as propane, water heaters, automated outage monitoring, home energy monitoring, surge protection and long distance telephone service.

Financial Segment

Another group of companies, which represents 27% of the respondents, indicate that financial issues are even more important than a customer focus. Specific concerns for these companies include the initial investment required and the payback time for the upfront investment. Still, these companies are concerned about customers and meeting their needs and creating good customer relationships.

It is also interesting to note that these companies give little importance to “community-related” attributes such as regulatory issues and economic development. They are also less concerned about being able to offer the product to all customers, or providing a deal for customers on products and services they offer. Their focus is filling a customer need, and doing so in a way that is fiscally sound for their organization. They currently offer the most products and services. These companies take longer to make a decision, probably because they work hard to get the financial details right.

These companies offer more products where they are the pass through, or where they can benefit financially. They are more likely than the other segments to offer dial-up Internet access, long distance telephone, satellite TV, renewable energy programs, direct load control, time of use rates and surge protection.

Community Segment

The final group of companies (40%), gives the highest ratings to the customer-related attributes. But, this group differs in that it is also much more concerned about the community attributes than the other two groups. In addition to wanting to fill a customer need and create a strong customer relationship, these companies care about economic development, regulatory issues and the ability to offer customers a better deal.

These companies take longer to make a decision and, in many cases, they take over a year to decide on a product. Perhaps as a result, these companies offer the fewest products. Because these organizations tend to offer programs that cater to customer and community needs, it is a more interesting mix – and is probably driven by local conditions. This segment is more likely to offer local telephone service, security systems, dial-up and high-speed Internet and home energy monitoring.

These segments are useful because they highlight the differences that can drive product-related decisions among cooperatives and municipals. Yet, while the segments are useful in describing the process, there are two problems in using these segments for targeting broadband over power lines. First, there is not an obvious target, because all three groups have interest in the product. The Financially-oriented Segment has the strongest interest, but all three groups represent significant potential. (Interest in BPL by Customer Type)

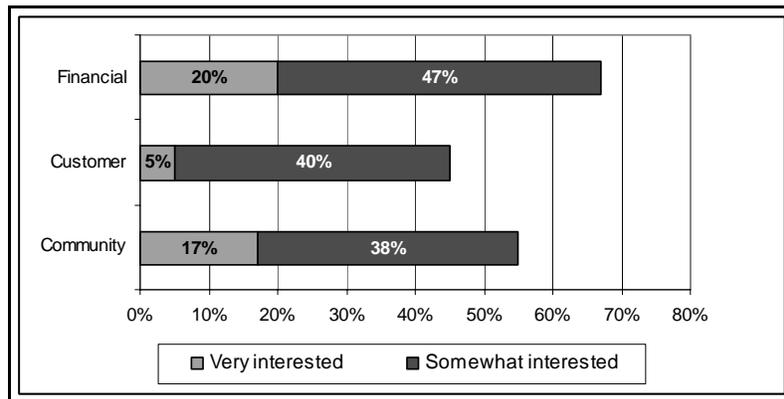


Figure 7

The second problem with these segments is that they are based on attitudes, meaning that they are not “findable” using available data. Within each segment, about 70% of the companies are cooperatives and 30% are municipals. The companies that tend to focus on financial elements are a bit larger than the others (both in terms of customers and square miles), but there is little difference in terms of the mix of rural, suburban and cities. This suggests that a larger target strategy will result in dealing with organizations that have a more bureaucratic decision-making process.

In addition, an analysis of the types of products and services that are being offered can provide insight into how to market to different organizations. As noted, the more financially-focused organizations will probably already be offering pass through or turn-key products. On the other hand, those which are more customer-focused will probably be offering products that are more closely linked to core competencies.