

Electric Auto

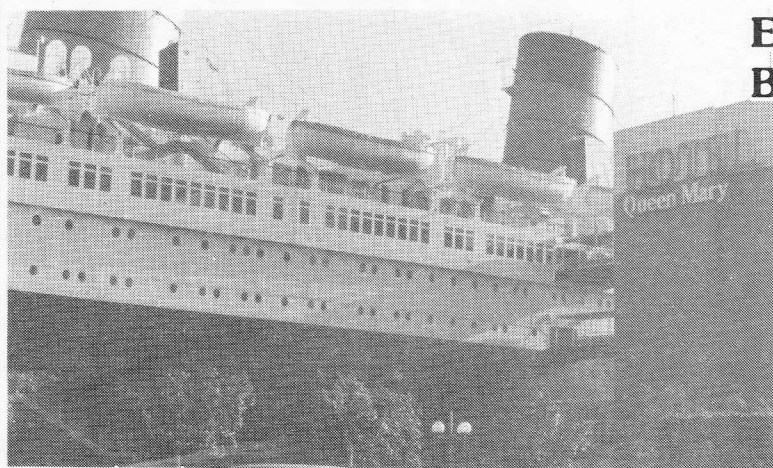


Association

NEWS

MARCH 1988

Vol. XX No. 3



Electric Vehicle Commercialization Benefits and Opportunities

An Electric Utility Initiative

February 11-12, 1988

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AN ELECTRIC VEHICLE INDUSTRY IS BORN

New EV Distribution Company Business Plan Unveiled

At the November 17 meeting of the EVDC Board of Directors, held in Kansas City Missouri, Jerry Mader, President of EVDC, presented the business development plan for Electric Vehicle Distribution, Inc. EVDI. This new organization will be responsible for directing the distribution, marketing, sales, and support of electric vehicles. The Boston Consulting Group (BCG), a leading international management consulting firm, participated in preparing the plan. "We relied on past car and truck dealer strategy development, field interviews with potential EV users and investors, results from the national EV market survey, and the Bedford experience," explains BCG Vice President Anthony Miles. "This information allowed us to target customers and volumes, suggest strategy and structure, and estimate profitability and requirements."

According to the plan, the EVDI organization will evolve from EVDC corporate development activities. By working closely with EVDC and EPRI during the formative stages, EVDI will benefit directly from EVDC market development task and EPRI efforts to improve EV products. Eventually, EVDI will operate as a separate profit-making entity with capital funding from key investor utilities.



CONFERENCE

NEARLY 200 PEOPLE REPRESENTING OVER
40 MAJOR POWER COMPANIES AND THE EV
INDUSTRY ATTENDED THE CONFERENCE

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Japan Electric Vehicle Asso.
Toyota Motor Corp.
Mitsubishi Research Inst.
Tohoku Electric Power Co. Inc.

Chloride Systems Limited
Worcestershire, England
James Bradbury
Brian Phillips
David Harris
Chloride Group
Roger Holms
Chloride Silent Power Ltd.
Mike Mangan

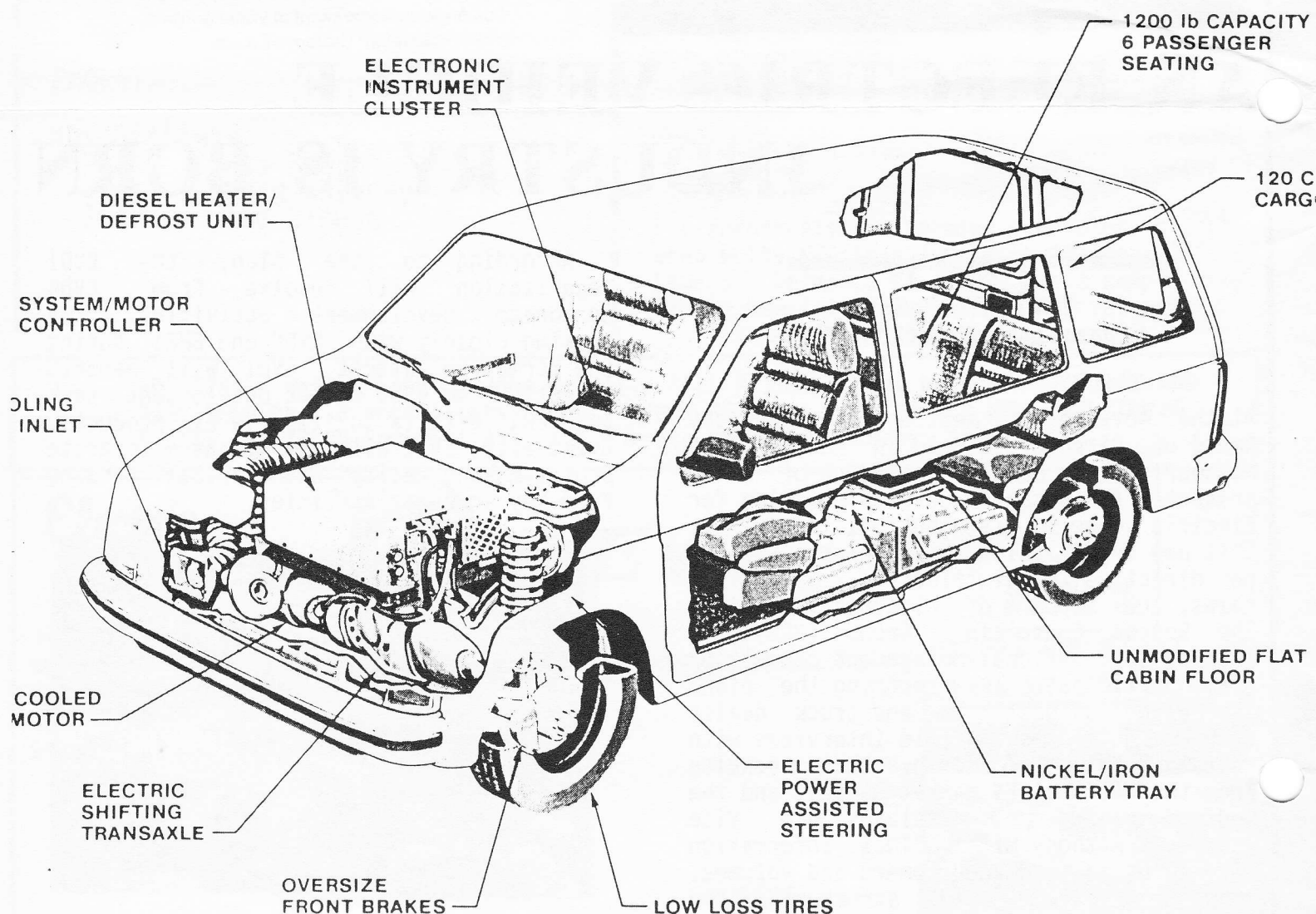
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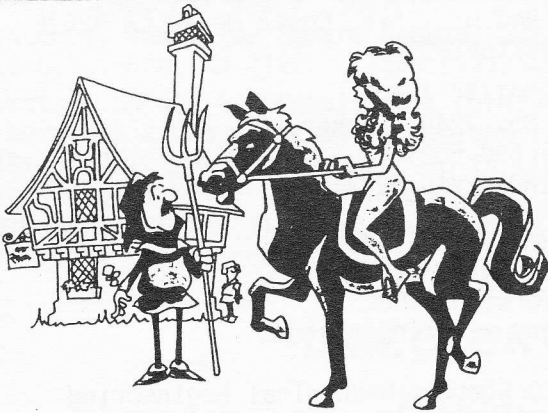
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ELECTRONICS INC.
5021 Bradford Blvd.
Huntsville, AL 35805
ACUSTAR Electronics
TEVan-Components

Canada:

Dr. William A. Adams, University of Ottawa.
Bill Leadingham, Government of Canada, Toronto.
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BIBLIOGRAPHY

MODERN BATTERIES: "An Introduction to Electro-Chemical Power Sources" by Colin A Vincents, Publ., By Edward Arnold, 3 East Read St. Baltimore, MD 21202. (ISBN 0-7131-3469-0)

Aircraft Spruce & Specialty Co. Catalog: Fiberglass & Composite materials and Info. Very good if you are interested in light wt. P.O. Box 424 Fullerton, CA 92632 \$5

COMPOSITE CONSTRUCTION: by Jack Lambie Available from Aircraft Spruce \$15.95.

THE ARRL HANDBOOK: The best electronics course for the novice ever written in laymans language. Available at radio/TV & Ham supply houses.

US Navy BASIC ELECTRICITY: From Base PX.

GUIDE TO ELECTRIC AUTO CONVERSION: BY Bill Williams, P.O. Box 1548, Cupertino, CA 95015.

ELECTRIC CAR CONVERSION MANUAL: by Clarence Ellers, P.O. Box 2781 Santa Clara, CA 95055.

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Alphabetical Listing By Firm

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WEST GERMANY Tel: 02921/1021
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D-5000 Köln 1
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USA Tel: 800-257-7955;

or 609-468-0270

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San Dimas, California 91773
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P.O. Box 388
Augusta, Georgia 30913
USA Tel: 404-798-4311

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Power Functions Engineering, Inc.

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USA Tel: 214-278-0996

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(see Allied Electric Vehicle Group)

Progetti Gestioni Ecologiche

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ITALY Tel: 02-6884085

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210 New Market Avenue
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07080
USA Tel: 201-753-2400

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Ragonot

15 Bld Gabriel Peri
Malakoff 92240
FRANCE Tel: 253-53-60

Bikes, 2 and/or 3-wheel, scooters; Cars, passenger; Components

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Ipswich IP3 90G
ENGLAND
Trucks, burden carriers, in-plant

Reliance Electric

24701 Euclid Avenue
Cleveland, Ohio 44117
USA Tel: 216-266-7000

Components

Rocabay-Kirchner

L'A.A.R.
149 Rue de Crimee
75019 Paris
FRANCE Tel: 208-90-11

Trucks, on-the-road; Vans, passenger/cargo

Rolls Battery Engineering

8 Proctor Street
Salem, Massachusetts 01970
USA Tel: 617-745-3333

Batteries, traction; Chargers

S.A.F.T.

Societe des Accumulateurs Fixes
et de Traction
119 Avenue du President Wilson
Levallois-Perret 92300
FRANCE Tel: 737-41-25

Batteries, traction; Components

S.I.T.A.

7 Rue de Logelbach
75821 Paris, Cedex 17
FRANCE Tel: 227-65-60

Maintenance EVs, industrial/commercial type

Sevcon

Division of Technical Operations,
Inc.
Kingsway
Team Valley Trading Estate
Gateshead NE11 0QA
ENGLAND Tel: 0632 8785 16

Components

Sevcon

Division of Technical Operations,
Inc.
40 North Avenue
Burlington, Massachusetts 01803
USA Tel: 617-272-2000

Components

Siemens AG

Dep E 41
Werner-von-Siemens-Strabe 50
Erlangen D 8520, Bayern
WEST GERMANY Tel: 09131 7 3480

Components

Simon Battery & Research Corp.

3040 Bigelow Boulevard
Pittsburgh, Pennsylvania 15219
USA Tel: 412-621-1810

Batteries, traction

Smith's Electric Vehicle Limited

Marquisway, Team Valley Trading
Estate
Gateshead, Tyne & Wear NE8 1YT
ENGLAND

Tel: Newcastle (0632) 871311

Maintenance EVs, industrial/commercial type; Trucks, burden carriers, in-plant; Trucks, on-the-road

Trucks, on-the-road

Sociedad Espanola del Acumulador

Tudor, S.A.
Gaztambide, 49
Madrid, 15
SPAIN Tel: 449-2909

Batteries, traction; Components

Surette Storage Battery Co., Inc.

Springhill, N.S.
CANADA Tel: 902-597-3767

Batteries, traction

Surette Storage Battery Co., Inc.

P.O. Box 3027
Salem, Massachusetts 01970
USA Tel: 617-745-4444

Batteries, traction

Talbot Motor Co. Ltd.

Boscombe Road, Dunstable
Bedfordshire
ENGLAND
Buses, 10 or more passengers; Trucks, on-the-road; Vans, passenger/cargo

Taylor-Dunn

2114 West Ball Road
Anaheim, California 92804
USA Tel: 714-956-4040

Golf Cars; Trucks, burden carriers, in-plant

Texon, Inc.

Canal Street
South Hadley, Massachusetts
01075
USA Tel: 413-536-1610

Battery Separators

Toyo Kogyo Company, Ltd.

3-1 Shinchu, Fuchu-cho
Aki-gun, Hiroshima 730-91
JAPAN Tel: 0822-82-1111

Cars, passenger; Golf Cars; Trucks, burden carriers, in-plant; Trucks, on-the-road

Trojan Battery Company

12380 Clark Street
Santa Fe Springs, California
90670
USA Tel: 800-423-6569; or
213-946-8381

Batteries, traction

Unique Mobility, Inc.

3700 South Jason Street
Englewood, Colorado 80110
USA Tel: 303-761-2137

Cars, passenger; Vans, passenger/cargo

VARTA Batterie AG

Am Leineufer 51, Postfach 210540
D3000 Hannover 21
WEST GERMANY Tel: 0511-79031

Batteries, traction

Viniegra Vehiculos Electricos, S.A.

Av. Sor Juana Ines De La Cruz
331 Tlalnepantla
Edo. De Mexico
MEXICO Tel: 565-4151

Cars, passenger

W.&E. Vehicles

Harlescott
Shrewsbury SY1 3AE
ENGLAND Tel: Shrewsbury 52288

Maintenance EVs, industrial/commercial type; Trucks, burden carriers, in-plant; Trucks, on-the-road

Ward Leonard Electric Co., Inc.

31 South Street
Mount Vernon, New York 10550
USA Tel: 914-664-1000

Components

Westinghouse Electric Corporation

Westinghouse Building, Gateway
Center
Pittsburgh, Pennsylvania 15222
USA Tel: 412-255-3800

Components

Whisper Electric Car

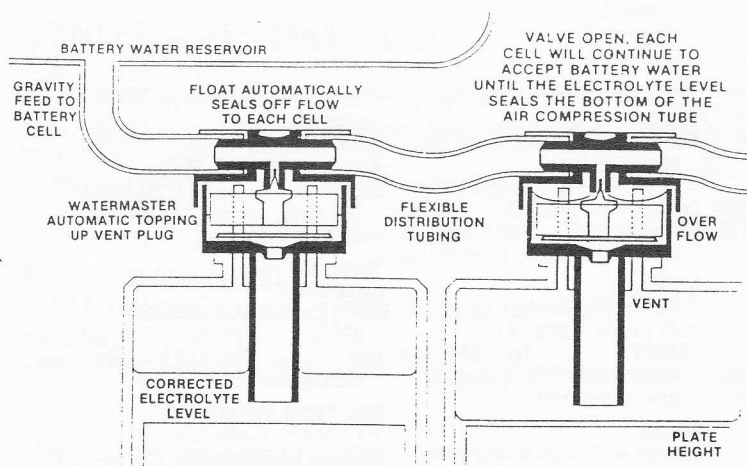
208 Skodsborg Strandvej
DK 2942 Skodsborg
DENMARK Tel: 02-804096

Cars, passenger

Victor Wouk Associates

853 Broadway, Rm. 1104
New York, NY 10003
USA Tel: (212) 473-1010

Engineering, Research & Consultants



WATERING BATTERIES IS EASY with the special battery caps shown. They replace the standard caps and have connections for tubing to connect to a water reservoir. There is also a tube which projects down into the battery and controls the level to which the cell is filled. As the acid rises, it builds up pressure in the tube and causes the float in the cap to shut off the water flow. There is an overflow to warn of a malfunctioning cap. The water reservoir should not be connected for more than an hour. SEE Pg. 4

Alphabetical Listing of Related Associations, Clubs, Societies, Etc.

A.V.E.R.E.
(see European Electric Road Vehicle Association)

The breath you save may be your own

American Gas Association
1515 Wilson Boulevard
Arlington, Virginia 22209
USA Tel: 703-841-8574

American Public Power Association
2301 M Street, N.W.
Washington, D.C. 20037
USA Tel: 202-775-8300

Asociacion para el Desarrollo de Vehiculos Electricos (ADVE)
Edificio Albia 11-7 A c/
San Vicente s/n
Bilbao 1, Vizcaya
SPAIN Tel: 94/4242301

Australian Lead Development Association
95 Collins Street
Melbourne, Victoria 3000
AUSTRALIA

Battery Vehicle Society
13 Ascham Lane
Whittlesford Cambridge
England CB2 4NT

Battery Council International
111 East Wacker Drive
Chicago, Illinois 60601
USA Tel: 312-644-6610

Copper Development Association Inc.
Greenwich Office Park 2, 1840
Greenwich, Connecticut 06836
USA Tel: 203-625-8210

Denver Electric Vehicle Council (DEVCC)
2940 13th Street
Boulder, Colorado 80302
USA Tel: 303-442-6566

Eastern Electric Vehicle Club
P.O. Box 717
Valley Forge, Pennsylvania 19482
USA Tel: 215-696-5615

Edison Electric Institute
1111 19th Street N.W.
Washington, D.C. 20036
USA Tel: 202-828-7422

Electric Auto Association
1249 Lane Street
Belmont, California 94002
USA Tel: 415-591-6698

EV User Group
Mike Lechner
PNM Alvarado Square
Albuquerque, NM 87158
(505) 848-2331

Electric Vehicle Association of Canada
P.O. Box 4044, Station E
Ottawa, Ontario, K1S 5B1
CANADA Tel: 613-236-2497

Electric Vehicle Association of Great Britain Ltd.
13 Golden Square Piccadilly
London W1R 3AG
ENGLAND Tel: 01-734-7873

Electric Vehicle Development Group
59 Colebrooke Row
London N1 8AF
ENGLAND Tel: 01-359-7352

Elfordoncentrum i Trollhattan
S-461 83 Trollhattan
SWEDEN Tel: 0520-300

European Electric Road Vehicle Association
Place du Trone 1
B-1000 Brussels
BELGIUM Tel: 02/513 91 15

Independent Battery Manufacturers Association, Inc.
100 Larchwood Drive
Largo, Florida 33540
USA Tel: 813-586-1408

FOSSIL FUEL WILL NOT LAST FOREVER

International Lead Zinc Research Organization, Inc.
292 Madison Avenue
New York, New York 10017
USA Tel: 212-532-2373

Japan Electric Vehicle Association
2-5-5 Toranomon, Minato-ku
Tokyo, 105
JAPAN

Lead Development Association
34 Berkeley Square
London W1X 6AJ
ENGLAND Tel: 01-499 8422

Lead Industries Association, Inc.
292 Madison Avenue
New York, New York 10017
USA Tel: 212-578-4750

The quality of the air we breath has deteriorated to a dangerous state

Motor Vehicle Manufacturers Association of U.S.
320 New Center Building
Detroit, Michigan 48202
USA Tel: 313-872-4311

National Association of Fleet Administrators
295 Madison Avenue
New York, New York 10002
USA Tel: 212-689-3200

Join a group listed here or start your OWN

National Rural Electrification Cooperative Association
2000 Florida Avenue, N.W.
Washington, D.C. 20009
USA Tel: 202-857-9500

New Zealand Battery Electric Vehicle Club
14 Hospital Road
Kawakawa
NEW ZEALAND
Tel: 482 Kawakawa

Scandinavian Lead Zinc Association
22 Sturegatan
Stockholm
SWEDEN

Society of Automotive Engineers, Inc.
400 Commonwealth Drive
Warrendale, Pennsylvania 15096
USA Tel: 412-776-4841

U.S. Department of Energy Electric and Hybrid Vehicle Systems
Transportation Energy Conservation
Washington, D.C. 20585
USA Tel: 202-252-8032

Vancouver Electric Vehicle Association
543 Powell St.
Vancouver B.C.
V6A 1G8 CANADA

WORLDS LARGEST EV PROMOTION GROUP

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JOIN US & HELP

1249 Lane St. Belmont, CA 94002



Chloride EV Systems Ltd.
Unit 1 Padgets Lane
South Moons Moat
Industrial Estate
Redditch, Worcestershire
England B98 0RA
Tel. No. 0527 28016
Telex 337038
Batteries, Drive Components

Solar Electric Eng.
175 Cascade Ct.
Rohnert Park, CA 94928
707-586-1987
Solar Pwr. Equip & Panels

Chloride Silent Power
Davy Road
Astmoor Runcom
Cheshire WA7 1PZ
England
Sodium Sulphur Batteries
Tel: 092-85-74451

King Electric Vehicles INC.
Box 514
East Syracuse, NY 13057
EV R&D

Kansas Wind Power
Route 1
Holton, KS 66436
913-364-4407
Solar & Wind Power Equip.

**Electric Power Research
Institute (EPRI)**
3412 Hillview Ave.
Palo Alto, CA 94303
415-855-2981
Pwr. Distribution Equip.
R&D including EV's

**Electric Vehicle Development
Corp. (EVDC)**
20823 Stevens Creek Blvd.
Cupertino, CA 95014
EV Market Development &
Research

PERMAG Corp.
Sierra Division
1159 Sonora Court
Sunnyvale, CA 94086
408-738-1080
Magnets & Magnetic Materials

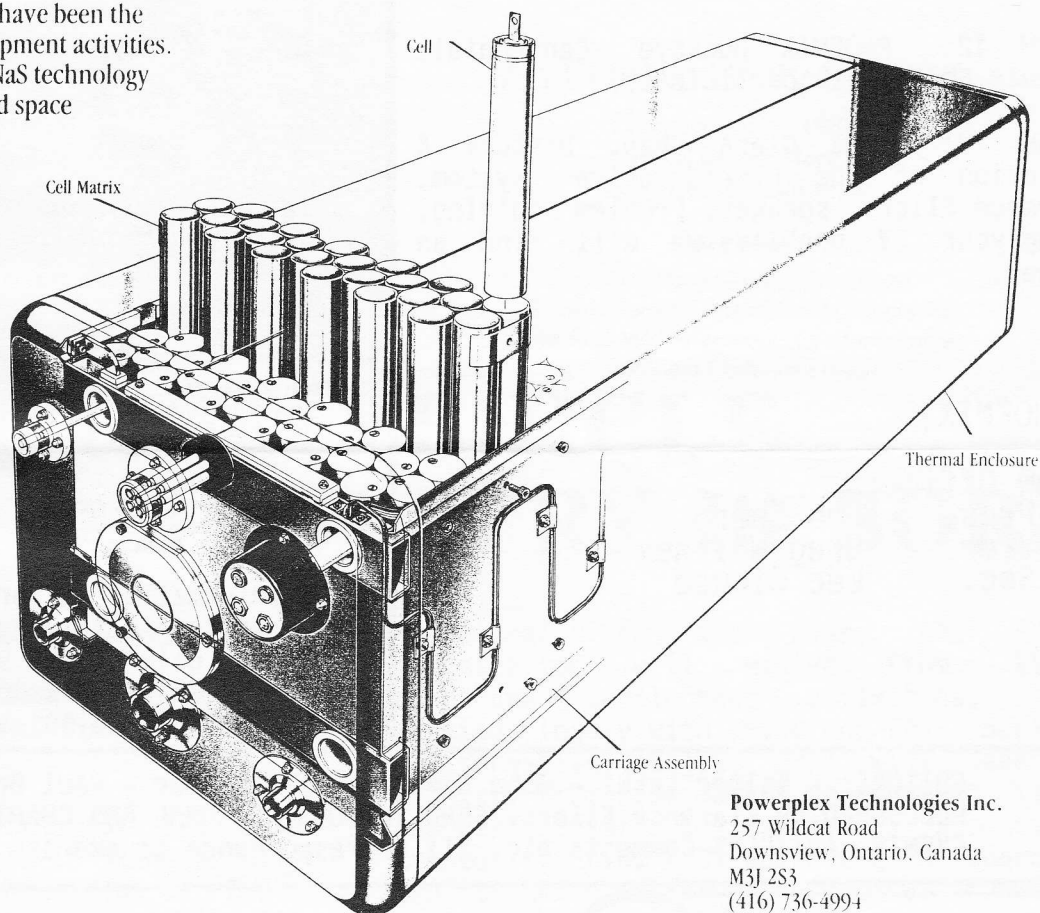
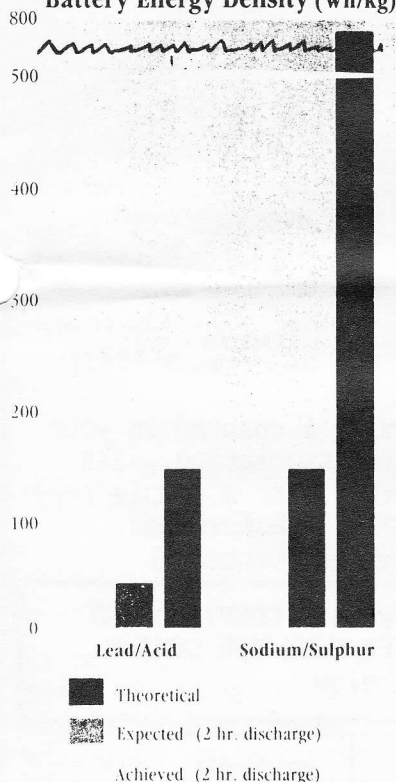
U.S. Battery Mfg. Co.
2750 Raymond Ave.
Signal Hill, CA 90806
653 Industrial Park Dr.
Evans GA 30907
(213) 424-6609
1-(800) 858-0945

Further Applications

To date, NaS traction applications have been the primary focus of Powerplex/BBC development activities.

Other large scale applications for NaS technology are load leveling and certain military and space applications.

Battery Energy Density (Wh/kg)



Powerplex Technologies Inc.
257 Wildcat Road
Downsview, Ontario, Canada
M3J 2S3
(416) 736-4994

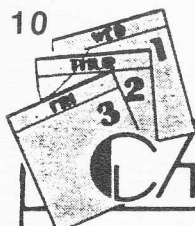
EV Marketplace

FOR SALE

Electric Delivery Van: manufactured by Electric Vehicle Industries-84 volt-14 new Exide golf cart batteries-2 chargers (one board and 2nd for shop)-Solid state controls-fully licensable-all equipment for quick change of 2nd battery pack included-\$1,900 for everything fob Seattle-\$20,000 value-like new-H.L. McElhaney Co. (206) 762-3433

FOR SALE

JMJ ELECTRIC HORIZON, FIVE DOOR HATCHBACK. 16 TROJAN T-105 BATTERIES, CABLEFORM SCR ELECTRONIC CONTROLLER, LESTER 12/96 VOLT AUTOMATIC CHARGER. INTERIOR/EXTERIOR NEW CONDITION! GLC! RENOVATED, CHECKED OUT, & GUARANTEED BY CLARENCE ELLERS. CALL: (408)248-2588 or write 2892 Mesquite Dr. Santa Clara, CA 95051.



MARCH 5: Phoenix-JC Rodeo Parade, Phoenix Chap. will enter electrics.

MARCH 7-10: Nat'l Design Engineering Conference & Show McCormick Place, Chicago, IL (203) 964-0000

MARCH 8-10: SOUTHCON '88 Orange County Convention Center, Orlando, FL (800) 421-6816

MARCH 12: PHOENIX Buckeye Centennial, Phoenix Chap. will participate.

MARCH 19: Santa Clara Chap. History & Evolution of the Hybrid drive system, Clarence Ellers speaker. Problem solving, bring your EV problems we will find an answer.

PHOENIX:

New Officers

Pres. Bob Sharp
Vice Greg Whitney
Sec. Lee Clouse

EAA Chapters

ARIZONA: PHOENIX
Roger Smith 602-969-9667
P.O. Box 16800 #273
Mesa, AZ 85202

CALIFORNIA:
Burbank
Irv Weiss 818 841-5994
2034 N. Brighton #C
Burbank, CA 91504

East Bay
SCott Cornell 415 798-0909
60 Alan Dr.
Pleasant Hill, CA 94523

North Bay
Gordon Schaeffer 415 456-9653
211 Bellan Blvd.
San Rafael, CA 94901

Peninsula
Mae Bensen 415 992-5453
8 San Juan Ave.
Daly City, CA 94015

Sacramento
Carl Metcalf 916 486-0321
3654 Bausell St.
Sacramento, CA 95821

San Jose
Don Gillis 408 225-5446
5820 Hern St. #3410
San Jose, CA 95123

Santa Clara
Lee Henstreet
787 Florales Dr.
Palo Alto, CA 94306

OREGON; Willanette
Leslie Brundidge 503 390-3871
4040 Gary St. NE
Salem, OR 97303

TEXAS: Houston
Ken Bancroft 713 729-8668
4301 Kingfisher
Houston, TX 77035

WASHINGTON: Seattle
Bryan Lowe 206 632-4496
5011 9th NE
Seattle, WA 98105

WISCONSIN: Milwaukee
Dave Pares 414 481-9655
3251 S. Illinois
Milwaukee, WI 53207

NEW JERSEY: Hackensack
Kasmir Wysocki 201 342-3684
293 Hudson St.
Hackensack, NJ 07601

Vancouver, B.C.
VEYA 604 987-6188
543 Powell St.
Vancouver, B.C. V6A 1G8

NON-AFFILIATED GROUPS

CANADA
Ottawa, Ontario
Fred Green
Box 4044 Sta. "E" K1S 5B1
Ottawa, Ontario, Canada

NEW MEXICO: Albuquerque
Mike Lechner 505 848-2331
PNM Alarado Square
Albuquerque, NM 87158

Southern Cal-EVA of SC
Ken Koch 714 639-9799
12531 Breezy Wy.
Orange, CA 92669

DENVER CO DEVC
Genny Clark 303 451-5051

Fox Valley IL 312 879-0207
John Stockberger
2S 643 Nelson Lake Rd.
Batavia, IL 60510

Eastern 215 696-5615
P.O. Box 717
Valley Forge, PA 19482

For information on forming a chapter in your area write Electric Auto Association, 1249 Lane St. Belmont, CA 94002. For a sample copy of the newsletter send SAE #10 envelope.
PHONE (415)591-6698

EDITORS: - Walter Laski - John Newell - Bill Palmer - Paul Brasch - COMPILED AND PUBLISHED by Clarence Ellers. SEND IN YOUR PERSONAL AND CHAPTER NEWS AND COMING EVENTS. ARTICLES-Comments etc. all correspondence to address below

Electric
Auto



NEWS

Association

MARCH 1988

1249 Lane St.
Belmont, CA
94002

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