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Ranee Morrow - ranee@ravinenergy.com

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PROFILE



Kevin Morrow founded Ravin Energy LLC in 2012 with the goal of providing services and energy related products to the industrial and transportation industries. With 26 years of experience, Kevin has a broad experience base including ten years in the electric utility industry as a Senior Research Engineer with the Salt River Project, and as an Entrepreneur having founded the Electric Transportation Engineering Corporation (ETEC) in 1996. ETEC offered products and

related sectors, including the industrial fast charger line, "Minit-Charger," the design and construction of the APS Hydrogen/CNG fueling station and on-road electric vehicle charging infrastructure products and services. ETEC also provided advanced vehicle testing services for the U.S. Department of Energy and other related energy research. ETEC was sold in 2007, and Kevin stayed on as Executive Vice President through 2012.



Kevin Morrow President & CEO

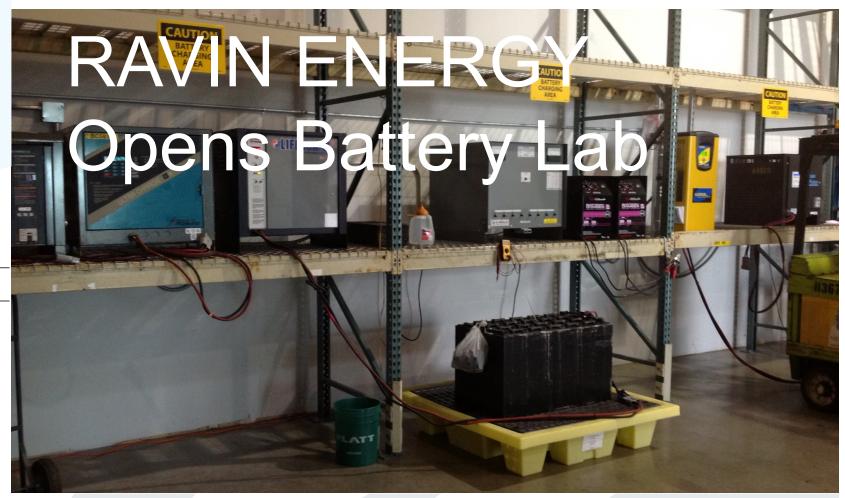
IN THE NEXT ISSUE OF RAVIN ENERGY... NEW PRODUCTS, FLEET INFRASTRUCTURE TIPS

16335 NE Cameron Blvd. Portland OR 97230



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BUSINESS CONSULTING / ENGINEERING / INDUSTRIAL BATTERIES & SERVICES



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# full service industrial battery lab services northwest



offering complete industrial battery reconditioning services. Ravin Energy's state-ofthe-art battery testing and reconditioning center provides

Ravin Energy is now

evaluations, acid adjustment, cell replacement and cabling and connector repair. Conveniently

located off of 158th and Airport Way, just east of the airport. Ravin Energy also services and sells battery chargers for every motive power application. Full fleet evaluation services and energy analysis will provide the customer with the most cost effective solution for their operation from overnight charging, opportunity charging and custom fast charge solutions. Ravin Energy can select from a

variety of charger manufacturers and solutions.

Ravin Energy also provides field services for minor battery and charger repair. Ravin Energy can transport batteries and chargers back to the lab where a more indepth evaluation and reconditioning services can be performed.









### BATTERIES... CHARGERS...ACCESSORIES

# Authorized BBI Dealer for NW

Ravin Energy now an authorized dealer for Battery Builders Inc. ("BBI").

Ravin Energy is now representing BBI for new battery sales and related services in the Oregon and Washington territories. Battery Builders Inc. is located in Chicago IL., and has been building batteries since 1950. BBI serves customers across North America, Mexico and Latin America. BBI is known in the industry as manufacturing a high-quality battery, with long life and quality manufacturing. Distinguishing construction features of BBI batteries includes:

- Precision thick grid casting using the highest grade Alloys for maximum life
- Computerized pasting process ensures consistent grid densities
- Thermo-welded jar-cover seal eliminating battery corrosion.
- Industry leading steel trays, fully epoxy coated and acid resistant.

Industry leading performance:

- 1,500-2,100 Cycles
- 5-7 Years Performance Rated
- Excellent Fast Charge Performance due to low-internal resistance design.

Most common sizes ship from the factory within 3-5 days from the receipt of order. Call today to get pricing on a high quality, competitively priced forklift or other industrial battery application.

# BRAD STOOPS JOINS RAVIN ENERGY AS OPERATIONS MANAGER.

Brad Stoops has joined Ravin Energy as Manager, Operations and Services. Brad has over 26 years experience in management



and operations. Brad was previously with The Home Depot where he managed and opened three new Home Depot stores, worked with corporate to develop new store concepts and was responsible at each store for the management, operations and HR duties. At Ravin Energy, Brad is responsible for the Industrial Battery Lab Operations and Field Services.

# BLUE LAKE MARINE GOIN' & SHOWIN' AT THE PORTLAND BOAT SHOW



Blue Lake Marine, a Division of Ravin Energy will show its goods at the 2014 Portland Boat Show, January 8<sup>th</sup> through January 12th, at the Portland Expo Center. Look for us at Booth 101.

Blue Lake Marine is proud to be a Distributor for the following products:

- Elco Motor Yachts
  - Offering electric yachts for those looking for an emission-free, quiet, boating experience.
  - A full line of electric in-board drive systems sold separately for integration into sail boats and other applications.
- Parsuns Outboard Motors
  - A full-line of 4-Cycle and electric outboards.
- Battery Solutions
  - Deka Marine & Deep Cycle Batteries
  - Sino Poly Lithium Batteries





Blue Lake Marine - Custom Solutions

- Electric Drive Installation Services
- Custom Battery Pack Solutions for electric drive systems and on-board energy storage.

Dealer Enquiries Welcome

• Blue Lake Marine welcomes Dealer Enquiries for all solutions offered.

Call Kevin for additional information and quotes. (503) 208-3875 www.bluelakemarine.com

# Ravin - Consulting Services

Ravin Energy offers professional consulting services to assist our clients in many areas including business development, technology evaluation and planning. Specific areas include alternative fuel vehicle fleet planning, material handling operations, equipment specification and procurement and off-shore manufacturing & quality control. Ravin Energy's Chief Operating Officer David Kuo has international manufacturing and procurement experience, having conducted quality control inspections for manufacturing facilities in China responsible for such products as the iPhone touch screens, and electric vehicle supply equipment components.

About our COO - David Kuo

David Kuo has an Executive MBA from Thunderbird School of Global Management and MS in Electrical Engineering from Arizona State University. Prior work experience includes Director of LCD Marketing, responsible for the Apple iPhone account, ECOtality, General Manager,



avid Kuo - COO



# Fast Charging Advantages

Fast Charging batteries from everything to electric vehicles, airport ground support equipment and forklifts can improve operational efficiency and battery life.

When fast charging started in the industrial forklift and airport ground support equipment markets in the mid-90s, the first question most people had regarding fast charging was will it casue harm to my battery? After almost two decades and thousands of batteries operating in a fast charge mode, that question is rarely asked anymore. The basic fact is that if properly planned, a fast charge infrastructure can improve battery life due to operating the battery where it is most comfortable, at the middle states of charge around 30% to

80% SOC. There are many other benefits to fast charging such as:

- Better utilization of assets
- Eliminate or reduce the number of spare batteries.
- Reduce overal cost due to efficieny gains & elimination of battery room
- Less watering required
- Can operate with a smaller battery in some applications

To evaluate whether or not you are a fast charge candidate call Kevin (503) 208–3875

Market Assessments
 Grant Writing

Manufacturing Processes

How can Ravin Energy Help?

Specifications Development

Hardware Procurment

Business Operations

• Engineering Services

Supplier Relations

Material Handling Operations

Airport GSE Equipment

On - Road Infrastructure

Fleet Planning

Quality Control

Resource Evaluation