

Increasing Profits with Electric Industrial Vehicles

*A Case Study on the Alabama Power Company
Electric Forklift Incentive Program*

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Executive Summary

In 1998, Alabama Power Company's Electric Transportation Department implemented a unique program that offered a financial incentive to dealers and distributors of electric material handling equipment for electric lift truck sales. The goal was to increase charging revenue and improve the Electric Transportation Department's profitability contribution.

After three years, the program has delivered a 44-to-1 return on investment, resulting in gross revenues of more than \$7 million and returning \$1.154 million in profit in 2000. In addition, the program has helped customers by solving their needs and presenting new opportunities, and by reducing their maintenance and fuel costs. It has helped build relationships between each of the three participating entities: the utility, equipment dealers/distributors, and customers. Finally, it has rewarded lift trucks sales representatives with the incentive, and utility sales and marketing representatives with higher commissions based on increased load.

This case study documents the steps taken by Alabama Power Co. (APCo) to develop and refine its incentive program. The utility began by conducting research on the material handling industry and the market for electric material handling equipment in its service territory. Although 70% of forklifts in Western Europe are powered by electricity, only 54% of the lift trucks in operation in the U.S. are electric. Even fewer, approximately 47%, are electric in Alabama.

Alabama Power developed an extensive training program for both its Business Call Center telephone marketing representatives and its field sales representatives. The utility cultivated relationships with forklift, battery and charger dealers and distributors, and worked with the industry to identify electric sales opportunities. In addition to the incentive payments, the utility invested approximately \$25,000 in marketing materials and consultants.

The forklift incentive program is unique because it applies a common business practice — financial reward — to a specific product, in an industry that has long-established perceptions and practices. The first of its kind in the country, the lift truck incentive program breaks ground because it stimulates product sales in a market segment that traditionally has not been considered for its charging value. The approach, however, is not unlike many other utility end-use product marketing efforts, such as street lighting campaigns.

The program has generated valuable revenue for the company in an emerging industry with strong additional market potential. By developing the industrial side of the electric transportation business, Alabama Power has increased profitability and established itself as a leader among utilities in industrial and recreational transportation.

Background

Alabama Power Co. (APCo) established its Electric Transportation program in August 1994. Like many utilities across the nation, it sought to comply with the Energy Policy Act (EPAct) through an expanded electric transportation program. The primary emphasis at the time was on on-road electric vehicles (EVs).

As time passed and the on-road market stalled, primarily due to a lack of available product, APCo conducted a cost-benefit analysis, which concluded that the investments in charging infrastructure, marketing and outreach were not bringing a reasonable return, given the lack of available cars. This forced the Electric Transportation Department to evaluate its options for remaining cost effective. The findings pointed to a number of strategies for providing value-added services to its customers, with the strongest indicator pointing to the industrial market.

Through its involvement with the EPRI Industrial and Recreational Transportation Target (previously called the Non-Road EV Target), APCo saw that the industrial segment offered unrealized market potential.

Research

Industry Research

APCo Electric Transportation (ET) staff set out to build relationships in the material handling industry to learn how the utility could help the industry promote products powered by electricity. Company representatives started by meeting with forklift dealers and distributors in the APCo service territory.

The major dealers/distributors have offices throughout the Southeast. In Birmingham, for example, there are approximately six large dealers/distributors, all of which have satellite offices in other Alabama cities. There are also a few smaller dealers in Birmingham and in other major Alabama cities. In these meetings with industry representatives, APCo staff learned about varying classes of material handling products — their capabilities, needs and applications — and developed a general understanding of the material handling industry.

Through meetings, attending conferences such as the annual ProMat material handling show, and establishing relationships with the many industry associations, APCo ET staff built the necessary foundation upon which to market its electric industrial transportation business case.

Market Research

APCo sought out independent research to enhance its market understanding. A 1994 Off-Road Electric Vehicle Feasibility Study conducted by the Kansas Electric Utilities Research Program (KEURP) polled material handling industry fleet managers who do not use electric equipment. All of those surveyed, 100%, were unaware of technology improvements made to electric industrial vehicles in the last five years. Three-quarters of those surveyed, 76%, had never been exposed to electric equipment, and therefore were unable to make a valid comparison of EVs to IC equipment, so they chose only combustion equipment.

Market Evaluation

In 1999, APCo developed a detailed marketing plan that captured much of the research collected in the previous years and spelled out a specific plan for building its industrial business.

The EPRI report, “Electric Lift Trucks: Market Description and Business Opportunities” (TR-109189), provided the baseline for APCo’s industry inventory and revenue estimates. The report identified market inventory data by state from the Industrial Truck Association. APCo had previously determined that all of the major forklift dealers and distributors in its service territory belong to and report their data to ITA. The 1996 data showed a current inventory of 8,822 Class I, II, and III lift trucks. (The inventory of Class IV and V trucks, which are internal combustion trucks, was 9,847.) Table 1.

In its 1999 Electric Forklift Marketing Plan, APCo estimated a conservative annual growth rate of 2% in the electric classes, broken down as 2% to 3% in Class I and Class II, and 1% to 2% in Class III for the near term.

Table 1. 1996 Baseline Forklift Inventory in APCo Service Territory

Vehicle Class	1996 Inventory
Class I, counterbalanced electric rider (includes both cushion and pneumatic tire units)	2,583
Class II, electric narrow-aisle and very narrow aisle (designed to provide improved storage density)	1,636
Class III, electric motorized hand (includes powered pallet trucks “pallet jacks” and walk-behind stackers, or “walkies”)	4,603
Class IV, internal combustion, cushion tire (cushion tire units are designed for smooth floors)	4,319
Class V, internal combustion, pneumatic tire (pneumatic tire units are designed for rougher surfaces, often used outdoors)	5,528

Sources: Industrial Truck Association and EPRI

In addition to evaluating the market size and potential growth, APCo assigned a value of \$500 per shift, per unit, per year to calculate each truck’s charging value. To determine its gross revenue estimates from material handling equipment, APCo implemented the following formula:

50 kWh/charge*

X 300 charges/year

15,000 kWh/year

X industrial rate

/shift/unit/year

*Assumes 36-volt, 120-Ahr battery. Source: Curtis Instruments, *Battery Book One*

Market Opportunities

Compared with the Western European market penetration at approximately 70% and U.S. market penetration at approximately 54%, ITA numbers showed that electric forklift market penetration in Alabama was even lower, only 47%. The findings of the KEURP study from 1994 showing a lack of awareness about electric industrial vehicle benefits seemed to serve as an explanation for the low market penetration in Alabama. The findings also pointed to the need and opportunity for Alabama Power to educate the industry about the numerous benefits of electric forklifts, ranging from health and safety in the workplace to financial savings. Table 2.

Table 2. Benefits of Electric Forklifts

Economic Benefits Lower maintenance costs (fewer moving parts, seals and gaskets, fluids and lubricants) Lower fuel costs Longer life
Environmental Benefits Zero in-plant emissions Lower overall emissions plant-wide Elimination of volatile fuels
Ergonomic Benefits Quiet operation Less vibration No engine heat No dangerous fluid leaks Precision controls

Armed with the baseline inventory analysis, an understanding of low market awareness level, and the knowledge of electric equipment's economic, environmental, and ergonomic benefits, the utility targeted three broad market segments:

1. Markets currently using propane-powered lift trucks that could be better served by battery-powered equipment.
2. Fast-growing companies that might be considering expansion of their existing space or acquiring additional warehouse space when narrow-aisle forklifts could provide improved storage density at lower cost.
3. Businesses that are currently using manual labor in tasks better suited for motorized hand pallet trucks to reduce risk of employee injury and associated worker's compensation problems.

Internal analysis demonstrated that every 5% increase in market penetration would equate to approximately a quarter of a million dollars in annual gross kWh revenue.

APCo Incentive Program

APCo launched its Forklift Incentive Program in 1998.

Initial Implementation

The program offers financial incentives to dealers and distributors who sell electric industrial trucks. The reward typically is paid directly to the sales representative who places the electric vehicle. Some dealers/distributors, however, require the payment to be made to the company instead of to the individual sales representative.

The following qualifications apply:

1. Dealer sales representative must make the sale.
2. Customer must be served directly by APCo.
3. Forklift must be either an electric forklift addition, or a replacement of a non-electric forklift. There is no incentive paid for a replacement of an existing electric truck.
4. APCo must verify the forklift installation.

The payments are as follows:

- Class I: \$100 per forklift
- Class II: \$100 per forklift
- Class III: \$50 per forklift

Subsequent Refinements

In its first year, the incentive program was moderately successful. Due to limited resources, it was not implemented statewide. The primary drawback, however, was the lack of a mechanism for capturing the load data and its associated revenue.

1999-2000

In response to the first year's results, APCo implemented four significant internal changes:

1. The company inserted lift truck sales into marketing representatives' sales goals. This change influenced sales representatives to promote forklifts as an end-use product, and served as an incentive for them to collect data about each forklift sale.
2. The company altered its thinking about this program. Instead of approaching it as an entirely new program, Electric Transportation positioned forklift sales simply as another product with sales incentives, similar to other products for which the company gives incentives.
3. APCo worked diligently to cultivate more meaningful relationships with dealers. It also raised the program's profile among dealers, ensuring that any time incentives were granted, other dealers heard the news.
4. The utility established a task force comprised of six industrial/commercial account managers from each of the utility's sales regions, along with the manager of Electric Transportation. The task force met quarterly for one year to ensure that goals were being met. Shortly after the task force was formed, the members came to realize that an electric lift truck sale could play an important role in helping them meet their sales goals. The task force members continue to help educate other sales and marketing representatives within the utility on the charging benefit of electric trucks.

2001

In 2001, APCo expanded its industry outreach efforts to include battery and charger dealers in addition to lift truck dealers and distributors. This approach broadened the scope of the program, increased industry awareness of the available incentives, and led to increased sales. More importantly, however, it ensured better tracking of kWh sales, in two ways:

1. Since some charger and battery dealers work directly with customers, their inclusion in the incentive program made them more likely to report a sale to APCo, which was in turn, able to capture the load.
2. By only targeting lift truck dealers and lift truck sales, the utility found that in some cases it was offering an incentive for a truck sale but not receiving expected additional revenue because there was no increase in load. This occurred in a variety of situations such as when a lift truck was added to fleet without an additional charger. Adding the incentive for the battery and charger, therefore, ensured that the sale and accompanying incentive translated into increased load.

Incentive Program Results

In 1999, APCo paid \$14,400 in incentives and received a return profit of \$756,475.

In 2000, APCo paid \$26,150 in incentives and received a return profit of \$1,154,754.

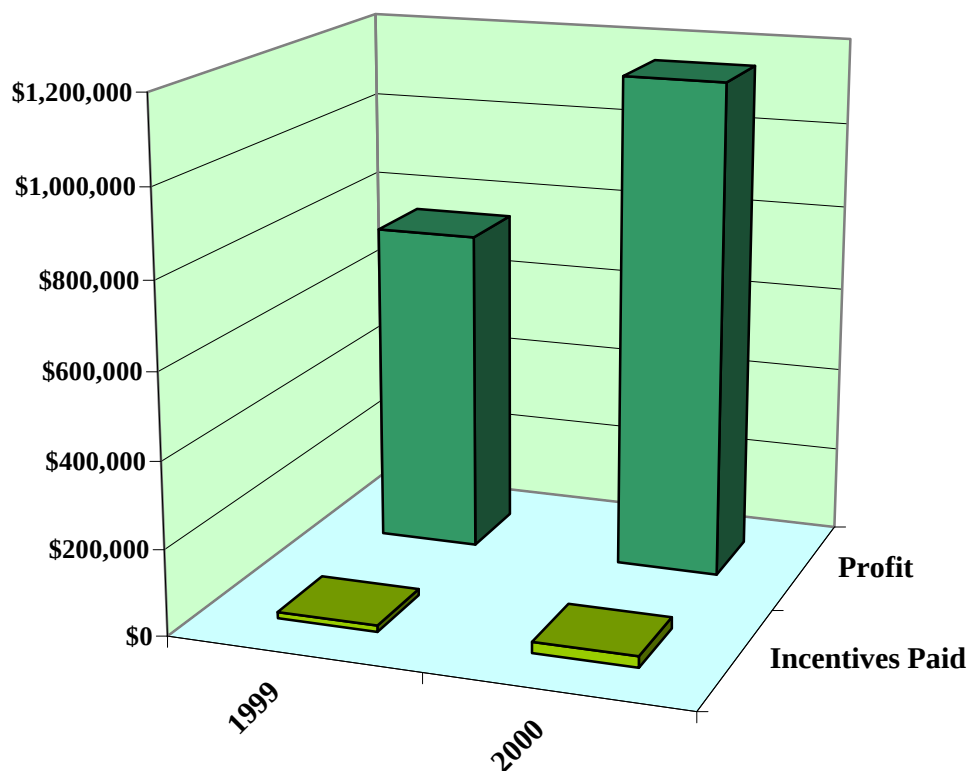


Figure 1. Incentives Paid and Profit Realized, 1999- 2000

In 2001, APCo's sister companies were considering the incentive program. By mid-year, the incentive program was being evaluated in Gulf Power and Mississippi Power territories, which, together with Alabama Power, comprise the western region of the Southern Company family of utilities. Georgia Power, which serves the greater Atlanta region and most of the state, as well as Savannah Power, were launching their own program variations fashioned after the APCo model.

In addition, because the program had been so successful, Southern Company national accounts sales representatives, which serve large companies like Home Depot and Circuit City, began training and planned to start consulting to their clients throughout the Southern Company system.

Benefits to APCo and Customers

APCo has come to recognize that the charging value of a single electric forklift is greater than that of an industrial space heating unit, electric cooking appliances in restaurants, or a typical residential heat pump unit.

While the financial return on investment for APCo is unmistakable, the additional benefits extend to both the utility and customers.

1. Solving customers' needs. Utility company sales and marketing representatives report great satisfaction in helping a customer save money and increase productivity.
2. Presenting new opportunities to customers. Introducing customers to new products such as narrow-aisle forklifts, which allow customers to expand their operation by using space more efficiently, enhances business relationships.
3. Cost savings on maintenance and energy benefit customers. An electric forklift costs approximately \$1 per hour less to operate than an internal combustion truck.
4. Building relationships. The relationships that develop between utility representatives and customers lead to additional load-building opportunities.
5. Lucrative for commissioned utility representatives. Improved relationships and increased load builds commissions for utility reps, leading to happy employees.
6. Identifying previously unknown load. In several cases, utility marketing representatives have learned of forklift sales that they likely would never have known occurred. This has happened when a large company has bought its trucks directly from the manufacturer. Typically, the manufacturer still used the local dealer or distributor to deliver the product to the customer in exchange for a smaller commission than it would normally receive for initiating and implementing a sale and delivery. Even without originating the sale, the local dealer, knowing it could receive an incentive, reported the sale to the utility. In tracking the previously unidentified sale, APCo captured the load data.

Financial Analysis

Customers

To demonstrate the financial savings of electric over internal combustion to customers, APCo refers to a cost analysis form provided by battery manufacturer Yuasa, Inc. (now called EnerSys). Table 3.

Table 3. Electric vs. Propane Forklift Cost Comparison

	Propane	Electric
Truck capacity	5,000#	5,000#
Price of truck	\$24,182	\$26,248
Estimated truck life	7.5 years	11 years
Annual cost of truck ownership	\$ 3,224	\$ 2,386
Battery cost	N/A	\$ 6,302*
Estimated battery life	N/A	11 years*
Annual cost of battery ownership	N/A	\$ 573*
Charger cost	N/A	\$ 1,879
Charger life	N/A	11 years
Annual cost of charger ownership	N/A	\$ 171
Total Annual Ownership Cost	\$ 3,224	\$ 3,130
Fuel cost**	\$ 1.50/hr	\$ 0.58/hr
Annual hours of operation	2,080	2,080
Total Annual Energy Cost	\$ 3,120	\$ 1,206
Annual maintenance labor cost***	\$ 1,040	\$ 572
Annual maintenance parts cost	\$ 1,412	\$ 974
Total Annual Maintenance Cost	\$ 2,452	\$ 1,546
Total Annual Cost	\$ 8,796	\$ 5,882

*Assumes two batteries over 11 years

** LP @ \$1.09/gallon; Electricity @ \$0.077/kWh

***Propane truck: 40 hrs @ \$26/hr; Electric truck: 22hrs @ \$26/hr

Utility

APCo determined profitability of forklift charging revenue using a system-wide model for analyzing different loads. The model includes a variety of factors:

- Marginal energy costs
- Capacity costs

- Transmission and distribution costs
- Individual load shapes

To develop a load shape for electric lift trucks, the utility averaged customer loads across a variety of shift scenarios. The electric lift truck load is particularly valuable because it is neither weather dependent nor time-of-use dependent like so many other loads in the utility's system. Due to its geographic location, Alabama Power's load shape is high during summer afternoons because air conditioning is driving the load throughout the hot, humid months. Product lifetime is another factor in load shape.

These characteristics — the fact that lift truck loads are not seasonal, nor time-of-use driven, the customer rate and the load shape — together give electric lift trucks a high Competitive Profitability Contribution (CPC), which is a term the utility uses internally to identify charging value. CPC is defined as the net charging value of the product, over its lifetime, after considering the cost of producing and distributing power.

Figure 2 illustrates the increased load from electric lift trucks attributable to the incentive program between 1998 and 2000. The extraordinary increase in 1999 and relative drop in 2000 is attributable to local economic fluctuations created by the opening of several large new industrial and commercial operations.

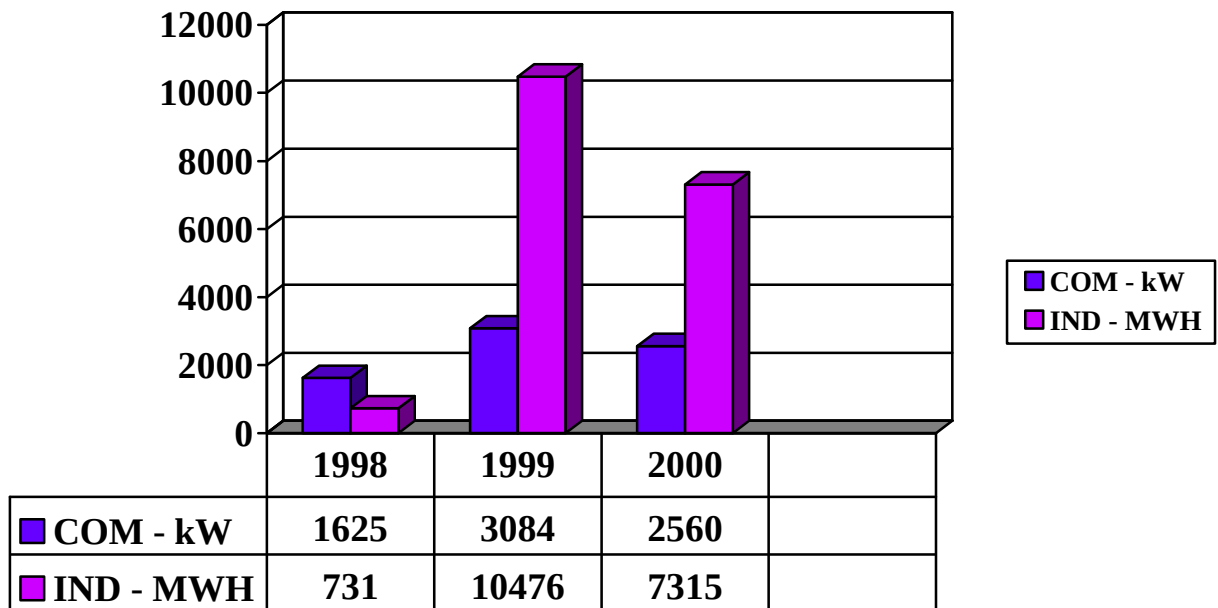


Figure 2. APCo Electric Transportation Commercial kW and Industrial MWH 1998-2000

Costs

In addition to the incentive funds paid directly to the dealers/distributors, the incentive program has incurred approximately \$25,000 in costs since 1998. A consultant developed the training program, provided existing KEURP materials and a video, and oversaw production of a training binder for sales representatives. In addition, utility marketing communications staff produced brochures and marketing materials.

The Electric Transportation Department's two primary representatives currently spend a substantial portion of their time on promoting electric industrial vehicles with activities ranging from sales and technical implementation projects, to training, building relationships with dealers/customers, and other efforts which influence the market in the Southeastern United States. One staff member works extensively on this program, devoting at least one full day a month to each distributor, in addition to other program-related tasks. The department manager currently allocates approximately 10% to 15% of his time to the incentive program. During the initial setup phase, the program consumed approximately 30% of his time.

Implementation Mechanics

Before implementing the incentive program, APCo developed a training program for utility sales and marketing rep, and marketing materials for distribution to material handling industry partners.

Training Program

Although ET staff has lead the incentive program effort, the utility's sales and marketing representatives who work over the telephone and in the field have served as the frontline contacts. The utility recognized that the sales force needed training on the benefits of electric forklifts before they could be expected to market this comparatively unfamiliar product.

Still in use as APCo Electric Transportation expands its incentive program to its sister companies, the training program includes a half-day workshop and a take-home binder for the sales representatives. Ten such workshops have been completed to date. The typical seminar starts with an overview of APCo's Electric Transportation program and includes a video primer on the industrial electric vehicle market, its growth and revenue opportunities, and a section on product advantages. Specific sales techniques are discussed, followed by a section on role-playing and an opportunity for questions and answers.

The training binder contains product literature, financial data on the value of the market segment, industry background, sample marketing materials, a listing of industries using forklifts in the APCo service territory by SIC Code, and sample questions and answers designed specifically for use by the Business Call Center employees. Business Call Center staff proactively market a variety of utility end-use products throughout the year and handle customer questions and issues over the phone.

Marketing Materials

Alabama Power produced a variety of marketing materials to promote its ET and forklift incentive programs. Forklift incentive marketing materials include a direct mail brochure, “The Choice is Electric,” with a business reply response card for companies seeking additional information, and a single-fold brochure, “Material Handling Vehicles: Saving Money and the Environment.” The latter was produced as one of a series of Electric Transportation brochures used for general marketing purposes. Both pieces tout the environmental and performance benefits of electric while emphasizing the lower lifecycle costs. Figure 3. APCo also produced a simple, 1-page, 2-sided fact sheet on the incentive program for lift truck dealers.



Figure 3. Sample Marketing Materials

Promotion & Marketing

Business Call Center

The utility Business Call Center telephone sales representatives have promoted the incentive program in both incoming calls and outgoing calls. Customers generally call in to the utility in response to a mailing, or with a problem or request. Regardless of the original purpose of the call, the utility telemarketing representative has an opportunity to immediately connect with a customer when the customer has initiated the call. When the utility representative is initiating the call to the customer, there are immediately more barriers, ranging from contacting the decision maker to recipients being unreceptive to a telephone solicitation.

APCo Business Call Center took three specific steps to promote the lift truck incentive program:

1. In 1998, telemarketing staff targeted a broad range of customers through call-outs. The

initiative generated solid leads and a few sales.

2. In 1999, the utility developed a script for Business Call Center staff to use in response to call-ins.
3. In fall of 2000, the third outgoing call campaign targeted 600 customers by SIC code. The utility mailed the direct mail brochure with business reply response cards to the targeted businesses, then followed up with phone calls. This call campaign generated more than 60 sales leads, a highly successful 10% return. Some of the sales leads represented 10 or more lift trucks.

The Business Call Center employees who made follow-up calls described the experience as challenging and interesting. As is common in telemarketing, often they had to work through multiple layers of personnel before they could reach the decision maker – usually a warehouse supervisor, or a manager or owner, depending upon the company size. Most customers expressed surprise that the utility was approaching them and taking a proactive role in selling a product.

If a call generated a good lead, the Business Call Center employees referred the lead to the on-the-ground sales representatives, who followed up by making an appointment and initiating the in-person contact.

The utility gave gift certificates and other small perks and rewards to successful Business Call Center employees to motivate the team and encourage competition internally. This common practice is not unique to the lift truck incentive program.

On-the-Ground Sales Force

APCo has approximately 80 account managers/marketing representatives who are responsible for commercial and industrial customers throughout state. Their responsibility is to stay informed on end-use technologies such as lift trucks and ensure that their customers are always aware of the latest technologies and services provided by the utility. The on-the-ground sales force is segmented by market and geographic region. All of the marketing representatives have forklift sales in their portfolio or sales goals; the company's goal is to have one key, coordinating utility sales contact for forklift products in each of APCo's six sales regions.

Before the incentive program existed, sales representatives typically did not report forklift sales because they were generally unaware of a forklift's charging value, and there was no Competitive Profitability Value assigned to the product. That changed in 1999, in the second year of the lift truck incentive program, when forklifts were added to their sales goals.

Promoting electric forklift and charger sales involves courting forklift dealers and building relationships with them as well as with their customers. In introducing the incentive program to dealers, the on-the-ground sales representative typically sets an appointment to make a presentation. Sometimes he is accompanied by a representative from Electric Transportation. APCo encourages dealers to allow their employee sales representatives to receive the incentives directly. Once a dealer commits to being involved, another presentation is made to the dealer's sales force. To sweeten the initial agreement, APCo often will allow forklift sales representatives to go back a full year in identifying electric forklift sales in order to benefit from the incentive.

APCo's account managers work closely with forklift dealer and distributor sales representatives, participating in sales calls and riding with them to their customers' sites to verify placement of electric equipment.

One utility sales representative relates a story about a positive experience: After meeting the customer, he verified the charger specifications to identify the expected load and resulting revenue generation. While at the customer's place of business, he sold the customer additional outdoors lighting. By meeting the customer in person and teaming up with the forklift dealer, the utility rep was able to ensure that the forklift dealer was promoting the electric equipment, that the customer was buying electric, and that the customer was satisfied. The results were a happy customer and a happy forklift dealer.

APCo Electric Transportation staff attend customer meetings when appropriate, as well, usually to provide additional detail such as an analysis on the likely input of electrification on the customer's utility bill.

Dealer/Distributor Perspective

For forklift and battery dealers/distributors, having utility company representatives promoting electric material handling equipment is "like having another sales force" out in the market, one representative of a battery manufacturer said. The material handling equipment business is dealer driven, so the utility is providing added value for dealers/distributors by developing relationships and implementing this incentive program. In return, the incentive program makes the utility sales representatives' jobs easier because it encourages the dealers/distributors to think about electric equipment sales, not just equipment sales.

The program allows dealers to consider options that they might otherwise not consider. Because they are typically paid on commission only, lift truck salesmen historically have filled orders based on the customer's desires, regardless of the fuel type. Now that APCo is offering a \$100 incentive for electric models, a salesman might encourage an electric truck over an internal combustion truck if all other factors are the same. Likewise, for example, in cases where a customer is inclined to order a manual pallet jack (an item which brings a relatively low commission), a salesman might instead recommend an electric pallet jack because it comes with a \$50 bonus. The incentive program also offers dealer/distributor sales reps a way to be more flexible with price. For example, a salesman might be more willing to reduce a piece of equipment's sales price — and therefore his accompanying commission — when he knows there is a cash incentive that makes up the difference. While the dealer and sales representatives benefit financially from the increased sales and incentives, they also benefit from an enhanced reputation of better serving their customers.

The incentive program also has created a whole new level of relationship between dealers and utility marketing representatives. Traditionally, dealers have had no need, desire nor time to listen to utility marketing personnel. Now, they take time to listen.

In recent years, the industry has transitioned to a lease market, with close to 75% of forklift deals involving leases instead of outright sales, according to the leading battery charger dealer in the state. Under this scenario, the customer purchases or leases the charger and batteries along with

the leased truck. Like their counterparts in the automobile industry, forklift dealers profit from their parts and service departments. With electrics, they benefit by selling a standard preventive maintenance agreement that accompanies a lease for a flat monthly fee, while retaining a lower cost because electrics cost less to service and maintain.

The leasing trend and OSHA health and safety standards have helped spur the popularity of zero-emission electric forklifts in the material handling market. With a typical lease period of five years, and most customers replacing trucks, batteries and chargers all at once, steady growth in the electric lift truck market is guaranteed.

Challenges

Even with its great success, the Alabama Power Co. electric forklift incentive program is still working to overcome a few operational challenges. The utility learned early on that a formal process to ensure faster equipment verification and payment to dealer representatives needed to be in place.

Most of the difficulties involved getting incentive payments to the forklift dealer or salesman who sold the equipment. Sometimes the payment turnaround took too long. Other times, implementation was not as consistent as utility program managers expected, due to mismatched incentives. For example, to a utility sales rep, the CPC value of a 3.3 kW electric pallet jack is quite small compared to his or her other industrial sales possibilities. Therefore, the utility sales rep may be less motivated to track a pallet jack sale. At the same time, the incentive for the equipment dealer who sells that pallet jack is \$50, so he or she has a great motivation to track the sale and receive the reward. One immediate solution was to provide the incentive for the chargers instead of for the lift trucks to ensure that the incentive was rewarding increased energy usage.

In addition, some issues remain with the company's recent restructuring of its sales force. The restructuring created temporary inconsistent resources across geographic regions.

Beyond the operational challenges, the industry is experiencing more competition from another fuel: compressed natural gas. CNG traditionally has not flourished in this industry due to tank and filling station requirements and an almost non-existent used equipment market. Now, however, some customers are demanding CNG. The alliance of utility, forklift, battery and charger dealers, and the APCo incentives, will help the electric side of the industry compete.

Other Value-Added Services

The electric lift truck incentive program has served as a vehicle for introducing customers to other electric vehicle technologies. The program has broadened utility and forklift dealer/distributor sales reps' horizons; they have, in turn, spread the word about the benefits of electric technology to customers. Having had a positive experience with electric forklifts, customers have grown receptive to other electric vehicle technologies. This customer interest has returned full circle and enabled APCo to provide another value-added service to customers through its state-of-the-art Electric Vehicle Service Center.

Like the industrial truck incentive program, the Service Center has the potential to be its own profit center. Originally built to support the utility's on-road ET program to service and maintain EVs and provide a space for training the next generation of mechanics on the next generation of vehicles, it is also available to service industrial vehicles.

The Service Center performs the following activities:

- Customer vehicle loaner deliveries
- Showroom for customer visits and demonstrations
- Service to all Alabama Power Co. EVs statewide
- Service to other (non-utility) EV fleets, including neighborhood electric vehicles (NEVs)
- Training for technicians from the local Ford dealer, and other entities, as necessary

The EV Service Center has enhanced visibility and credibility of the utility's Electric Transportation Department. Its track record has opened the doors for new business with at least one prominent potential customer that has approached the utility to provide a service contract for its electric vehicles when they come to the state. In addition, APCo has been asked, and has agreed, to be a statewide service provider for NEVs.

Future Perspective

In the near future, APCo will adopt additional program refinements. Possible refinements include incentives for fast charging and a program to finance the higher first cost of batteries and chargers in certain cases. Although the initial purchase price of electric and internal combustion equipment is comparable, the batteries and chargers purchased initially with electric trucks add up to a higher first cost. APCo views the financing alternative as an additional incentive for choosing electric. The utility will show the energy charges associated with the electric equipment as a line item on customers' monthly fuel bill, enabling them to capture fuel costs and better define their costs of business. In the future, APCo might add an additional reward for activities such as fleet conversions, which build overall market penetration of electric lift trucks.

Other industrial markets, such as turf trucks or utility vehicles, and airport ground support equipment, are beginning to expand. Electric Transportation staff members are now spending more time developing these industries with strong market potential, just as they spent a substantial amount of time developing the material handling market in the late 1990s.

The Alabama Power electric forklift incentive program is an ongoing program. The staff of Electric Transportation, while pleased with the results so far, intends to continue to build this and other programs in the industrial vehicle market. The value-added services provided through the utility's Electric Vehicle Service Center, the incentive program, and these ventures into other industrial vehicles will ensure continued growth and profitability for Electric Transportation.

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About EPRI

EPRI creates science and technology solutions for the global energy and energy services industry. U.S. electric utilities established the Electric Power Research Institute in 1973 as a nonprofit research consortium for the benefit of utility members, their customers, and society. Now known simply as EPRI, the company provides a wide range of innovative products and services to more than 1000 energy-related organizations in 40 countries. EPRI's multidisciplinary team of scientists and engineers draws on a worldwide network of technical and business expertise to help solve today's toughest energy and environmental problems.

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