

Having trouble viewing this email? [Click here](#)



Quick Links

[ViZn Energy Web](#)
[ViZn Overview](#)
[Product Flyer](#)
[Newsletter Signup](#)

ViZn News

ViZn's Zinc-Iron Flow Battery Commissioned at Randolph-Macon College as Part of Dominion Solar Project.

[Read more.](#)

ViZn and LFC Capital Announce An Innovative Ownership Program For Solar and Energy Storage.

[Read more.](#)

Forbes Interview with CEO, Ron Van Dell.

[Read more.](#)

ViZn Careers

Earth Day Ceremony Highlights The Most Recent ViZn Installation

ViZn Energy celebrated its most recent installation in an exciting ceremony, and on Earth Day! The ViZn Z20 was on full display at at Randolph-Macon College in Richmond, Virginia. Dominion Power, Randolph Macon College and ViZn lauded the commissioning of its first Solar PV plus Energy Storage Project.

The project was a consortium of our partners including ViZn, Dynapower and Greensmith and incorporates solar PV on the roof of the science building at the college with our Z20 battery, controls and grid tie equipment right next to the building.



This high profile installation is in partnership with Dominion Resources, an East Coast utility provider and one of the United States' largest producers and transporters of energy.



"One of the technical challenges associated with distributed solar power is the issue of intermittency," said Mary Doswell, Senior Vice President of Alternative Energy Solutions at Dominion. "We hope that by combining a solar and battery solution that Dominion and its partners can more fully understand the potential benefits to the grid and to our customers."

Reservations Not Needed

Energy storage headlines and frequent industry announcements have increased public awareness of the role and economic value of



ViZn Energy is seeking applications for:

[Sr. Electrical Engineer](#) -
Austin, Texas

[Sr. Controls Engineer](#) -
Columbia Falls, Montana

[Electrical Engineer](#) -
Columbia Falls, Montana

[Electro-chemical Test Technician](#) -
Columbia Falls, Montana

Send resume/cover letter to info@viznenergy.com

Upcoming Events

ESA Annual Conference
May 27 - 29
Dallas, TX

Intersolar Munich
June 10 - 12
Munich, Germany

Intersolar North America
July 14 - 16
San Francisco, CA

Offices

ViZn Energy
(Headquarters)
7000 N. Mopac Expwy,
Austin, TX 78731

ViZn Energy
(Design Center)
5314 Hwy 2 West
Columbia Falls, MT 59912

Email:

energy storage deployments. However, comparing the true "cost" of energy storage solutions requires a keen understanding total capital expenditures, system capacity, system performance and ongoing maintenance expenses. With a growing group of platform choices, recognizing those specifically designed for stationary (and with scale) vs. those designed for transportation is also key.

- **First Cost.** ViZn's system provides the lowest combined CAPEX and OPEX. In addition, the battery provides the broadest range of power and energy services to deliver the highest revenue grade electricity, thus delivering the highest returns for our customers.
- **Capacity.** Stored energy is only useful if you can access it without damaging the battery's life. The best Li-Ion only gives you access to 80% state of charge. However, ViZn provides access to the full 100% state of charge which reduces the size and cost of the total system. Access without damage to support all of the needed services anywhere in the charge range without risking a major "event."
- **Calendar Life.** The calendar life of the ViZn system is 20 years whereas new Li-Ion entrants claim 9 years, hence more usable power is available at less expense.
- **Safety.** Our chemistry is non-toxic, non-explosive and is incapable of thermal runaway. Our safe operating environment and ambient temperatures allow our system to operate freely without the added expense of life limiting HVAC equipment.

Rocky Mountain Institute - Economics of Grid Defection

As if anyone needed convincing ... the Rocky Mountain Institute (RMI), a leading authority on energy management, recently published their report on the Economics of Load Defection and it shows compelling economics that the combination of Solar PV + Energy Storage for the Commercial & Industrial segments are stunning: [executive summary and full report](#). More promise for our growing partnerships!

- **Financially Viable.** Grid-connected solar-plus-battery systems become economically attractive for a vast number of customers.
- **Grid defection unlikely.** *The far more likely scenario is customer investment in grid-connected solar-plus-battery systems.* Since such systems would benefit from grid resources, they could be more optimally sized, thus making them smaller, less expensive, economic for more customers sooner, and adopted faster.

info@viznenergy.com

Website:

viznenergy.com



Send to a Colleague

- **Penetration.** As retail electricity prices from the grid increase and solar and battery costs decrease, customers logically reduce their grid purchases until the grid takes a backup-only role. Meanwhile, solar-plus-battery systems eventually provide the majority of customers' electricity. For example, in Westchester County, NY, analysis shows the grid's contribution shrinking from 100% today for commercial customers to ~25% by around 2030 to less than 5% by 2050. Inversely, solar PV's contribution rises significantly to make up the difference.

Design Corner: Battery Efficiency

Battery technologies and chemistries have a varied set of performance specifications which make it difficult for the general industry to select the right technology to get the job done. One of the most misunderstood performance metrics is battery efficiency (at the DC Block) as it does not necessarily equal system efficiency (roundtrip AC/AC efficiency). While a lithium battery itself may be 92% efficient (at the DC Block), there are several Auxiliary systems that support the battery (HVAC, Safety Controls, PCS, etc) and factors that dramatically lower system efficiency that must be considered during the design and sizing phase of any project:



- Operating output at nominal vs. maximum power.
- Efficiency variance at varied States of Charge (SOC).
- Efficiency differences based upon environmental operating conditions (temperature).

Therefore, in selecting a platform for a specific market application, these considerations and the project economics should drive the technology selection:

- Efficiency is not a primary driver of Financial Returns in most applications emphasizing Power.
- Efficiency becomes more critical for longer duration applications such as energy arbitrage or trading.
- Efficiency losses result in heat creating thermal instability.

Incumbent battery technologies cannot cost effectively meet the growing demand for storage over aggressive duty cycles, full depth of discharge, harsh operating environments and meet the requirements to deliver consistent revenue-grade electricity.

ViZn has found the optimum balance of Power, Capacity, Efficiency, Thermal Stability and Reliability to drive economic performance.

Contact Us

Call or click an email address below to send a message to your nearest local representative. If you're not sure, contact any one of us.

Del Allison, VP, World Wide Sales, (973) 600-1893
del.allison@viznenergy.com

Cindy Klein, Director, Sales, (206) 679-3382
cynthia.klein@viznenergy.com

Kirk Plautz, Director, Sales, (813) 267-5669
kirk.plautz@viznenergy.com

David Mintzer, VP, Business Development, (510) 594-8240
david.mintzer@viznenergy.com

Copyright © 2015. All Rights Reserved.



This email was sent to kevin.waldher@viznenergy.com by david.mintzer@viznenergy.com | [Update Profile/Email Address](#) | Rapid removal with [SafeUnsubscribe™](#) | [Privacy Policy](#).



ViZn Energy Systems, Inc. | 5314 Hwy 2 West | Columbia Falls | MT | 59912