



## **Increasing Profits With Electric Industrial Vehicles**

*Alabama Power Company Electric Forklift Incentive Program*

**1006219**



# **Increasing Profits With Electric Industrial Vehicles**

*Alabama Power Company Forklift Incentive Program*

1006219

Meeting /Presentation, August 2001

EPRI Project Manager

R. Graham

## **DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITIES**

THIS DOCUMENT WAS PREPARED BY THE ORGANIZATION(S) NAMED BELOW AS AN ACCOUNT OF WORK SPONSORED OR COSPONSORED BY THE ELECTRIC POWER RESEARCH INSTITUTE, INC. (EPRI). NEITHER EPRI, ANY MEMBER OF EPRI, ANY COSPONSOR, THE ORGANIZATION(S) BELOW, NOR ANY PERSON ACTING ON BEHALF OF ANY OF THEM:

(A) MAKES ANY WARRANTY OR REPRESENTATION WHATSOEVER, EXPRESS OR IMPLIED, (I) WITH RESPECT TO THE USE OF ANY INFORMATION, APPARATUS, METHOD, PROCESS, OR SIMILAR ITEM DISCLOSED IN THIS DOCUMENT, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR (II) THAT SUCH USE DOES NOT INFRINGE ON OR INTERFERE WITH PRIVATELY OWNED RIGHTS, INCLUDING ANY PARTY'S INTELLECTUAL PROPERTY, OR (III) THAT THIS DOCUMENT IS SUITABLE TO ANY PARTICULAR USER'S CIRCUMSTANCE; OR

(B) ASSUMES RESPONSIBILITY FOR ANY DAMAGES OR OTHER LIABILITY WHATSOEVER (INCLUDING ANY CONSEQUENTIAL DAMAGES, EVEN IF EPRI OR ANY EPRI REPRESENTATIVE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES) RESULTING FROM YOUR SELECTION OR USE OF THIS DOCUMENT OR ANY INFORMATION, APPARATUS, METHOD, PROCESS, OR SIMILAR ITEM DISCLOSED IN THIS DOCUMENT.

ORGANIZATION(S) THAT PREPARED THIS DOCUMENT

**EPRI**

**This is an EPRI Level 2 report. A Level 2 report is intended as an informal report of continuing research, a meeting, or a topical study. It is not a final EPRI technical report.**

## **ORDERING INFORMATION**

Requests for copies of this report should be directed to the EPRI Distribution Center, 1355 Willow Way, Suite 2478, Concord, CA 94520, (800) 313-3774.

Electric Power Research Institute and EPRI are registered service marks of the Electric Power Research Institute, Inc. EPRI. ELECTRIFY THE WORLD is a service mark of the Electric Power Research Institute, Inc.

Copyright © 2001 Electric Power Research Institute, Inc. All rights reserved.

## CITATIONS

This document was prepared by

EPRI  
3412 Hillview Ave,  
Palo Alto, Ca 94304

Principal Investigator  
R. Graham

This document describes research sponsored by EPRI.

The publication is a corporate document that should be cited in the literature in the following manner:

*Increasing Profits With Electric Industrial Vehicles: Alabama Power Company Electric Forklift Incentive Program*, EPRI, Palo Alto, CA: 2001. 1006219.



# Increasing Profits With Electric Industrial Vehicles: Alabama Power Company Electric Forklift Incentive Program

## An EPRI Case Study

Robert Graham  
Manager, Electric Transportation



I'm here today to share with you a success story. It is the story of how Alabama Power Company's Electric Transportation Department has increased its company's bottom line through an innovative electric forklift incentive program.

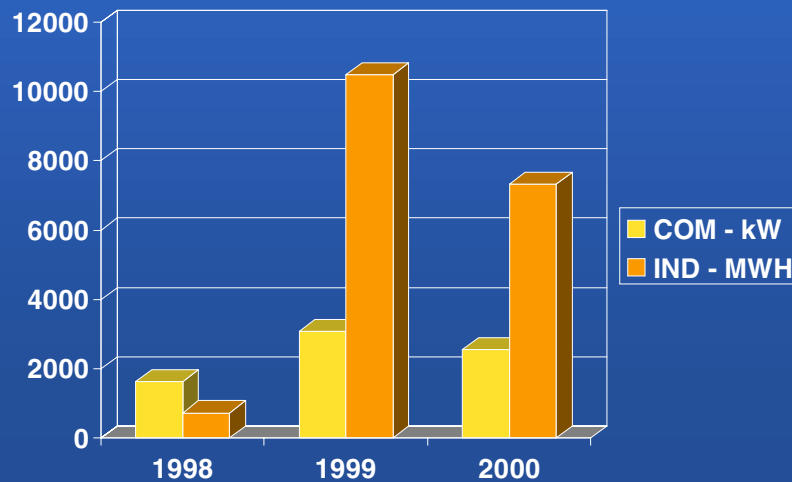
In this presentation, I'll outline the key points of an EPRI Case Study that documents the utility's strategy, implementation and results.

The purpose of this exercise is to demonstrate how the industrial market can benefit your bottom line.

But first, let's take a quick look at the numbers.

# Incentive Program Results

## Load Increases



EPRI

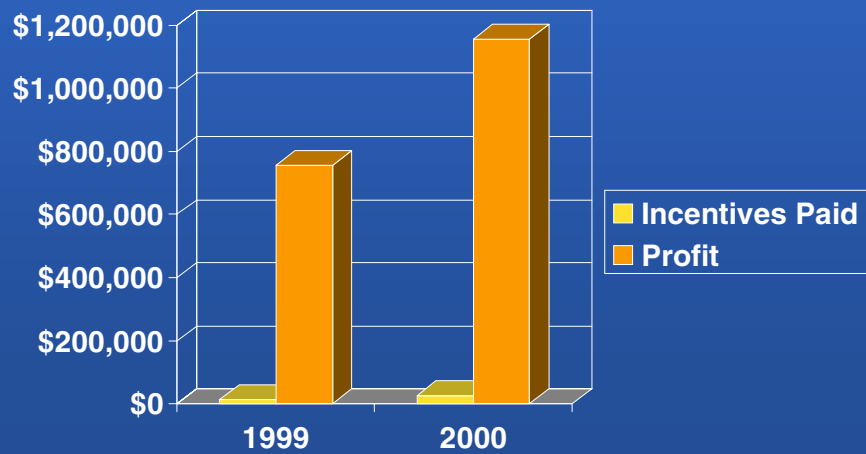
This figure illustrates the increased load from electric lift trucks attributable to the incentive program between 1998 and 2000.

(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.)



# Incentive Program Results

## Incentives Paid & Profit Returned



EPRI

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.

## Forklift Incentive Program Case Study

- EPRI Case Study tracks the program's initial steps, implementation, results, and industry response
- Its purpose is to demonstrate the value of the industrial electric vehicle market to the utility
- Other utilities could profit from involvement in IRT market, as has Alabama Power

EPRI

The EPRI Case Study details Alabama Power's success with its electric forklift incentive program.

## Program Overview

### Incentive Program Basics

- Initiated in 1998
- APCo shifted focus to industrial market when on-road EV market stalled due to lack of available auto product
- Incentives paid for new electric forklifts or replacement of ICE forklifts only
- Expanded program to include incentives for chargers in 2001

## Program Overview

### Incentive Program Results

- In 2000, incentive program delivered 44-to-1 return on investment
- APCo paid \$26,150 in incentives and received a return profit of \$1,154,754
- In 2001 Southern Co. sister companies were considering and implementing similar programs
- Additional benefits:
  - Improved customer relations
  - Lucrative for utility sales reps

# Market Research

## Market Evaluation

- Conducted industry research and built relationships with local forklift distributors
- Reviewed independent research
  - KEURP study of electric lift truck awareness
  - EPRI/ITA report on lift truck inventory
  - Estimated electric truck market penetration:
    - Europe 70%
    - U.S. 54%
    - Alabama 47%

EPRI

Before launching the program, APCo carefully researched the industry. APCo employees built relationships with local forklift dealers and distributors and attended material handling industry trade shows, for example.

And it took advantage of industry research that EPRI had provided to IRT Target funders

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. This is pretty typical in the forklift industry – Lack of awareness of product benefits.

The 1997 EPRI/ITA report used ITA data from 1996 and provided lift truck inventory numbers by state. It showed a current inventory of 8,822 Class I, II, and III lift trucks in Alabama. This provided a baseline from which APCo built its market growth projections.

(This EPRI report was available to IRT Target funders in 1997. One of our future project proposals -- possibly 2002 -- is to update this report with more current data, and to research and produce similar marketing data on other IRT market segments such as industrial burden carriers and turf trucks.)

# Market Research

## Market Opportunities

- Developed 1999 marketing plan
  - Estimated 2-3% growth per year
  - Assigned charging value of \$500/truck/shift/year
- Targeted three markets
  - Current propane truck users
  - Rapidly expanding companies needing space
  - Manual hand-truck users

EPRI

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

## Market Research

### Electric Lift Truck Benefits

- Economic benefits
  - Lower maintenance and fuel costs, longer life
- Environmental benefits
  - Zero emissions and elimination of volatile fuel
- Ergonomic benefits
  - Quiet, less vibration, no engine heat, no dangerous fluid leaks, precision controls

EPRI

In promoting the electric alternative, the utility made sure it's customers were made aware of the economic, environmental and ergonomic benefits of electric forklifts.

## Program Implementation

### Qualifications & Payment

- Developed specific qualifications
  - Dealer makes the sale
  - Customer served by APCo
  - Electric addition or ICE replacement only
  - Utility verifies placement
- Set incentive payment levels
  - Class I and Class II trucks - \$100
  - Class III trucks - \$50

EPRI

Class I trucks are counterbalanced electric riders

Class II trucks are narrow-aisle electric riders

Class III trucks are hand trucks or "pallet jacks"



## Program Implementation

### Employee Training

- Half-day workshop for Business Call Center employees and in-the-field marketing reps
- Take-home binder
  - Product literature
  - Financial data on market segment
  - Sample marketing materials
  - Industries by SIC Code
  - Sample Q & A

EPRI

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.

## Program Implementation

- Business Call Center campaigns
  - Initial call-out
  - Script for responding to customer call-ins
  - Targeted campaign by SIC Code
    - 600 prospects
    - 10% return – 60 solid leads



EPRI

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 pictured here 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.

# Program Implementation

- Field marketing campaigns typically involve relationship-building
- APCo sales staff works closely with forklift dealer sales reps
- Dealers say incentive program is “like having another sales force out in the market”



EPRI

Keep in mind, a major factor in the success of this program has been the inclusion of forklift sales in the marketing reps' sales goals. Before the incentive program existed, sales representatives typically did not report forklift sales because they were generally unaware of a forklift's charging value. This changed when forklift sales were added to their goals.

This image is a sample marketing brochure that APCo left behind after sales calls.

# Program Implementation

## Subsequent Changes

- In 1999-2000, APCo made several program changes. Most importantly, it inserted lift truck sales into sales reps' goals
- In 2001, APCo included battery and charger dealers in program, and provided incentives for battery and charger sales

EPRI

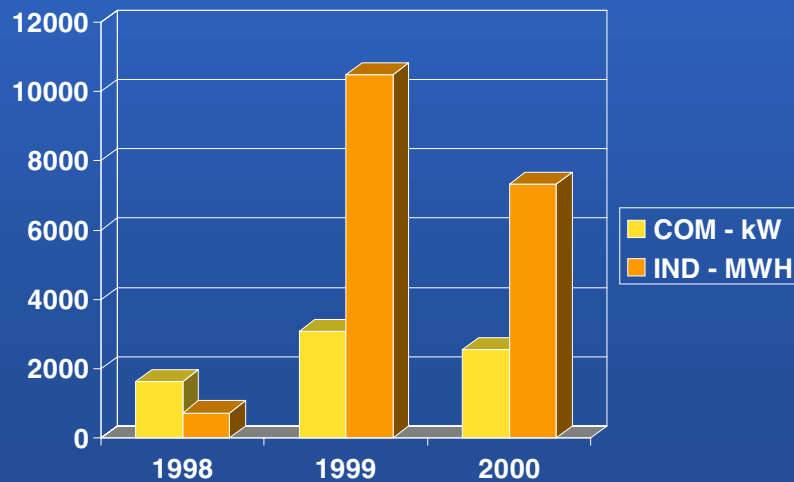
1999-2000 Changes included:

- Approaching lift truck sales as any other retail product opportunity
- Working more diligently with dealers; ensuring that they heard the news about an incentive sale
- Creation of an internal task force to help educate other sales and marketing representatives within the utility on the charging benefit of electric trucks
- The most significant change was inserting lift truck sales into utility sales reps' 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.

Including Battery and Charger dealers in the incentive program ensured that the sale and accompanying incentive translated into increased load.

# Incentive Program Results

## Load Increases



EPRI

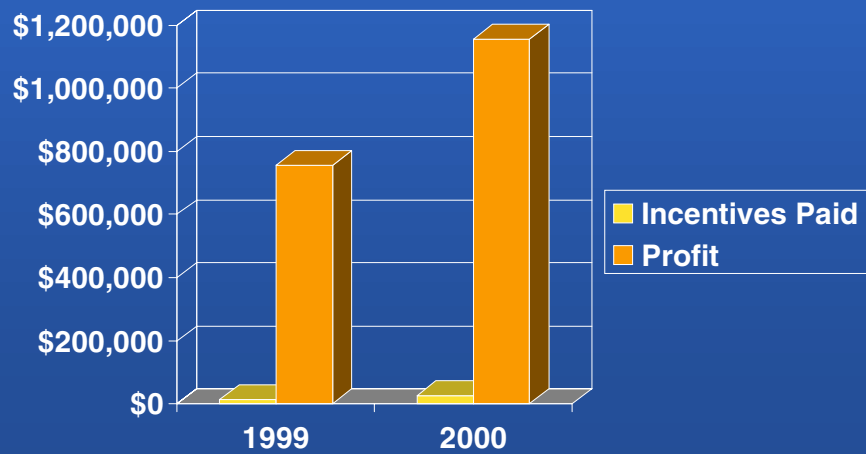
This figure illustrates the increased load from electric lift trucks attributable to the incentive program between 1998 and 2000. The extraordinary increase in 1999 and relative drop in 2000 is attributable to local economic fluctuations created by the opening of several large new industrial and commercial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

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

# Incentive Program Results

## Incentives Paid & Profit Returned



EPRI

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.

# Incentive Program Results

## Additional Benefits

- Program now expanding to Southern Co. sister utilities
- Southern Co. national accounts offering program
- Customers benefit
  - Needs met, new opportunities created
  - Cost savings
  - Improved relationships
- Sales reps increase commissions
- Utility identifies new load

EPRI

Gulf Power and Mississippi Power evaluating  
Georgia Power and Savannah Power implementing variations

National Accounts, which sells to Home Depot and similar national clients, also incorporating incentives into its sales

### Customer Benefits:

- 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.
- Cost savings on maintenance and energy benefit customers. An electric forklift costs approximately \$1 per hour less to operate than an internal combustion truck.
- Meeting customer needs builds improved relationships

### Increased Commissions for sales reps:

- Lucrative for commissioned utility representatives. Improved relationships and increased load builds commissions for utility reps, leading to happy employees.

### 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.

## Incentive Program Costs

- \$25,000 since 1998
  - Brochures and marketing materials
  - Training program and consultant
- Staff time
  - Department manager 10%-15% time
  - Marketing specialist 30%-50% time

EPRI

In addition to the incentive payments each year, APCo has spent approximately \$25,000 to develop the training and marketing materials for the program. Plus staff time.



## Conclusion

- Alabama Power Company has profited from its investment in the electric industrial vehicle market
- By promoting and creating incentives for electric forklifts, the utility has increased load and profitability while enhancing relationships with customers
- Alabama Power has benefited from the research and marketing support it has received from EPRI
- EPRI is poised to offer similar high-value services to all IRT funders

## Future - Collaborative Marketing





## 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.

EPRI. Electrify the World

© 2001 Electric Power Research Institute (EPRI), Inc. All rights reserved. Electric Power Research Institute and EPRI are registered service marks of the Electric Power Research Institute, Inc. EPRI. ELECTRIFY THE WORLD is a service mark of the Electric Power Research Institute, Inc.

1006219



*Printed on recycled paper in the United States of America*