

BluSource Energy Inc. has the unique ability to take a client's idea for a product or system and perform the brainstorming, FMEA, engineering, design, fabrication, and assembly to create a full size working prototype capable of real-world testing and operation. Our team includes PhD-level engineers and master technicians with expertise in composites, structures, mechanical systems and electronic controls. We have a solid track-record of delivering on-time and on-budget.

## Core Competencies

### Rapid Development of Electro-Mechanical Devices, Products, Vessels and Systems

- We turn a concept into to a working prototype, including testing
- Engineer structural, mechanical, electronics, power systems, and integrated control
- Expertise in marine vessels & systems

### Composite Engineering, Structural Design and Manufacturing

- Prototype and Production Development
- Redesign of metal parts in composites
- Composite based Finite Element Analysis and optimization
- Composite manufacturing options
- [Composite "Short Course" link](#)

### Design Failure Modes and Effects Analysis, Gap Analysis

- Analysis of new or existing products, systems, or applications for potential failures
- Proactive, creative, fully analyzed and implemented solutions to reduce risk



## Past Performance

### BluSource Experience

#### *Hydrokinetic Generator Development & Deployment*

- **Advanced Research Project Agency for Energy ARPAe & Brown University**
- [ARPAE and Brown University Link](#)
- Ocean Renewable Power Company (ORPC) TIDGEN & RIVGEN [ORPC Tidgen and Rivgen link](#)

#### *Large Wind Turbine Blade repair & inspection*

### Key Personnel Experience

#### *Prototype Vehicle Development*

- Managed modeling and simulation efforts for the TARDEC ULV, designed and built by Hardwire LLC,
- [Tardec ULV video link](#)

#### *Composites [Composites presentation](#)*

- Metal to Composite rail car development
- Composite Aircraft components
- Composite sport products
- Wind turbine blade design and optimization
- Resin infusion of large structures; rail road box cars, wind turbine blades, highway bridges, and marine piling

#### *Ship Building*

- Managed build contract of **USN** Patrol Craft
- Key role in **USCG** 270 ft WMEC construction
- Management of Largest Yacht built in the USA 85M x 3000T "CAKEWALK" [Ship Building Link](#)

#### *Automotive*

- Tier 1 supplier to GM, Ford, Chrysler
- Joint development of cargo system with GM engineering
- High volume production
- <http://www.tracrac.com/>

## Primary NAICS & Class Codes

541330 Engineering Services

541990 All Other Professional, Scientific and Technical Services

C219 Architect and Engineering-General; Other

R425 Support-Professional:

Engineering/Technical

B599 Special Studies/Analysis-Other